# PASMINCO EXPLORATION

## BURNS PEAK EL 44/88
## JOINT VENTURE

## ANNUAL REPORT FOR THE PERIOD
## NOVEMBER 1994 - OCTOBER 1995

**Volume 1 of 2**



# 95-3803

BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 1 OF 2

| | |
|---|---|
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| DATE: | December 1995 |
| REPORT No.: | T95-19 |
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| | Plutonic Operations Limited - Sydney<br>Noranda Minerals Inc. - Toronto |

SUBMITTED BY: Mark Saxon.

ACCEPTED BY:

BURNIE
December
1995

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**SUMMARY**


Exploration activity during the 12 months ended October 1995 focussed on the Brown's Tunnel and Hollway prospect areas. This work has upgraded the Hollway prospect, whilst down graded Brown's Tunnel.

Work completed included:

- deepening of CP7 to 301.6m at Brown's Tunnel.
- drilling of BPD82 to 619.5m at Brown's Tunnel.
- drilling of BPD85 to 394.5m at Brown's Tunnel.
- drilling of BPD83 to 426.7m at Hollway.
- drilling of BPD84 to 385.1m at East Hollway.
- drilling of BPD86 to 129.2m at South Kershaw.
- DHEM on BPD82-85.
- geological mapping in the Hollway and Cone Hill areas.
- gridding in the Hollway area.

Results key to further exploration of the licence are:

- intersection of a splay of the Rosebery Fault (BPD82 Fault) further east than anticipated in BPD82, therefore providing a depth limitation to the Browns Tunnel Host Sequence.
- intersection of 0.5m @ 17.8% Zn, 8.3% Pb, 2.7% Cu and 15.5 g/t Au beneath a rhyolite sill in the Browns Tunnel Host Sequence.
- intersection of greater than 200m of Zn-Pb-Au poor intense silica-pyrite alteration in BPD83
- intersection of intense silica-feldspar-sericite alteration with moderate Zn-Au mineralisation in BPD84 at East Hollway.

Recommendations for the coming licence year includes:

- Further drilling in the Hollway area.
- IP and ground magnetics in the Hollway area.
- Resource drilling at Browns Tunnel.
- Extensive geological mapping and sampling.
- Petrographic/Lithogeochemical study of alteration.

# 1 INTRODUCTION

This report documents work undertaken on Exploration Licences 44/88 Burns Peak in Western Tasmania, covering the period November 1994 to October 1995. A recommended work program for the period November 1995 to October 1996 is included.

Exploration on the Burns Peak EL is managed and operated by Pasminco Exploration, a division of Pasminco Australia Limited (Pasminco), on behalf of a joint venture between Pasminco, Noranda Proprietary Limited and Plutonic Resources Limited.

The EL covers 34km2 of Cambrian Mt Read Volcanics, and lies immediately west of the Tullah township and north of Lake Rosebery (Figures 1-3). The principal target of exploration on the licence is volcanic hosted auriferous base metal massive sulphide similar to mineralisation at Rosebery and Hercules.

The EL includes old workings in the Pinnacles and Chester areas. These sites have been the focus of a sustained exploration effort over 40 years, which has left a legacy of good access tracks and grid lines.

During the period covered by this report the target areas for exploration have been Brown's Tunnel, Hollway, East Hollway, Shale Basin, South Kershaw and Cone Hill (see Figure 4). Activity has included drilling of holes BPD82-86, extension of hole CP7, assay of hole EAF2, gridding, rock geochemistry, DHEM, and geological mapping.

Work during the 93/94 year on the licence has been by Mark Saxon and Roger Poltock.

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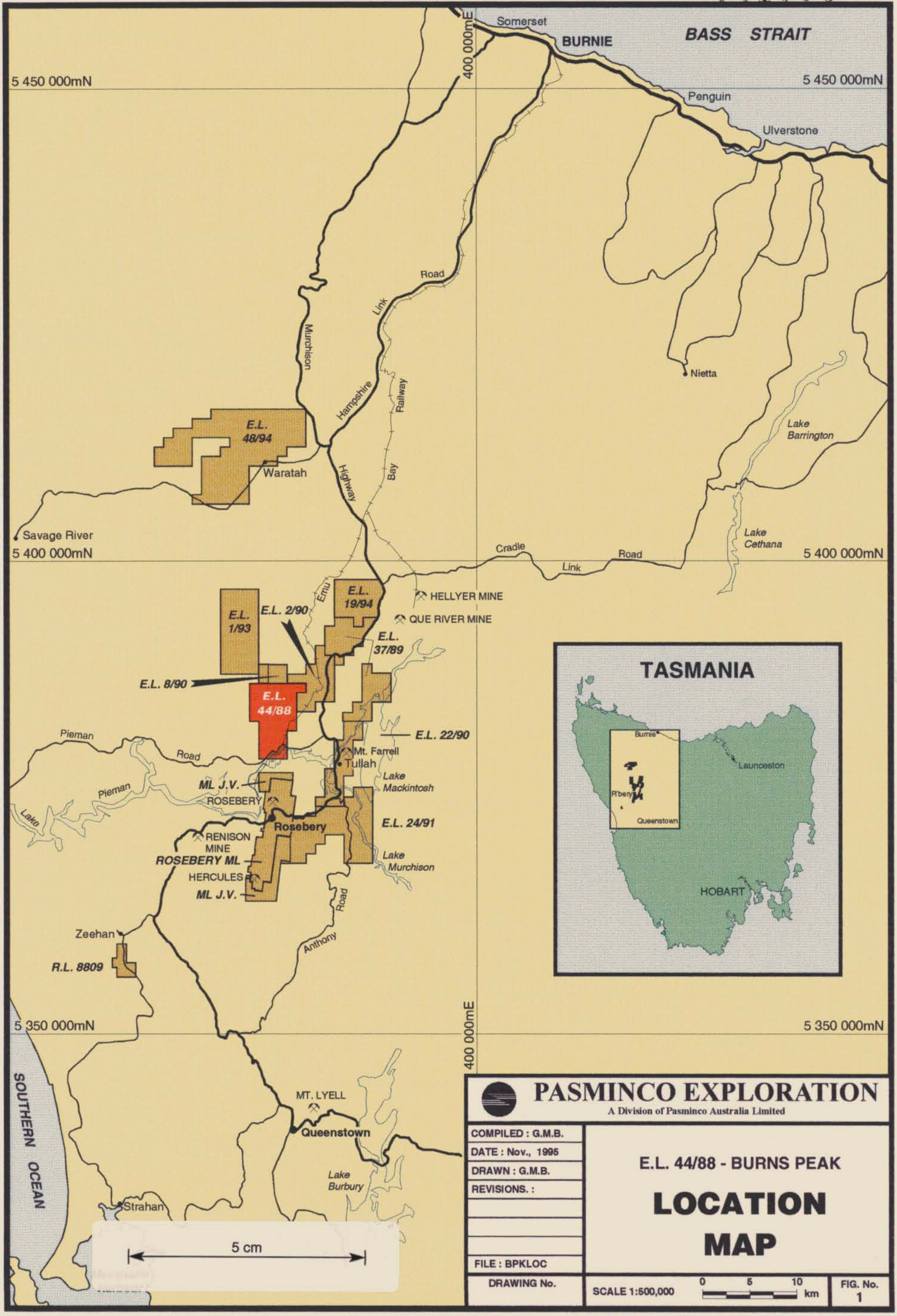


**PASMINCO EXPLORATION**
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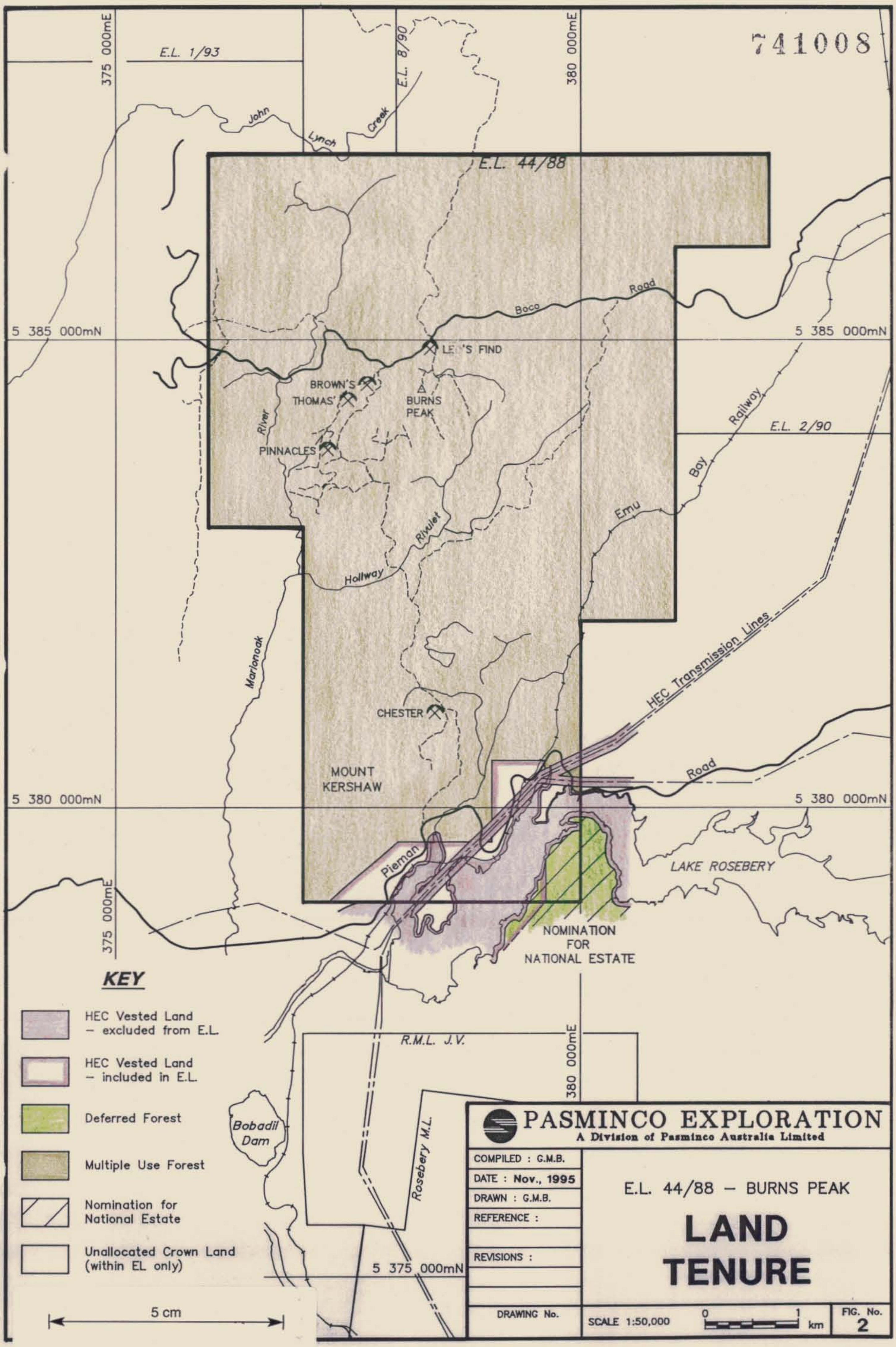
| | |
|---|---|
| COMPILED : G.M.B. | E.L. 44/88 - BURNS PEAK |
| DATE : Nov., 1995 | |
| DRAWN : G.M.B. | |
| REVISIONS. : | **LOCATION MAP** |
| FILE : BPKLOC | |
| DRAWING No. | SCALE 1:500,000 — 0 5 10 km — FIG. No. 1 |

## 2 TENURE

EL 44/88, Burns Peak, was initially granted for a renewable one year term on 9 December 1988 to Noranda Pty Ltd and Pasminco Limited in joint venture following successful tender. Pioneer Minerals Australia Limited became a third member of the joint venture upon granting of the EL. The Burns Peak Joint Venture was executed on 6 March 1990, between the three companies, having been effectively in place since granting of the EL. The licence was renewed in December 1989, 1990, 1991, 1992, 1993 and 1994 and a further one year renewal is being sought. The licence area was reduced by 50% in accordance with Mines Department regulations at the end of the 5th year of tenure.

Until 1 July 1990, Geopeko, the exploration division of North Broken Hill Peko Ltd managed the EL under contract to Pasminco. Since that time, Pasminco Exploration (a division of Pasminco Australia Ltd) has managed the project. Exploration expenditure was shared equally between the joint venture partners until June 1993, when Noranda elected not to contribute to the July-December 1993 program. Pioneer Minerals Australia was renamed Plutonic Resources Limited and "Pasminco Australia Limited" has been substituted on all licence documents in place of "Pasminco Limited".

The EL is subject to a number of land classifications, which were revised in May 1993. The current land tenure includes land vested in the Hydro-Electric Commission in the area immediately surrounding Lake Rosebery and the Transmission Lines, Multiple Use Forest Land and Deferred Forest (Figure 2). Most of the tenement is Unallocated Crown Land designated as Multiple Use Forest.


741008
E.L. 1/93
375 000mE
E.L. 8/90
380 000mE
John
Lynch
Creek
E.L. 44/88
Boco
Road
5 385 000mN
5 385 000mN
'S FIND
BROWN'S
THOMAS'
BURNS
PEAK
River
PINNACLES
Railway
E.L. 2/90
Bay
Emu
Rivulet
Hollway
Marionoak
HEC Transmission Lines
CHESTER
MOUNT
KERSHAW
Road
5 380 000mN
5 380 000mN
Pieman
LAKE ROSEBERY
375 000mE
NOMINATION
FOR
NATIONAL ESTATE
KEY
HEC Vested Land
– excluded from E.L.
HEC Vested Land
– included in E.L.
Deferred Forest
Multiple Use Forest
Nomination for
National Estate
Unallocated Crown Land
(within EL only)
5 cm
R.M.L. J.V.
380 000mE
Bobadil
Dam
Rosebery M.L.
5 375 000mN
PASMINCO EXPLORATION
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COMPILED : G.M.B.
DATE : Nov., 1995
DRAWN : G.M.B.
REFERENCE :
REVISIONS :
DRAWING No.
E.L. 44/88 – BURNS PEAK
LAND
TENURE
SCALE 1:50,000
0
1
km
FIG. No.
2

# 3 REGIONAL GEOLOGY

Basement in western Tasmania is Precambrian age, comprising predominantly greenschist facies meta-sediments with minor basalts and dolerites. Higher grade amphibolite and eclogite facies are also present within the Precambrian. This Precambrian basement is exposed to the west of the Burns Peak licence (Figure 3).

Cambrian volcanism and sedimentation developed on this continental crust, and is subdivided into the Eo-Cambrian tholeiitic Crimson Creek Formation (CCF) and the mid to late Cambrian Dundas Group and predominantly calc-alkaline Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins (Brown, 1986). The CCF consists of basaltic lavas and volcaniclastics, turbidites, carbonates, chert and minor evaporites. This formation is exposed west of the licence.

Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian (Crawford and Berry 1991). These rocks generate strong magnetic anomalies and outcrop within the Huskisson Syncline, to the west of the licence (Figure 3). Ultramafics are interpreted at depth to the north of the licence.

The MRV form a 200km long by 20km wide north-south trending belt along the eastern side of the Dundas Trough, adjacent to and in some areas onlapping and intruding the Precambrian basement. The volcanics include intermediate to felsic lavas, subvolcanic porphyries and granites, volcaniclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide deposits.

Equivalents of the MRV underlie the entire Burns Peak licence, and vary from massive felsic lavas, volcaniclastics and subvolcanic intrusives in the southeast, to mixed provenance fine to coarse grained sediments in the north and northwest.

A package of sediments which possibly postdates the MRV occurs in the western sector of the licence, footwall to the Rosebery Fault. These carbonate siltstones, wackes and polymict conglomerates have been recently temporally correlated via fossil evidence with the Owen Conglomerate, and are considered to be part of the Dundas Group. Gradationally overlying this sequence are quartz muscovite sandstone and conglomerate largely derived from Precambrian metasediments, but with some material from felsic volcanics and ultramafics.

Regional structures which subdivide the MRV are the Rosebery Fault, which lies close to and parallels the western licence boundary, and the Henty Fault which is located 5km east of the licence.

Cambrian volcanism and sedimentation was followed by predominantly basement derived late Cambrian to Devonian age sedimentation, which includes siliciclastic conglomerate, sandstone and limestone. None of these sequences occur within the licence.

At least two phases of regional compression were associated with the mid Devonian Tabberabberan Orogeny (Keele, 1991). The development of folding, cleavage and regional thrusts in lower Palaeozoic rocks were associated with this event. Fold trends in the licences are N to NE.

Deformation was followed by the extensive intrusion of Devonian to Carboniferous granitoids. The Meredith Granite and associated hornfels aureole outcrop west of the Burns Peak licence (Brown, 1986). The Meredith Granite dominates the regional gravity feature in the licence area. The Devonian granites are associated with carbonate replacement Sn mineralisation at Renison Bell and Mount Bischoff, and the Pb Zn Ag vein deposits of Zeehan and possibly the Tullah Fields.

After substantial erosion of this terrane extensive Tertiary flood basalts and sub-volcanic sediments were deposited. Remnants of the basalt flows are preserved to the north of the licence.

Numerous sub-economic base metal sulphide deposits occur on the western side of the EL, in a narrow belt of NE-SW mineralised rocks including the Southern Trenches, Thomas' Tunnel, Brown's Tunnel and Leo's Find workings. The large Chester massive pyrite deposit occurs in the south of the EL. A number of smaller gold, base metals or pyrite workings are also documented, mainly along the western side of the EL, within the CVC.

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COMPILED : P.G.R.
DATE : Oct., 1994
DRAWN :
REF. :
REVISIONS :

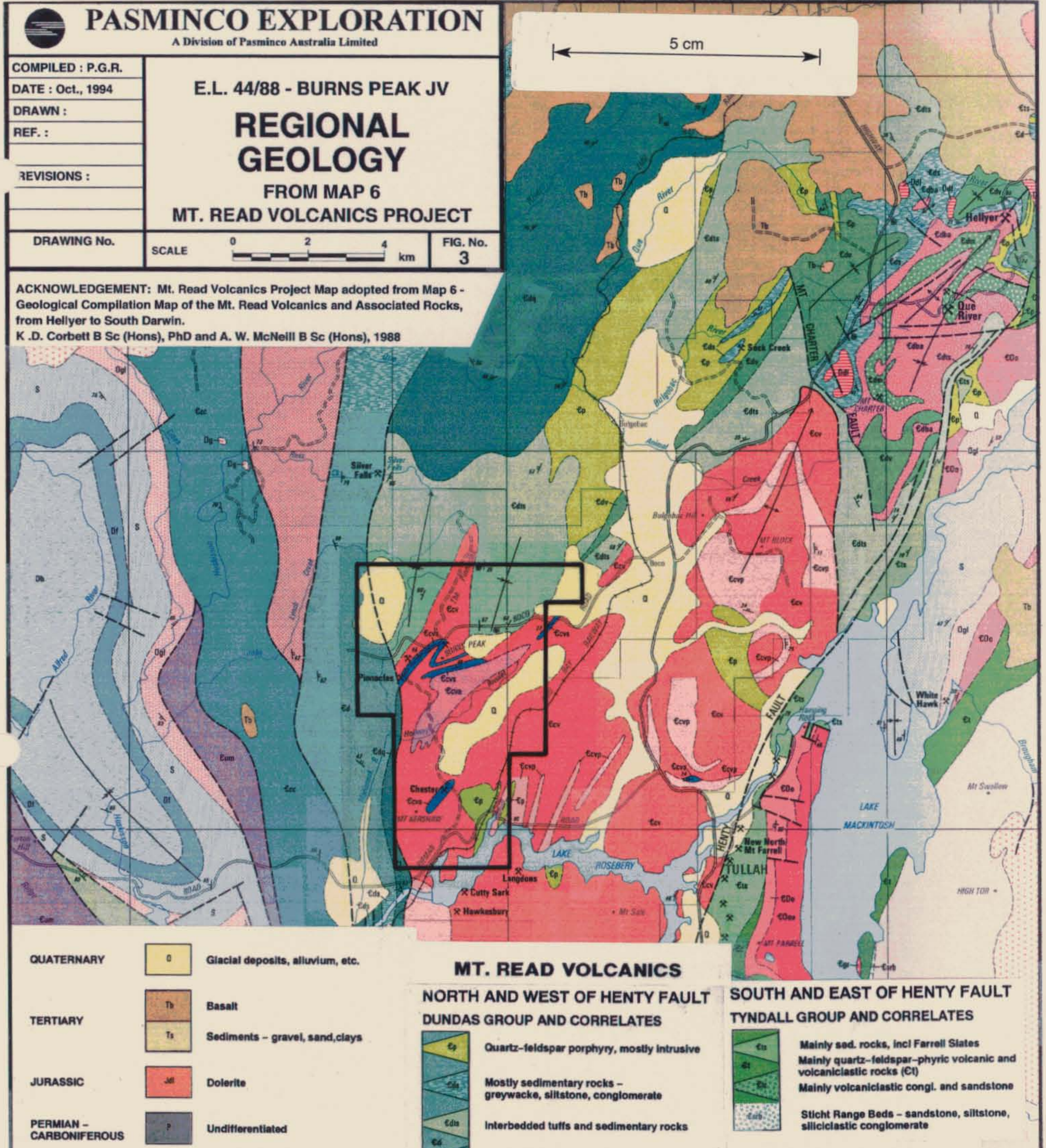
## E.L. 44/88 - BURNS PEAK JV

# REGIONAL GEOLOGY

FROM MAP 6
MT. READ VOLCANICS PROJECT

DRAWING No.
SCALE 0 2 4 km
FIG. No. 3

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




| | | |
|---|---|---|
| QUATERNARY | Q | Glacial deposits, alluvium, etc. |
| TERTIARY | Tb | Basalt |
| | Ts | Sediments - gravel, sand,clays |
| JURASSIC | Jdl | Dolerite |
| PERMIAN - CARBONIFEROUS | P | Undifferentiated |
| DEVONIAN | Ddl | Dolerite |
| | Dg | Granite |
| DEVONIAN - SILURIAN (S-D) | Db | Bell Shale |
| | Df | Florence Sandstone |
| | S | Silurian |
| ORDOVICIAN | Ogl | GORDON GROUP limestone |
| EARLY ORDOVICIAN - LATE CAMBRIAN | €Oou | Upper sandstone sequence including Pioneer Beds (€Oou) |
| | €Oo | Undifferentiated conglomerate and sandstone (€Oo) |
| | €Oon | Newton Creek Sandstone (€Oon) - interbedded sandstone siltstone and conglomerate with marine fossils |

## MT. READ VOLCANICS

### NORTH AND WEST OF HENTY FAULT

#### DUNDAS GROUP AND CORRELATES

| | |
|---|---|
| €p | Quartz-feldspar porphyry, mostly intrusive |
| €ds | Mostly sedimentary rocks - greywacke, siltstone, conglomerate |
| €dts | Interbedded tuffs and sedimentary rocks |
| €dq | Quartzwacke-slate-siltstone units, e.g. Stitt Quartzite |
| €dv | Mostly felsic volcanics - mainly tuffs |
| €dm | Mixed felsic and mafic volcanics and epiclastic breccias, Que-Hellyer area |
| €dba | Basaltic to andesitic volcanics |

#### CENTRAL VOLCANIC COMPLEX

| | |
|---|---|
| €cv | Mainly feldspar-phyric volcanics — dacite, rhyolite,minor andesite (€cv) |
| €p | Felsic porphyry, mainly intrusive |
| €cvp | Mainly pyroclastic rocks |
| €cvs | Sedimentary rocks, mainly shale and sandstone |
| €cva | Andesitic volcanics |

### SOUTH AND EAST OF HENTY FAULT

#### TYNDALL GROUP AND CORRELATES

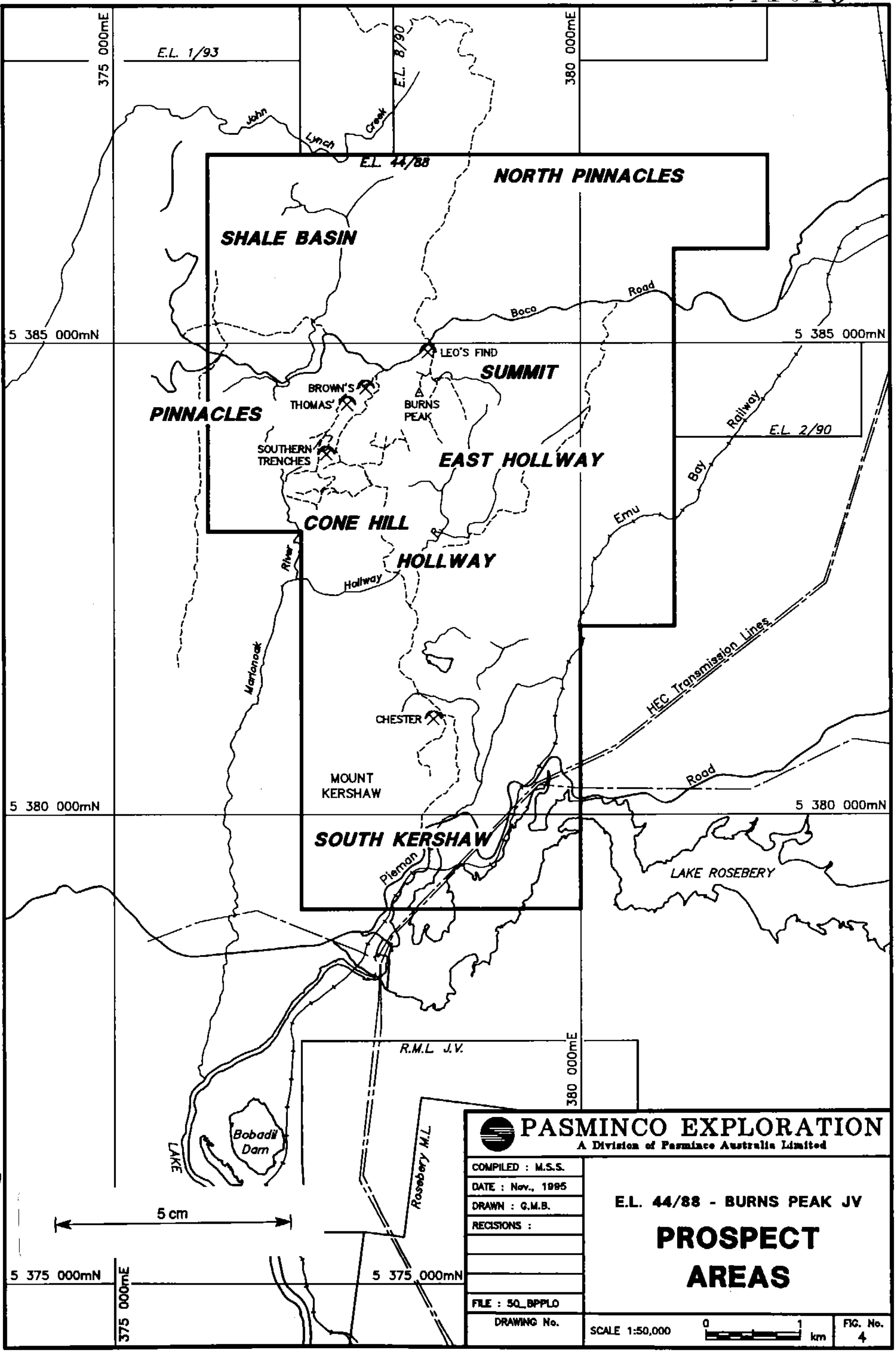
| | |
|---|---|
| €ts | Mainly sed. rocks, incl Farrell Slates |
| €t | Mainly quartz-feldspar-phyric volcanic and volcaniclastic rocks (€t) |
| €tc | Mainly volcaniclastic congl. and sandstone |
| €srb | Sticht Range Beds - sandstone, siltstone, siliciclastic conglomerate |

#### CAMBRIAN INTRUSIVE ROCKS

| | |
|---|---|
| €gr | Granite |
| €p | Felsic porphyry |
| €g | Gabbro |
| €um | Ultramafic rocks & serpentinite |

#### PRECAMBRIAN

| | |
|---|---|
| Pz | Quartzite-slate sequences — correlates of Oonah Formation |
| Pm | Metamorphosed sequences of Tyennan Region. Major lithological boundary trends shown |



375 000mE
380 000mE
E.L. 1/93
E.L. 8/90
John Lynch Creek
E.L. 44/88
NORTH PINNACLES
SHALE BASIN
Boco Road
5 385 000mN
LEO'S FIND
SUMMIT
BROWN'S
THOMAS'
BURNS PEAK
PINNACLES
SOUTHERN TRENCHES
Railway
Bay
Emu
E.L. 2/90
EAST HOLLWAY
CONE HILL
HOLLWAY
River
Hollway
Marionoak
HEC Transmission Lines
CHESTER
MOUNT KERSHAW
Road
5 380 000mN
SOUTH KERSHAW
Pieman
LAKE ROSEBERY
R.M.L. J.V.
Bobadil Dam
LAKE
Rosebery M.L.
5 cm
5 375 000mN
PASMINCO EXPLORATION
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COMPILED : M.S.S.
DATE : Nov., 1995
DRAWN : G.M.B.
RECISIONS :
FILE : SQ_BPPLO
DRAWING No.
E.L. 44/88 - BURNS PEAK JV
PROSPECT AREAS
SCALE 1:50,000
0
1
km
FIG. No. 4

## 4 PREVIOUS EXPLORATION

The extensive history of exploration and mining in the area covered by the current Burns Peak EL 44/88 was summarised by Rosenhain and Mathison (1989) and this has been modified below as Table 1.

EL44/88 is currently at the end of the 7th year of tenure. Details of these activities are documented in the past six annual reports (Rosenhain and Mathison, 1989; Lorrigan, 1990; Kirsner, Lorrigan and Rae, 1991, Kirsner, 1992, Poltock, Kirsner and Saxon, 1993 and Poltock and Saxon, 1994).

**TABLE 1**

**HISTORY OF EXPLORATION ON EL 44/88**

| | |
|---|---|
| 1896 | Discovery of alluvial gold in Marionoak River by Tom Strong. (Strong's Alluvial Workings) |
| 1896 | Discovery of Pinnacles Lodes by McGuiness Bros. |
| 1899 | Discovery of Chester by F Kershaw and H Sanderson. (Kershaw's Iron Blow) |
| 1899 | Brown's Tunnel driven (Brown's Workings) est. production 300t @ 2% Zn, 2g/t Au, 44g/t Ag. |
| 1899 | Southern Trenches est. production 55t @ +10% Zn, +8% Pb, 8g/t Au, 38g/t Ag. |
| 1899 | Thomas' Tunnel driven (Thomas' workings) est. production 50t @ 4% Zn, 7% Pb, 1g/t Au, 240g/t Ag. |
| 1908 | Mt Lyell Mining and Railway Co Ltd secured Chester Leases. |
| 1908-1913 | Intensive exploration and mining development at Chester. Production 36 000t @ 37% S. |
| 1918-1920 | Minor production from Chester by Cuming Smith & Co. Production 700t @ +25% S. |
| 1947-1950 | Electrolytic Zinc Company created foot and vehicle access to the Pinnacles area. 14 small diameter diamond drill holes (PP31, 34, 36, 39, 40, 41, 42, 45, 46, 48, 50, 51, 52, 59) completed and workings and topography surveyed. Geophysical test surveys at the Pinnacles (SP, |

| | |
|---|---|
| | ground magnetics and resistivity). |
| 1959-1960 | Geochemical, geological and geophysical surveys over Pinnacles and Chester. Techniques included Sharp vertical loop EM, Turam, ground magnetics (vertical field), gravity. "The significant feature of this coverage is that Pinnacles Mine Mineralisation is non-conducting". |
| 1963 | Comstaff acquires EL 5/63 which included the Burns Peak area. |
| 1968-1972 | Initial phase of gridding, geochemical sampling, geophysics (IP and EM), mapping and 3DDH at Chester (CH1-3) by Comstaff. |
| 1973-1976 | Second phase of gridding, geochemical sampling, etc. 10 DDH drilled (plus CP2 redrilled) at Pinnacles and 13 DDH at Chester (CP1-23). (New metric grid, new soil sampling, new IP). Airborne EM. |
| 1976-1979 | Preussag entered into Joint Venture with Comstaff. Detailed mapping and structural synthesis completed. C horizon soil geochemistry, 2 DDH, (PIN1 & 2) trial PEM and IP over Leo's Find. |
| 1980-1983 | Exploration of East Chester area. New grid, grid extensions, C horizon soil geochemistry, ground magnetics. IP, DIGHEM. Four DDH (EAB1-4) drilled at East Chester. |
| 1984-1985 | New grid at Pinnacles (EAF) mapped, C horizon soil sampling, ground magnetics and UTEM. 19 DDH (ESB1 & EAF 1-18) with the discovery of small lenses of massive sulphides and patchy gold mineralisation. New geological interpretation. |
| 1986-1988 | BHP entered Joint Venture. Reinterpretation and compilation of exploration results. "Blanket" UTEM and downhole SIROTEM. New geological interpretation. Petrological studies. Wacker sampling. |
| 1988-1991 | Pasminco-Noranda-Plutonic Joint Venture on new EL 44/88. Extensive geological mapping, re-appraisal of previous data, Wacker sampling, geochemistry, petrology, DHEM, CSAMT, DH-SIROTEM, Mise-a-la-Masse, aeromagnetic survey, regional and local gravity surveys, drilling of 12 DDH (BPD62-73). Rehabilitation of old tracks, costeans and workings. |

1991-92 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drilling BPD74, 75, 76, geological mapping and relogging drill core at Hollway and Summit, gravity infill and interpretation, ore/pathfinder/whole rock geochemistry, down hole EM in BPD69,71,75 and compilation/computerisation of historic geochemical data.

1992-93 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drilling holes BPD77-79, geological mapping, gridding at South Kershaw-Hollway, review and compilation of previous exploration, Dipole-dipole IP at South Kershaw-Hollway, soil geochemistry at South Kershaw and ore/pathfinder/whole rock geochemistry.

1993-94 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drill holes BPD80, BPD81 and EAF2, gridding, soil/rock geochemistry, DHEM, Mise-a-la-masse, ground magnetics and mapping.

# 5 RESULTS OF EXPLORATION PROGRAM

## 5.1 Regional Activity

### 5.1.1 MAGNETIC AND GRAVITY INTERPRETATION

Aeromagnetic and gravity data from the northern section of the Burns Peak licence was reinterpreted during the licence year (see Appendix 1). Improved levelling of data plus better control on magnetic susceptibility of major units allowed enabled new features to be interpreted. The Hollway area was the focus of interpretation, as were the location and significance of magnetic lows. Magnetic interpretation for EL 44/88 is provided in Figure 5.

## 5.2 Browns Tunnel Host Sequence

Massive sulphide mineralisation within the Browns Tunnel Host Sequence (BTHS) was the primary target for the licence year. The prospect area is located west of Burns Peak in the north of EL44/88, and regionally the BTHS lies on the eastern limb of a north plunging syncline. The western limb, and part of the eastern limb of this syncline is truncated by the Rosebery Fault in the Browns Tunnel area. High-grade massive sulphide mineralisation was located within the BTHS by the previous licence holders (Shaw and Roberts, 1985), where the following indicated resource was defined:

110,000 tonnes @ 18.8% Zn, 6.6% Pb, 1.3% Cu, 122 g/t Ag, 4.1 g/t Au.

The BTHS is a 100-200m thick stratigraphic package of lavas, volcaniclastics and sediments. The BTHS overlies a massive and moderately altered pumice breccia footwall, which is interpreted to be part of the CVC, and underlies in part the quartz-phyric Pinnacles Rhyolite and elsewhere sediments of the White Spur Formation (Figure 6).

The lower unit of the BTHS is an interbedded series of grey to black siltstone, crystal sandstone and chert, with minor pumice breccia. The upper unit, which is host to the resource described above, is a near massive pumice breccia with minor intervals of siliceous fine-grained sediments. Both the upper and lower units are intruded by or host highly irregular and lensoidal rhyolite and andesite lavas and/or sub-volcanic sills. Alteration of the BTHS is common, and strongly controlled by primary lithology. Siltstone and sandstone units commonly display moderate to intense silica alteration, whilst pumice breccia are typically detextured by a combination of cloudy silica-sericite-pyrite-chlorite-carbonate alteration.

### 5.2.1 EAF2

EAF2 was drilled to 132.4m by the previous licence holders, and deepened to 499.5m during the 93/94 licence year due to recognition that the upper unit of the BTHS had not been fully intersected. Geological details of this hole were reported in the previous annual report (Poltock and Saxon, 1994) but at the time of writing analytical results were not available. Analytical results are included in Appendices 4 and 5, a drill hole section as Figure 12, and a reinterpreted summary section as Figure 7. See section 5.2.7 for discussion of summary section.

Significant intersections received from the EAF2 extension are:

154-174m: 20m @ 1.3% Zn, 0.5% Pb

348-376m: 28m @ 1.4% Zn, 0.1% Pb

### 5.2.2 CP7

Diamond drill hole CP7 on EAF section 5000N was deepened from 206.6m to 301.6m during the licence year, to test the full BTHS sequence down dip from Thomas' Tunnel and mineralisation intersected in EAF15. The hole intersected approximately 40m of grey siltstones and sandstones typical of the basal unit of the BTHS, locating only minor vein and bleb style mineralisation.

A summary log of the hole is as follows:

| | |
|---|---|
| 0-65m | Feldspar and quartz phyric acid lava; faulted lower contact; |
| 65-93m | Feldspar phyric pumice breccia with lithic clasts; |
| 93-197.4m | Interbedded sequence of crystal sandstone and siltstone with common intervals of peperitic rhyolite lava; |
| 197.4-206.6m | Peperitic rhyolite lava; |
| 206.6-225.0m | Mixed dark grey laminated silicified siltstones and sericitised felsic volcaniclastics; |
| 225.0-271.3m | Felsic volcanic derived volcaniclastics with minor silicified grey pyritic siltstone; |
| 271.3-301.6m | Pumice breccia with common lithic clasts; |

Analytical results for CP7 are included in Appendices 4 and 5, a complete drill hole section as Figure 13, and a reinterpreted summary section as Figure 11. See section 5.2.7 for discussion of summary section.

### 5.2.3 BPD82/82A

Drill hole BPD82A was drilled to 38.2m, and abandoned at this depth due to caving of poorly consolidated sandstone at the hole collar. Redrill hole was named BPD82 for convenience, was collared at a slightly steeper angle, and drilled to 619.5m

BPD82 was drilled to test the down dip extension of chalcopyrite stockwork and massive pyrite mineralisation intersected in BPD78 within the BTHS. EAF2, drilled 100m to the south, intersected splays of the Rosebery Fault further west than previously interpreted, and therefore indicated the possibility for significant untested down dip space within the BTHS. Section 5300N was chosen to test because of the greatest accumulation of mineralisation and highest Cu/Cu+Zn ratios on this section, interpreted to indicate proximity to the centre of the hydrothermal system. See Appendix 2 for drill hole proposal.

BPD82 tested the down dip extension of mineralisation on section 5300N, however failed to intersect either the BTHS or significant mineralisation. The hole was collared within the White Spur Formation, drilled through a thin interval of Pinnacles Rhyolite, then passed through a major fault at a low angle to the long core axis. This fault, here named the BPD82 Fault, lies parallel and hangingwall to the Rosebery Fault, and is an expression of the Rosebery Fault Hangingwall structure of Poltock and Saxon (1994). The drill hole remained on the western side of the BPD82 Fault, and within the White Spur Formation until end of hole. The hole drilled at a low angle to both bedding and cleavage, which both appear to parallel to Rosebery/BPD82 Faults, and drilled up sequence, indicating the White Spur Formation is overturned at this locality.

Despite not intersecting the BTHS, BPD82 has effectively tested the down dip potential on section 5300N. Without invoking major drag folding and overturning of the BTHS adjacent to the Rosebery Fault, for which there is no evidence, a maximum of 150m of BTHS is untested from approximately 300m vertical depth. The presence of this fault effectively eliminates potential for a large tonnage orebody within the BTHS south of section 5300N.

A summary log of the hole is as follows:

| | |
|---|---|
| 0-34.2m | Weathered crystal sandstone; |
| 34.2-45.7m | Quartz-feldspar crystal and lithic sandstone, commonly chloritic; |
| 45.7-62.7m | Sandstone as above, moderately silica/sericite altered with scattered veinlets of sphalerite, minor pyrite and chalcopyrite; |
| 62.7-75.0m | Quartz-feldspar pyhric rhyolite lava, probable Pinnacles Rhyolite; |
| 75.0-75.7m | BPD82 Fault zone; |
| 75.7-166.1m | Quartz-feldspar crystal sandstone with horizons of quartz feldspar porphyry and rhyolite clast/peperite horizons. |
| 166.1-412.0m | Black siltstone and calcareous siltstone-limestone with felsic lava peperite. Minor basalt and andesite lava between 240.8-259.6m. |
| 412.0-448.6m | Laminated black calcareous siltstone and polymict conglomerate beds. Clasts are predominantly of fine grained and occasionally |

| | |
|---|---|
| | fossiliferous limestone with minor fine grained felsic lava; |
| 448.6-491.8m | Pumiceous sandstone and minor black siltstone with limestone lenses; |
| 491.8-619.5m | Laminated black siltstone and limestone; |

Peak assay results returned from BPD82 are:

| | | |
|---|---|---|
| 170-190m: | 20m @ | 0.8% Zn, 0.02% Pb |
| 324-348m: | 18m @ | 1.2% Zn, 0.03% Pb |

Analytical results for BPD82 are included in Appendices 4 and 5, a complete drill hole section as Figure 14, and a reinterpreted summary section as Figure 8. See section 5.2.7 for discussion of summary section. Drill hole log is contained in Appendix 3.

### 5.2.4 BPD85

Diamond drill hole BPD85 was drilled to a depth of 394.3m on section 5100N. Reinterpretation of EAF grid section 5000N indicated that the more prospective upper unit of the BTHS may not have been tested at shallow depth due to over thrust Pinnacles Rhyolite. High grade massive sulphide intersected in BPD63 (0.6m @ 35.2% Zn, 0.73% Pb, 1.1g/t Au) was interpreted to be hosted by this pumice dominated sequence, and indicated the potential for massive sulphide mineralisation at this northing.

Relogging of EAF15 and EAF16 showed that both intersected only the lower siltstone dominated unit of the BTHS. Significant mineralisation (8m @ 3.2% Zn, 2.5% Pb; 4.6m @ 8.6% Zn, 0.8% Pb respectively) at this stratigraphic position was an important secondary target for BPD85. For drill hole proposal see Appendix 2.

BPD85 intersected the expected stratigraphic sequence. The pumice-dominated upper unit of the BTHS hosted minor mineralisation only, and appears to be significantly thinner than where intersected to the north. The lower unit of the BTHS appears to have a true thickness greater than previously drilled, in part due to unexpected rhyolite sills up to 40m true thickness. These rhyolite sills are massive, quartz-feldspar phyric, and are consistently peperitic, indicating intrusion prior to sediment lithification.

A summary log of BPD85 is as follows:

| | |
|---|---|
| 0-101.8m | Massive quartz and feldspar phyric rhyolite lava, Pinnacles Rhyolite. |
| 101.8-105.6m | Mixed and brecciated chert and pumice breccia. |
| 105.6-124.9m | Massive quartz and feldspar phyric rhyolite lava, Pinnacles Rhyolite. |
| 124.9-173.6m | Variably altered pumice breccia with minor rhyolite sills of similar texture to Pinnacles Rhyolite. |
| 173.6-186.4m | Interbedded grey chert, siltstone, crystal-lithic sandstone and pumice breccia with minor andesite lava. |
| 186.4-234.7m | Massive to peperitic quartz-feldspar phyric rhyolite lava. |
| 234.7-235.5m | Lithic conglomerate. |
| 235.5-236.0m | Massive Zn-Pb-Cu sulphide. |
| 236.0-281.7m | Interbedded siltstone and crystal sandstone with intercalated pumice breccia and occasional rhyolite sills. |
| 281.7-355.8m | Interbedded dark grey siltstone and crystal sandstone, with minor conglomerate increasing towards base of unit. |
| 355.8-394.3m | Massive pumice breccia with weak alteration. |

Massive sulphide mineralisation intersected by BPD85 occurs within the lower unit of the BTHS, and appears associated with the thickest of the rhyolite sills described above. 0.5m of banded massive Zn-Pb-Cu sulphide (0.5m @ 17.8% Zn, 8.3% Pb, 2.7% Cu, 260 g/t Ag, 15.5 g/t Au) lies 0.4m down sequence from an unmineralised peperitic rhyolite sill. Contacts between massive sulphide and host rock are abrupt, minor base metal veining is associated, and immediate footwall to mineralisation is intensely cloudy silica-sericite-pyrite altered.

An interval of semi-massive pyrite-carbonate occurs from 262.4-263.3m, again immediately downhole from a rhyolite lava, and displays second highest Cu, Ag and Au values intersected behind the above massive sulphide (0.6m @ 1.9% Zn, 1.2% Pb, 0.2% Cu, 29 g/t Ag, 1.3 g/t Au).

Other zones of mineralisation intersected are:

267-273m 6m @ 1.1% Zn, 0.2% Pb

316.8-328.8m 12m @ 1.3% Zn, 0.1% Pb

associated with post-cleavage vein and bleb style sphalerite-carbonate-quartz.

Analytical results for BPD85 are included in Appendices 4 and 5, a complete drill hole section as Figure 15, and an interpreted section as Figure 10. See section 5.2.7 for discussion of summary section. Drill hole log is contained in Appendix 3.

### 5.2.5 BROWNS TUNNEL LONGITUDINAL SECTION

Drilling data is presented as a vertical long section (Figure 16), with intersections projected onto the vertical plane. Usefulness of the section is limited by distance of projections and differing mineralisation styles, however the section is useful in highlighting drilling density.

The longitudinal indicates moderate near surface potential to the immediate north of the defined Browns Tunnel resource. Shallow drilling may locate further high grade mineralisation stratigraphically equivalent and potentially continuous with the Brown's Tunnel lens on section 5400N.

### 5.2.6 LITHOGEOCHEMISTRY

Whole rock and trace element analyses of samples from drill holes have been added to the Burns Peak data base. Results are reported in Appendix 5. Analyses are typically of primary volcanics, intrusives and pumice breccias. This data has been used to aid rock identification, but has not yet been widely applied to characterisation of alteration style and intensity.

### 5.2.7 DHEM

Down hole EM surveys were completed by Outer Rim Exploration using a CRONE PEM system on EAF2, BPD82 and BPD85 during the licence year. All surveys recorded twenty channels of data from 0.07 to 14.5 msec, using a 20 msec time base and 0.5msec ramp.

Holes EAF2 and BPD81 both display a broad wavelength anomaly, modelling of which may indicate a conductive zone north of hole EAF2. This anomaly may correspond to anomalies previously recorded in EAF9 and EAF14. A small off-hole response was observed in early time near the bottom of BPD82, however it is believed to be located west of the Rosebery Fault and of formational origin. BPD85 did not locate any off hole conductors.

Down hole EM did not locate any conductors worthy of follow up activity. Full interpretation and data is presented as Appendix 6.

### 5.2.8 CONCLUSIONS AND REMAINING PROSPECTIVITY

Diamond drilling, relog of existing drill core, lithogeochemical assay and further interpretation of 100m spaced sections has allowed significant improvement structural and stratigraphic understanding of the BTHS. Changes to sections and interpretations are as follows:

Section 5400N (Figure 7): projection of the BPD82 Fault north indicates the BTHS is likely to be truncated a short distance below the intercepts of BPD79 and BPD62.

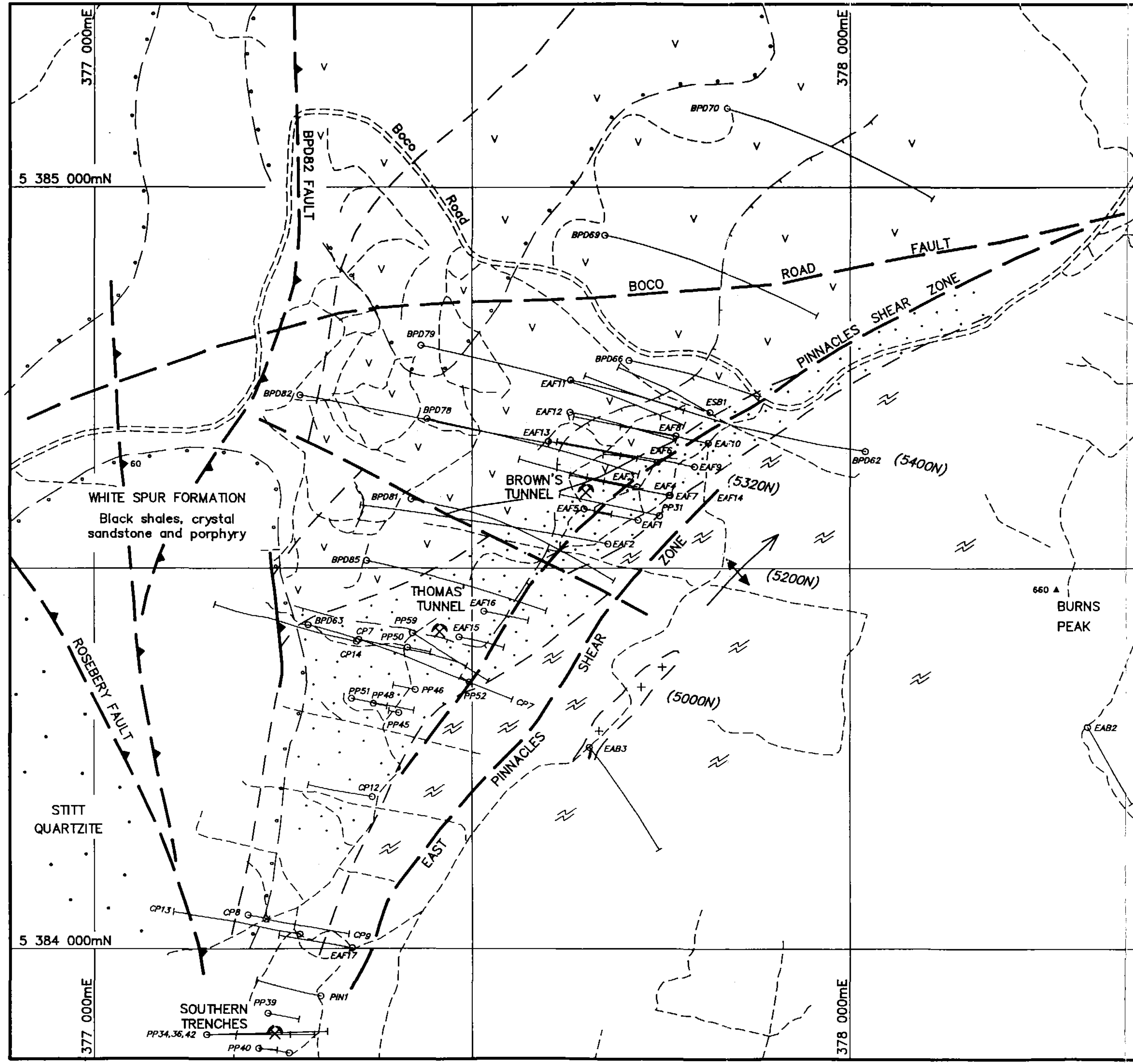
Section 5300N (Figure 8): intersection of the BPD82 Fault on this section provided a true depth limitation to the BTHS. Although constrained by one drill hole only, and not known from outcrop, this fault must truncate the BTHS down dip of BPD78. Strike of this fault and influence on depth to truncation of the BTHS further north is not known, however it is interpreted N-S striking, parallel to the Rosebery Fault. A normal contact was located between the Pinnacles Rhyolite and White Spur Formation in BPD82.

Section 5200N (Figure 9): intersection of a major fault in EAF2 at 326m at 10° to long core axis allows reconstruction of section without rapid thinning of the Pinnacles Rhyolite as proposed by Poltock and Saxon (1994). This fault must trend through hole BPD81, and is believed to be represented by a complex fault zone at approximately 75m depth and 10° to long core axis, and is therefore a WNW-ESE striking fault with steep dip and sinistral offset. The BPD82 Fault intersected in EAF2 allows only 200m of down dip extension of the BTHS.

Section 5100N (Figure 10): rhyolite sills within the lower unit of the BTHS has thickened the BTHS at this locality. The pumice-breccia upper unit is thinned, with less intense alteration with respect to intersections to north.

Section 5000N (Figure 11): intersection of unexpected rhyolite sills to 40m thickness in BPD85 allowed reinterpretation of this section. A similar quartz-feldspar phyric felsic lava/sill intersected at the top of CP14 and CP7 is now interpreted as a sill within the BTHS, rather than a fault-bound block of Pinnacles Rhyolite. Massive sulphide mineralisation intersected by BPD63 therefore is hosted by the upper unit of the BTHS, up sequence from the rhyolite sill. Apparent thickening of the BTHS on section is a result of rotation of strike to ENE-WSW, as indicated by orientated core from the extension of CP7.

Drilling and interpretation during the licence year has indicated that no potential remains for a base-metal massive sulphide orebody of moderate dimension within the




## LEGEND

741026

**QUATERNARY**

Fluvioglacials

**CAMBRIAN**

White Spur Formation/ Southwell Subgroup

Pinnacles Rhyolite

Brown's Tunnel Host Horizon

Pumiceous mass flows

Quartz feldspar porphyries

Stitt Quartzite

Geological boundary

Thrust fault

Fault

Syncline — anticline and plunge

Brown's Tunnel Host Horizon area tested/established by drilling. (Projected to surface)

(5000N) Comstaff EAF Grid

5 cm

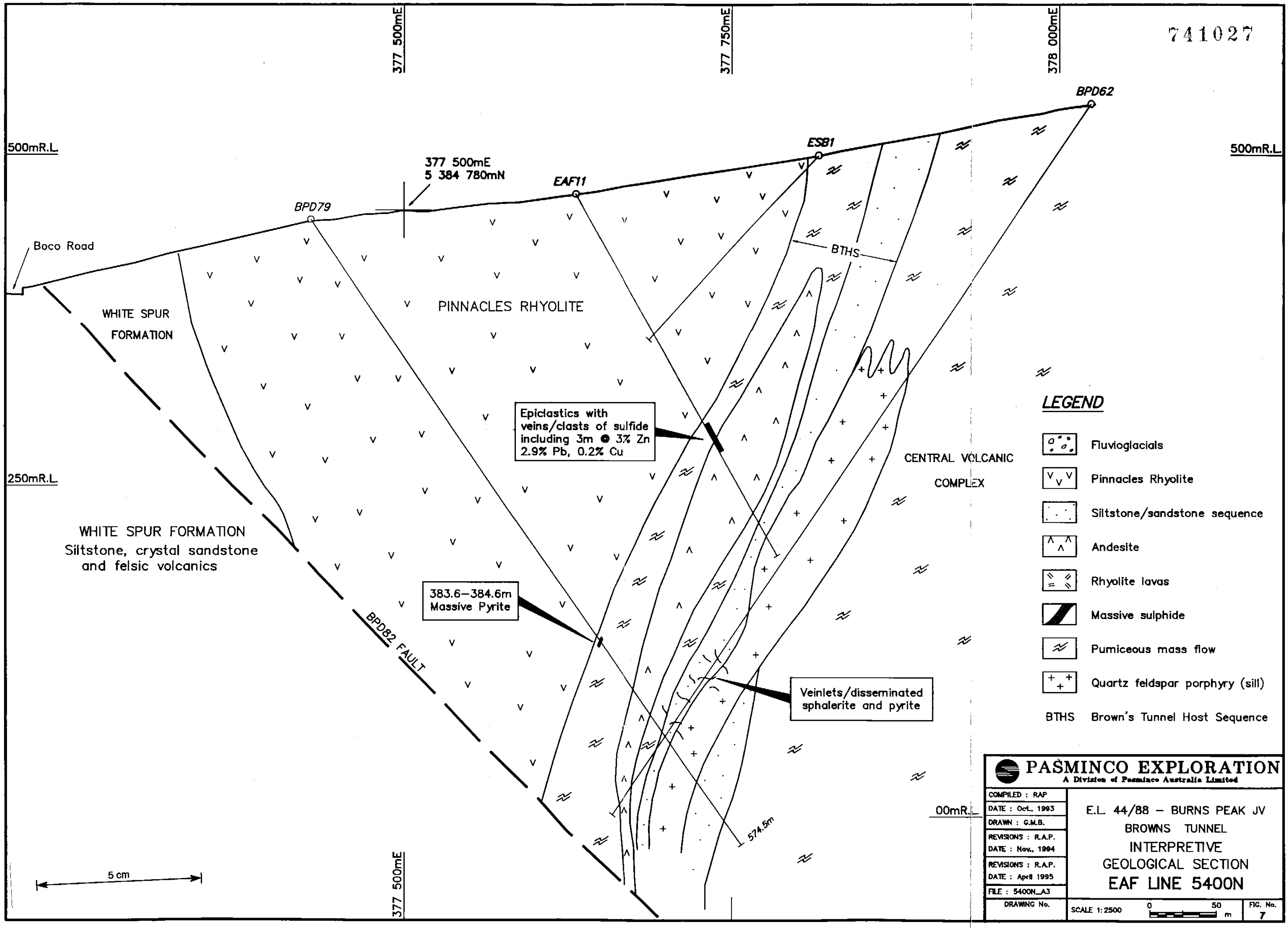
Interpretive Geology From Gregory (1987), A.N.L., L.W.K., R.A.P., M.S.S.

PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : R.A.P.
DATE : Nov., 1993
DRAWN : G.M.B.
REVISIONS :
R.A.P. – Jan., 1995.
M.S.S. – Mar, Apr, Nov, 1995
FILE : 5_PNGEOL
DRAWING No.

E.L. 44/88 – BURNS PEAK JV
PINNACLES
INTERPRETIVE GEOLOGY

SCALE 1:5000 0 100 m
FIG. No. 6



741027
377 500mE
377 750mE
378 000mE
500mR.L.
500mR.L.
250mR.L.
00mR.L.
BPD62
ESB1
EAF11
BPD79
377 500mE
5 384 780mN
Boco Road
WHITE SPUR
FORMATION
PINNACLES RHYOLITE
BTHS
Epiclastics with
veins/clasts of sulfide
including 3m @ 3% Zn
2.9% Pb, 0.2% Cu
CENTRAL VOLCANIC
COMPLEX
WHITE SPUR FORMATION
Siltstone, crystal sandstone
and felsic volcanics
383.6–384.6m
Massive Pyrite
BPD82 FAULT
Veinlets/disseminated
sphalerite and pyrite
574.5m
5 cm
377 500mE
LEGEND
Fluvioglacials
Pinnacles Rhyolite
Siltstone/sandstone sequence
Andesite
Rhyolite lavas
Massive sulphide
Pumiceous mass flow
Quartz feldspar porphyry (sill)
BTHS Brown's Tunnel Host Sequence
PASMINCO EXPLORATION
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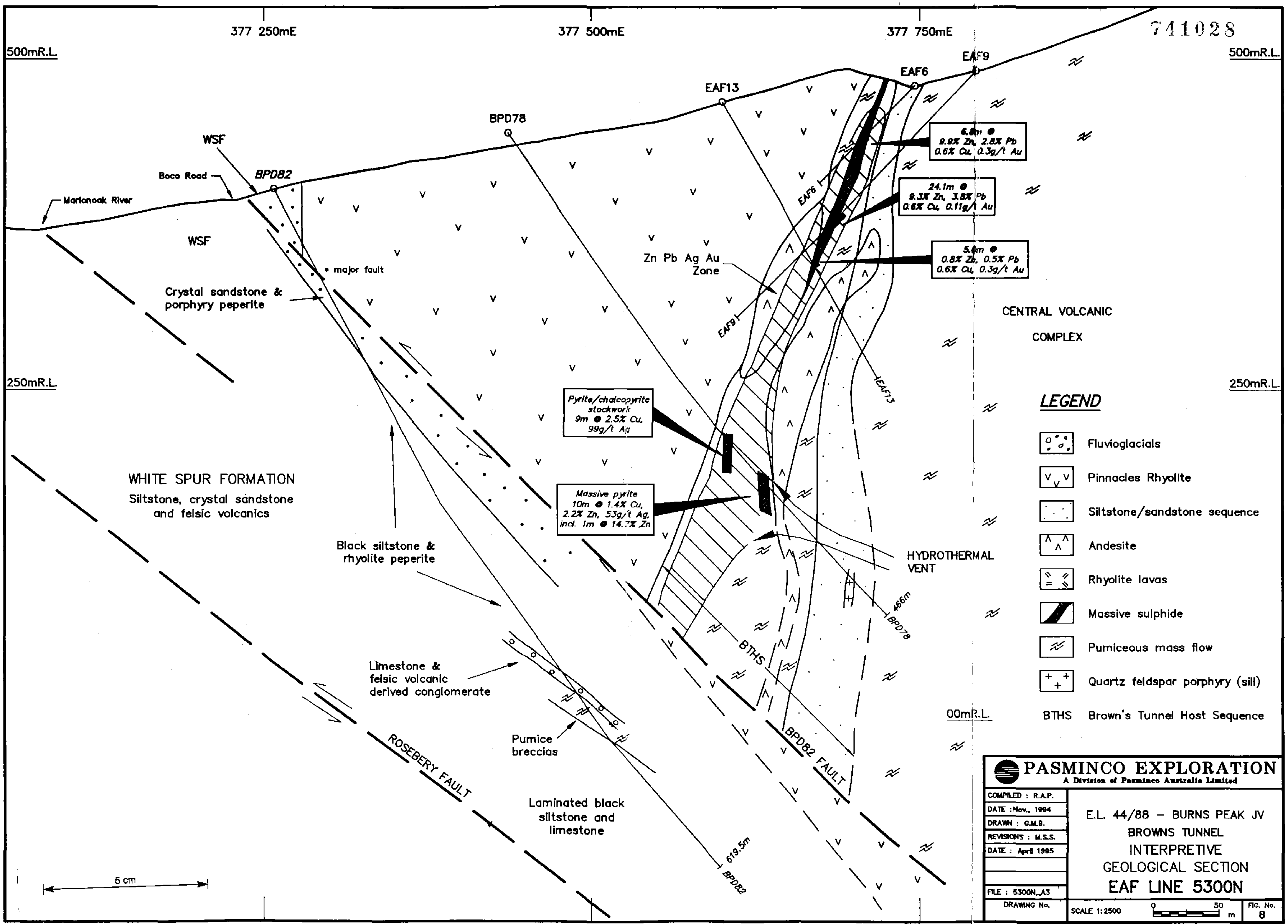
COMPILED : RAP
DATE : Oct., 1993
DRAWN : G.M.B.
REVISIONS : R.A.P.
DATE : Nov., 1994
REVISIONS : R.A.P.
DATE : April 1995
FILE : 5400N_A3
DRAWING No.
E.L. 44/88 – BURNS PEAK JV
BROWNS TUNNEL
INTERPRETIVE
GEOLOGICAL SECTION
EAF LINE 5400N
SCALE 1:2500
0
50
m
FIG. No.
7


741028
377 250mE
377 500mE
377 750mE
500mR.L.
250mR.L.
00mR.L.
EAF9
EAF6
EAF13
BPD78
BPD82
WSF
Boco Road
Marionoak River
major fault
Crystal sandstone & porphyry peperite
Zn Pb Ag Au Zone
6.8m @ 9.9% Zn, 2.8% Pb 0.6% Cu, 0.3g/t Au
24.1m @ 9.3% Zn, 3.8% Pb 0.6% Cu, 0.11g/t Au
5.0m @ 0.8% Zn, 0.5% Pb 0.6% Cu, 0.3g/t Au
CENTRAL VOLCANIC COMPLEX
Pyrite/chalcopyrite stockwork 9m @ 2.5% Cu, 99g/t Ag
Massive pyrite 10m @ 1.4% Cu, 2.2% Zn, 53g/t Ag, incl. 1m @ 14.7% Zn
HYDROTHERMAL VENT
WHITE SPUR FORMATION
Siltstone, crystal sandstone and felsic volcanics
Black siltstone & rhyolite peperite
Limestone & felsic volcanic derived conglomerate
Pumice breccias
Laminated black siltstone and limestone
ROSEBERY FAULT
BPD82 FAULT
BTHS
466m
619.5m
5 cm
LEGEND
Fluvioglacials
Pinnacles Rhyolite
Siltstone/sandstone sequence
Andesite
Rhyolite lavas
Massive sulphide
Pumiceous mass flow
Quartz feldspar porphyry (sill)
BTHS Brown's Tunnel Host Sequence
PASMINCO EXPLORATION
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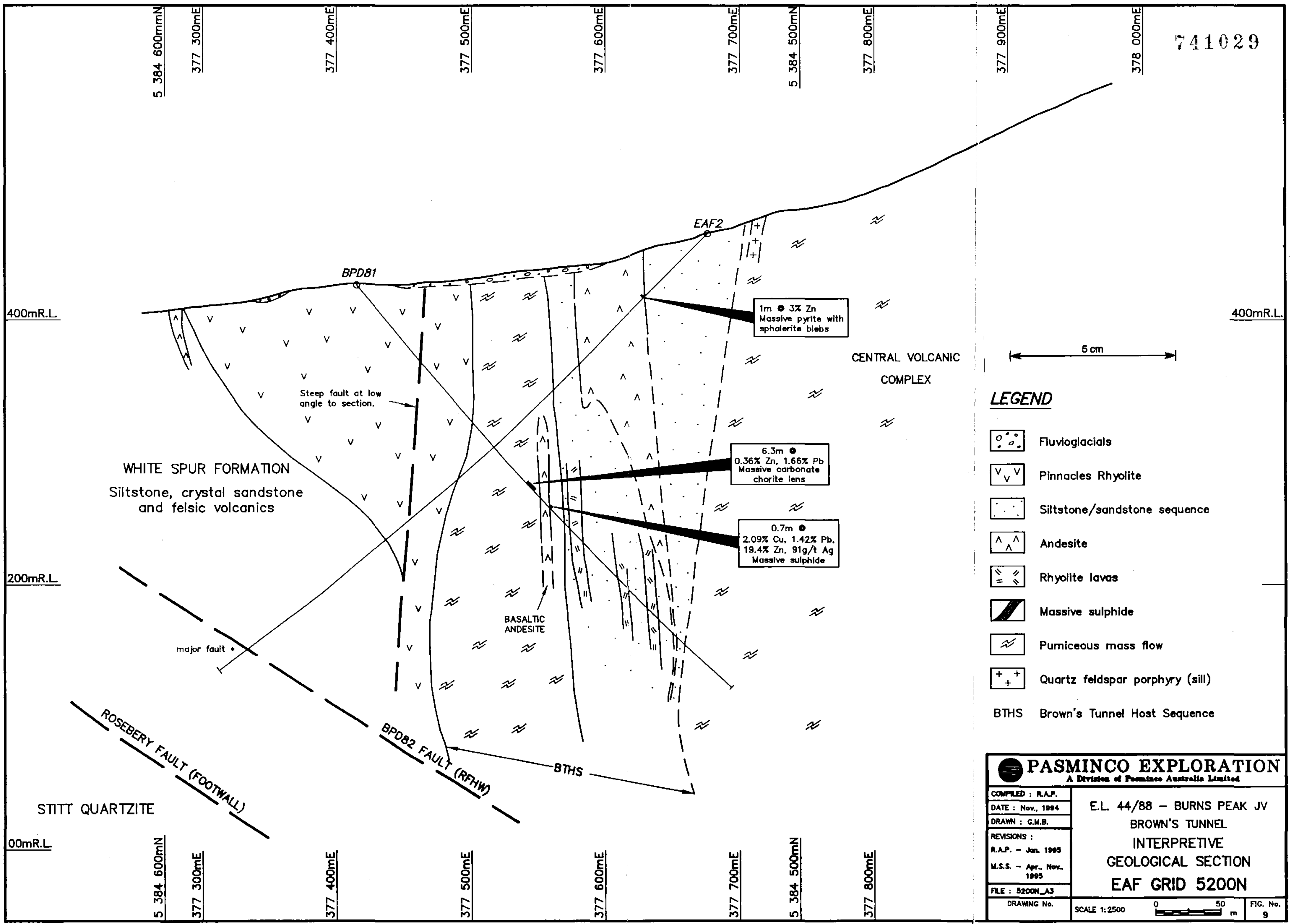
COMPILED : R.A.P.
DATE : Nov., 1994
DRAWN : G.M.B.
REVISIONS : M.S.S.
DATE : April 1995
FILE : 5300N_A3
DRAWING No.
E.L. 44/88 – BURNS PEAK JV
BROWNS TUNNEL
INTERPRETIVE GEOLOGICAL SECTION
EAF LINE 5300N
SCALE 1:2500
0 50 m
FIG. No. 8



741029
5 384 600mN
377 300mE
377 400mE
377 500mE
377 600mE
377 700mE
5 384 500mN
377 800mE
377 900mE
378 000mE
400mR.L.
200mR.L.
00mR.L.
EAF2
BPD81
1m @ 3% Zn
Massive pyrite with sphalerite blebs
CENTRAL VOLCANIC COMPLEX
5 cm
Steep fault at low angle to section.
6.3m @
0.36% Zn, 1.66% Pb
Massive carbonate chorite lens
0.7m @
2.09% Cu, 1.42% Pb,
19.4% Zn, 91g/t Ag
Massive sulphide
WHITE SPUR FORMATION
Siltstone, crystal sandstone and felsic volcanics
BASALTIC ANDESITE
major fault
BPD82 FAULT (RFHW)
ROSEBERY FAULT (FOOTWALL)
BTHS
STITT QUARTZITE
LEGEND
Fluvioglacials
Pinnacles Rhyolite
Siltstone/sandstone sequence
Andesite
Rhyolite lavas
Massive sulphide
Pumiceous mass flow
Quartz feldspar porphyry (sill)
BTHS Brown's Tunnel Host Sequence
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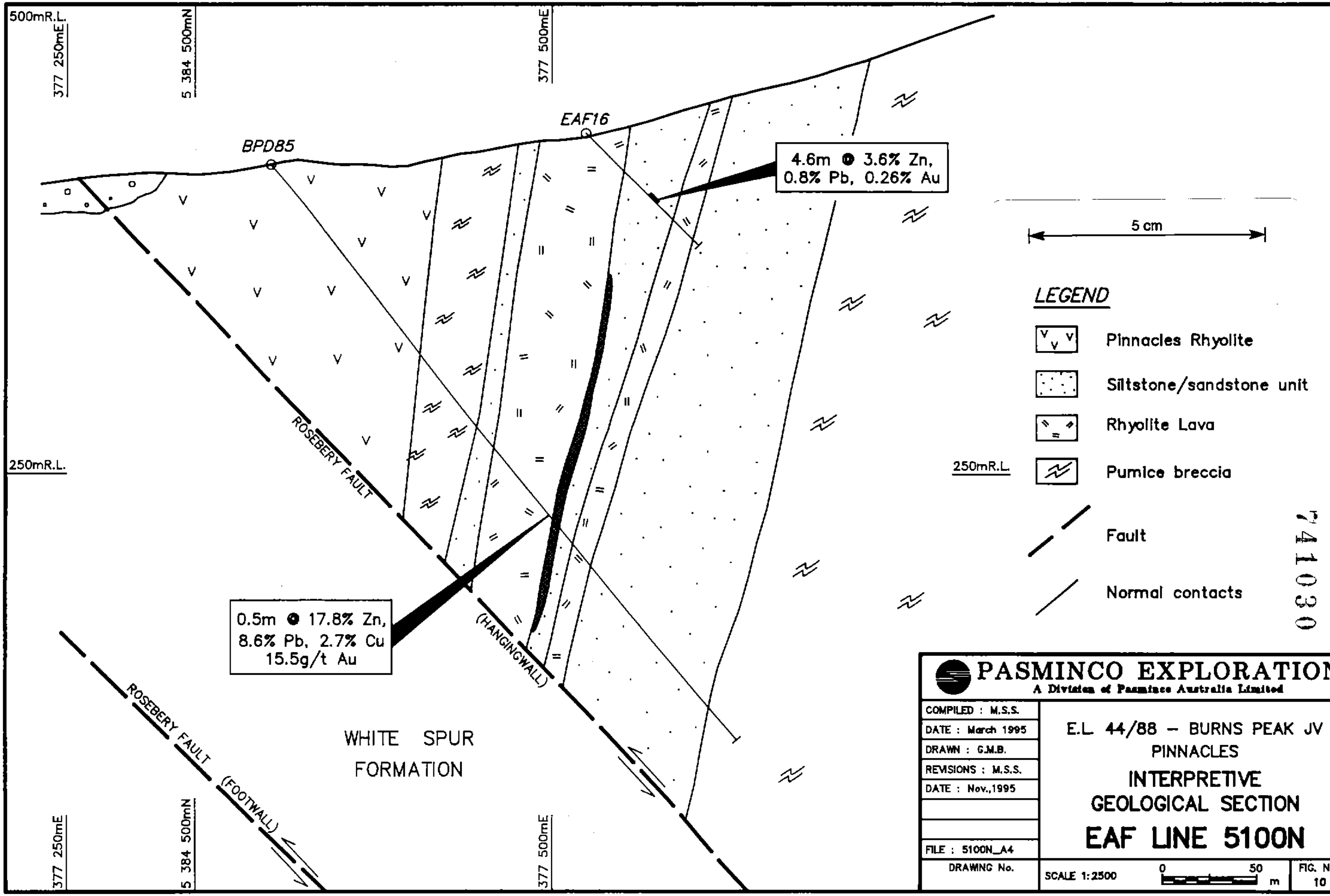
DATE : Nov., 1994
DRAWN : G.M.B.
REVISIONS :
R.A.P. – Jan. 1995
M.S.S. – Apr., Nov., 1995
FILE : 5200N_A3
DRAWING No.
E.L. 44/88 – BURNS PEAK JV
BROWN'S TUNNEL
INTERPRETIVE GEOLOGICAL SECTION
EAF GRID 5200N
SCALE 1:2500
0
50
m
FIG. No. 9



500mR.L.
377 250mE
5 384 500mN
377 500mE
EAF16
BPD85
4.6m @ 3.6% Zn, 0.8% Pb, 0.26% Au
5 cm
LEGEND
Pinnacles Rhyolite
Siltstone/sandstone unit
Rhyolite Lava
Pumice breccia
Fault
Normal contacts
250mR.L.
250mR.L.
ROSEBERY FAULT
(HANGINGWALL)
0.5m @ 17.8% Zn, 8.6% Pb, 2.7% Cu 15.5g/t Au
ROSEBERY FAULT (FOOTWALL)
WHITE SPUR FORMATION
741030
PASMINCO EXPLORATION
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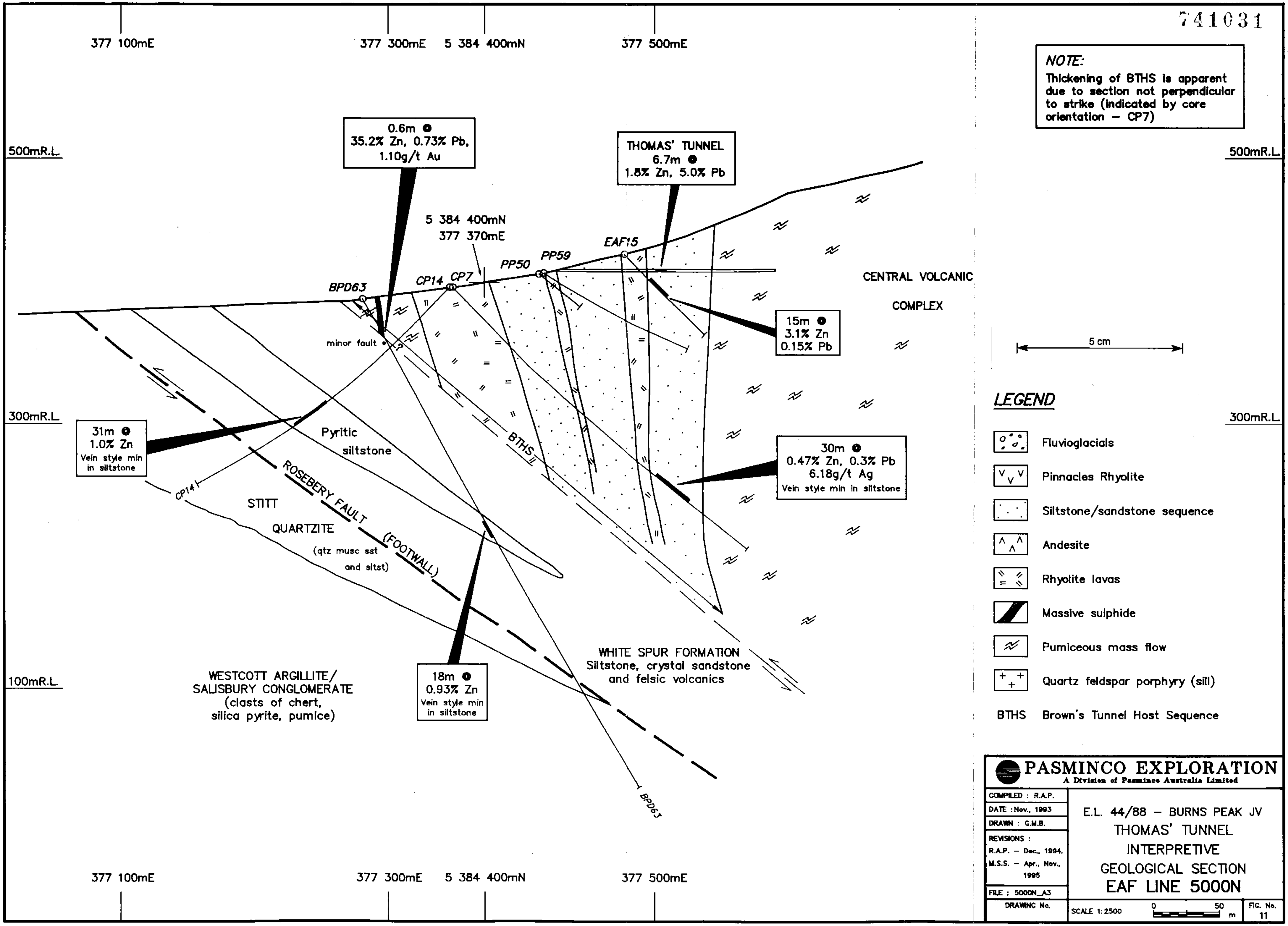
COMPILED : M.S.S.
DATE : March 1995
DRAWN : G.M.B.
REVISIONS : M.S.S.
DATE : Nov.,1995
FILE : 5100N_A4
DRAWING No.
E.L. 44/88 – BURNS PEAK JV
PINNACLES
INTERPRETIVE GEOLOGICAL SECTION
EAF LINE 5100N
SCALE 1:2500
0 50 m
FIG. No. 10



741031
377 100mE
377 300mE
5 384 400mN
377 500mE
NOTE:
Thickening of BTHS is apparent due to section not perpendicular to strike (indicated by core orientation – CP7)
500mR.L.
300mR.L.
100mR.L.
0.6m
35.2% Zn, 0.73% Pb,
1.10g/t Au
THOMAS' TUNNEL
6.7m
1.8% Zn, 5.0% Pb
5 384 400mN
377 370mE
BPD63
CP14
CP7
PP50
PP59
EAF15
CENTRAL VOLCANIC
COMPLEX
minor fault
15m
3.1% Zn
0.15% Pb
5 cm
31m
1.0% Zn
Vein style min in siltstone
Pyritic
siltstone
BTHS
30m
0.47% Zn, 0.3% Pb
6.18g/t Ag
Vein style min in siltstone
CP14
STITT
QUARTZITE
(qtz musc sst and sltst)
ROSEBERY FAULT
(FOOTWALL)
WHITE SPUR FORMATION
Siltstone, crystal sandstone and felsic volcanics
WESTCOTT ARGILLITE/
SALISBURY CONGLOMERATE
(clasts of chert,
silica pyrite, pumice)
18m
0.93% Zn
Vein style min in siltstone
BPD63
LEGEND
Fluvioglacials
Pinnacles Rhyolite
Siltstone/sandstone sequence
Andesite
Rhyolite lavas
Massive sulphide
Pumiceous mass flow
Quartz feldspar porphyry (sill)
BTHS Brown's Tunnel Host Sequence
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : R.A.P.
DATE : Nov., 1993
DRAWN : G.M.B.
REVISIONS :
R.A.P. – Dec., 1994.
M.S.S. – Apr., Nov., 1995
FILE : 5000N_A3
DRAWING No.
E.L. 44/88 – BURNS PEAK JV
THOMAS' TUNNEL
INTERPRETIVE
GEOLOGICAL SECTION
EAF LINE 5000N
SCALE 1:2500
0
50
m
FIG. No.
11

BTHS east of the Rosebery Fault and south of Boco Road. All holes have intersected the full BTHS, and located mineralisation of differing styles and stratigraphic positions, however the combination of the Rosebery Fault and drilling density prevents intersections being followed up. Overturning of the BTHS adjacent to the Rosebery Fault has taken place due to drag folding, however drilling (BPD63, BPD64, BPD82) shows that the BTHS is truncated and not significantly attenuated along the Rosebery Fault.

The Browns Tunnel resource described above is constrained by 6 high grade intersections and defines a lens of approximate dimension 110m x 50m x 5m at 25m from surface. Potential exists to significantly increase this resource by a reduction in cut off grade, exploration for mineralisation at less than 25m depth, and along strike to north at shallow depth.

## 5.3 Hollway/East Hollway

Exploration in both the Hollway and East Hollway prospect areas targeted mineralisation associated with the Hollway Andesite and immediate host sequences. The Hollway Andesite is a feldspar and hornblende phyric basaltic andesite, with regional stratigraphic and geochemical affinity to the Que-Hellyer Volcanics (Poltock and Saxon, 1994).

### 5.3.1 GEOLOGICAL MAPPING AND SAMPLING

Geological mapping and rock chip sampling has been completed in the East Hollway area. Mapping has focused on creek and road exposures. Moderate exposure of the CVC lavas and Animal Creek Greywacke can be located, however the Hollway Andesite outcrops poorly due to thick soil development.

Mapping located the following key features:

- Felsic volcanics of the CVC are dominated by flow banded rhyolite lava and lava breccia. Lavas are feldspar phyric or commonly aphyric and regularly perlitic.

- CVC also includes common intervals of crystal-rich pumice breccia and quartz-feldspar porphyritic lava or intrusives.
- Basaltic dykes of possible Henty Dyke Swarm affinity commonly intrude the CVC lava pile. In weathered hand specimen, dykes are indistinguishable from Hollway Andesite, however characteristically display high magnetic susceptibility (5-20 x $10^{-3}$ S.I.).
- Intense silica-feldspar alteration with variable sericite and pyrite was located within CVC lavas in the Hollway Rivulet immediately north of the track leading to BPD75, coincident with the East Hollway Magnetic Low. This alteration zone was previously unmapped, and includes rock chip samples to 0.2% Zn, 0.2% Pb, and 1 g/t Au (different samples). Similar alteration is not observed within the adjacent track, and indicates a strong relationship between mapped alteration and the magnetic low.
- An outcrop of Animal Creek Greywacke was located, being the furthest SE described in the Mt Read Volcanics, with Au of 0.7g/t. The Animal Creek Greywacke at this locality is brecciated and moderately pyritic.
- Animal Creek Greywacke mapped in the creek in this area has been studied in thin section by Crawford (see Appendix 7). Quartz-mica-pumice sediments are dominant, and imply a gradational contact between CVC and Animal Creek Greywacke at this locality.
- An outcrop of Hollway Andesite was located 200 NE of BPD84 with intense silica-pyrite alteration and hydrothermal (?) brecciation. Minor sphalerite is present within the breccia matrix.

Updated outcrop and interpretive geology maps are included as Figures 17 and 18, and an interpretive stratigraphic section as Figure 19. Rock chip location, description and assay results are provided in Appendix 8.

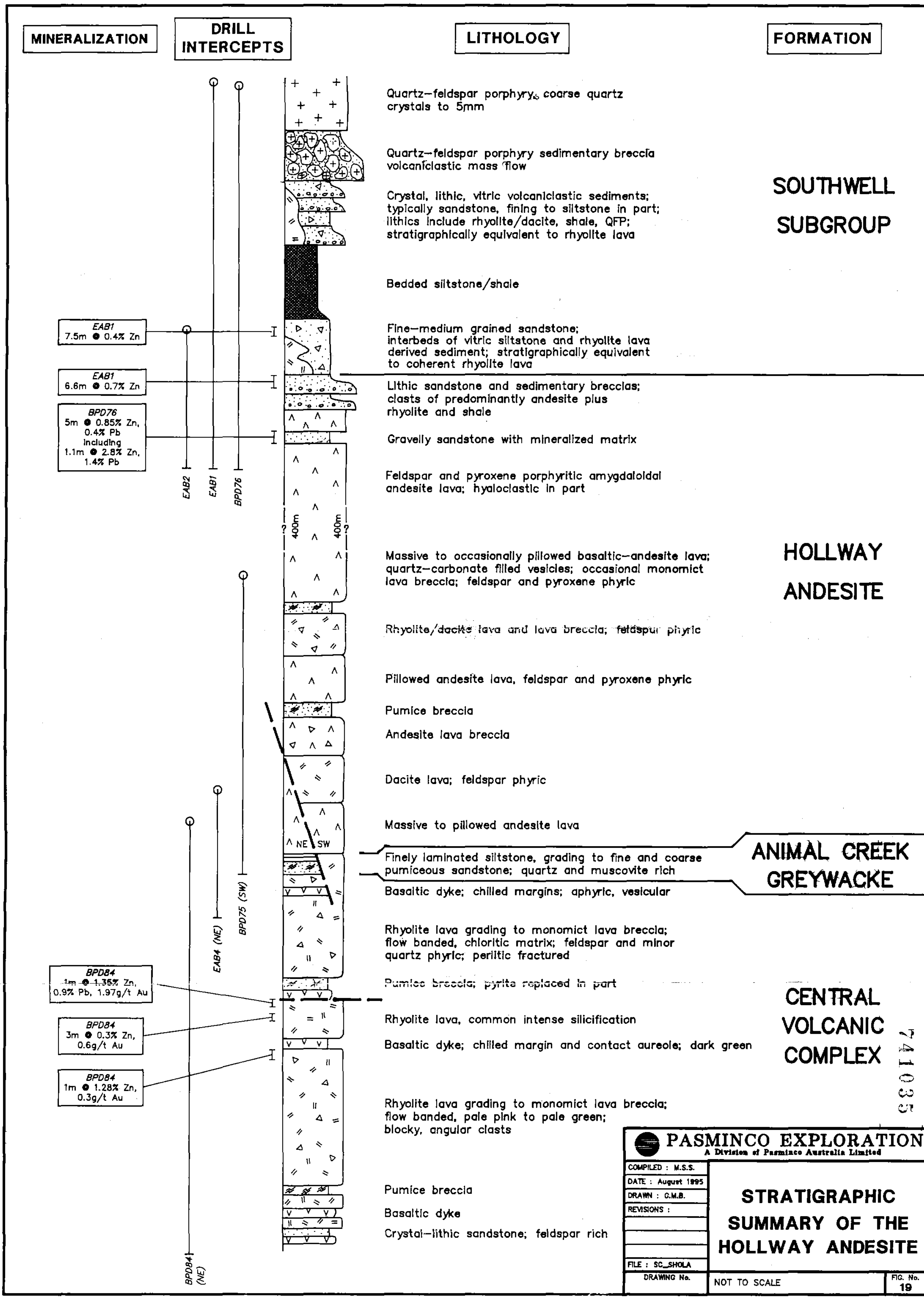
### 5.3.2 BPD83

Diamond drill hole BPD83 was drilled to 426.7m to test an IP anomaly corresponding to the Hollway Pyrite Zone. Proposal for BPD83 was reported during the previous licence year (Poltock and Saxon, 1994).

The hole intersected an interlayered sequence of massive to rarely flow banded andesitic to rhyolitic lava, with minor in situ and resedimented lava breccia. Rare basaltic dykes intrude the lava pile, and are typically unaltered. Intensity of alteration commonly prevents identification of protolith.

Alteration associated with the Hollway Pyrite Zone is quartz-sericite-pyrite, with minor carbonate and chlorite. The up hole margin of the alteration zone is marked by the presence of a fine network of pyrite veinlets, with a weak and patchy silica selvage. Pyrite and silica become pervasive downhole, with the primary rock completely detextured and pyrite commonly to 5%. Irregular zones of cream coloured carbonate alteration which post dates silica-pyrite alteration are common. Although alteration intensity was weakening, the Hollway Pyrite zone was not full transected by BPD83.

Despite intense alteration, mineralisation was low, with only very minor chalcopyrite and sphalerite noted. A drill log is provided in Appendix 3, and all analytical results as Appendix 4.




PASMINCO EXPLORATION
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COMPILED : M.S.S.
DATE : August 1995
DRAWN : G.M.B.
REVISIONS :
FILE : SC_SHOLA
DRAWING No.

STRATIGRAPHIC SUMMARY OF THE HOLLWAY ANDESITE

NOT TO SCALE

FIG. No. 19

### 5.3.3 BPD84

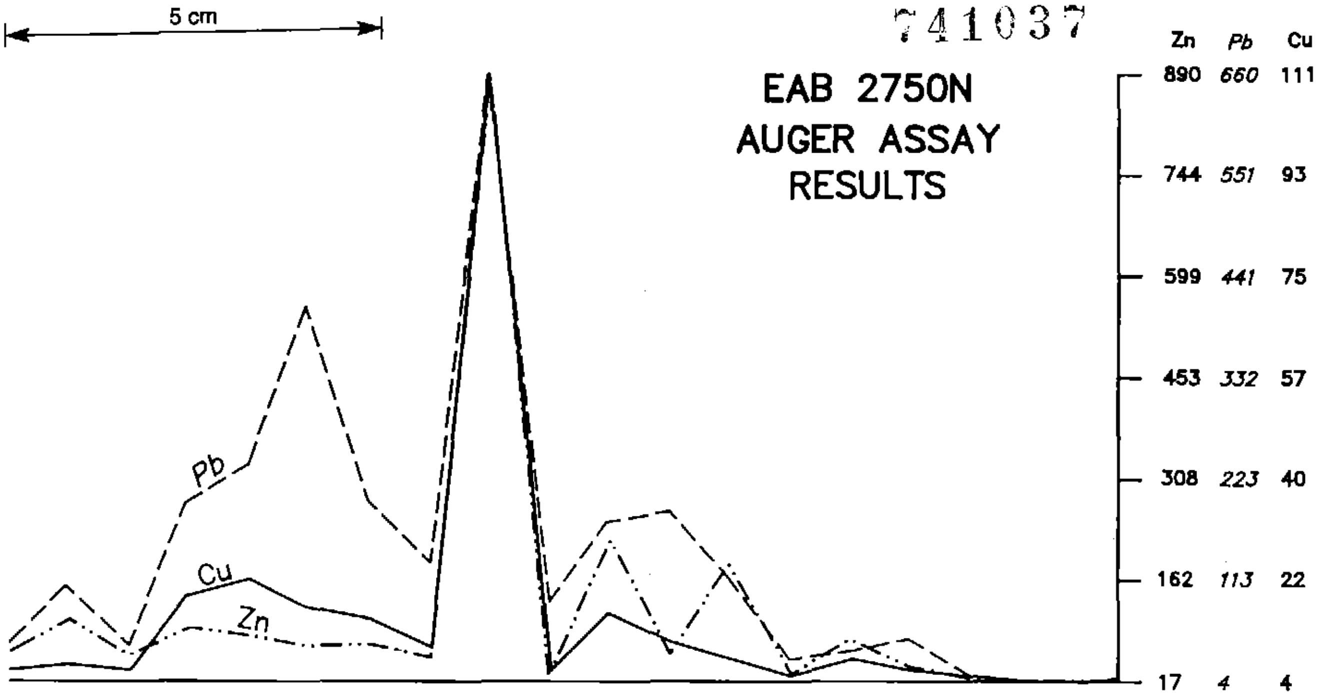
BPD84 was drilled in the East Hollway area to a depth of 385.1m. The hole was designed to test the lower contact of the Hollway Andesite in the area of the East Hollway Magnetic Low; intense alteration and minor mineralisation within CVC felsic volcanics; nodular pyrite and minor mineralisation within the Animal Creek Greywacke; and weakly anomalous soil geochemistry. The hole was drilled approximately on section with BPD75 A complete drill section is provided as Figure 20, and a summary section as Figure 21.

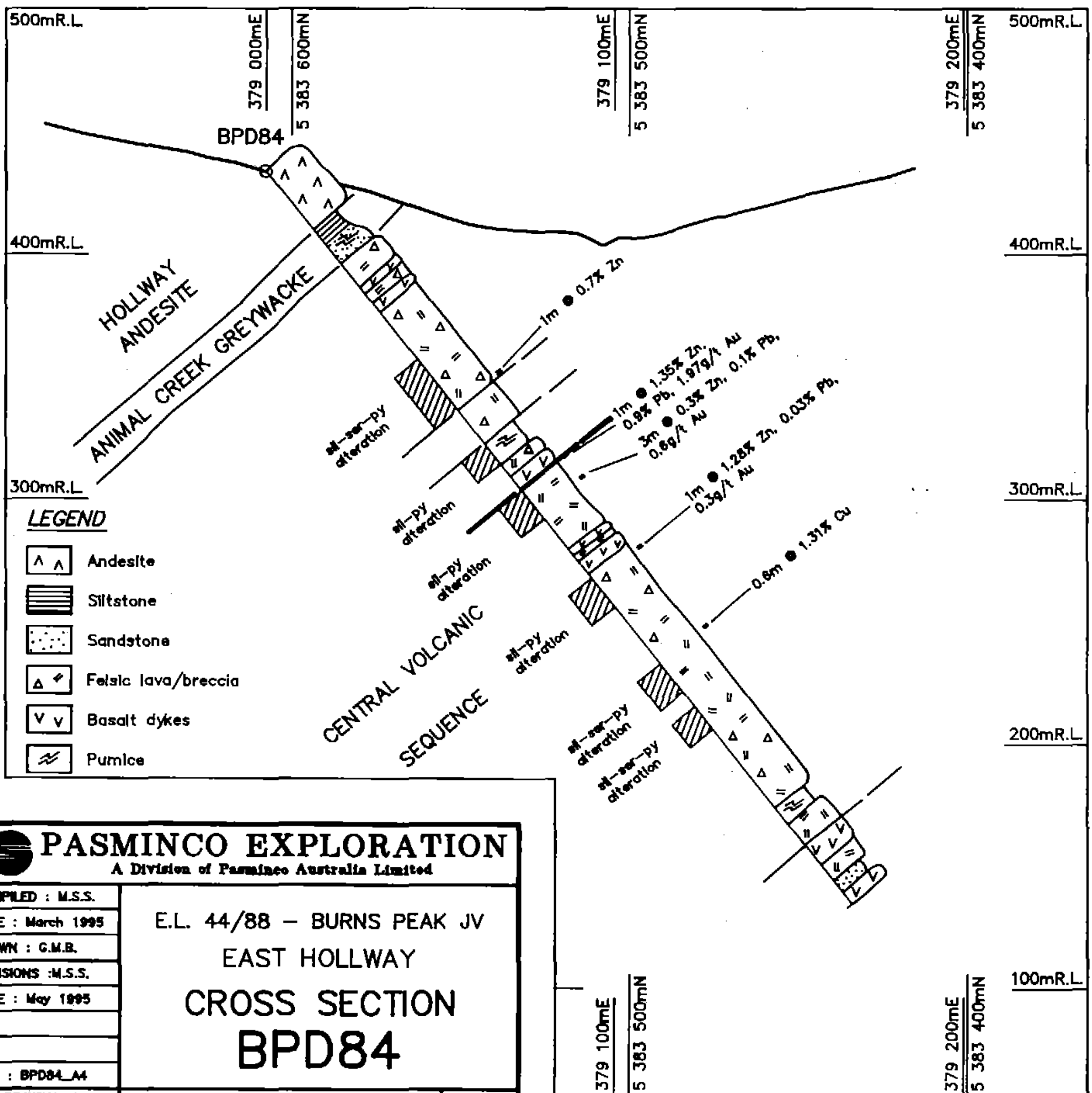
Feldspar and hornblende phyric Hollway Andesite was intersected from surface to 32.4m. Whole rock analysis of the basal flow, showed it to be a basalt that plots within Suite III of Crawford et. al. (1992), equivalent to Que-Hellyer Hangingwall sequence. The Hollway Andesite is underlain by well bedded and graded Animal Creek Greywacke from 32.4m-49.5m.

Gradationally underlying the Animal Creek Greywacke is a series of flow banded, feldspar phyric to aphyric, perlitic rhyolitic lavas and lava breccias of the CVC. Occasional intervals of pumiceous breccia and epiclastic sediment are also present. Common dark green, magnetic, vesicular basalt dykes intrude the CVC, which display chilled margins and slight hematisation and silicification of wall rock. Only one basalt dyke was submitted for whole rock analysis (sample no. 41407), which showed dyke composition to plot within or near the Suite III field of Crawford et.al. (1992), rather than Suite IV (Henty Dyke Swarm) as expected. The dyke set is potentially a feeder to the Hollway Andesite.

Numerous zones of intense alteration (see section 5.3.4) were intersected within the sequence of CVC volcanics, within which primary volcanic features were obliterated. These alteration zones were associated with low level Zn-Pb-Au mineralisation.

741037




**PASMINCO EXPLORATION**

A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | E.L. 44/88 – BURNS PEAK JV |
| DATE : March 1995 | EAST HOLLWAY |
| DRAWN : G.M.B. | CROSS SECTION |
| REVISIONS : M.S.S. | BPD84 |
| DATE : May 1995 | |
| FILE : BPD84_A4 | |
| DRAWING No. | SCALE 1:2500 (0–50 m) — FIG. No. 21 |

Mineralised zones intersected include the following:

| | | | |
|---|---|---|---|
| 116-125m | 9m | @ | 0.2% Zn |
| 141.7-144.2m | 2.5m | @ | 0.4% Zn, 0.2% Pb |
| 168.0-169.0m | 1.0m | @ | 1.4% Zn, 0.9% Pb, 0.3% Cu, 1.9 g/t Au |
| 179.0-182.0m | 3.0m | @ | 0.3% Zn, 0.1% Pb, 0.6 g/t Au |
| 215.0-218.0m | 3.0m | @ | 0.5% Zn, 0.1 g/t Au |

### 5.3.4 BPD83 AND BPD84 ALTERATION MINERALOGY AND GEOCHEMISTRY

Thin section and whole rock samples were taken from both Hollway area drill holes with the aim of characterising style and intensity of alteration.

BPD83 from the Hollway Pyrite Zone displays a mineralogically simple alteration style, varying only in intensity and nature of the precursor rock. The least altered samples from BPD83 (sample no.s 41414, 41415, 41417) are all post-hornblende, post-plagioclase phyric basaltic andesite. Mafic minerals are consistently pseudomorphed by bright olive green chlorite, which is also prevalent within sample groundmass. Feldspar phenocrysts are partially corroded by fine grained sericite. Groundmass is microcrystalline quartz and feldspar with lesser chlorite and sericite. Alteration is defined as low, evidenced by clearly visible primary textures, low AI values (33-45) and normal range $Na_2O$.

Intense alteration is displayed by sample no.s 41418, 41419 and 41422, from within the Hollway Pyrite Zone. Mineralogy is dominated by quartz and sericite, plus subordinate pyrite and carbonate. Samples are dominated by irregular and ragged quartz grains within sericite-rich groundmass with weak cleavage. Occasional coarse quartz grains are present, as are sericite replaced ghosts of feldspar, of probable phenocrystic origin. Pyrite is disseminated throughout samples, and is recognised as a late alteration phase, overprinting cleavage defined by groundmass sericite. Very minor white mica beard overgrowth of pyrite is present. Carbonate is present within veins and as rare isolated crystals. Alteration indices are high for the sample set (88-95), whilst $Na_2O$ ($<$0.05-0.14) and CaO (0.08-0.35) are strongly depleted. Ti/Zr ratios for the sample set indicate probable felsic precursor.

Further thin section samples from BPD83 were not assayed for major elements. Samples 41425, 41426 and 41427 show a further alteration phase superimposed on the above quartz-sericite-pyrite. Samples are comprised of abundant sericite and quartz, sericite within both groundmass and clearly replacing feldspar. A moderate cleavage is developed and post-feldspar sericite clots are strongly attenuated within cleavage. Pyrite overprints cleavage as above, however pyrite is strongly corroded and bearded by pale green chlorite and sericite, unlike previous sample set.
Alteration mineralogy and geochemistry of BPD84 is not yet resolved. Thin section sample locations and whole rock geochemistry data are reported in Appendix 8 and 5 respectively. Least altered samples (41403-41406) show clear volcanic textures, including zoned phenocrystic feldspar, perlitic cracks and flow banding. Samples 41404 and 41405 are strongly bleached and detextured in hand specimen, however thin section indicates weak alteration. Low AI values (42-63) and weakly depleted $Na_2O$ are characteristic.

Intense alteration is observed in samples 41408 and 41409. A groundmass of quartz and K-feldspar hosts irregular and ragged quartz grains. The presence of K-feldspar and the absence of sericite makes the BPD84 alteration distinct from that within the Hollway Pyrite Zone. High AI values and low $Na_2O$ values are again associated with intense alteration, as is elevated $K_2O$.

Other samples worthy of note are 41411 and 41412, both from a pumice breccia horizon within CVC. Pumice clasts are strongly sericite altered and moderately aligned within cleavage. Chlorite alteration variably replaces sericite, whilst feldspar crystal fragments are carbonate altered.

### 5.3.5 DHEM

Down hole EM surveys were completed by Outer Rim Exploration using a CRONE PEM system on both BPD83 and BPD84. Both surveys recorded twenty channels of data from 0.07 to 14.5 msec, using a 20 msec time base and 0.5msec ramp.

Hole BPD83 displays an apparent anomaly in the axial data, later modelled and proven to be a self-response effect. No other anomalies were recorded. Loops for BPD84 were laid out incorrectly, therefore coupling of the target zones was not maximised. No conductors were recorded from the hole, and despite poor coupling it is not proposed to read the hole again. Data and interpretation is provided in Appendix 6.

### 5.3.6 GRIDDING

Lines 2640W to 1600E, the NE end of Comstaff EAB grid were recut during the licence year. This involved 13.2km of refurbishment and 13.1km of new cutting, as shown on Figure 22. All lines will be surveyed with a combination of IP, ground magnetics, auger sampling and geological mapping.

### 5.3.7 BPD87

Diamond drill hole BPD87 was proposed (see Appendix 2) to follow up encouraging alteration and mineralisation intersected in BPD84. The proposed hole is to be drilled approximately 250m along strike to the NE of BPD84.

### 5.3.8 CONCLUSIONS AND REMAINING PROSPECTIVITY

The Hollway Andesite and enclosing sequences provide the best opportunity to discover significant base metal or Au mineralisation within the Burns Peak licence. The base of the Hollway Andesite provides a 'classic' VHMS position. The Animal Creek Greywacke is a period of quiescent sedimentation that marks the break between felsic and intermediate volcanism. The Hollway Andesite may host a Hellyer-style massive sulphide lens at an internal break in sedimentation or about the upper contact where the andesite is eroded and resedimented.

Drilling during the licence year highlighted the complex nature of alteration within and about the andesite, and the potential for encouraging mineralisation in previously un-targeted areas.

## 5.4 South Kershaw

The South Kershaw prospect area is 1.5km to the southwest of the Chester pyrite mine, on the southern flank of Mt Kershaw. The area was covered by IP and mapped in detail and auger sampled during the 1992/3 licence year (Poltock et al, 1993).

### 5.4.1 BPD86

Diamond drill hole BPD86 was drilled to 129.2m to test a shallow chargeability anomaly (Figure 23). The anomaly is elongate NNE, trending within the Chester Shear Zone which is believed to be the control on massive pyrite mineralisation at Chester. The discrete IP anomaly is roughly coincident with minor vein-style galena and sphalerite mapped on surface, but offset from peak Pb-Zn results from auger sampling. A drilling proposal is included in Appendix 2 and an interpretation of IP in Appendix 9.

BPD86 fully tested the South Kershaw IP anomaly. A sericite-silica augen schist was intersected from 9.9-21.2m, hosting 1-10% pyrite and trace galena mineralisation. This augen schist is identical to, but significantly thinner than the Chester Shear Zone intersected 1.1km to the north. The remainder of the hole intersected massive dacite lava with thin intervals of augen schist. A drill log and assay results are provided in Appendices 3 and 4.

### 5.4.2 CONCLUSIONS AND REMAINING PROSPECTIVITY

No other IP targets remain in the South Kershaw area. No indication of Zn-Pb-Au mineralisation has been located by mapping or diamond drilling in the area, and no targets which warrant follow up work are currently known.

## 5.5 Shale Basin

The Shale Basin prospect lies north of the Browns Tunnel area, and has been moderately explored for base metals. Available data includes soil geochemistry, costean and outcrop mapping, ground magnetics and UTEM.

### 5.5.1 INTERPRETATION OF SOIL GEOCHEMISTRY

Strongly Zn-Cu anomalous soil geochemistry characterises the Shale Basin area. This data was reported in Poltock and Saxon (1994), as was mapping of the Shale Basin area. Zn and Cu anomalies are non-coincident, and peak at 8.2% Zn and 410 ppm respectively. Anomalies are sourced from quartz-feldspar crystal rich sediments and mudstones of the White Spur Formation, at or near the core of the Silver Falls syncline. Zn anomalies were extensively costeaned by Comstaff, however rock chip sampling of costeans reported by Lorrigan (1990) failed to gain elevated metal values. Mapping in the area of elevated Cu has not provided any indication of mineralisation.

Source of mineralisation has been proposed to be similar to vein style mineralisation intersected in the White Spur Formation between splays of the Rosebery Fault ie:

| | | | |
|---|---|---|---|
| BPD63 | 18m | @ | 0.9% Zn, 0.1% Pb, 80 ppm Cu |
| CP14 | 31m | @ | 1.0% Zn, 0.05% Pb, 80 ppm Cu |
| EAF2 | 46m | @ | 1.2% Zn, 0.1% Pb, 50ppm Cu. |

Although this is a likely source for elevated Zn, the Zn-poor Cu anomalies cannot be explained by mineralisation in White Spur Formation at Browns Tunnel, which is not Cu-dominant and is rarely above 50 ppm. The Cu anomalies within the data set fall on the western limb of the Silver Falls syncline, and are potentially open to the south.

### 5.5.2 SAMPLING AND INTERPRETATION OF MMI

An MMI B-horizon soil geochemistry survey was completed on EAF grid lines 5800N and 6200N at a sample spacing of 40m. Data is provided in Appendix 10 as located MMI response ratios, however an interpretation report is not yet available.

For discussion of results see Poltock and Saxon (1994).

### 5.5.3 CONCLUSIONS AND REMAINING PROSPECTIVITY

Intersection of the BPD82 Fault further east than anticipated has significantly reduced the prospectivity of Shale Basin for mineralisation in the BTHS position. Reconstruction of sections, assuming the BPD82 Fault parallels the Rosebery Fault, indicates the BTHS is truncated at depth beneath the Pinnacles Ridge, and therefore does not occur on the western limb of the Silver Falls syncline.

UTEM anomaly A falls within the Shale Basin area. The anomaly has not been covered by soil/auger geochemistry, and lies in an area of poor outcrop and glacial cover. Although likely to be a glacial-bedrock contact effect, the anomaly does lie along strike from elevated Cu within soil samples.

The area of Cu anomalism remains unexplained, and is a target if a potential mineralisation style can be identified.

## 5.6 Cone Hill

The Cone Hill prospect area lies immediately south of Southern Trenches, and is believed to lie footwall to the BTHS. The prospect area has received low level exploration, with detailed mapping completed during 1990/91 (Kirsner et al, 1991).

Minor mapping was completed during the licence year to ground check a high chargeability-high resistivity anomaly located by a 1993 IP survey. The IP anomaly is 400m in strike length and approximately 200m width, and was described (see Appendix 9) as a 'classic' anomaly related to silica-sulphide alteration.

### 5.6.1 GEOLOGICAL MAPPING AND SAMPLING

The CP1/CP2 drill track and grid lines were mapped, observations updated on Figure 17. The area corresponding to the IP anomaly is dominated by moderately cleaved quartz and feldspar phyric felsic lava. Locally sericite cleavage zones are abundant, with undeformed boudins of siliceous lava elongate within cleavage. Slight silicification is widespread, as is very minor disseminated pyrite. Float of highly vuggy and ferruginous material was located on the east side of Cone Hill.

No significantly elevated assays were returned from rock chip samples, which are reported in Appendix 8.

Diamond drill hole CP2 was reviewed, which intersected semi-massive lava with moderate silica-chlorite-pyrite alteration to approximately 80m, where the Rosebery Fault was crossed. Assay of the hole appears to be by occasional chips, as full core is intact. Resampling of altered intervals is in progress.

### 5.6.2 CONCLUSIONS AND REMAINING PROSPECTIVITY

Existing soil geochemistry from the Cone Hill area is yet to be reviewed. If no anomalous areas exist within the area of the IP anomaly, no targets are recommended for further work.

## 5.7 Chester

The Chester prospect area lies in the southern section of the licence, and has received only minimal exploration activity in recent years.

### 5.7.1 SAMPLING AND INTERPRETATION OF MMI

An MMI B-horizon soil geochemistry trial line was completed to the south of Chester on EAD grid line 80500N. The section is well drilled, and includes an extensive interval of typical Chester-style pyrite-silica-sericite alteration, and a 2.4m intersection at 22.3% Zn, 5.8% Pb, 65 g/t Ag and 8.5 g/t Au interpreted to be an isolated vein. Data is provided in Appendix 10 as located MMI response ratios, however an interpretation report has not been received.

Response ratios for all elements provided (Cu, Pb, Zn, Ni, Cd, Au, Ag, Pt, Pd) peak at approximately 4 times background (Cu, Zn, Cd). Anomalous values correlate moderately well, however anomalies correspond poorly with known alteration or mineralisation. The MMI technique does not appear to be applicable for exploration under these conditions.

## 6 ENVIRONMENTAL DISTURBANCE AND REHABILITATION

Drilling in the Browns Tunnel area made use of existing tracks, previously used for forestry operations. Sumps were refilled on removal of rig, however sites have not been rehabilitated.

BPD83 was drilled from View Road, and required minor site clearing to position drill rig.

Siting of BPD84 required 120m of new track to be constructed through myrtle forest, from an existing Comstaff costean. The track is not suitable for continued vehicle access, and will be rehabilitated when machinery is available.

BPD86 was drilled using a 'Gopher' mini-rig, requiring only a grid line for access and no site preparation. Small drums were used on site as a sump and removed.

26.3km of Comstaff EAB grid has been cut and pegged as per original grid.

No rehabilitation work has been completed during the licence year.

## 7 EXPENDITURE

Expenditure on EL 44/88 during the 12 month period ending October 1995 was $447 404. This brings the total spent on EL 44/88 since its inception in December 1988 to $3 078 260.

| | |
|---|---|
| Personnel & Oncosts | 91 834 |
| Travel & Accommodation | 5 897 |
| Geological Consultants | 19 525 |
| Analytical Costs | 13 171 |
| Geophysical Surveys & Consultants | 15 357 |
| Drilling (incl access & core processing/storage) | 210 951 |
| Other Consultants | 3 433 |
| Stores & Supplies | 5 545 |
| Vehicles & Equipment | 9 199 |
| Computing | 3 290 |
| Tenement Costs | 4 793 |
| Office Running Costs | 23 736 |
| Management Fee | 40 673 |
| **TOTAL EXPENDITURE** | **447 404** |

# 8 RECOMMENDATIONS

Significant progress was made during the licence year, resulting in a change in focus of exploration on the Burns Peak licence. A proposed work program for the coming year includes the following:

## 8.1 Hollway

- Drilling of proposed drill hole BPD87 in the Hollway area.
- Coverage of the recut EAB grid with IP and ground magnetics.
- Mapping and sampling of Hollway Rivulet and other drainage.
- Mapping and sampling of recut EAB grid lines in the Hollway area.
- Relogging of EAB4.
- Auger line over BPD84 to test Au in soils.
- Sampling and assay of BPD75 core.
- Petrographic/Lithogeochemical study of alteration style/mineralogy.
- DHEM of holes drilled.

## 8.2 Browns Tunnel Host Sequence

- Assessment of the shallow resource potential associated with the Browns Tunnel mineralisation.
- Resource drilling.
- Assessment of the Southern Trenches mineralisation.
- Compilation of existing Au data from the BTHS.
- Assay of unsampled core from the Browns Tunnel area as check for Au, concentrating on Pinnacles Rhyolite and footwall sequence.

## 8.3 Other Areas

- Structural mapping and interpretation in the Summit prospect area
- Geological mapping and rock sampling along the Cone Hill Fault.
- Geological mapping and rock sampling in the North Pinnacles area.

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**KEYWORDS**

COPPER, ZINC, ANDESITE, BASALT, RHYOLITE, VOLCANICS, FAULT, SHEAR ZONE, PYRITE, CHLORITE, SERICITE, CARBONATE, MASSIVE SULPHIDES, ASSAYS GEOCHEM, DRILL DIAMOND, GEOCHEM SOIL, GEOL MAPPING DETAILED, GEOPHYS BOREHOLE, GEOPHYS MAGNETICS, ALTERATION, ORE POTENTIAL.

**LOCATION**

BURNIE SK5503
MT READ VOLCANICS, BURNS PEAK, SOUTHERN TRENCHES, THOMAS'S TUNNEL, BROWN'S TUNNEL, SHALE BASIN, SUMMIT, HOLLWAY, EAST HOLLWAY.

# APPENDIX 1

## Burns Peak - Boco Magnetic and Gravity

741052

PASMINCO
EXPLORATION

# MEMORANDUM

**TO:** File

**FROM:** MS Saxon

**DATE:** 23 October, 1995

**REF:** mss:95025

**SUBJECT:** **BURNS PEAK - BOCO MAGNETICS AND GRAVITY**

---

Aeromagnetic and gravity data from the northern section of the Burns Peak licence has been reinterpreted (see Figure 1 for coverage). Levelling of data has been improved, as has control on magnetic susceptibility of major units since data was last interpreted (Kirsner et al, 1993). The Hollway area is the focus of this interpretation, as are the location and significance of magnetic lows.

## MAGNETICS

Data used for this reinterpretation is a hardcopy set of 1:25 000 total magnetic intensity, colour drape images with variable sun angles, and with middle range stretched to enhance magnetic lows.

### Magnetic Units

The magnetic data is dominated by a high intensity NE-SW trending ridge in the centre of the study area (Figure 2). Southeast of this ridge is a low intensity zone with occasional NE elongate moderate to high intensity ridges. Two high ridges of note lie 1km east of Chester Dam, and 1km south of Boco Siding. These high magnetic bodies are strike limited, and may be one fault dislocated body. This southeastern low intensity zone is predominantly underlain by massive CVC lavas.

To the northwest of the high magnetic ridge the data is bland, magnetic intensity increasing progressively from south to north due to a deep seated magnetic source to the north of the imaged area. This trend is broken only by the shallow north plunging syncline defined by the moderately magnetic Lynchford Tuff. The regional influence of the strongly magnetic Crimson Creek Formation in the Huskisson River area is recognised as a magnetic high building up west of the Rosebery Fault.

The high magnetic ridge trends from approximately the View-Hollway Road junction into and through the Boco alteration zone, parallel to strike of the major rock units. The ridge sits at the very top of the CVC, and is interpreted to correspond to a magnetite-bearing felsic lava, in part concealed beneath glacial cover. The magnetic high ridge is continuous and uniform from the Boco area through to East Hollway, however south west of East Hollway the high ridge is disjoint and irregular, with the appearance of magnetic plugs, rather than a lava sheet. The ridge is cut off sharply against a NW-SE trending fault (CHF - see below) in the View-Hollway Road junction area, and equivalent units are not observed south of this structure.

The Animal Creek Greywacke, which overlies the CVC volcanics has no magnetic expression. Magnetic susceptibility of 0.05-0.1 x $10^{-3}$ S.I. is typical for the sediments.

The Hollway Andesite is not uniquely distinguishable by magnetics. The area underlain by Hollway Andesite varies from low to moderately magnetic. This variation is interpreted to be in response to variable depth, and magnetic character of the magnetic CVC lava which dips to the north underneath the Hollway Andesite. Magnetic susceptibility of the andesite varies from 0.3-0.5 x $10^{-3}$ S.I.

The felsic volcanic and volcaniclastic sequence which overlies the Hollway Andesite lie within an area of bland magnetics, where intensity variation is in response to deep sources rather than outcropping units.

**Magnetic Structure**

Numerous strike extensive lineaments are present within the magnetic data, recognised by truncation or offset of magnetic trends. Two trend sets are dominant, a NE-SW and NW-SE orientation.

NE-SW TREND

The dominant structure with NE-SW trend is the Boco Shear Zone (BSZ), which trends from the Boco Siding to Lake Rosebery. The shear zone truncates the southern margin of the high magnetic ridge and is characterised along its length by a series of magnetic lows. Displacement is unknown. Leaman (in Kirsner, 1992) interprets the BSZ to be Devonian in age, however no details of reasoning is provided.

The Sock Creek Shear Zone (SCSZ) extends NE from the Hollway Pyrite Zone into the area of Sock Creek. This linear trends in part through the Hollway Andesite, and is recognised by the truncation of a number of magnetic highs interpreted to be sourced from lavas within the top of the CVC that underlie the Hollway Andesite. Magnetic rocks do not appear to occur to the north of the SCSZ, and this linear may therefore mark the northern margin of the CVC. The SCSZ matches that interpreted by Leaman in the Boco area (Kirsner, 1992), who describes it as an 'approximate volcanic front'.

Other NE-SW linears fall within the CVC and are less relevant to this study.

NW-SE TREND

NW-SE linears are recognised typically by dislocation of the NE trending high magnetic ridge. The most pronounced linear, here named the Cone Hill Fault (CHF), originates in the Cone Hill area and strikes to the SE. The lineament truncates the high magnetic ridge at the top of the CVC in the View-Hollway Road junction area, and a smaller magnetic high within the CVC. An offset equivalent of the high magnetic ridge is not present south of the CHF and therefore may correspond to a Cambrian syn-volcanic structure/element which limited lava and/or volcaniclastic transport. The CHF consists of a number of parallel structures.

The CHF is an important flexure point within the northern Mount Read Volcanics, as it is the structure about which the volcanic fabric rotates from NE-SW (Cone Hill-Hellyer) to N-S (Cone Hill-Hercules). The BSZ is reorientates on crossing this linear.

A number of NW-SE lineaments are present in the East Hollway area, associated with only minor disruption of the volcanic trend. A moderately defined, strike persistent linear trends through the East Hollway magnetic low, south of which the high magnetic ridge is disjoint and irregular.

The final major NW-SE linear extends from the Silver Falls area to the Murchison Highway 2km south of the Boco Siding junction. In the north, the linear is magnetically positive, assumed due to invasion by a magnetic dyke. The southern extension is defined by disruption of the high magnetic ridge, and truncation of two magnetic lows southwest of Boco Siding.

NNW-SSE TREND

A number of strike limited linears of this trend exist predominantly in the East Hollway area. The only linear to influence magnetic trends lies 1km west of Boco siding, where an arcuate lineament defines the margin of a weak magnetic low.

**Magnetic Lows**

Intersection of low grade Zn-Pb-Au mineralisation and intense alteration within the East Hollway magnetic low indicates that magnetite-destructive alteration is a potential indicator to mineralisation. The following tested and untested zones have magnetic low signatures:

1) East Hollway: The East Hollway Magnetic Low (EHML) is a discrete negative anomaly which straddles the CVC-Hollway Andesite contact. The low is approximately 300m x 500m, and has been drilled by one hole. The anomaly is strongest in the south, weakening to the north. It appears that the low is sourced from altered CVC, and due to low magnetic background of the andesite, no alteration is expressed. Weakening of the low to the north is therefore a function of increasing depth to the altered CVC as it dips north underneath the Hollway Andesite. Altered andesite is observed on surface coincident with the magnetic low, and is interpreted to be part of the event, but not the source of the magnetic low.

2) Hollway: The Hollway Pyrite Zone (HPZ) is a silica-pyrite alteration system that lies at the southwestern end of the Hollway Andesite where it interfingers with the CVC. A weak, irregular magnetic low, open to the south, is associated with alteration. The HPZ is proximal to both the SCSZ and the CHF. The depth of the HPZ low lies 500m south of drilling, straddling the CHF.

3) Boco: The Boco alteration zone is expressed as a large magnetic low 1000m x 500m, elongate approximately north-south. 23 drillholes have tested the alteration zone and strike extensions, with strong silica-pyrite alteration but no significant mineralisation located. The alteration zone is poorly exposed due to glacial cover, and falls entirely within CVC. The Boco alteration zone appears to be controlled by the BSZ, which trends into, bends sightly, and strikes through the alteration zone.

4) Chester: The Chester alteration zone is a poor magnetic target, however is recognisable in low-enhanced images as a low within a low background. The BSZ trends 700m east of the Chester Mine, and may again be the controlling structure for the silica-pyrite alteration.

5) Boco Shear Zone: Numerous small magnetic lows are located along or adjacent to the BSZ, away from the Boco and Chester areas. Alteration or mineralisation is not known from this area, however degree of mapping is low and access poor. Although silica-pyrite alteration without associated base metal or Au is most likely, the presence of intermediate volcanics within the EBR rail-line immediately south of Boco (unlike Boco or Chester) may produce mineralising conditions.

6) West Boco: West of the Boco alteration zone is an irregular shape magnetic low of similar dimension to the Boco alteration zone. This low has been tested by one drillhole in the far north (BBP209), and is glacial covered for much of the area. The southern section of the low corresponds to a small zone of pyrite alteration mapped within the EBR rail-line. This West Boco zone lies slightly up sequence from Boco, the northern end being at or near the CVC-Dundas Group contact, potentially stratigraphically similar to the East Hollway area.

7) Sub-Glacial: 800m SSE of the EHML, a subtle magnetic low is present, on the southern contact of the high magnetic ridge, and concealed beneath glacial cover. The low is approximately 300m diameter, and slightly lower magnitude than the EHML. The anomaly has not been previously recognised or targeted, and is not spatially associated with the BSZ.

**GRAVITY**

Data used for this reinterpretation is a hardcopy set of 1:25 000 total magnetic intensity, colour drape images with variable sun angles. Gravity data is sparse for most of the reviewed area, however occasional local grids have been surveyed in detail. Only regional features are visible in the data.

Gravity images are dominated by a progressive regional southeast to northwest increase in value. This trend is effected and modified by a series of linears. Linear sets are defined below (Figure 3).

NE-SW TREND

This trend is dominated by a linear that extends from the CHF in the HPZ area, to beyond the extent of the data coverage. The linear defines a major step in the data, and trends along the basal contact of the Hollway Andesite until the East Hollway area where it cross cuts the andesite. Truncation of this linear against the CHF reinforces the importance of this structure, with gravity trends also rotated about this point.

A second pronounced linear follows the Pinnacles Rhyolite-Dundas Group contact along the western margin of the Pinnacles Ridge, before crosscutting the Rosebery Fault.

NW-SE TREND

Two dominant linears occur immediately NE of the East Hollway area, and bound an unusually high density block to the south of the railway line. Both structures extend to the north of the major NE-SW structure defined above. Other linears in this orientation south of the railway line account well for truncations and offsets of magnetic lavas within the CVC, and may correspond to faults with typically dextral movement.

ENE-WSW TREND

Two well defined linears of this orientation exist in the data. The southerly feature trends across the Rosebery Fault, through the East Hollway area, and to 1km south of Boco Siding. The main NE-SW linear is cut in the East Hollway area.

The northern linear cuts across the northern end of the Pinnacles Ridge, and also appears to cross cut the Rosebery Fault.

## EXPLORATION IMPLICATIONS

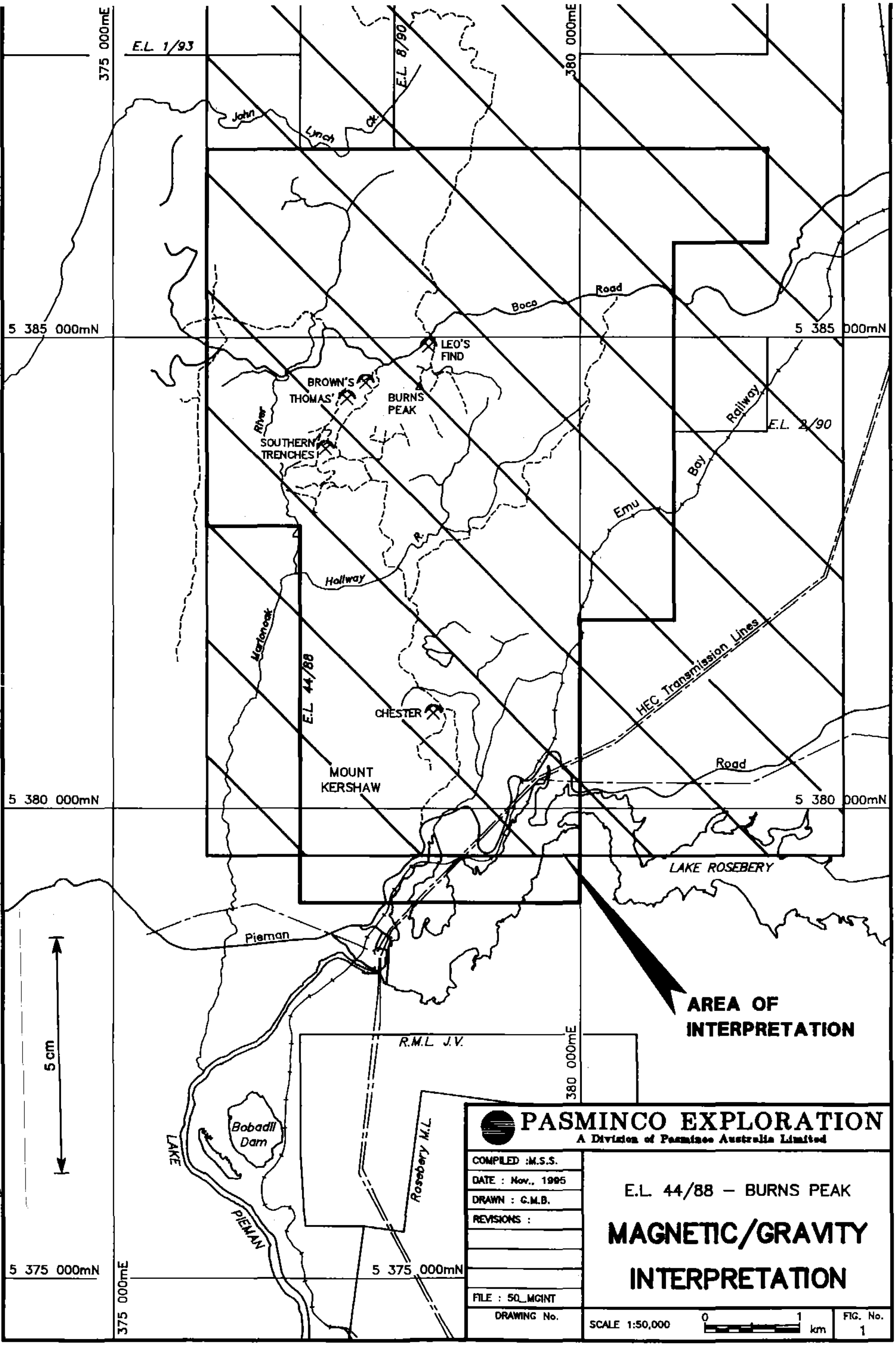
Magnetic and to a lesser extent gravity data have potential to provide both direct and indirect indicators to mineralisation. The lack of indicators in either data set to mineralisation at Browns Tunnel emphasises the fact that non-expressed zones also constitute targets.

The following features visible in the magnetic/gravity data sets are regarded as key to the discovery of alteration and mineralisation zones:

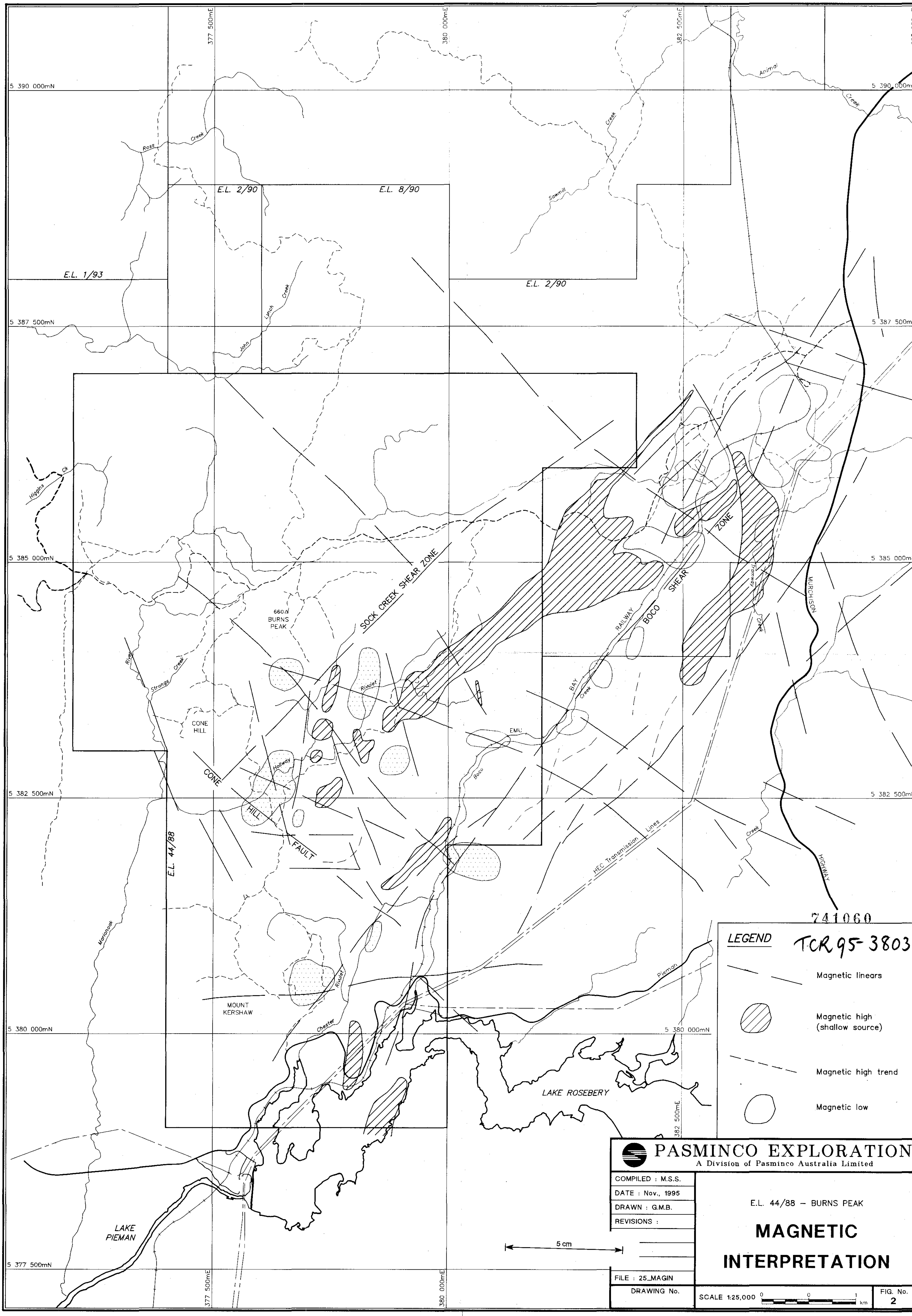
1) *Magnetic lows, zones of magnetic destruction:* lows defined above which have been drill tested indicate a strong association with silica ± other styles of alteration. Although not always mineralised, base-metal and Au is associated with EHML.
2) *NW-SE trending structures:* these structures cross cut stratigraphy and cause significant dislocation to units. Influence on magnetic lows and CVC signatures suggest possible Cambrian origin. It is important to note that all drill holes in the Hollway area have been drilled parallel to these linears. The intersection of NW-SE trending linears with pre-existing alteration zones are primary target sites.
3) *The Boco Shear Zone:* the BSZ is the locus of major hydrothermal alteration. None of the alteration systems located to date have been base metal bearing, however the intersection of other structures or the presence of reactive lithologies may drive base metal precipitation from an enriched fluid.

Areas of potential defined by these criteria are shown on figure 4.

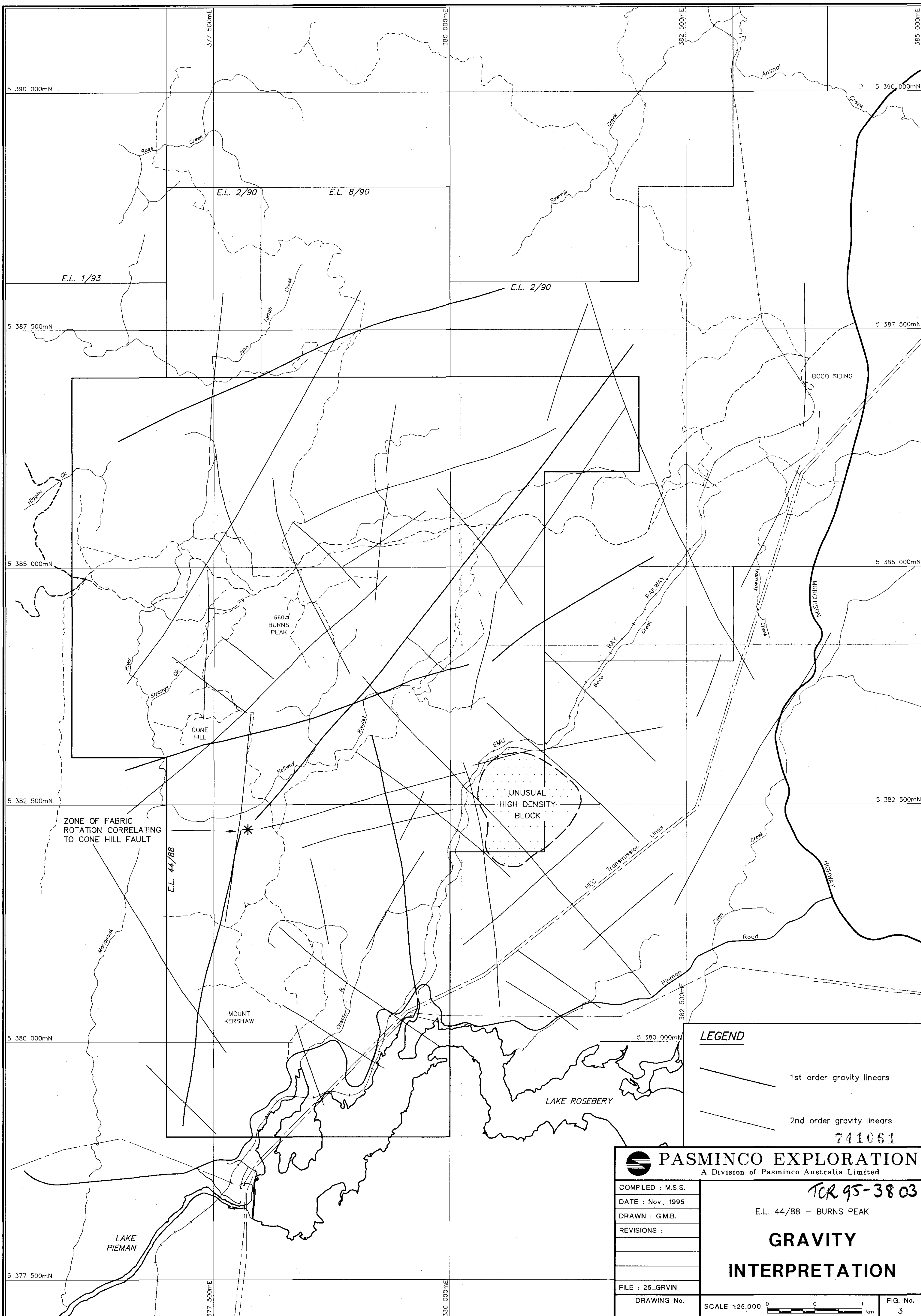
741059



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED :M.S.S.
DATE : Nov., 1995
DRAWN : C.M.B.
REVISIONS :
FILE : 50_MGINT
DRAWING No.
E.L. 44/88 – BURNS PEAK
MAGNETIC/GRAVITY
INTERPRETATION
SCALE 1:50,000
0
1
km
FIG. No.
1
AREA OF
INTERPRETATION
375 000mE
380 000mE
5 385 000mN
5 380 000mN
5 375 000mN
E.L. 1/93
E.L. 8/90
E.L. 2/90
E.L. 44/88
R.M.L. J.V.
Rosebery M.L.
John
Lynch
Ck.
Boco
Road
LEO'S
FIND
BROWN'S
THOMAS'
BURNS
PEAK
SOUTHERN
TRENCHES
River
R.
Hollway
Marionoak
Emu
Bay
Railway
HEC Transmission Lines
CHESTER
MOUNT
KERSHAW
Road
LAKE ROSEBERY
Pieman
Bobadil
Dam
LAKE
PIEMAN
5 cm



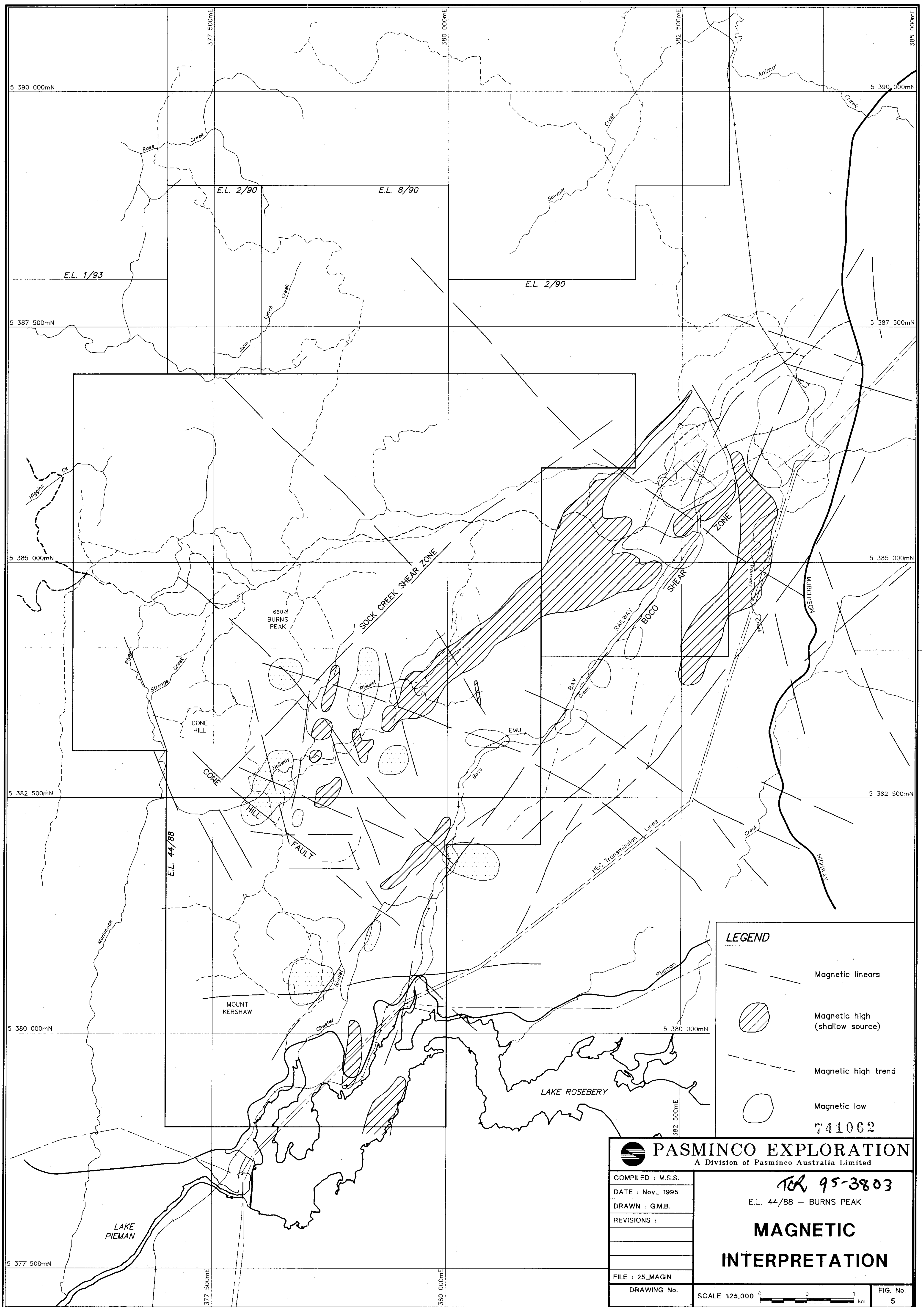
5 390 000mN
5 387 500mN
5 385 000mN
5 382 500mN
5 380 000mN
5 377 500mN
377 500mE
380 000mE
382 500mE
385 000mE
E.L. 2/90
E.L. 8/90
E.L. 1/93
E.L. 44/88
Ross
Creek
Lynch
John
Sawmill
Animal
Higgins
Ck
SOCK CREEK SHEAR ZONE
BOCO SHEAR ZONE
660
BURNS PEAK
CONE HILL
CONE HILL FAULT
Strongs
Creek
River
Rivulet
Hollway
EMU
Boco
BAY
Creek
RAILWAY
Tramway
MURCHISON
HIGHWAY
HEC Transmission Lines
Marionoak
Chester
MOUNT KERSHAW
Pieman
LAKE ROSEBERY
LAKE PIEMAN
741060
TCR 95-3803
LEGEND
Magnetic linears
Magnetic high (shallow source)
Magnetic high trend
Magnetic low
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : M.S.S.
DATE : Nov., 1995
DRAWN : G.M.B.
REVISIONS :
5 cm
FILE : 25_MAGIN
DRAWING No.
E.L. 44/88 – BURNS PEAK
MAGNETIC INTERPRETATION
SCALE 1:25,000
0
1
km
FIG. No.
2

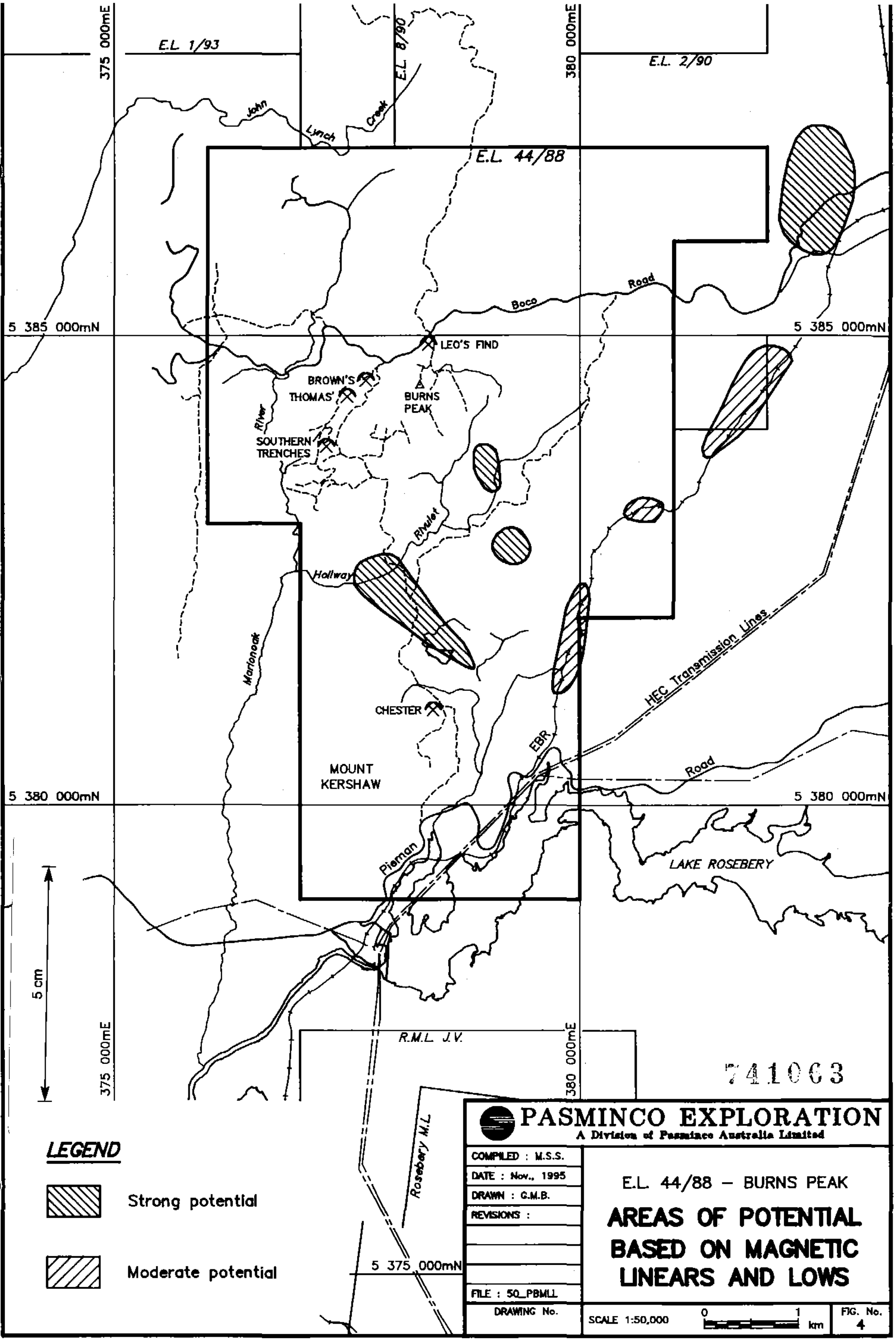



741061

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | TCR 95-3803 |
| DATE : Nov., 1995 | E.L. 44/88 – BURNS PEAK |
| DRAWN : G.M.B. | |
| REVISIONS : | **GRAVITY INTERPRETATION** |
| FILE : 25_GRVIN | |
| DRAWING No. | SCALE 1:25,000 0 1 km — FIG. No. 3 |


377 500mE
380 000mE
382 500mE
385 000mE
5 390 000mN
5 387 500mN
5 385 000mN
5 382 500mN
5 380 000mN
5 377 500mN
E.L. 1/93
E.L. 2/90
E.L. 8/90
E.L. 44/88
Ross Creek
Animal Creek
Sawmill Creek
Lynch Creek
John
Higgins Ck
SOCK CREEK SHEAR ZONE
BOCO SHEAR ZONE
660
BURNS PEAK
CONE HILL
CONE HILL FAULT
Strongs Creek
River
Rivulet
Holloway
EMU
Boco
BAY Creek
RAILWAY
Tramway
MURCHISON HIGHWAY
HEC Transmission Lines
Pieman
MOUNT KERSHAW
Chester Rivulet
Marionoak
LAKE ROSEBERY
LAKE PIEMAN
LEGEND
Magnetic linears
Magnetic high (shallow source)
Magnetic high trend
Magnetic low
741062
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : M.S.S.
DATE : Nov., 1995
DRAWN : G.M.B.
REVISIONS :
FILE : 25_MAGIN
DRAWING No.
TCR 95-3803
E.L. 44/88 – BURNS PEAK
MAGNETIC INTERPRETATION
SCALE 1:25,000
km
FIG. No.
5




741063

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | E.L. 44/88 – BURNS PEAK |
| DATE : Nov., 1995 | **AREAS OF POTENTIAL BASED ON MAGNETIC LINEARS AND LOWS** |
| DRAWN : G.M.B. | |
| REVISIONS : | |
| FILE : 50_PBMLL | |
| DRAWING No. | SCALE 1:50,000 0 1 km |
| | FIG. No. 4 |

# APPENDIX 2

## Drill hole Proposals for Licence Year

741065

10/11/1994

BURNS PEAK EL 44/88

BROWN'S TUNNEL

DIAMOND DRILL PROPOSAL BPD82

| | | |
|---|---|---|
| COLLAR: | AMG 377220E 5384240N<br>RL 395m<br>090 Mag, -55 | EAF 5300N 4420E |

TOTAL DEPTH 750m

PROSPECT GEOLOGY

See 1993 and 1994 annual reports and drill proposals for EAF2 and BPD78, 79 and 81.

1. Extensions to drill hole EAF2 has shown that the interpreted depth limiting structure the Rosebery Fault Hanging Wall (RFHW) is located further to the west than expected and strikes NW rather than N-S see Fig.1. However in EAF2 a contact between Pinnacles Rhyolite and overlying White Spur Formation was intersected where the RFHW had been interpreted see Fig.2. This contact is probably erosional with no evidence of faulting and appears to dip east suggesting that the rhyolite is thinning.

2. Splays of the Rosebery Fault are interpreted on the proposed drill section Fig.2 but on the surface these occur within the WSF with little evidence of significant displacement. These structures may be confined to shale units within the WSF. The faults may present some problems ie
-drilling at a low angle to structures.
-displacement should be thrust with westerly transport, resulting in host rocks becoming deeper and east displaced at depth in relation to surface contacts and existing drill contacts see Fig.2.

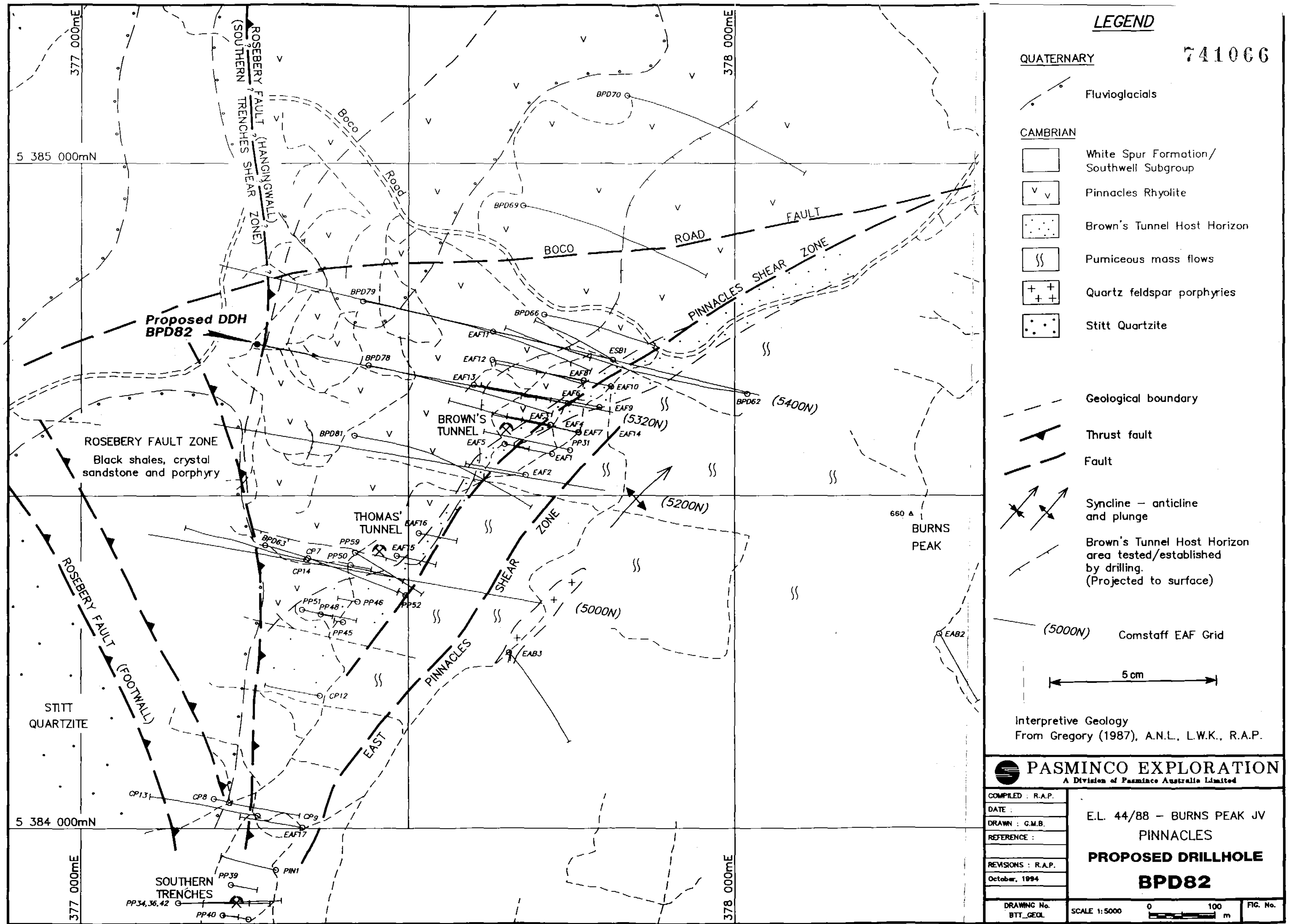
3. EAF grid section 5300N is the most mineralized drilled to date at Brown's - Thomas's Tunnels see Fig.2 and 4. The greatest accumulations of Zn and Cu are coincident, defining the centre of the hydrothermal system. It is considered that the best potential for ore grade intercepts will exist at depth on the section.

TARGET / HOLE OBJECTIVES

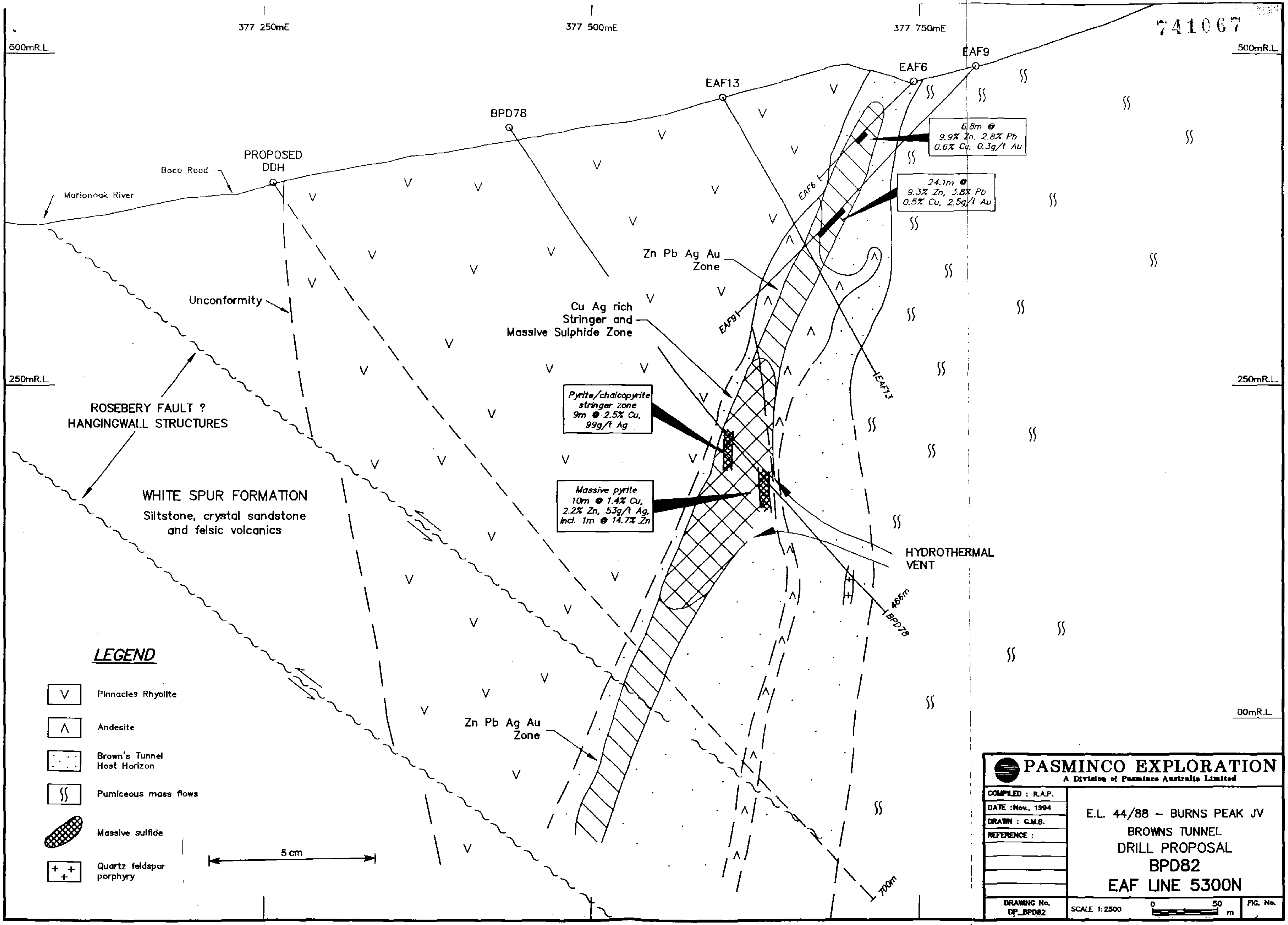
1. Down dip test of the most mineralized section at the prospect see Figs 2 and 4.
2. Establish whether the RFHW structures ar a depth limiting factor to mineralization.
3. Determine if there is significant drag/ structural thickening of the host sequence at depth above the RFHW.
4. Establish the nature and attitude of the Pinnacles Rhyolite / White Spur Formation contact.

FIGS

| | |
|---|---|
| 1. Location plan and interpretive geology | 1:5000 |
| 2. Interpretive drill section 5300N | 1:2500 |
| 3. " " " 5200N | 1:2500 |
| 4. Inclined long section with Cu Zn histograms | 1:2500 |



LEGEND
741066
QUATERNARY
Fluvioglacials
CAMBRIAN
White Spur Formation/ Southwell Subgroup
Pinnacles Rhyolite
Brown's Tunnel Host Horizon
Pumiceous mass flows
Quartz feldspar porphyries
Stitt Quartzite
Geological boundary
Thrust fault
Fault
Syncline – anticline and plunge
Brown's Tunnel Host Horizon area tested/established by drilling. (Projected to surface)
(5000N) Comstaff EAF Grid
5 cm
Interpretive Geology
From Gregory (1987), A.N.L., L.W.K., R.A.P.
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : R.A.P.
DATE :
DRAWN : G.M.B.
REFERENCE :
REVISIONS : R.A.P.
October, 1994
E.L. 44/88 – BURNS PEAK JV
PINNACLES
PROPOSED DRILLHOLE
BPD82
DRAWING No. BTT_GEOL
SCALE 1:5000
0 100 m
FIG. No.
377 000mE
378 000mE
5 385 000mN
5 384 000mN
ROSEBERY FAULT (HANGINGWALL)
(SOUTHERN TRENCHES SHEAR ZONE)
Boco Road
BOCO ROAD FAULT
PINNACLES SHEAR ZONE
EAST PINNACLES SHEAR ZONE
Proposed DDH BPD82
ROSEBERY FAULT ZONE
Black shales, crystal sandstone and porphyry
ROSEBERY FAULT (FOOTWALL)
STITT QUARTZITE
BROWN'S TUNNEL
THOMAS' TUNNEL
SOUTHERN TRENCHES
BURNS PEAK
660
(5400N)
(5320N)
(5200N)
(5000N)
BPD70
BPD69
BPD79
BPD66
BPD78
BPD62
BPD81
BPD63
EAF11
EAF12
EAF13
EAF8
ESB1
EAF10
EAF6
EAF9
EAF3
EAF4
EAF7
EAF14
EAF5
PP31
EAF1
EAF2
EAF16
EAF15
EAF17
EAB2
EAB3
PP59
PP50
CP7
CP14
PP51
PP48
PP46
PP52
PP45
CP12
CP13
CP8
CP9
PIN1
PP39
PP34,36,42
PP40



741067
377 250mE
377 500mE
377 750mE
500mR.L.
250mR.L.
00mR.L.
EAF9
EAF6
EAF13
BPD78
PROPOSED DDH
Boco Road
Marionoak River
6.8m @ 9.9% Zn, 2.8% Pb 0.6% Cu, 0.3g/t Au
24.1m @ 9.3% Zn, 3.8% Pb 0.5% Cu, 2.5g/t Au
Zn Pb Ag Au Zone
Cu Ag rich Stringer and Massive Sulphide Zone
Unconformity
Pyrite/chalcopyrite stringer zone 9m @ 2.5% Cu, 99g/t Ag
Massive pyrite 10m @ 1.4% Cu, 2.2% Zn, 53g/t Ag, incl. 1m @ 14.7% Zn
HYDROTHERMAL VENT
ROSEBERY FAULT ? HANGINGWALL STRUCTURES
WHITE SPUR FORMATION
Siltstone, crystal sandstone and felsic volcanics
466m
700m
Zn Pb Ag Au Zone
LEGEND
Pinnacles Rhyolite
Andesite
Brown's Tunnel Host Horizon
Pumiceous mass flows
Massive sulfide
Quartz feldspar porphyry
5 cm
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : R.A.P.
DATE : Nov., 1994
DRAWN : G.M.B.
REFERENCE :
DRAWING No. DP_BPD82
E.L. 44/88 – BURNS PEAK JV
BROWNS TUNNEL
DRILL PROPOSAL
BPD82
EAF LINE 5300N
SCALE 1:2500
0
50
m
FIG. No.

741068

**PASMINCO EXPLORATION**

**BURNS PEAK JV - EL44/88**

**DIAMOND DRILLHOLE PROPOSAL BPD85 - BROWN'S TUNNEL**

| | |
|---|---|
| LOCATION: | 5384508N<br>377335E |
| | 5100GN<br>4585GE |
| AZIMUTH: | $102^{o}$ (AMG) |
| DIP: | $50^{o}$ |
| APPROX. DEPTH: | 420m |

## 1 GEOLOGY

The geology of the Browns Tunnel area is reported in 1993, 1994 annual reports.

Recent drilling (BPD82) has demonstrated that the Browns Tunnel Host Sequence (BTHS) does not extend indefinately down dip, and is either truncated by the east dipping Rosebery Fault, or overturned and folded to the east by drag folding adjacent to this structure. BPD82 indicated that no major tonnage potential exists on or about EAF grid section 5300N.

Reinterpretation of EAF grid section 5000N has shown that the most prospective upper pumice-dominated section of the BTHS may not have been tested on this section due to the presence of overthrust Pinnacles Rhyolite. High grade massive sulphide intersected in BPD63 is interpreted to be hosted by this pumice-dominated sequence, and indicates the potential for massive sulphide in this zone.

Relogging of EAF15 and EAF16 shows that both intersected only the lower siltstone-mass flow dominated section of the BTHS. Significant mineralization (8m @ 3.2% Zn, 2.5% Pb and 4.6m @ 8.6% Zn, 0.8% Pb, 0.26 g/t Au respectively) in this stratigraphic position is an important secondary target.

## 2 TARGET

BPD85 is designed to test the complete BTHS, on EAF grid section 5100N. The upper section of the BTHS has not been drilled for 100m north and south along strike, and the hole will test the lower section of the BTHS approximately 200m down dip from EAF16.

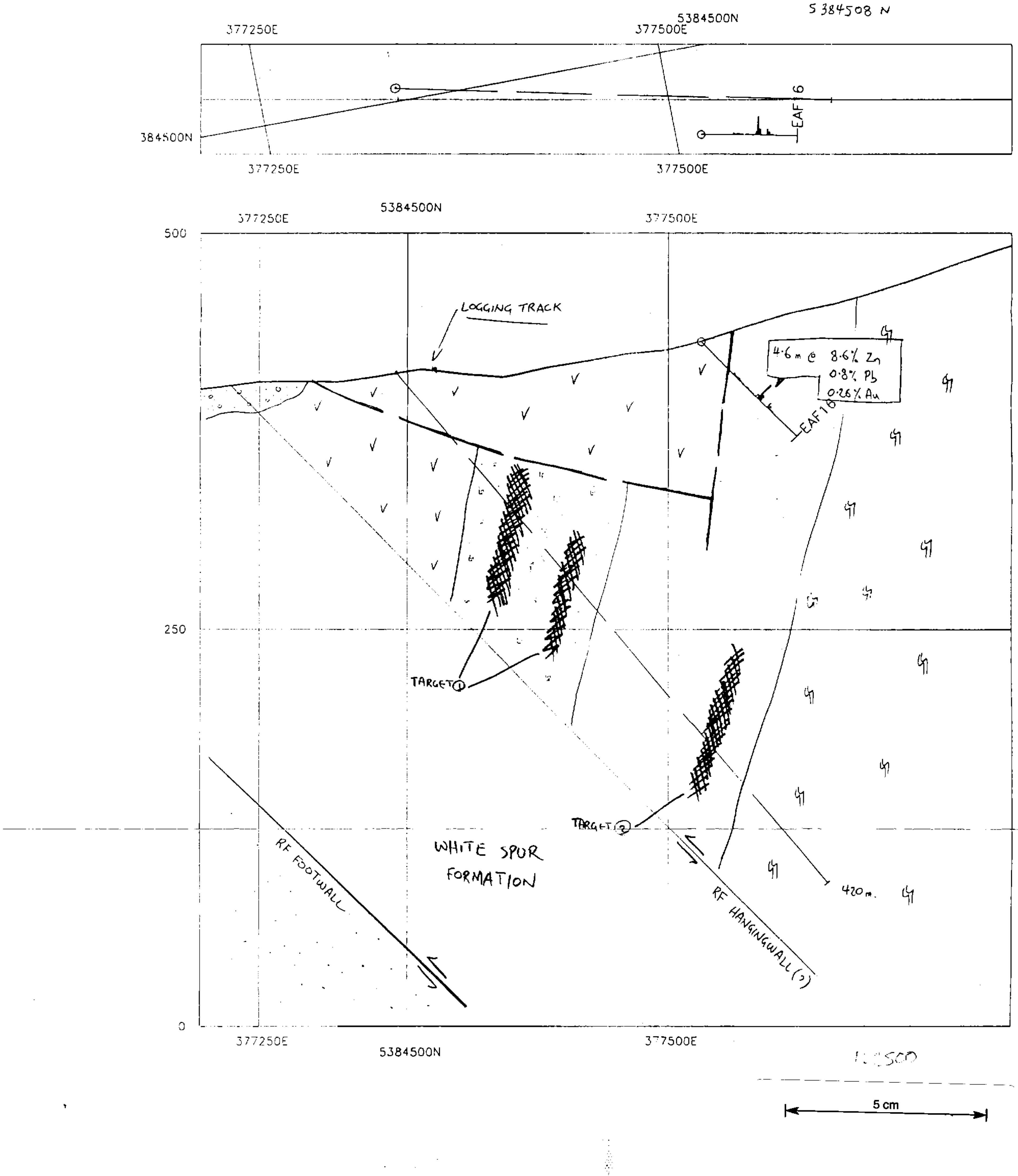
The hole will drill parallel to and approximately 40m above the Rosebery Fault, to test the presence of drag folding adjacent to this structure.

Intersection of the Pinnacles Rhyolite-BTHS contact at this northing should resolve long standing problems as to the geometry of the BTHS.

PROPOSED DDH 85

50° → 102° AMG

377335 E
5384508 N




741069

# DDH PROPOSAL - BPD86
# SOUTH KERSHAW

LOCATION: AMG 537 951°N
377 725 E

GRID 795 00N
377 750E

AZIMUTH: 119° AMG/107°

DIP 55°

APPROX DEPTH 150m

## GEOLOGY

The South Kershaw area is 1.5km to the southwest of the Chester pyrite mine. This area was highlighted by a 1993 IP survey, which located a discrete chargeable IP anomaly on three lines.

The zone to be targeted by BPD86 is dominated by strongly cleaved felsic lava and pumiceous volcanic. A major shear zone was located by the Burns Peak Review in Hole CP3 and BPD68, to the immediate west of the main Chester system. This Chester Shear Zone trends at 15° AMG, and projects towards the South Kershaw anomaly, which is elongate in this orientation. 10% pyrite has been mapped in sheared rock on surface coincident with the South Kershaw anomaly, plus galena and sphalerite.

mss:95033

# PASMINCO EXPLORATION
# BURNS PEAK JV

## DRILLING PROPOSAL - BPD87

| | |
|---|---|
| **LOCATION:** | 5383710N<br>379135E |
| | 2440GN - Comstaff EAB grid, BHP renumber<br>600GE |
| **AZIMUTH:** | 136° (AMG) |
| **DIP:** | 50° |
| **APPROX. DEPTH:** | 400m |

## 1 GEOLOGY

The Hollway Andesite is a strike extensive basaltic andesite with geochemical and stratigraphic affinity with the Que-Hellyer Volcanics. Stratigraphically below the andesite is a quartz-muscovite sandstone-siltstone known as the Animal Creek Greywacke, and pumiceous sandstone and felsic lava/lava breccia of the CVC.

Recent drilling (BPD84) in the East Hollway area located intensely silica-sericite-feldspar altered CVC lava breccia, with disseminated and vein pyrite, and minor sphalerite-galena-Au mineralisation.

Mapping along strike from BPD84 located silica-pyrite altered and hydrothermally brecciated Hollway Andesite with minor sphalerite, which will be tested by BPD87. The Animal Creek Greywacke was found within the Hollway Rivulet dipping south, opposite to the regional dip, suggesting some structural complication.

## 2 GEOPHYSICS

The East Hollway prospect is characterised by a discrete magnetic low, to date tested only by BPD84. Alteration within the CVC corresponds to very low magnetic susceptibility, and appears to account for the magnetic low. Numerous strike continuous magnetic and gravity linears trend through the East Hollway area.

A weak IP anomaly lies on a grid line100m to the south of the section to be drill tested, however appears to correspond to outcrop of the Animal Creek Greywacke.

## 3 GEOCHEMISTRY

Auger geochemistry is complete over the prospect area, and indicates a very weak Cu-Pb anomaly up sequence from the target position. Glacial cover is believed to extend across the target. It is important to note that elevated soil geochemistry associated with BPD84 corresponded to the surface projection of the Animal Creek Greywacke, not with the intersected mineralisation.

## 4 TARGET

BPD87 is designed to test the East Hollway Magnetic Low along strike from BPD84 in an area of known alteration and brecciation of the Hollway Andesite. The hole aims to intersect Au-base metal mineralisation of the style intersected in BPD84 within the Hollway Andesite, Animal Creek Greywacke or CVC.

# PASMINCO EXPLORATION

## BURNS PEAK EL 44/88
## JOINT VENTURE

## ANNUAL REPORT FOR THE PERIOD
## NOVEMBER 1994 - OCTOBER 1995

**Volume 2 of 2**



AUTHOR: MS Saxon

DATE: December 1995

REPORT No.: T95-19

SUBMITTED TO: Regional Exploration Manager - Tasmania

DISTRIBUTION: Tasmania Development & Resources Industry Safety & Mines Division - Hobart

Pasminco Exploration - Burnie
- Melbourne
- Rosebery

Plutonic Operations Limited - Sydney
Noranda Minerals Inc. - Toronto

SUBMITTED BY: Mark Saxon.

ACCEPTED BY:

BURNIE
December
1995

741074

# APPENDIX 3

## Drill hole Logs for Licence Year

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

Hole ID
CP7

## DRILLING

| | |
|---|---|
| Location | EL 44/88 BURNS PEAK |
| Project | BURNS PEAK |
| Prospect | THOMAS'S TUNNEL |
| Design By | R.Poltock |
| Logged By | R.Poltock |
| Relogged | |
| Commenced | 15/11/1994 |
| Completed | 22/11/1994 |
| Drilled By | East Coast Diamond Drilling |
| Drill Rig | Longyear 38 |

## OBJECTIVE

CP7 was extended to test the lower part of the Brown's Tunnel Host Sequence and the Pinnacles Shear zone beneath mineralization in Thomas's Tunnel.

## RESULT

The hole intersected sericitized mass flows and silicified and pyritic siltstone. Subeconomic zinc mineralization was intersected with minor copper and lead. The host / footwall contact was in the predicted position.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5384406.5 | Bearing | -45.0 |
| AMG mE | 377349.5 | Dip | 102.0 |
| mN | | Hole Length | 301.6 |
| mE | | DH Survey Type | Eastman Camera |
| RL | 402.9 | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 15 | 102 | -45.5 |
| 40 | 102 | -46 |
| 65 | 102 | -46 |
| 102 | 100 | -42 |
| 125 | 102 | -41 |
| 151 | 104 | -40 |
| 170 | 107 | -41 |
| 200.7 | 113 | -38 |
| 250 | 117.5 | -37 |
| 300 | 120.5 | -37 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 200.6 | 301.6 | NQ |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | HQ casing. |
| Steel Casing | |
| PVC Casing | 0-301.6m |
| Ground Water | |
| Wedge | |
| Drill Pad | |

## SIGNIFICANT INTERSECTIONS

| From | To | Int | Cu | Pb | Zn | Ag | Au | Comments |
|---|---|---|---|---|---|---|---|---|
| 210 | 240 | 30 | | 0.3 | 0.47 | 6.1 | | Altered felsic volcaniclastics with disseminated and veinlet sulphides. |

74075

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG

Vertical Scale 1 : 200

**HOLE No.** CP7

**PROJECT:** BURNS PEAK



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 65.00 | ACID LAVA Fine grained, Brecciated, Feldspar phyric, Quartz phyric, | | | |

GRAPHIC — Depth: 0, 10, 20

5 cm

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG

Vertical Scale 1 : 200

HOLE No. CP7

PROJECT: BURNS PEAK

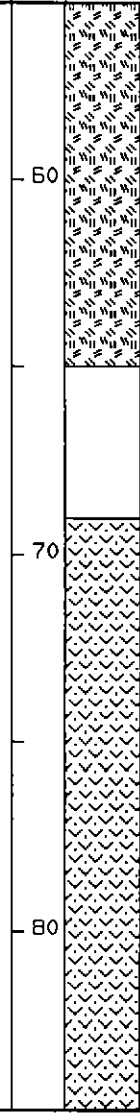


| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | | | | 30 | | | |
| | | | | | 40 | | | |
| | | | | | 50 | | | |

5 cm

741077

| DESCRIPTION | | | | | GRAPHIC | |
|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Structures | STRUCTURES |
| | | | | | | |
| 65.00 | 69.00 | FAULT ZONE (PUG) Fault zone within sericitized/kaolinized/slightly pyritic siltstone. | | | | |
| 69.00 | 93.00 | PUMICEOUS MASS FLOW Feldspar phyric pumice breccias with siltstone lithics. Variable sericite/chlorite/carbonate altered. | | | | |




5 cm

| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | | | | 90 | | | |
| 93.00 | 99.40 | SANDSTONE Siltstone/vitric siltstone/sandstone sequence. Sericite pyrite altered. | | | | | | |
| [illegible] | [illegible] | FAULT ZONE (PUG) | | | | | | |
| [illegible] | [illegible] | ACID LAVA Peperitic, Pinnacles rhyolite peperite. | | | 100 | | | |
| [illegible] | [illegible] | SANDSTONE Brown-pink crystal-lithic sandstone, common grey silty interbeds; minor brecciation; common felsic clasts; | | | | | | |
| | | | | | 110 | | | |

5 cm

741079

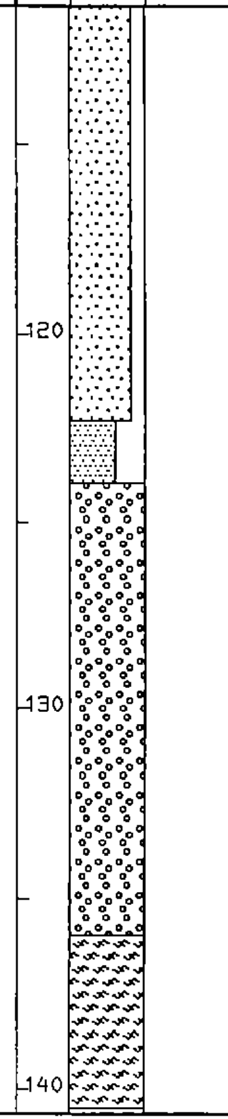
PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG
Vertical Scale 1 : 200

HOLE No. CP7

**PROJECT:** BURNS PEAK



| DESCRIPTION | | | | | GRAPHIC | STRUCTURES |
|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Structures | STRUCTURES |
| 122.30 | 124.00 | SILTSTONE | | | | |
| 124.00 | 136.00 | CONGLOMERATE Lithic conglomerate grading to crystal-lithic sandstone; clasts of vitric sediment and felsic lava; | | | | |
| 136.00 | 140.50 | RHYOLITE Peperitic, | | | | |




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL CORE LOG**

**HOLE No.** CP7

**PROJECT:** BURNS PEAK

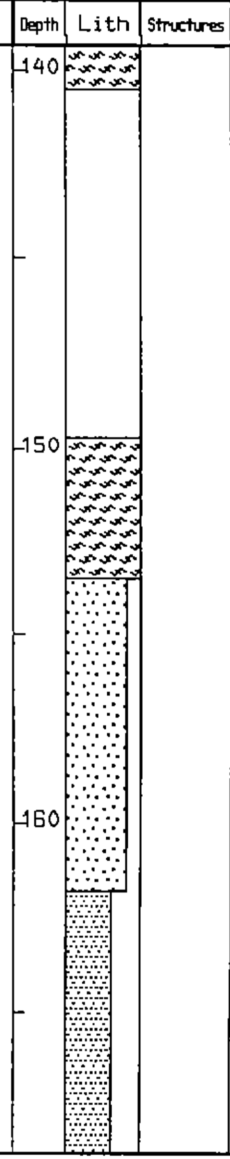
Vertical Scale 1 : 200



**DESCRIPTION**

| From | To | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 140.50 | 149.70 | MASS FLOW Up hole younging mass debris flow unit. | | |
| 149.70 | 153.50 | RHYOLITE Peperitic, Feldspar quartz phyric lava. | | |
| 153.50 | 161.80 | SANDSTONE Crystal-lithic sandstone, minor breccia; | | |
| 161.80 | 197.00 | SILTSTONE Bedded grey siltstone with interbedded crystal sandstone; commonly cherty; | | |

**GRAPHIC**




STRUCTURES

5 cm

741081

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG

Vertical Scale 1 : 200

HOLE No. CP7

PROJECT: BURNS PEAK



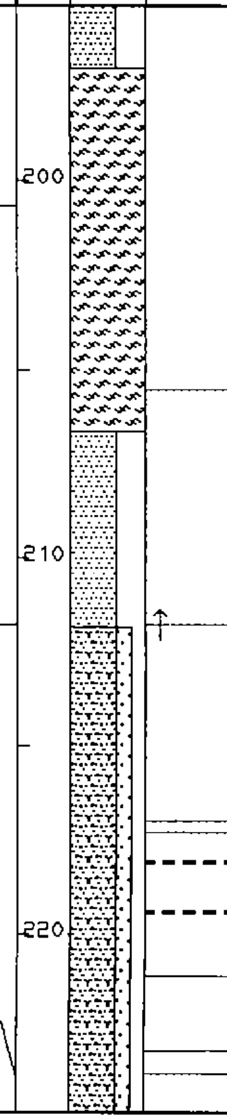
| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | | | | 170 | | | |
| | | | | | 180 | | | |
| | | | | | 190 | | | |

741082

5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 197.00 | 206.60 | RHYOLITE Peperitic, | Moderately Silicified, Slightly Sericitised, Mixed siltstone felsic mass flow, siltstone silicified and mass flows sericitized. | DISSEMINATED, 0.5% pyrite disseminated, trace sphalerite in veinlets, trace carbonate in veinlets, Scattered carbonate sphalerite veinlets.. | PRIMARY FABRIC, A 20, Folded, Black laminated siltstone, soft sediment deformation, LCAs vary from 20 - 80. |
| 206.60 | 211.85 | MASS FLOW MIXED WITH SILTSTONE MIXED WITH SANDSTONE Cream, Fine grained, Brecciated, Crystal, Lithic, Brecciated (soft sediment) fine grained pumiceous mass flow with a matrix of grey silicified siltstone and sericitized quartz crystal sandstone. Pumiceous mass flow occurs as angular fragments <3cm, frequently with a jig-saw fit. CONTACT: Unassigned, Erosional contact, a marked unconformity caused by soft sediment deformation.<br>INTERBEDDED WITH SILTSTONE Black, Grey, Fine grained, Laminated, Massive, Unaltered siltstone black to silicified siltstone pale grey. | | | PRIMARY FABRIC, A 45, Facing uphole, Black laminated siltstone with LCA30, overlain by felsic mass debris flow with LCA45. Contact is an erosional surface. |
| 211.85 | 225.10 | SILTSTONE Black, Fine grained, Laminated, Calcarious, Layering frequently contorted, as a result of soft sediment deformation. CONTACT: Faulted,<br>INTERBEDDED WITH SANDSTONE Grey, Fine grained, Medium grained, Bedded, Calcarious, Some sandstone with abundant <1mm carbonate fragments, may be primary or an alteration effect. At 215.2m disrupted bedding occurs, possibly caused by dewatering. Sandstone beds are <12cm thick.<br>WITH MINOR SANDSTONE Grey, Coarse grained, Matrix supported, Angular fragments of felsic volcanics and pyrite in siltstone matrix.<br>MASS FLOW Grey, Green, Medium grained, Cleaved, Massive, Crystal, Lithic, Intensely sericite pyrite altered mass flow. Matrix with abundant quartz grains <1mm. Lithics include felsic volcanics and sericitized pumice. CONTACT: Faulted, at 45 degrees to Probably a minor | Slightly Carbonatised. Grey siltstone and interbedded fine grained sandstone, both are calcareous. This carbonate may be primary or due to alteration. | DISSEMINATED, trace pyrite disseminated, 0.5% sphalerite in veinlets, carbonate in veinlets, Scattered carbonate sphalerite veinlets. Pyrite disseminated and thin bands on bedding..<br>DISSEMINATED, trace pyrite disseminated, 1% galena in veinlets, 0.5% sphalerite in veinlets, Pyrite disseminated and in semi-massive bands | PRIMARY FABRIC, D 30,<br>PRIMARY FABRIC, D 45,<br>FAULT, A 45, Annealed, Healed with carbonate sphalerite veining.<br>FAULT, A 30, Annealed, Healed with carbonate sphalerite veining.<br>PRIMARY FABRIC, A 5,<br>PRIMARY FABRIC, A 10,<br>PRIMARY FABRIC, A 35, |

GRAPHIC (Depth, Lith, Structures)




5 cm

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG

HOLE No. CP7

PROJECT: BURNS PEAK

Vertical Scale 1 : 200



## DESCRIPTION

| From | To | LITHOLOGY |
|---|---|---|
| | | include felsic volcanics and sericitized pumice. CONTACT: Faulted, at 45 degrees to Probably a minor structure, slip on contact. |
| 225.10 | 226.65 | SILTSTONE Grey, Fine grained, Brecciated, Bedded, Stylolites, Pale grey silicified siltstone, frequently with breccia texture which has been enhanced by sericite/pyrite stylolites?, some sericite may be altered pumice fragments. Siltstone bedded to laminated, layering ghosted by silicification. CONTACT: Conformable abrupt, at 70 degrees to |
| 226.65 | 230.70 | WITH MINOR SANDSTONE Grey, Fine grained, Bedded, |
| | | WITH MINOR MINERALISATION ZONE Pyrite as irregular lenses and masses between 229.20-230.70m. |
| 230.70 | 233.10 | MASS FLOW Grey, Green, Medium grained, Cleaved, Lithic, Sericite pyrite altered matrix supported mass flow. Lithics include silicified and sericitized felsic volcanics. CONTACT: Conformable abrupt, at 70 degrees to |
| 233.10 | 241.20 | SILTSTONE Grey, Fine grained, Bedded, Cream-grey-dark grey siltstone, massive to laminated, mostly silicified with pyrite lenses between 233.1-234.65m CONTACT: Gradational, at 45 degrees to Gradational contact, the top of an up-hole facing mass flow unit. |
| | | WITH MINOR SANDSTONE Grey, Fine grained, Bedded, Pyritic and silicified. |
| 241.20 | 250.15 | MASS FLOW Cream, Fine grained, Bedded, Sandstone between 241.20-246.50m, top of a mass debris flow unit, upper part of sandstone is bedded and the lower part massive. CONTACT: Gradational, |
| | | GRADING TO MASS FLOW Cream, Medium grained, Bedded, Lithic, Sandstone between 246.50-249.65m. Mass flow sandstone, lithic, matrix supported with minor sandstone lenses (flame/load structures at base). Lithics <4cm and include silicified siltstone/sandstone, sericitized pumice and pyrite (pyrite may be cavity fill?). CONTACT: Gradational, |
| | | GRADING TO PUMICEOUS MASS FLOW Cream, Medium grained, Cleaved, Feldspar phyric, Pumice breccia between 249.65-250.15m. Feldspar phenocrysts pink carbonate altered. CONTACT: Gradational, |
| 250.15 | 269.30 | SANDSTONE Grey, Fine grained, Massive, 250.10-256.10m sandstone top of a mass debris flow unit. Quartzose, |

## ALTERATION

- Highly Sericitised, Felsic mass flow/ pumice breccia. Adjacent siltstone silicified.
- Intensely Silicified, Silicified siltstone.
- Highly Sericitised, Pumice breccia.
- Moderately Silicified, Siltstone.
- Slightly Sericitised, Slightly Carbonatised, Carbonatization of feldspar phenocrysts.
- Slightly Sericitised,

## MINERALISATION

- in veinlets, Pyrite disseminated and in semi-massive bands..
- DISSEMINATED, 2% pyrite disseminated, trace sphalerite in veinlets,
- STRINGER, 1% pyrite as stringers, trace galena in veinlets, sphalerite in veinlets,
- STRINGER, 5% pyrite as stringers, trace chalcopyrite as stringers, Pyrite in fine grained irregular stringers and semi-massive masses. Chalcopyrite stringers between 229.80-229.90m..
- DISSEMINATED, 2% pyrite disseminated, 0.5% sphalerite in veinlets,
- DISSEMINATED, 1% pyrite disseminated, 0.5% sphalerite in veinlets, trace chalcopyrite in veinlets, Pyrite disseminated and semi-massive lenses..
- DISSEMINATED, 1% pyrite disseminated, Pyrite disseminated and as fine grained clasts/alteration patches..

## GRAPHIC

Depth | Lith | Structures

230

240

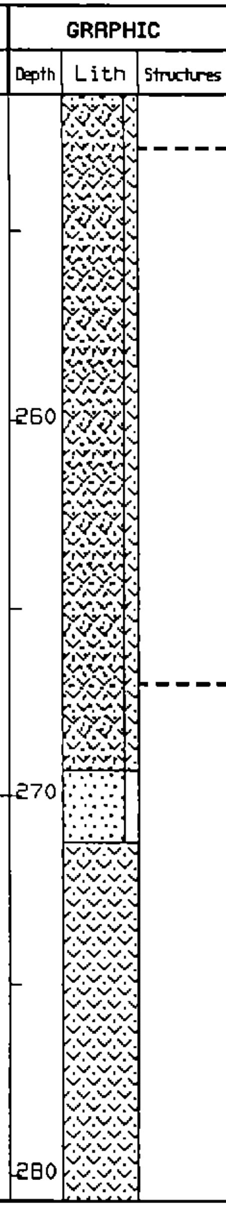
250

## STRUCTURES

- PRIMARY FABRIC, A 10,
- PRIMARY FABRIC, A 35,
- PRIMARY FABRIC, A 80,
- FIRST CLEAVAGE, A 60, Spaced,
- PRIMARY FABRIC, A 70,
- FAULT, A 45, Brittle, Crush zone, margins 45LCA,
- PRIMARY FABRIC, A 60,
- PRIMARY FABRIC, A 80,
- FAULT, D 45, Annealed,

5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| | | SANDSTONE Grey, Fine grained, Massive, 250.10-256.10m sandstone top of a mass debris flow unit. Quartzose, flecked with dark grey lithics or sulphide plus spots of pyrite (possibly replacing feldspar crystals?). Includes minor medium grained, dark grey pumiceous sandstone lenses. CONTACT: Faulted, at 20 degrees to Contact at 269.30m faulted. | | | FAULT, D 45, Annealed, Healed with carbonate veining. |
| | | GRADING TO SANDSTONE Cream, Coarse grained, Massive, Lithic, 256.10-264.20m lithic sandstone, clasts include silicified/pyritic sandstone (<3cm) and abundant fine sericitized pumice fragments. CONTACT: Gradational, | | | |
| | | GRADING TO PUMICEOUS MASS FLOW Cream, Medium grained, Bedded, Feldspar phyric, 264.20-269.30m pumice breccia, feldspar crystals carbonatized. CONTACT: Gradational, | | | FAULT, A 10, |
| 269.30 | 271.25 | SANDSTONE Grey, Green, Medium grained, Massive, Pumiceous, Mass flow sandstone, possibly the top of underlying pumice breccia. Sandstone flecked with fine black siltstone fragments. CONTACT: Faulted, at 60 degrees to Possibly faulted, contact marked by vein. | | DISSEMINATED, 0.5% pyrite disseminated. Some pyrite as clasts.. | |
| 271.25 | 301.60 | PUMICEOUS MASS FLOW Cream, Medium grained, Massive, Feldspar phyric, Unit texturally variable, top (271.25-274.80) weakly banded, 274.8-276.0m lithic bearing and below 291.2m fine grained equigranular. Feldspar crystals carbonatized. Lithics include fine grained sericitized and pyritic siltstone? up to 12cm in diameter. | Slightly Sericitised, Slightly Carbonatised, Carbonatization of lithics? and feldspar phenocrysts. | | |




5 cm

741085

HOLE No. CP7

PROJECT: BURNS PEAK

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | | | | 280 | | | |
| | | | | | 290 | | | FAULT. Brittle. Crush zone. broken core. LCA0-10 approximately. |
| | | | Slightly Sericitised. Moderately Carbonatised. Carbonatization pervasive. most intense in feldspar phenocrysts. | | | | | |
| | | | | | 300 | | | |

5 cm

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

**Hole ID**
**EAF2**

## DRILLING

| | |
|---|---|
| Location | EL 44/88 BURNS PEAK |
| Project | BURNS PEAK |
| Prospect | BROWN'S TUNNEL |
| Design By | R.POLTOCK |
| Logged By | R.POLTOCK |
| Relogged | |
| Commenced | 10/10/1994 |
| Completed | 11/11/1994 |
| Drilled By | East Coast Diamond Drilling |
| Drill Rig | Longyear 38 |

## OBJECTIVE

EAF2 was extended to test the upper pumice-rich unit of the Brown's Tunnel Host Sequence, the interpreted syncline in the host sequence and the position of the Rosebery Fault.

## RESULT

The hole intersected sericite carbonate altered BTHS with subeconomic zinc mineralization. The syncline interpretation was proven incorrect, and the Rosebery Fault hanging wall structure was not intersected. The hole was terminated in a felsic volcanic derived sequence which lies above and east of the Rosebery Fault.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5384531.7 | Bearing | 281.0 |
| AMG mE | 377679.8 | Dip | -45.0 |
| mN | | Hole Length | 499.5 |
| mE | | DH Survey Type | EASTMAN CAMERA |
| RL | 465.5 | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 0.0 | -45.00 | 281.00 |
| 65.0 | -45.00 | 280.50 |
| 132.5 | -46.00 | 279.50 |
| 150.0 | -44.50 | 283.50 |
| 200.0 | -43.50 | 285.50 |
| 250.0 | -41.00 | 286.50 |
| 300.0 | -40.00 | 289.50 |
| 350.0 | -39.50 | 288.50 |
| 450.0 | -36.50 | 290.50 |
| 499.0 | -36.00 | 291.00 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 132.0 | 499.5 | NQ |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | |
| Steel Casing | 3m collar pipe in hole |
| PVC Casing | 48mm PVC to EOH |
| Ground Water | |
| Wedge | |
| Drill Pad | |

## SIGNIFICANT INTERSECTIONS

| From | To | Int | Cu | Pb | Zn | Ag | Au | Comments |
|---|---|---|---|---|---|---|---|---|
| 137 | 138 | 1 | .16 | .14 | .91 | 21 | | Lenses and veinlets of sphalerite and chalcopyrite in chloritized conglomerate. |
| 138 | 154 | 16 | .01 | .04 | .05 | 6.6 | .05 | Stringers and lenses of pyrite in intensely silicified siltstone and sandstone. |

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 0.00 | 6.00 | ACID VOLCANICLASTIC. No core recovered. | | | | Va | | |
| 6.00 | 9.00 | SANDSTONE CONTAINING CLASTS OF. Mass flow sandstone derived from felsic volcanics and siltstone. | | | | | | |
| 9.00 | 12.00 | FAULT ZONE (PUG). Fault zone with siltstone and limonite fragments. | | | 10 | fz | | |
| 12.00 | 20.60 | SANDSTONE, medium grained, massive. Volcaniclastic sandstone with abundant quartz grains, not unlike the Pinnacles Rhyolite. | | | 20 | | | |
| 20.60 | 23.60 | FAULT ZONE (PUG). Fault zone in pumiceous sandstone and siltstone. | | | | fz | | |
| 23.60 | 34.50 | DACITE grey green, fine grained, brecciated massive, feldspar phyric. Lava breccia, chloritic patches after glass? | | | | | | |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|
| 23.60 | 34.50 | DACITE grey green, fine grained, brecciated massive, feldspar phyric. Lava breccia, chloritic patches after glass? | | | | | |
| 34.50 | 35.50 | FAULT ZONE (PUG). Sheared siltstone and sandstone. | | | fz | | |
| 35.50 | 45.50 | DACITE. Lava, texturally variable, includes massive/brecciated/chlorite (glass). | | | | | |
| 45.50 | 65.00 | MASS FLOW. Volcaniclastic lithic sandstone with siltstone lenses and ripup clasts. | | | mf | | |

Depth: 30, 40, 50

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. **EAF2**

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 45.50 | 65.00 | MASS FLOW. Volcaniclastic lithic sandstone with siltstone lenses and ripup clasts. | | | 60 | mf | | |
| 65.00 | 85.80 | DACITE, fine grained, peperitic, feldspar phyric. Cherty and slightly pyritic peperite. | | | 70<br>80 | | | |

5 cm

090147

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT: Vertical Scale 1 : 200 Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 65.00 | 85.80 | DACITE, fine grained, peperitic, feldspar phyric. Cherty and slightly pyritic peperite. | | | | | | |
| 85.80 | 89.30 | SILTSTONE CHERT, massive. Chert or silicified siltstone. | | | | | | |
| 89.30 | 90.50 | DACITE, peperitic. Chert peperite. | | | 90 | | | |
| 90.50 | 92.40 | MASS FLOW | | | | mf | | |
| 92.40 | 101.00 | DACITE, peperitic | | | 100 | | | |
| 101.00 | 107.20 | DACITE, aphyric. Aphyric to slightly feldspar phyric. | | | | | | |
| 107.20 | 113.00 | SILTSTONE grey, massive | | | 110 | | | |

5 cm

160147

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

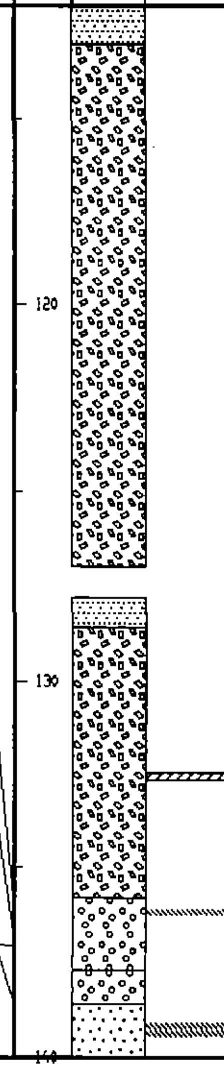
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 107.20 | 113.00 | SILTSTONE grey, massive | | | |
| 113.00 | 127.00 | DACITE, peperitic. Siliceous siltstone peperite. | | | |
| | | | | | |
| 127.80 | 128.60 | SILTSTONE grey, bedded | | | |
| 128.60 | 135.80 | DACITE cream green, fine grained, massive flow banded, feldspar phyric. Feldspars occasionaly as glomerocrysts. Texturally variable includes massive/flow banded/brecciated/perlitic (132.1m). No conclusive textural evidence for unit being a lava. | slightly sericitised, slightly silicified. Alteration patchy and associated with disseminated pyrite. | DISSEMINATED pyrite sphalerite disseminated. Sphalerite also occurs in carbonate chlorite veinlets. | VEIN A45 carbonate carbonate chlorite |
| 135.80 | 137.70 | CONGLOMERATE cream grey, medium grained coarse grained, poorly sorted, polymict. Clasts wragged to subrounded upto 5cm. Clasts include chert/silicified siltstone, sandstone, pumice and felsic lava.. CONTACT: conformable abrupt | highly chloritised. Associated with pyrite. | DISSEMINATED sphalerite chalcopyrite as stringers. Lens of massive chlorite, pyrite and sphalerite with chalcopyrite veinlets. Sphalerite cut by carbonate veinlets. | FIRST CLEAVAGE A30 spaced |
| 137.70 | 138.60 | CONGLOMERATE pale grey, medium grained coarse grained, matrix supported. Clasts predominantly of pale grey silicified siltstone/chert. Matrix sericitized and pyritic.. CONTACT: faulted | slightly sericitised | | FIRST CLEAVAGE A45 |
| 138.60 | 145.90 | SANDSTONE cream, fine grained medium grained, massive. Possibly a sandstone derived from felsic volcanics, however alteration intensity makes it difficult to determine the protolith. Abundant fine quartz grains in a sericitized groundmass.. CONTACT: faulted | highly sericitised, slightly chloritised. Associated with pyrite. | DISSEMINATED pyrite pyrite as stringers. Semi massive pyrite lens between 139.30 - 139.60m. 1cm quartz, sphalerite, pyrite, galena and chalcopyrite vein. | FIRST CLEAVAGE A40 spaced |

GRAPHIC (Depth / Lith / Struct)




5 cm

290147

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200

Page of 1

## DESCRIPTION

| FROM | TO | LITHOLOGY |
| --- | --- | --- |
| 138.60 | 145.90 | SANDSTONE cream, fine grained medium grained, massive. Possibly a sandstone derived from felsic volcanics, however alteration intensity makes it difficult to determine the protolith. Abundant fine quartz grains in a sericitized groundmass.. CONTACT: faulted |
| 145.90 | 150.90 | CHERT pale grey, fine grained, massive. May be chert or silicified siltstone. Some soft sediment deformation.. CONTACT: conformable mixed<br>WITH MINOR PUMICEOUS MASS FLOW |
| 150.90 | 155.60 | CHERT cream grey, massive brecciated. May be chert or silicified siltstone. |
| 155.60 | 162.35 | CHERT grey. CONTACT: faulted<br>MIXED WITH SILTSTONE cream, medium grained, bedded. Silicified siltstone with weak irregular banding which could be bedding.<br>WITH MINOR PUMICEOUS MASS FLOW yellow. Sericitized. |
| 162.35 | 166.10 | PUMICEOUS MASS FLOW cream green, medium grained, massive bedded. Massive to weakly banded.. CONTACT: conformable abrupt |
| 166.10 | 170.80 | SANDSTONE. CONTACT: faulted<br>MIXED WITH SILTSTONE<br>MIXED WITH PUMICEOUS MASS FLOW<br>WITH MINOR SILTSTONE yellow. Sericitized siltstone. |

### ALTERATION

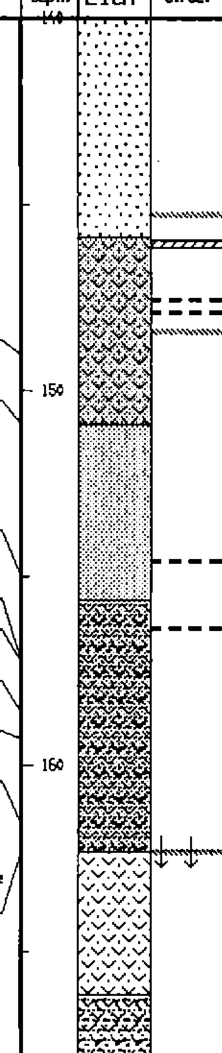
- highly sericitised, slightly chloritised. Associated with pyrite.
- highly silicified. highly sericitised. Associated with disseminated and stringer veins of pyrite.
- moderately sericitised, slightly silicified. Disseminated pyrite.
- highly silicified
- highly silicified, moderately sericitised. Carbonate veining.
- highly sericitised, moderately silicified
- highly sericitised. highly silicified. Interlayered silica sericite alteration reflecting protolith?

### MINERALISATION

- DISSEMINATED pyrite pyrite as stringers. Semi massive pyrite lens between 139.30 - 139.60m. 1cm quartz, sphalerite, pyrite, galena and chalcopyrite vein.
- STRINGER 5% pyrite as stringers trace chalcopyrite disseminated
- DISSEMINATED pyrite 1% pyrite as stringers. Pyrite 1% over interval. Sphalerite black occuring as threadlike veinlets, disseminations and blebs.
- DISSEMINATED 1% pyrite trace sphalerite disseminated
- MASSIVE 30% sphalerite
- DISSEMINATED 0.5% pyrite minor sphalerite disseminated
- DISSEMINATED sphalerite 5% sphalerite as stringers
- DISSEMINATED pyrite 1% pyrite in veinlets
- DISSEMINATED sphalerite 5% sphalerite as stringers. Both black and straw coloured sphalerite. Massive fine grained sphalerite/galena/pyrite/chalcopyrite lens between 162.20-162.30m.
- DISSEMINATED 2% sphalerite 0.5% galena disseminated. Disseminated, blebby (replacing pumice fragments?) and veinlets of sphalerite. At 165.45m there is a 3cm lense of sphalerite/galena.

### GRAPHIC

Depth | Lith | Struct




### STRUCTURES

- FIRST CLEAVAGE A40
- BEDDING A80
- VEIN A20 carbonate sphalerite
- FAULT A80 pug
- FAULT A80 pug
- FIRST CLEAVAGE A60
- FAULT A20 shear
- FAULT A10 shear
- BEDDING facing downhole younging downhole
- FIRST CLEAVAGE A50 spaced

5 cm

17093

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

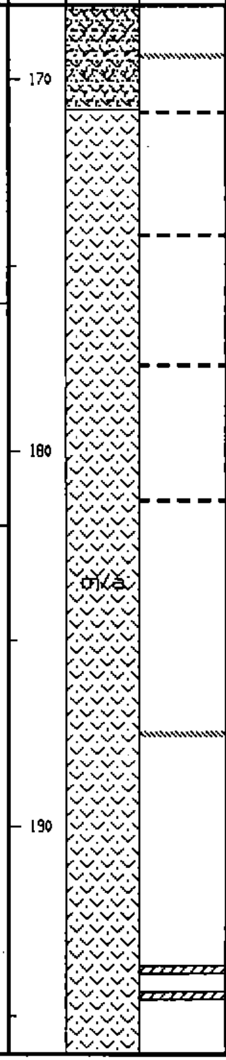
Vertical Scale 1 : 200

Page of 1

## DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 166.10 | 170.80 | SANDSTONE. CONTACT: faulted<br>MIXED WITH SILTSTONE<br>MIXED WITH PUMICEOUS MASS FLOW<br>WITH MINOR SILTSTONE yellow. Sericitized siltstone. | highly sericitised, highly silicified. Interlayered silica sericite alteration reflecting protolith? | DISSEMINATED 2% sphalerite 0.5% galena disseminated. Disseminated, blebby (replacing pumice fragments?) and veinlets of sphalerite. At 165.45m there is a 3cm lense of sphalerite/galena. |
| 170.80 | 236.60 | PUMICEOUS MASS FLOW cream grey, medium grained, massive bedded, lithic. Scattered fine grained siliceous "clasts" or silicified patches?. CONTACT: faulted<br>CONTAINING CLASTS OF MINERALISATION/ALTERATION. Cream to green clasts? of carbonate chlorite, mainly between 199.60-204.40m, 210.00-236.60m, some fragments are well banded at 234.30m. Single massive fine grained pyrite sericite fragment at 203.50m. Carbonate fragments may have been derived from a massive carbonate chlorite lens as in BPD81 between 202.60-206.10m or may represent insitu carbonatization. | moderately sericitised, moderately carbonatised. Carbonatization as diffuse patches and is associated with sphalerite.<br><br>moderately sericitised, moderately chloritised, moderately carbonatised | DISSEMINATED trace sphalerite. Disseminated and blebby sphalerite. |

## GRAPHIC




## STRUCTURES

- FIRST CLEAVAGE A45 spaced
- FAULT A40 shear
- FAULT A5 shear
- FAULT A5 shear
- FAULT A40 pug
- FIRST CLEAVAGE A45 spaced
- VEIN A15 carbonate
- VEIN A35 carbonate

741094

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

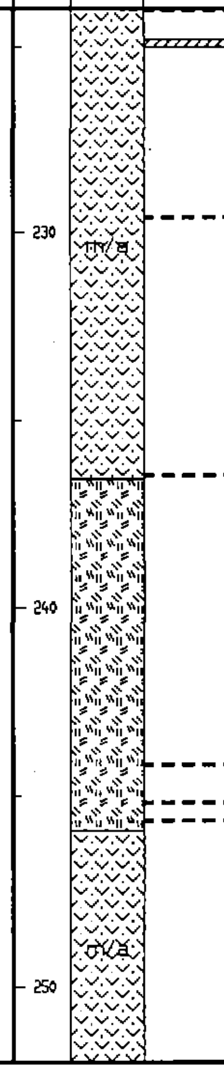
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 170.80 | 236.60 | PUMICEOUS MASS FLOW cream grey, medium grained, massive bedded, lithic. Scattered fine grained siliceous "clasts" or silicified patches?. CONTACT: faulted<br><br>CONTAINING CLASTS OF MINERALISATION/ALTERATION. Cream to green clasts? of carbonate chlorite, mainly between 199.60-204.40m, 210.00-236.60m, some fragments are well banded at 234.30m. Single massive fine grained pyrite sericite fragment at 203.50m. Carbonate fragments may have been derived from a massive carbonate chlorite lens as in BPD81 between 202.60-206.10m or may represent insitu carbonatization. | moderately sericitised, moderately carbonatised. Intense carbonatization patches or massive carbonate fragments?<br><br>moderately chloritised, moderately carbonatised, slightly sericitised | | FAULT A40 brittle quartz carbonate<br>VEIN A20 carbonate<br>FAULT A55<br>FAULT A60 |
| 236.60 | 245.90 | ACID LAVA cream green, fine grained, massive, feldspar phyric quartz phyric. Devitrification texture between 236.60-237.10m.. CONTACT: faulted | slightly sericitised, moderately carbonatised. Feldspar phenocrysts carbonatized. | | FAULT A35 brittle<br>FAULT A20<br>FAULT A50 |
| 245.90 | 265.25 | PUMICEOUS MASS FLOW grey cream, medium grained, massive bedded, feldspar phyric. Massive to weakly banded. Clasts of fine grained massive carbonate.. CONTACT: faulted<br><br>CONTAINING CLASTS OF MINERALISATION/ALTERATION cream pink | moderately carbonatised, slightly sericitised<br><br>slightly carbonatised, slightly chloritised, slightly sericitised | | |

GRAPHIC




5 cm

741095

**PASMINCO EXPLORATION**

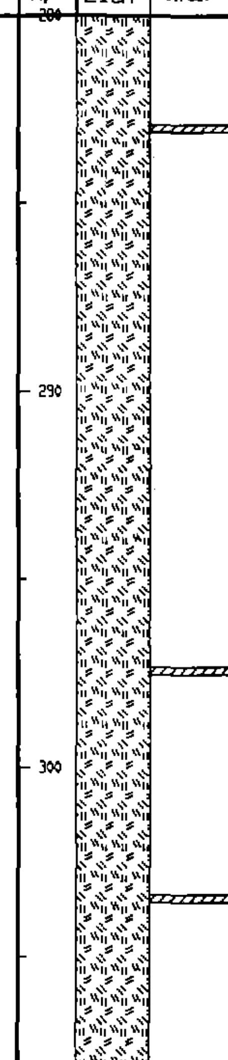
**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | STRUCTURES |
| 265.25 | 310.40 | ACID LAVA cream pink, fine grained, massive, feldspar phyric quartz phyric. Phenocrysts <2mm in diameter.. CONTACT: conformable abrupt | slightly sericitised. slightly carbonatised. Feldspar phenocrysts carbonatized.<br>slightly sericitised. Feldspar phenocrysts sericitized. | |  | VEIN carbonate quartz chalcopyrite<br>VEIN quartz carbonate<br>VEIN carbonate quartz |

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200

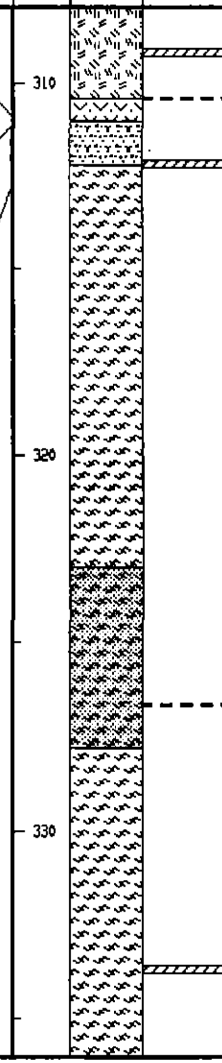


## DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 265.25 | 310.40 | ACID LAVA cream pink, fine grained, massive, feldspar phyric quartz phyric. Phenocrysts <2mm in diameter.. CONTACT: conformable abrupt | slightly sericitised. Feldspar phenocrysts sericitized. | |
| 310.40 | 311.00 | PUMICEOUS MASS FLOW grey cream, fine grained, bedded. Chert or silicified siltstone.. CONTACT: faulted | slightly sericitised | BANDED pyrite. Disrupted thin lenses of fine grained pyrite. |
| 311.00 | 312.20 | SILTSTONE grey, fine grained. Scattered fine grained pyrite fragments or disrupted lenses in siltstone. INTERBEDDED WITH SANDSTONE cream, fine grained, bedded, crystal lithic. CONTACT: faulted | | VEIN quartz in veins carbonate in veins. Quartz carbonate sphalerite galena chalcopyrite veins, maximum 3cm thick. |
| 312.20 | 323.05 | RHYOLITE cream, fine grained, massive brecciated, feldspar phyric quartz phyric. Sparsely quartz feldspar phyric. Breccia between 315.00-323.05m may be a hyaloclastite.. CONTACT: conformable abrupt | slightly chloritised; moderately silicified. Associated with veining. | |
| 323.05 | 327.80 | RHYOLITE cream pink, medium grained, massive brecciated, quartz phyric feldspar phyric. Possibly a hyaloclastite in part, giving the unit an epiclastic appearance but one possibly exotic clast at 323.10m.. CONTACT: conformable abrupt. MIXED WITH CHERT, peperitic. Siliceous siltstone/cherty peperite occurs between 327.40-327.80m. | slightly silicified, slightly albitised. Pink silica/albite or kfeldspar and minor pyrite, alteration as a haloe around a 1cm wide quartz calcite vein. | |
| 327.80 | 337.95 | RHYOLITE cream, fine grained, massive brecciated, feldspar phyric quartz phyric. CONTACT: conformable abrupt | slightly silicified, moderately albitised. Pink silica/albite or kfeldspar with minor pyrite, alteration as a haloe around a 3cm wide quartz calcite vein. slightly silicified, moderately albitised. Pink silica/albite or kfeldspar with minor pyrite, alteration as a haloe around a 3cm wide quartz calcite vein. | |

## GRAPHIC

Depth | Lith | Struct




## STRUCTURES

- VEIN carbonate quartz
- FAULT A45 sericite
- VEIN quartz carbonate sphalerite
- FAULT A10 pug carbonate
- VEIN A70 carbonate

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

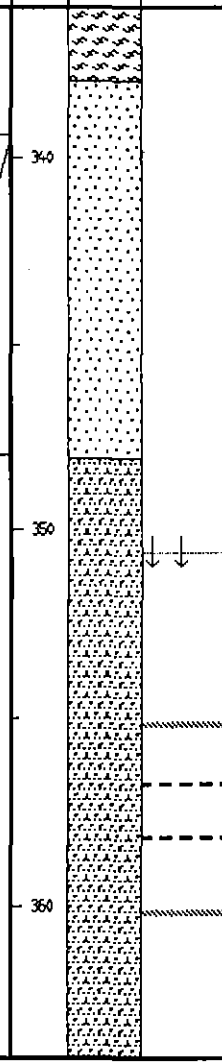
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 327.80 | 337.95 | RHYOLITE cream, fine grained, massive brecciated, feldspar phyric quartz phyric. CONTACT: conformable abrupt | slightly silicified. Silicification with minor kfeldspar alteration. | | |
| 337.95 | 348.10 | SANDSTONE cream, medium grained, massive bedded, crystal lithic. Quartz feldspar crystal sandstone, quartz grains 8mm subrounded. Lithics are subrounded and include fine grained felsic lava and quartz porphyry.. CONTACT: conformable abrupt<br><br>SANDSTONE cream, coarse grained, massive, crystal lithic. Sandstone beds upto 200mm thick. Lithics are predominantly of quartz porphyritic rhyolite. Groundmass of quartz and feldspar crystals (<5mm diameter) and sericite.. CONTACT: conformable abrupt | moderately silicified, slightly chloritised, slightly sericitised | STRINGER trace sphalerite. Trace of red brown sphalerite in veinlets. | |
| 348.10 | 370.80 | INTERBEDDED WITH SANDSTONE cream grey, medium grained, bedded, lithic. Fine to medium grained greywacke sandstone, poorly bedded with some soft sediment disruption, slightly calcareous and flecked with dark grey siltstone fragments.<br><br>INTERBEDDED WITH SILTSTONE black, fine grained, bedded laminated. Siltstone with abundant micro fractures filled with carbonate/ quartz/ sphalerite. Fracturing caused by proximity to the Rosebery Fault? | moderately carbonatised. Black siltstone with abundant calcite veinlets could be alteration or sweat outs from calcareous siltstone? Minor sericite pyrite alteration occurs in sandstone beds within the interval. | VEIN 1% sphalerite in veinlets. Network of irregular sphalerite/carbonate/quartz veinlets. Sphalerite pale brown to straw coloured. in some 2m intervals may be up to 4%. Disrupted laminae of fine grained pyrite between 381.70-382.90m and 389.00-389.20m. | PRIMARY FABRIC facing downhole grading downhole<br><br>FIRST CLEAVAGE 090<br><br>FAULT 068<br><br>FAULT 035<br><br>FIRST CLEAVAGE 085 |

GRAPHIC




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200

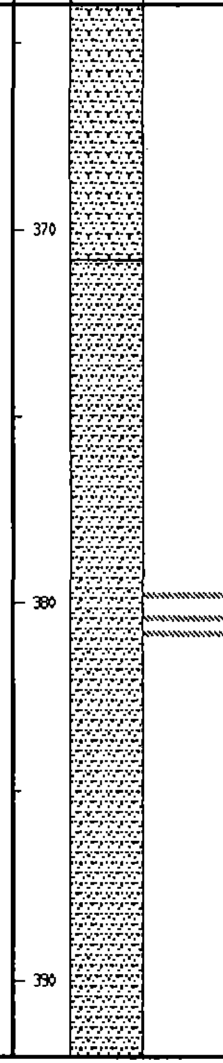


## DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 348.10 | 370.80 | SANDSTONE cream, coarse grained, massive, crystal lithic. Sandstone beds upto 200mm thick. Lithics are predominantly of quartz porphyritic rhyolite. Groundmass of quartz and feldspar crystals (<5mm diameter) and sericite.. CONTACT: conformable abrupt<br><br>INTERBEDDED WITH SANDSTONE cream grey, medium grained, bedded, lithic. Fine to medium grained greywacke sandstone, poorly bedded with some soft sediment disruption, slightly calcareous and flecked with dark grey siltstone fragments. | moderately carbonatised. Black siltstone with abundant calcite veinlets could be alteration or sweat outs from calcareous siltstone? Minor sericite pyrite alteration occurs in sandstone beds within the interval. | VEIN 1% sphalerite in veinlets. Network of irregular sphalerite/carbonate/quartz veinlets. Sphalerite pale brown to straw coloured, in some 2m intervals may be up to 4%. Disrupted laminae of fine grained pyrite between 381.70-382.90m and 389.00-389.20m. |
| 370.80 | 395.20 | INTERBEDDED WITH SILTSTONE black, fine grained, bedded laminated. Siltstone with abundant micro fractures filled with carbonate/ quartz/ sphalerite. Fracturing caused by proximity to the Rosebery Fault?<br><br>SILTSTONE black, fine grained, massive laminated. Primary layering may have been disrupted by soft sediment and later deformation. Siltstones are veined with abundant calcite and the unit may have originally been a calcareous siltstone, a fine grained limestone lense occuring at 385.7m. At 382.15m a disrupted/boudinaged pyrite lense occurs (<15mm wide).. CONTACT: conformable abrupt<br><br>WITH MINOR SANDSTONE cream, medium grained coarse grained, massive, crystal lithic<br><br>WITH MINOR SANDSTONE dark grey, medium grained, massive, crystal. Quartz and feldspar crystals set in a black siltstone matrix. | | |

## GRAPHIC

Depth | Lith | Struct




## STRUCTURES

FIRST CLEAVAGE A1 025

FIRST CLEAVAGE A2 025

FIRST CLEAVAGE 030

5 cm

660172

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 370.80 | 395.20 | SILTSTONE black, fine grained, massive laminated. Primary layering may have been disrupted by soft sediment and later deformation. Siltstones are veined with abundant calcite and the unit may have originally been a calcareous siltstone, a fine grained limestone lense occuring at 385.7m. At 382.15m a disrupted/boudinaged pyrite lense occurs (<15mm wide).. CONTACT: conformable abrupt<br>WITH MINOR SANDSTONE cream, medium grained coarse grained, massive, crystal lithic<br>WITH MINOR SANDSTONE dark grey, medium grained, massive, crystal. Quartz and feldspar crystals set in a black siltstone matrix. | moderately carbonatised. Black siltstone with abundant calcite veinlets could be alteration or sweat outs from calcareous siltstone? Minor sericite pyrite alteration occurs in sandstone beds within the interval. | VEIN 1% sphalerite in veinlets. Network of irregular sphalerite/carbonate/quartz veinlets. Sphalerite pale brown to straw coloured, in some 2m intervals may be up to 4%. Disrupted laminae of fine grained pyrite between 381.70-382.90m and 389.00-389.20m. | |
| 395.20 | 400.45 | SANDSTONE MIXED WITH CONGLOMERATE cream, medium grained fine grained, massive, crystal lithic. Quartz feldspar crystal sandstone. Clasts are more intensely silicified and may represent differences in alteration domains.. CONTACT: gradational | slightly silicified, slightly sericitised | | FAULT AS |
| 400.45 | 401.40 | SILTSTONE black, fine grained, cleaved, lithic. Primary layering in siltstone difficult to define due to tectonic disruption.. CONTACT: conformable abrupt | | | |
| 401.40 | 407.00 | SANDSTONE cream grey, medium grained coarse grained, massive, crystal lithic. Quartz feldspar crystal lithic sandstone. It is difficult to determine the exact protolith due to silicification, fine grained grey silicified zones may have been black siltstone. It is more than likely the same lithology as the underlying unit but with different alteration style.. CONTACT: conformable abrupt | moderately silicified | VEIN sphalerite. 1cm thick quartz carbonate sphalerite vein @ 45LCA. | |
| 407.00 | 409.70 | SANDSTONE MIXED WITH SILTSTONE cream grey, medium grained coarse grained, brecciated, crystal lithic. Sandstone mixed with black silstone, this may be a combination of tectonic and soft sediment mixing. Siltstone frequently occuring as stylolitic shreds/veinlets.. CONTACT: gradational | | | |
| 409.70 | 420.40 | SANDSTONE MIXED WITH CONGLOMERATE cream, medium grained coarse grained, brecciated, crystal lithic. Quartz feldspar crystal with pumice? and fine grained felsic clasts. The clast may be a product of sandstone brecciation?. CONTACT: gradational | slightly silicified | | |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. EAF2

PROJECT:

Vertical Scale 1 : 200

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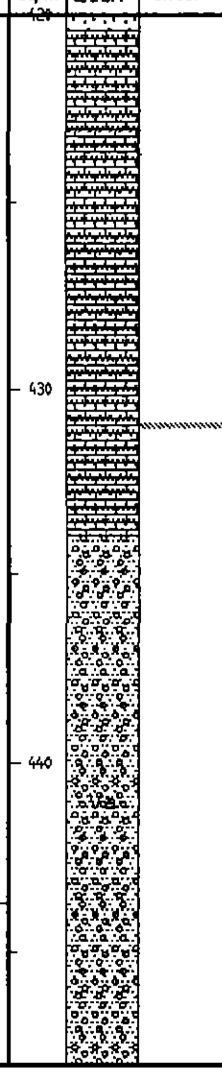
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 409.70 | 420.40 | | | | |
| 420.40 | 434.00 | SANDSTONE MIXED WITH CONGLOMERATE cream, medium grained coarse grained, brecciated, crystal lithic. Quartz feldspar crystal with pumice? and fine grained felsic clasts. The clast may be a product of sandstone brecciation?. CONTACT: gradational<br>SILTSTONE black, fine grained, bedded. Siltstone thin bedded, bedding frequently tectonically disrupted, abundant irregular quartz carbonate veinlets.. CONTACT: gradational<br>INTERBEDDED WITH LIMESTONE grey, fine grained, bedded massive. Abundant calcite veinlets as irregular fracture fillings. | moderately silicified<br>moderately carbonatised. Black siltstone with abundant calcite quartz veinlets, may be alteration or sweat outs from calcareous siltstone.<br>moderately silicified | | FIRST CLEAVAGE D72 |
| 434.00 | 467.20 | ACID VOLCANICLASTIC cream, fine grained coarse grained, brecciated, crystal lithic. Silica/sericite alteration obliterating primary textures. Lithics? include fine grained felsics and silicified siltstone.. CONTACT: gradational<br>MIXED WITH SILTSTONE grey, fine grained. Siltstone dark grey unaltered to pale grey silicified cherty.<br>WITH MINOR CONGLOMERATE cream, medium grained. Clasts angular to sub-rounded fine grained felsics, matrix quartz crystals and sericite. | slightly silicified, slightly sericitised<br>highly silicified | VEIN 0.5% sphalerite in veinlets. Sphalerite veinlets associated with silicification. | |

GRAPHIC (Depth, Lith, Struct)




5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. EAF2

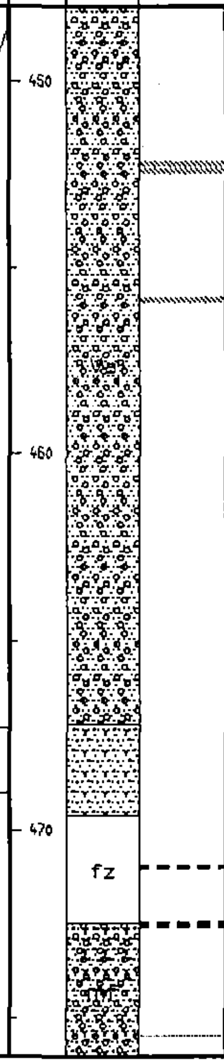
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 434.00 | 467.20 | ACID VOLCANICLASTIC cream, fine grained coarse grained, brecciated, crystal lithic. Silica/sericite alteration obliterating primary textures. Lithics? include fine grained felsics and silicified siltstone.. CONTACT: gradational<br>MIXED WITH SILTSTONE grey, fine grained. Siltstone dark grey unaltered to pale grey silicified cherty.<br>WITH MINOR CONGLOMERATE cream, medium grained. Clasts angular to sub-rounded fine grained felsics, matrix quartz crystals and sericite. | highly silicified<br>slightly silicified, slightly sericitised<br>slightly silicified, moderately sericitised | VEIN 0.5% sphalerite in veinlets. Sphalerite veinlets associated with silicification. | FIRST CLEAVAGE D55 spaced<br>FIRST CLEAVAGE D70 spaced<br>FIRST CLEAVAGE D85 spaced |
| 467.20 | 469.60 | SILTSTONE black, fine grained, brecciated. Tectonically disrupted with stockwork of quartz calcite pyrite veinlets which form 20% of the rock.. CONTACT: conformable abrupt<br>INTERBEDDED WITH SANDSTONE cream, medium grained, massive, crystal lithic. Quartz feldspar crystal plus lithics set in sericitic groundmass. | slightly sericitised. Abundant leucoxene? spotting between 480.00 - 487.00m in sandstone. | VEIN trace sphalerite in veinlets trace pyrite in veinlets | |
| 469.60 | 472.50 | FAULT ZONE (PUG) grey, sheared. Silica/sericite altered felsic volcanics/sandstone/limestone fragments in a black siltstone/clay/sericite pug matrix.. CONTACT: faulted | | | FAULT A70 breccia<br>FAULT D45 shear<br>FAULT D70 shear |
| 472.50 | 491.80 | SANDSTONE cream brown, medium grained fine grained, massive, crystal lithic. Quartz crystal and lithic granule (limestone) sandstone, 1mm grainsize, equigranular, spotted with leucoxene. Lithics 1mm angular of fine grained occasionally porphyritic felsic.<br>INTERBEDDED WITH CONGLOMERATE cream, medium grained, massive. Matrix supported, lithics include pumice breccia/fine grained felsic lava/siltstone.<br>INTERBEDDED WITH SILTSTONE CONTAINING LAMINAE OF SANDSTONE grey, fine grained fine grained, laminated. Silstones slightly micaceous. Unit may represent the fine top of a mass flow.<br>WITH MINOR MASS FLOW cream, medium grained, sheared, crystal lithic. Mass flow between 488.15-489.80m. Clasts are angular and include sericitized pumice/fine grained felsic lava/black siltstone/silicified sandstone. Matrix comprises quartz crystals and sericite. | | | PRIMARY FABRIC A60 |

GRAPHIC




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. **EAF2**

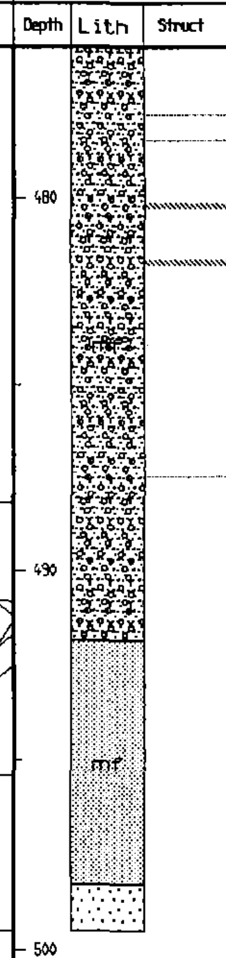
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 472.50 | 491.80 | SANDSTONE cream brown, medium grained fine grained, massive, crystal lithic. Quartz crystal and lithic granule (limestone) sandstone, 1mm grainsize, equigranular, spotted with leucoxene. Lithics 1mm angular of fine grained occasionally porphyritic felsic.<br>INTERBEDDED WITH CONGLOMERATE cream, medium grained, massive. Matrix supported, lithics include pumice breccia/fine grained felsic lava/siltstone.<br>INTERBEDDED WITH SILTSTONE CONTAINING LAMINAE OF SANDSTONE grey, fine grained fine grained, laminated. Silstones slightly micaceous. Unit may represent the fine top of a mass flow.<br>WITH MINOR MASS FLOW cream, medium grained, sheared, crystal lithic. Mass flow between 488.15-489.80m. Clasts are angular and include sericitized pumice/fine grained felsic lava/black siltstone/silicified sandstone. Matrix comprises quartz crystals and sericite. | slightly sericitised. Abundant leucoxene? spotting between 480.00 - 487.00m in sandstone. | DISSEMINATED trace pyrite | PRIMARY FABRIC A0<br>PRIMARY FABRIC A15<br>FIRST CLEAVAGE D75 spaced<br>FIRST CLEAVAGE D85 spaced<br>PRIMARY FABRIC A35 |
| 491.80 | 498.30 | CHERT grey, fine grained, brecciated. Unknown protolith, comprising two components, dark grey/fine grained/slightly brecciated/silicified and white spotty carbonatization.<br>INTERBEDDED WITH MASS FLOW cream, medium grained, bedded, lithic. Clasts of pumice/dark grey siltstone/fine grained felsic/pyrite in a silicified matrix. | | VEIN quartz in veins carbonate in veins. Vein LOLCA<br>DISSEMINATED trace pyrite<br>DISSEMINATED trace pyrite trace sphalerite in veinlets | |
| 498.30 | 499.50 | SANDSTONE grey, fine grained, massive sheared. Silica sericite alteration obliterates most of the primary textures. | | | |

GRAPHIC




5 cm

74103

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 34.20 | SANDSTONE, medium grained. Deeply weathered quartz feldspar crystal sandstone, no core recovered see BPD82A. | Very weathered, no core recovered. | | |
| 34.20 | 62.65 | SANDSTONE cream, medium grained, massive, crystal. Feldspar quartz crystal sandstone, quartz subrounded <7mm diameter. Chloritized quartz feldspar crystal patches may have been glassy lithics or alteration stylolites. Sandstone massive with later breccia texture over print, breccia infilled with veinlets of chlorite/quartz/sphalerite.. CONTACT: unassigned | moderately oxidised. Limonitic joints and fractures.<br>slightly oxidised, slightly chloritised | VEIN. Limonite vein.<br>VEIN trace sphalerite in veinlets<br>VEIN trace sphalerite in veinlets quartz. Dark brown to black sphalerite. | FAULT A5 brittle<br>BROKEN CORE<br>BROKEN CORE |

GRAPHIC: Depth | Lith | Struct

30

40

50

5 cm

741104

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 34.20 | 62.65 | SANDSTONE cream, medium grained, massive, crystal. Feldspar quartz crystal sandstone, quartz subrounded <7mm diameter. Chloritized quartz feldspar crystal patches may have been glassy lithics or alteration stylolites. Sandstone massive with later breccia texture over print, breccia infilled with veinlets of chlorite/quartz/sphalerite.. CONTACT: unassigned | slightly oxidised, slightly chloritised | VEIN trace sphalerite in veinlets trace chalcopyrite in veinlets | BROKEN CORE |
| 62.65 | 75.00 | RHYOLITE cream pink, fine grained, brecciated, feldspar phyric. Lava cream-pink-green mottled, aphyric to feldspar/quartz phyric, texturally variable including brecciation/ glass(now sericite/ flow banding.. CONTACT: faulted | slightly silicified, slightly chloritised, slightly sericitised | | |
| 75.00 | 75.70 | DEFORMED ZONE. Crush zone. | | | FAULT brittle |
| 75.70 | 166.10 | SANDSTONE MIXED WITH RHYOLITE grey cream, coarse grained medium grained, massive peperitic, crystal lithic. Massive, mottled pink - grey green with chloritic stylolites. Felsic lithic horizons within the unit may represent hyaloclastites?/peperite?, these occur at 76.7m, 85.8m, 111.4m, 161.3-166.1m (quartz feldspar porphyry) and 99.2m (fine grained aphyric to feldspar phyric rhyolite).. CONTACT: conformable abrupt | | VEIN trace sphalerite in veinlets | |

GRAPHIC — Depth: 60, 70, 80; Lith: d/z

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 75.70 | 166.10 | SANDSTONE MIXED WITH RHYOLITE grey cream, coarse grained medium grained, massive peperitic, crystal lithic. Massive, mottled pink - grey green with chloritic stylolites. Felsic lithic horizons within the unit may represent hyaloclastites?/peperite?, these occur at 76.7m, 85.8m, 111.4m, 161.3-166.1m (quartz feldspar porphyry) and 99.2m (fine grained aphyric to feldspar phyric rhyolite).. CONTACT: conformable abrupt | slightly silicified. slightly chloritised. slightly sericitised | VEIN trace sphalerite in veinlets trace chalcopyrite in veinlets. Veinlets associated with a zone of bleaching ie weak silica sericite alteration. | 90<br>100<br>110 | | | |

5 cm

9011742

**PASMINCO EXPLORATION**

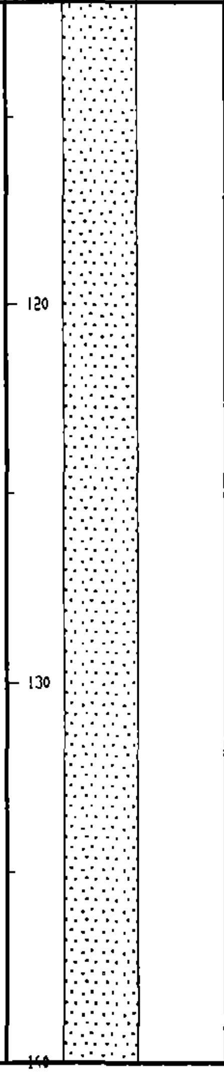
**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT: Vertical Scale 1 : 200 Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 75.70 | 166.10 | SANDSTONE MIXED WITH RHYOLITE grey cream, coarse grained medium grained, massive peperitic, crystal lithic. Massive, mottled pink - grey green with chloritic stylolites. Felsic lithic horizons within the unit may represent hyaloclastites?/peperite?, these occur at 76.7m, 85.8m, 111.4m, 161.3-166.1m (quartz feldspar porphyry) and 99.2m (fine grained aphyric to feldspar phyric rhyolite).. CONTACT: conformable abrupt | slightly silicified, slightly chloritised, slightly sericitised | | |

GRAPHIC (Depth / Lith / Struct)



**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 75.70 | 166.10 | SANDSTONE MIXED WITH RHYOLITE grey cream, coarse grained medium grained, massive peperitic, crystal lithic. Massive, mottled pink - grey green with chloritic stylolites. Felsic lithic horizons within the unit may represent hyaloclastites?/peperite?, these occur at 76.7m, 85.8m, 111.4m, 161.3-166.1m (quartz feldspar porphyry) and 99.2m (fine grained aphyric to feldspar phyric rhyolite).. CONTACT: conformable abrupt | slightly silicified, slightly chloritised, slightly sericitised | VEIN trace sphalerite in veinlets<br>VEIN trace sphalerite in veinlets trace galena in veinlets. Scattered veinlets with chalcedonic quartz gangue.<br>VEIN trace sphalerite in veinlets | FAULT A30 |
| 166.90 | 193.00 | MIXED WITH SANDSTONE cream, medium grained, massive, crystal lithic. Sandstone occurs between 180.0-182.9m, and is composed of crystal and lithic fragments.<br>SILTSTONE black, fine grained, foliated, crystal. Foliation sub parallel to LCA and with a similar orientation to weak disrupted banding/bedding. Abundant veinlets of carbonate/quartz/sphalerite.. CONTACT: gradational<br>WITH MINOR GREYWACKE grey green, medium grained, poorly sorted, crystal lithic. Greywacke occurs between 167.00 - 167.50m and is composed of crystal and lithic fragments, lithics mainly black silstone fragments (<1mm), matrix calcareous. The greywacke is quite distinctive and may be a good marker horizon and is simialr to the interval 361.20-363.00m in EAF2.. CONTACT: conformable mixed<br>MIXED WITH RHYOLITE cream, fine grained, peperitic. Lava? occurs between 169.6-171.6m, 179.7-182.0m and 187.3-193.0m, lava is fine grained, slightly feldspar phyric, mixed with crystal sandstone and black siltstone. The lack of chilling (sericitized glass) and baking/silicification of siltstone may suggest that the unit is not a peperite but a mixed fine grained sandstone/siltstone? | slightly carbonatised. Carbonate may be primary or a product of alteration. | VEIN 0.5% sphalerite in veinlets minor pyrite disseminated. Pyrite occurs as fine grained patches in siltstone. | |

GRAPHIC: Depth 140, 150, 160 | Lith | Struct

5 cm

741108

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 166.00 | 193.00 | SILTSTONE black, fine grained, foliated, crystal. Foliation sub parallel to LCA and with a similar orientation to weak disrupted banding/bedding. Abundant veinlets of carbonate/quartz/sphalerite.. CONTACT: gradational<br><br>WITH MINOR GREYWACKE grey green, medium grained, poorly sorted, crystal lithic. Greywacke occurs between 167.00 - 167.50m and is composed of crystal and lithic fragments, lithics mainly black silstone fragments (<1mm), matrix calcareous. The greywacke is quite distinctive and may be a good marker horizon and is simialr to the interval 361.20-363.00m in EAF2.. CONTACT: conformable mixed<br><br>MIXED WITH RHYOLITE cream, fine grained, peperitic. Lava? occurs between 169.6-171.6m, 179.7-182.0m and 187.3-193.0m, lava is fine grained, slightly feldspar phyric, mixed with crystal sandstone and black siltstone. The lack of chilling (sericitized glass) and baking/silicification of siltstone may suggest that the unit is not a peperite but a mixed fine grained sandstone/siltstone?<br><br>MIXED WITH SANDSTONE cream, medium grained, massive, crystal lithic. Sandstone occurs between 180.0-182.9m, and is composed of crystal and lithic fragments. | slightly carbonatised. Carbonate may be primary or a product of alteration. | VEIN 0.5% sphalerite in veinlets minor pyrite disseminated. Pyrite occurs as fine grained patches in siltstone.<br><br>VEIN trace sphalerite in veinlets minor pyrite disseminated. Sphalerite occurs in calcite quartz veinlets. Pyrite occurs as fine grained blebs in siltstone. | 170<br>180<br>190 | | | FAULT A30 breccia |
| 193.00 | 226.30 | MIXED WITH RHYOLITE cream, fine grained, peperitic, feldspar phyric. Lava? fine grained, aphyric to feldspar phyric. There is little textural evidence for lava chilling on contacts with the siltstone.. CONTACT: faulted<br><br>MIXED WITH SILTSTONE black, fine grained, massive, crystal. Bedding not readily apparent due to soft sediment and later deformation. Some siltstone occurs as stylolites. Siltstone locally silicified and primary textures are not readily recognizable. | moderately silicified, slightly sericitised, slightly chloritised. Alteration patchy, lithotype controlled. Weak carbonate alteration is fracture controlled. | | | | | |

5 cm

601147

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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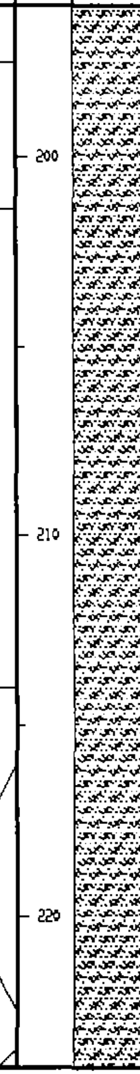
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 193.00 | 226.30 | MIXED WITH RHYOLITE cream, fine grained, peperitic, feldspar phyric. Lava? fine grained, aphyric to feldspar phyric. There is little textural evidence for lava chilling on contacts with the siltstone.. CONTACT: faulted<br><br>MIXED WITH SILTSTONE black, fine grained, massive, crystal. *Bedding not readily apparent due to soft* sediment and later deformation. Some siltstone occurs as stylolites. Siltstone locally silicified and primary textures are not readily recognizable. | moderately silicified, slightly sericitised, slightly chloritised. Alteration patchy, lithotype controlled. Weak carbonate alteration is fracture controlled. | VEIN trace sphalerite in veinlets carbonate in veinlets<br><br>VEIN trace sphalerite in veinlets. Sphalerite in quartz carbonate veinlets/fracture coatings and disseminated in silicified felsic volcanic fragments.<br><br>VEIN trace sphalerite in veinlets. Sphalerite in veinlets and disseminated in silica/carbonate altered felsic volcanic fragments. | |

GRAPHIC (Depth / Lith / Struct)




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | DESCRIPTION: LITHOLOGY | ALTERATION | MINERALISATION | GRAPHIC: Depth | GRAPHIC: Lith | GRAPHIC: Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 193.00 | 226.30 | MIXED WITH RHYOLITE cream, fine grained, peperitic, feldspar phyric. Lava? fine grained, aphyric to feldspar phyric. There is little textural evidence for lava chilling on contacts with the siltstone.. CONTACT: faulted | moderately silicified, slightly sericitised, slightly chloritised. Alteration patchy, lithotype controlled. Weak carbonate alteration is fracture controlled. | | | | | |
| 226.30 | 230.40 | MIXED WITH SILTSTONE black, fine grained, massive, crystal. Bedding not readily apparent due to soft sediment and later deformation. Some siltstone occurs as stylolites. Siltstone locally silicified and primary textures are not readily recognizable.<br>ACID VOLCANICLASTIC grey, medium grained, brecciated. A grey to green blotchy rock composed mainly of feldspar crystals with little matrix. The brecciated appearance may be due entirely to alteration ie blocks grey flecked with chlorite, groundmass? more chloritic. This is an odd rock with little textural evidence to indicate whether it is a lava breccia or volcaniclastic.. CONTACT: faulted | | | 230 | rh/sa | | |
| 230.40 | 239.25 | CONTAINING CLASTS OF MINERALISATION/ALTERATION grey, fine grained. Sub-rounded clasts of fine grained silica/pyrite alteration occur at 226.9m and 227.8m<br>ACID LAVA cream, fine grained, peperitic. Grey green, fine grained, slightly feldspar phyric lava?. An alternative interpretation is that the unit is a monomict felsic volcanic derived mass debris flow into siltstone. The unit is very similar to that between 193.00 - 226.30m.. CONTACT: conformable abrupt<br>MIXED WITH SILTSTONE black, fine grained, peperitic. Silstone matrix locally silicified and sericitized. | | VEIN trace sphalerite in veinlets carbonate in veinlets. The most mineralized interval (0.5%Zn) occurs between 241.8-242.0m in a quartz carbonate vein @ 15LCA. | | | | |
| 239.25 | 244.60 | ACID LAVA cream, medium grained, brecciated. This interval is a mixture of several different lithologies and only the basalt can be positively identified as a lava, all others could be sediments or lavas.. CONTACT: faulted<br>MIXED WITH SANDSTONE green, medium grained, massive, feldspar phyric lithic. Feldspar crystals in a sericite/chlorite matrix with scattered lithics. *There is usually a close association between this* sandstone? and the felsic lava?. Minor banding that could be bedding occurs at 243.00m. | | | 240 | | | |
| 244.60 | 255.85 | INTERBEDDED WITH SILTSTONE green, fine grained, massive, vitric<br>WITH MINOR BASALT green, fine grained, massive, amygdales. Basalt occurs between 240.80-241.20m. Irregular contacts would indicate that it is a peperite rather than clasts. Carbonate amygdales.<br>ACID VOLCANICLASTIC cream, coarse grained, matrix supported, lithic. Felsic volcanic derived mass debris flow?. Matrix sericitic with pink feldspar crystals. Clasts include fine grained cream-pink rhyolite? and silicified pumice or finely flow banded lava?. CONTACT: conformable abrupt | intensely silicified, slightly sericitised, slightly carbonatised. Silicification is patchy, in part controlled by fractures. | | 250 | Va | | FAULT A40 |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

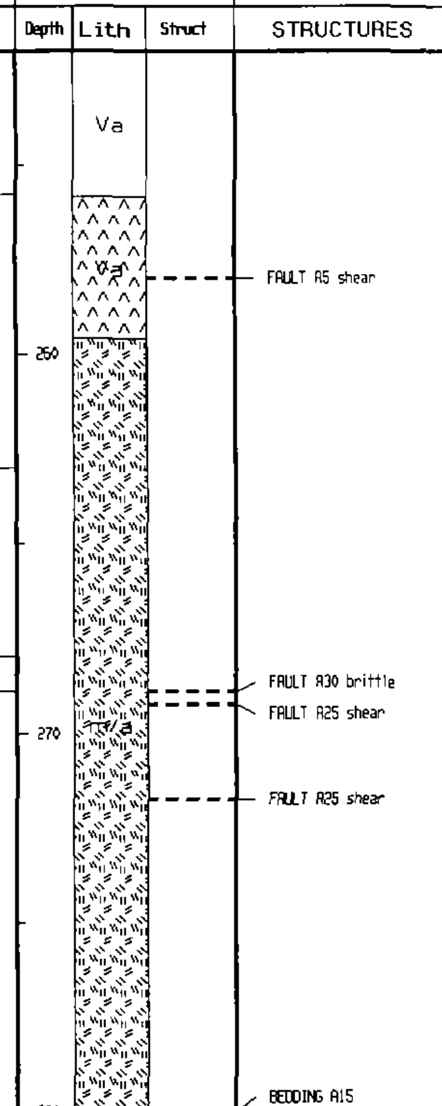
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 244.60 | 255.85 | ACID VOLCANICLASTIC cream, coarse grained, matrix supported, lithic. Felsic volcanic derived mass debris flow?. Matrix sericitic with pink feldspar crystals. Clasts include fine grained cream-pink rhyolite? and silicified pumice or finely flow banded lava?. CONTACT: conformable abrupt | intensely silicified, slightly sericitised, slightly carbonatised. Silicification is patchy, in part controlled by fractures. | |
| 255.85 | 259.60 | *ANDESITE cream, medium grained, peperitic,* amygdales. Lava? pink-cream fine grained groundmas, quartz amygdales and abundant small feldspar phenocrysts plus an unidentified euhedral phenocryst * see thin section. Matrix is very sericitic and may be the altered glassy chilled margins of the lava. | *intensely* sericitised, moderately silicified. Sericite associated with fine grained pyrite as peperite matrix. | DISSEMINATED trace pyrite associated with alteration. Pyrite finely disseminated in sericite. Minor sphalerite quartz calcite veins also occur within the interval. |
| 259.60 | 280.10 | INTERBEDDED WITH ACID VOLCANICLASTIC cream, medium grained, matrix supported, polymict. This is very similar to the interval 244.60-255.85m. | intensely sericitised, moderately silicified, slightly fuchsitic. Fuchsite restricted to *fractures in the* andesite? lava. Sericite associated with fine grained pyrite as peperite matrix. | |
| | | ACID LAVA cream pink, fine grained, peperitic. Glassy, aphyric, highly fractured rhyolite? lava. Texturally variable, fragments frequently with jig-saw fit.. CONTACT: faulted | highly sericitised, moderately silicified | VEIN trace sphalerite in veinlets |
| | | MIXED WITH MINERALISATION/ALTERATION green, fine grained, peperitic. Peperite matrix, strongly sericitized with finely disseminated pyrite. Matrix in places is a medium grained sandstone composed of fine aphyric lava fragments. | moderately silicified, slightly sericitised, slightly carbonatised. Carbonatization is fracture controlled. | |

GRAPHIC




5 cm

## PASMINCO EXPLORATION

## DIAMOND DRILL HOLE LOG

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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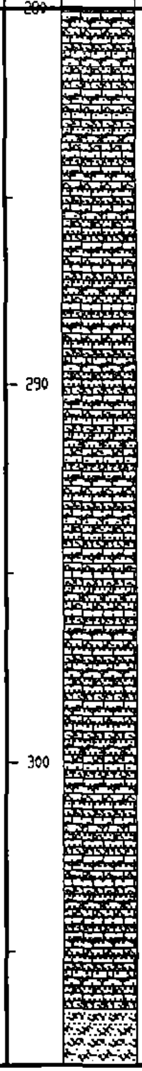
DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 280.10 | 306.50 | ACID LAVA cream pink, fine grained, peperitic. Glassy, aphyric, highly fractured rhyolite? lava. Texturally variable, fragments frequently with jig-saw fit.. CONTACT: faulted<br><br>MIXED WITH MINERALISATION/ALTERATION green, fine grained, peperitic. Peperite matrix, strongly sericitized with finely disseminated pyrite. Matrix in places is a medium grained sandstone composed of fine aphyric lava fragments.<br><br>SILTSTONE black, fine grained, foliated. Calcareous siltstone, massive/laminated/foliated with abundant carbonate veinlets.. CONTACT: conformable abrupt<br><br>MIXED WITH LIMESTONE grey, fine grained, bedded. Limestone occuring as boudins? and poorly defined beds in black siltstone.<br><br>WITH MINOR RHYOLITE cream, fine grained, peperitic. 287.10 - 288.30m, 300.60 - 306.50m fine grained, aphyric rhyolite lava fragments/peperite in black siltstone. Partial sericite alteration may reflect chilled glassy contacts. | highly carbonatised. Pervasive carbonate may be primary or due to alteration.<br><br>highly silicified. slightly carbonatised. Silicification is patchy and affecting both lava and siltstone, carbonatization is associated with microfractures. | VEIN trace sphalerite in veinlets trace pyrite disseminated. Sphalerite in quartz calcite veinlets. Pyrite disseminated and in fine grained blebs. | |
| 306.50 | 310.50 | RHYOLITE cream, medium grained, foliated. Silica flooding and sericitization have obscured the primary texture and the interval could be a volcaniclastic or lava.. CONTACT: conformable abrupt<br><br>WITH MINOR SILTSTONE black, fine grained. Minor sheared out lenses/stylolites include black siltstone/ chert or silicified siltstone/ sericitized lava? These three lithologies occur together and may represent a sheared out peperite. | slightly sericitised. slightly silicified. slightly carbonatised | | |

GRAPHIC: Depth | Lith | Struct




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 306.50 | 310.50 | RHYOLITE cream, medium grained, foliated. Silica flooding and sericitization have obscured the primary texture and the interval could be a volcaniclastic or lava.. CONTACT: conformable abrupt | slightly sericitised. slightly silicified. slightly carbonatised | VEIN trace sphalerite in veinlets trace pyrite disseminated. Sphalerite in quartz calcite veinlets. Pyrite disseminated and in fine grained blebs. | |
| 310.50 | 327.40 | WITH MINOR SILTSTONE black, fine grained. Minor sheared out lenses/stylolites include black siltstone/ chert or silicified siltstone/ *sericitized lava? These* three lithologies occur together and may represent a sheared out peperite.<br>SILTSTONE WITH MINOR LIMESTONE black grey, fine grained fine grained, massive massive. Massive to weakly bedded?/weakly foliated. 318.20-318.60m slightly banded limestone.. CONTACT: conformable abrupt<br>MIXED WITH RHYOLITE cream, fine grained, peperitic. Cream to pale grey, fine grained, aphyric, cherty rhyolite peperite. Below 318.60m lava? sericitized which may indicate chilled glassy contacts. Some of this unit, particularly the grey cherty rocks may be silicified siltstone rather than lava.. CONTACT: conformable abrupt | highly silicified. moderately carbonatised. Carbonatization associated with fractures and veinlets.<br>highly silicified. slightly sericitised. slightly carbonatised | VEIN pyrite in veinlets 2% sphalerite in veinlets | FAULT A40 shear<br>PRIMARY FABRIC 055<br>FIRST CLEAVAGE 080 fracture<br>FIRST CLEAVAGE 090 fracture<br>FIRST CLEAVAGE 090 fracture |
| 327.40 | 338.45 | RHYOLITE cream, fine grained, massive. Aphyric rhyolite lava, chilled margins are pale grey silicified. Massive lava mixed with a medium grained epiclastic appearing unit which is most likely a variation of the lava and is similar to the interval 306.50 - 310.50m.. CONTACT: conformable abrupt | | VEIN 0.5% sphalerite in veinlets carbonate in veinlets<br>STRINGER 1% sphalerite in veinlets carbonate in veinlets. Maximum stringer development between 335.70 - 336.50m 5% Zn. Sphalerite chalcopyrite vein at 338.50m. | |

GRAPHIC: Depth | Lith | Struct — 310, 320, 330

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. **BPD82**

PROJECT:

Vertical Scale 1 : 200

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| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 327.40 | 338.45 | RHYOLITE cream, fine grained, massive. Aphyric rhyolite lava, chilled margins are pale grey silicified. Massive lava mixed with a medium grained epiclastic appearing unit which is most likely a variation of the lava and is similar to the interval 306.50 - 310.50m.. CONTACT: conformable abrupt | highly silicified, slightly sericitised, slightly carbonatised | STRINGER 1% sphalerite in veinlets carbonate in veinlets. Maximum stringer development between 335.70 - 336.50m 5% Zn. Sphalerite chalcopyrite vein at 338.50m. | | | | |
| 338.45 | 341.20 | SILTSTONE grey, fine grained, massive. Flecked with fine crystal/lithic fragments, these could be the distal equivalents of a peperite/hyaloclastite.. CONTACT: conformable abrupt | slightly silicified, slightly carbonatised. Carbonatization associated with fractures and veinlets. | | 340 | | | |
| 341.20 | 345.50 | RHYOLITE cream, fine grained, massive, stylolites. Blotchy appearance reflecting stylolitic sericite alteration. Nature of contact indicates that it is most likely a lava, otherwise the unit is textureless.. CONTACT: conformable abrupt | slightly silicified, slightly sericitised | | | | | |
| 345.50 | 355.90 | ACID VOLCANICLASTIC cream, medium grained, foliated, lithic crystal. Pink feldspar crystals and fine grained rhyolite fragments (<2cm) in sericitized groundmass. Unit could be a brecciated lava, there are no definite sedimentary textures visible.. CONTACT: conformable mixed | moderately sericitised; highly silicified, moderately carbonatised | | 350 | Va | | |
| 355.90 | 412.00 | RHYOLITE cream, fine grained, peperitic brecciated. Rhyolite? lava, aphyric, texturally variable including, massive, banded, brecciated and with sericite stylolites.. CONTACT: gradational<br>MIXED WITH SILTSTONE black, fine grained, peperitic. Siltstone massive, bedding may have been totally disrupted by lava intrusion. Fragments of lava are common giving the siltstone a conglomeratic appearance in some intervals. Siltstone dominant intervals are as follows, 359.00-371.30m, 376.60-381.00m, 390.00-393.40m and 407.00-412.00m. A quartz crystal rich lava or sandstone occurs between 383.80-385.10m, quartz grains are subrounded <6mm. | slightly silicified, slightly sericitised | DISSEMINATED trace pyrite | 360 | | | BROKEN CORE A40 brittle |

741115

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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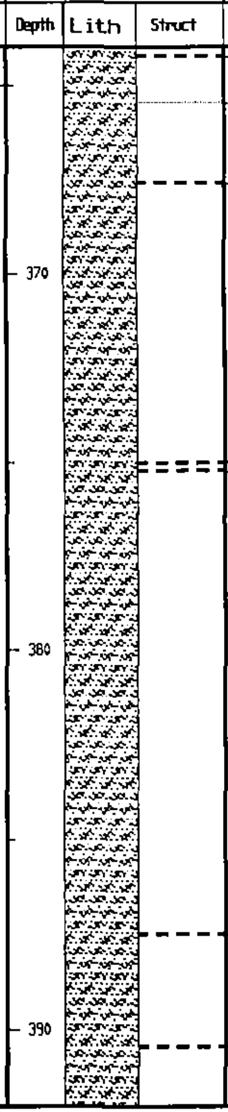
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 355.90 | 412.00 | RHYOLITE cream, fine grained, peperitic brecciated. Rhyolite? lava, aphyric, texturally variable including, massive, banded, brecciated and with sericite stylolites.. CONTACT: gradational<br><br>MIXED WITH SILTSTONE black, fine grained, peperitic. Siltstone massive, bedding may have been totally disrupted by lava intrusion. Fragments of lava are common giving the siltstone a conglomeratic appearance in some intervals. Siltstone dominant intervals are as follows, 359.00-371.30m, 376.60-381.00m, 390.00-393.40m and 407.00-412.00m. A quartz crystal rich lava or sandstone occurs between 383.80-385.10m, quartz grains are subrounded <6mm. | slightly silicified, slightly sericitised<br><br>highly detextured. Pug and shear zone. | DISSEMINATED trace pyrite | FAULT A30<br>PRIMARY FABRIC A5<br>FAULT A10<br>FAULT D80 pug<br>FAULT D70 shear<br>FAULT A35 shear<br>FAULT A17 shear |

GRAPHIC




5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD82

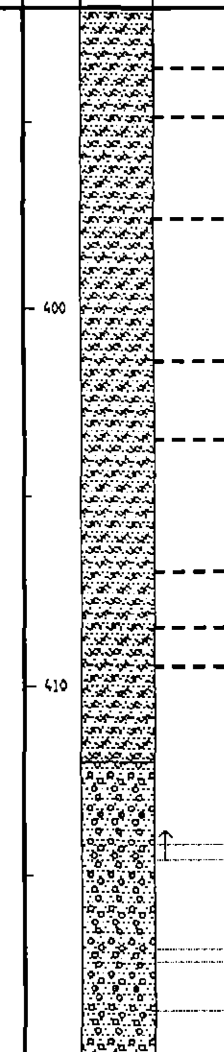
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 355.90 | 412.00 | RHYOLITE cream, fine grained, peperitic brecciated. Rhyolite? lava, aphyric, texturally variable including, massive, banded, brecciated and with sericite stylolites.. CONTACT: gradational<br><br>MIXED WITH SILTSTONE black, fine grained, peperitic. Siltstone massive, bedding may have been totally disrupted by lava intrusion. Fragments of lava are common giving the siltstone a conglomeratic appearance in some intervals. Siltstone dominant intervals are as follows, 359.00-371.30m, 376.60-381.00m, 390.00-393.40m and 407.00-412.00m. A quartz crystal rich lava or sandstone occurs between 383.80-385.10m, quartz grains are subrounded <6mm. | highly detextured. Pug and shear zone.<br><br>slightly sericitised, moderately carbonatised | |
| 412.00 | 428.10 | SILTSTONE CONTAINING LAMINAE OF LIMESTONE black grey, fine grained fine grained, laminated, calcarious. Dark grey siltstone with fine grained - gritty calcareous sandstone.. CONTACT: faulted<br><br>WITH MINOR CONGLOMERATE grey, medium grained, clast supported, calcarious. Conglomerate beds occur between 422.10-422.30m and 424.90-425.60m, clasts are primarily of fine grained massive and fossiliferous limestone and minor sericitized, fine grained, aphyric to feldspar phyric volcanics. | moderately carbonatised. Includes calcareous siltstone and limestone clast conglomerate. | |

GRAPHIC: Depth | Lith | Struct




STRUCTURES

- FAULT A80
- FAULT A35
- FAULT A10 shear
- FAULT A25 shear
- FAULT A30 shear
- FAULT A45 shear
- FAULT D10 shear
- FAULT D30 shear
- BEDDING A70 D25 facing uphole
- BEDDING D30
- BEDDING D90
- BEDDING D20
- BEDDING D50

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

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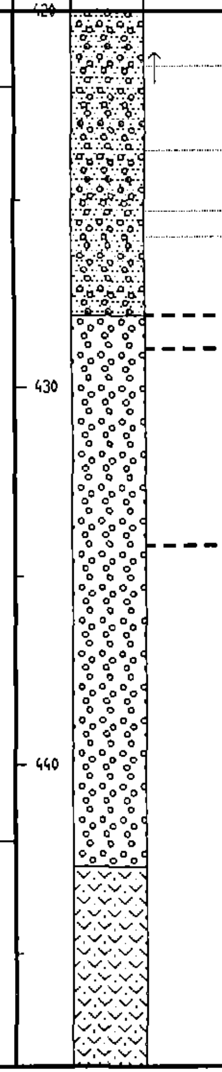
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 412.00 | 428.10 | SILTSTONE CONTAINING LAMINAE OF LIMESTONE black grey, fine grained fine grained, laminated, calcarious. Dark grey siltstone with fine grained - gritty calcareous sandstone.. CONTACT: faulted<br>WITH MINOR CONGLOMERATE grey, medium grained, clast supported, calcarious. Conglomerate beds occur between 422.10-422.30m and 424.90-425.60m, clasts are primarily of fine grained massive and fossiliferous limestone and minor sericitized, fine grained, aphyric to feldspar phyric volcanics. | moderately carbonatised. Includes calcareous siltstone and limestone clast conglomerate. | DISSEMINATED trace pyrite disseminated. Disseminated and veinlet pyrite in conglomerate matrix and some clasts. | BEDDING A60 facing uphole<br>BEDDING A80<br>BEDDING D90<br>BEDDING A30<br>FAULT A60 D70 |
| 428.10 | 442.70 | CONGLOMERATE cream, coarse grained, clast supported, polymict. Clasts dominantly fine grained massive / slightly fossiliferous / gritty limestone. Other clast types include fine grained massive vitric siltstone, sericitized fine grained aphyric to feldspar phyric felsic lava and pumice breccia. Matrix forms a minor part of the rock, comprising calcareous and locally pyritic sandstone / grit.. CONTACT: faulted | | | FAULT D25<br>FAULT D80 |
| 442.70 | 448.55 | PUMICEOUS MASS FLOW grey, medium grained, massive, stylolites. Some pumice textures recognizable but the intensity of carbonate/silica alteration obliterates most primary textures.. CONTACT: faulted | slightly sericitised, slightly carbonatised | | |

GRAPHIC

Depth | Lith | Struct




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

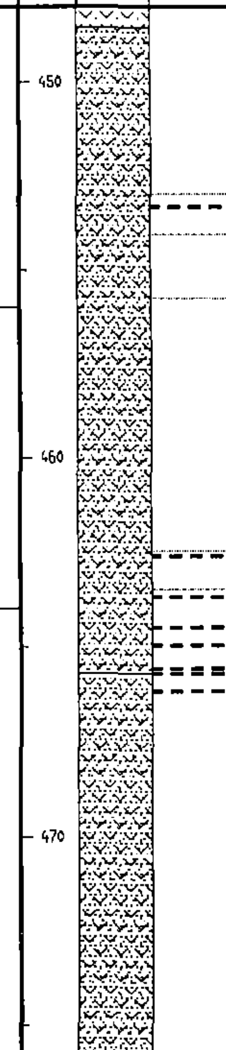


## DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 442.70 | 448.55 | PUMICEOUS MASS FLOW grey, medium grained, massive, stylolites. Some pumice textures recognizable but the intensity of carbonate/silica alteration obliterates most primary textures.. CONTACT: faulted | slightly sericitised, slightly carbonatised | |
| 448.55 | 465.70 | PUMICEOUS MASS FLOW cream, medium grained, bedded. Pumiceous rocks are texturally variable, includes 3mm grainsize with cherty lithics (448.55-449.00m) and fine to medium grained bedded to augen sandstone. The entire interval may represent the top of an uphole facing mass debris flow unit.. CONTACT: faulted<br>INTERBEDDED WITH SILTSTONE CONTAINING CLASTS OF LIMESTONE black, medium grained, bedded. Siltstone with lenses and fragments (disrupted lenses) of sandy limestone. | moderately silicified, slightly sericitised | DISSEMINATED trace pyrite disseminated. Disseminated in fine grained sandstone lenses. |
| 465.70 | 491.80 | PUMICEOUS MASS FLOW cream, medium grained, massive, stylolites. *Essentialy the same lithological association from 442.70m. Weak foliation with abundant calcite +-quartz veining. Localized sericitic stylolites.. CONTACT: gradational<br>WITH MINOR SILTSTONE grey, fine grained, bedded. Fine grained cream to dark grey sandstone and siltstone, occurs between 478.30-479.50m, 482.70-482.90m and 484.70-485.00m | moderately silicified. Black pumice breccia.<br>moderately silicified, slightly sericitised. Abundant calcite quartz veins. | |

## GRAPHIC

Depth | Lith | Struct




## STRUCTURES

BEDDING D90
FAULT A80 D45
BEDDING D90
BEDDING D85
BEDDING A10 folded
FAULT A5 annealed
BEDDING A40
FAULT A30 shear
FAULT A30 shear
FAULT A10 annealed
FAULT A20 shear
FAULT A30 shear
FAULT A45 shear

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

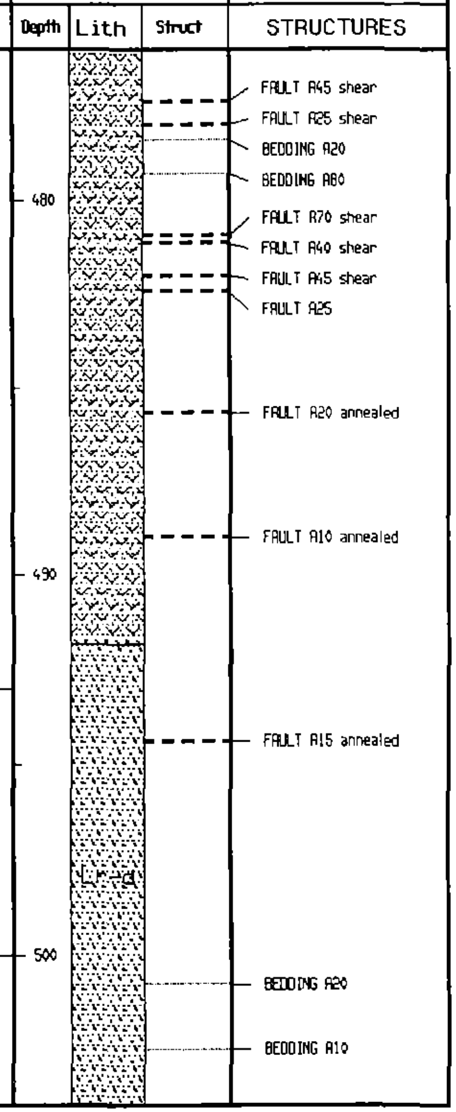
Vertical Scale 1 : 200



DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 465.70 | 491.80 | PUMICEOUS MASS FLOW cream, medium grained, massive, stylolites. *Essentialy the same lithological association from 442.70m. Weak foliation with abundant calcite +-quartz veining. Localized sericitic stylolites.. CONTACT: gradational<br><br>WITH MINOR SILTSTONE grey, fine grained, bedded. Fine grained cream to dark grey sandstone and siltstone, occurs between 478.30-479.50m, 482.70-482.90m and 484.70-485.00m | moderately silicified, slightly sericitised. Abundant calcite quartz veins.<br><br>slightly sericitised | |
| 491.80 | 533.70 | *SILTSTONE CONTAINING LAMINAE OF LIMESTONE* black grey, fine grained fine grained, laminated. Limestone occurs as disrupted lenses between 510.80-511.20m, 520.00-522.00m and 530.30-532.70m. This interval may represent the waning phase of a mass debris flow unit into a mudstone basin, interpreted down hole facing.. CONTACT: faulted<br><br>INTERBEDDED WITH SANDSTONE grey, medium grained, bedded, lithic. Sandstone matrix fine grained slightly silicified and pyritic. Clasts are subrounded *carbonatized felsic volcanics.*<br><br>WITH MINOR RHYODACITE cream, medium grained, peperitic. Carbonatized felsic peperite occurs between 532.75-533.55m. Contacts with siltstone are slightly silicified (chilled?). Possible perlitic textures occur. | | DISSEMINATED trace pyrite disseminated. Disseminated in fine grained sandstone lenses. |

GRAPHIC




5 cm

741120

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

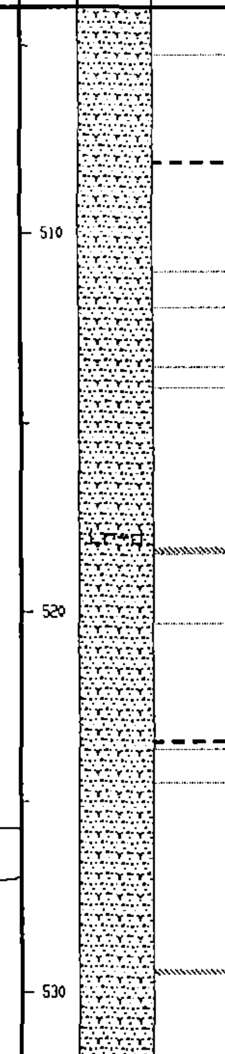
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 491.80 | 533.70 | SILTSTONE CONTAINING LAMINAE OF LIMESTONE black grey, fine grained fine grained, laminated. Limestone occurs as disrupted lenses between 510.80-511.20m, 520.00-522.00m and 530.30-532.70m. This interval may represent the waning phase of a mass debris flow unit into a mudstone basin, interpreted down hole facing.. CONTACT: faulted<br><br>INTERBEDDED WITH SANDSTONE grey, medium grained, bedded, lithic. Sandstone matrix fine grained slightly silicified and pyritic. Clasts are subrounded carbonatized felsic volcanics.<br><br>WITH MINOR RHYODACITE cream, medium grained, peperitic. Carbonatized felsic peperite occurs between 532.75-533.55m. Contacts with siltstone are slightly silicified (chilled?). Possible perlitic textures occur. | | STRINGER 2% pyrite in veinlets. Fine grained veinlets and patches. |

GRAPHIC (Depth, Lith, Struct)




STRUCTURES

BEDDING A65
FAULT A80
BEDDING A30
BEDDING D75
BEDDING D75
BEDDING D55
FIRST CLEAVAGE D80 spaced
BEDDING D75
BEDDING D90
FAULT D70 annealed
BEDDING D80
BEDDING D55
FIRST CLEAVAGE D70

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

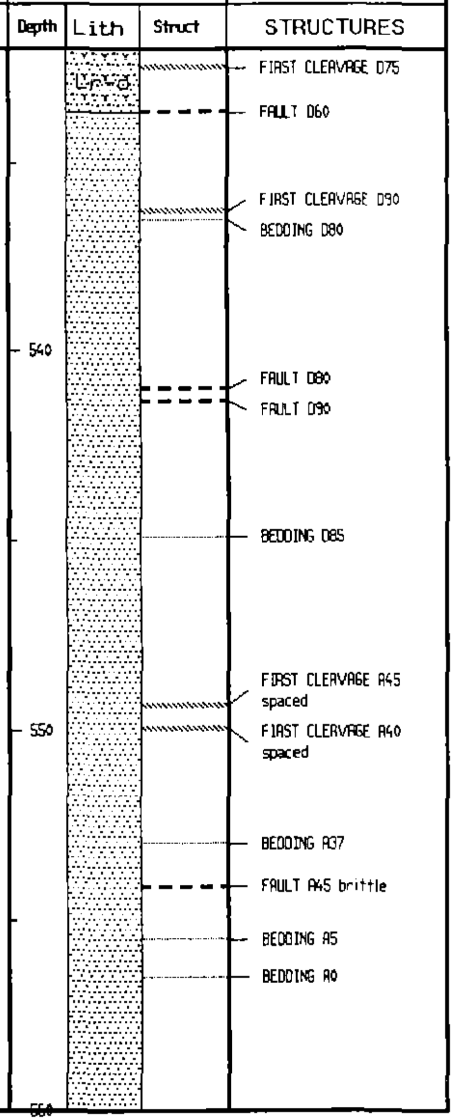
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 491.80 | 533.70 | SILTSTONE CONTAINING LAMINAE OF LIMESTONE black grey, fine grained fine grained, laminated. Limestone occurs as disrupted lenses between 510.80-511.20m, 520.00-522.00m and 530.30-532.70m. This interval may represent the waning phase of a mass debris flow unit into a mudstone basin, interpreted down hole facing.. CONTACT: faulted<br><br>INTERBEDDED WITH SANDSTONE grey, medium grained, bedded, lithic. Sandstone matrix fine grained slightly silicified and pyritic. Clasts are subrounded carbonatized felsic volcanics.<br><br>WITH MINOR RHYODACITE cream, medium grained, peperitic. Carbonatized felsic peperite occurs between 532.75-533.55m. Contacts with siltstone are slightly silicified (chilled?). Possible perlitic textures occur. | | |
| 533.70 | 619.50 | SILTSTONE INTERBEDDED WITH LIMESTONE black grey, fine grained fine grained, laminated brecciated. Siltstone frequently with fine grained pyritic lamina. Limestone lenses brecciated as a result of soft sediment deformation and spaced cleavage development. Abundant calcite +- quartz veining throughout. | | |

GRAPHIC




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

| Hole No. | BPD82 |
|---|---|

PROJECT:

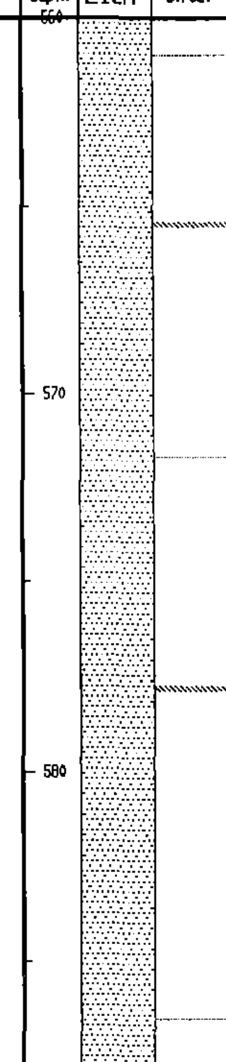
Vertical Scale 1 : 200

Page of 1

| DESCRIPTION | | | | |
|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
| 533.70 | 619.50 | SILTSTONE INTERBEDDED WITH LIMESTONE black grey, fine grained fine grained, laminated brecciated. Siltstone frequently with fine grained pyritic lamina. Limestone lenses brecciated as a result of soft sediment deformation and spaced cleavage development. Abundant calcite +- quartz veining throughout. | | |

GRAPHIC

Depth | Lith | Struct




STRUCTURES

BEDDING A20

FIRST CLEAVAGE A0 spaced

BEDDING A15

FIRST CLEAVAGE A0 spaced

BEDDING D55

5 cm

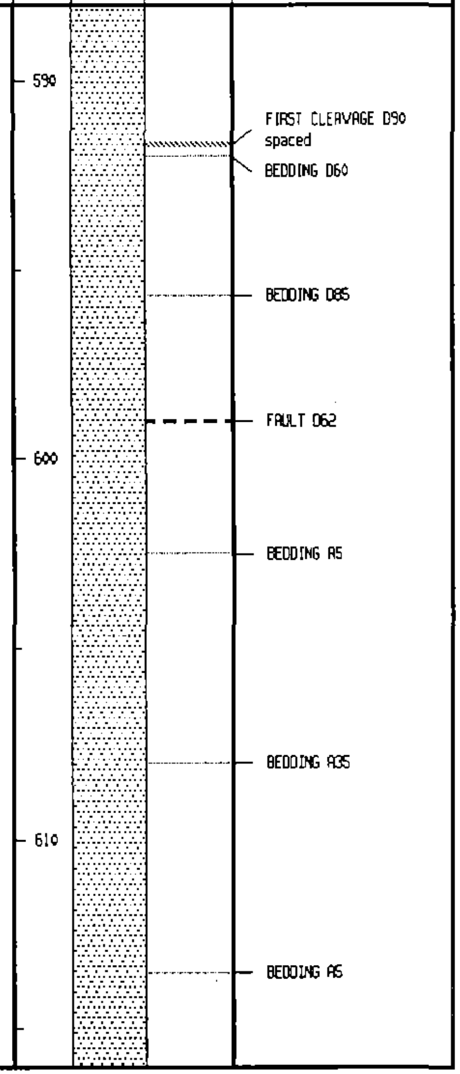
**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT: Vertical Scale 1 : 200 Page of 1

| DESCRIPTION | | | | | GRAPHIC | STRUCTURES |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | STRUCTURES |
| 533.70 | 619.50 | SILTSTONE INTERBEDDED WITH LIMESTONE black grey, fine grained fine grained, laminated brecciated. Siltstone frequently with fine grained pyritic lamina. Limestone lenses brecciated as a result of soft sediment deformation and spaced cleavage development. Abundant calcite +- quartz veining throughout. | | | | |




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD82

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | GRAPHIC (Depth / Lith / Struct) | STRUCTURES |
|---|---|---|---|---|---|---|
| 533.70 | 619.50 | SILTSTONE INTERBEDDED WITH LIMESTONE black grey, fine grained fine grained, laminated brecciated. Siltstone frequently with fine grained pyritic lamina. Limestone lenses brecciated as a result of soft sediment deformation and spaced cleavage development. Abundant calcite +- quartz veining throughout. | | |  | BEDDING A20 |





5 cm

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

**Hole ID**
**BPD83**

## DRILLING

| | |
|---|---|
| Location | TASMANIA |
| Project | BURNS PEAK |
| Prospect | HOLLWAY |
| Design By | M S Saxon |
| Logged By | D Gardner |
| Relogged | |
| Commenced | 16/1/95 |
| Completed | 31/1/95 |
| Drilled By | Contract Diamond Drilling |
| Drill Rig | Mindrill 55 |

## OBJECTIVE

To test the Hollway Pyrite Zone. Intense silica-sericite-pyrite alteration is well known from the Hollway Rivulet, with a coincident, strong IP, weak UTEM, and weak Zn-Cu wacker anomalies.

## RESULT

Approximately 200m of intense silica-sericite-pyrite altered andesite and felsic volcanics were intersected. Not base metal or Au mineralisation was located.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5382896.5 | Bearing | 130.0 |
| AMG mE | 377912.9 | Dip | -45.0 |
| mN | | Hole Length | 426.7 |
| mE | | DH Survey Type | Eastman Camera |
| RL | 380.7 | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 0.0 | -45.00 | 130.00 |
| 30.0 | -44.50 | 130.00 |
| 66.0 | -45.50 | 130.00 |
| 96.0 | -45.50 | 129.00 |
| 144.0 | -44.00 | 129.00 |
| 174.0 | -44.00 | 130.00 |
| 204.0 | -44.00 | 130.00 |
| 267.0 | -43.50 | 131.00 |
| 297.0 | -43.50 | 131.00 |
| 327.0 | -43.00 | 131.50 |
| 372.0 | -43.00 | 131.50 |
| 426.0 | -41.00 | 132.50 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 0 | 2 | HW |
| 2 | 50 | HQ |
| 50 | 426.7 | NQ |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | |
| Steel Casing | 3m of HW casing remained in top of hole |
| PVC Casing | 48mm PVC to EOH |
| Ground Water | |
| Wedge | |
| Drill Pad | Drilled from road edge. Sump refilled. |

## SIGNIFICANT INTERSECTIONS

| From | To | Int | Cu | Pb | Zn | Ag | Au | Comments |
|---|---|---|---|---|---|---|---|---|

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG



PROJECT: BURNS PEAK

Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 4.20 | INTERMEDIATE LAVA Pale, Grey, Fine grained, Porphyritic, Feldspar phyric, Weathered, bleached<br>CONTACT: Indistinct, | Highly Bleached, Highly Oxidised, Moderately Sericitised, | | |
| 4.20 | 5.00 | INTERMEDIATE LAVA Yellow, Brown, Medium grained, Strongly weathered, to clay in places | Intensely Oxidised, | | |
| 5.00 | 6.80 | ANDESITE Grey, Green, Medium grained, Vesicles, Feldspar phyric, Hornblende phyric, Strongly vesicular with chloritised vesicles<br>CONTACT: Indistinct, Abrupt change downhole | Moderately Bleached, Moderately Sericitised, Slightly Chloritised, | | |
| 6.80 | 7.40 | INTERMEDIATE LAVA AND BRECCIA AND ALTERATION ZONE Pale, Grey, Fine grained, Feldspar phyric, Hornblende phyric, Silica altered, alteration destroys texture in places, brecciated or an epiclastic<br>CONTACT: Indistinct, | Moderately Silicified, Slightly Sericitised, | DISSEMINATED, very minor pyrite associated with alteration, | |
| 7.40 | 29.00 | ANDESITE Grey, Green, Medium grained, Porphyritic, Massive, Feldspar phyric, Hornblende phyric, Feldspar crystals rapidly fine downhole<br>CONTACT: Indistinct, | Slightly Sericitised, Slightly Chloritised,<br><br>Slightly Sericitised, Slightly Chloritised, Ser in vns, fx and replacing Fs and mafic xtal, Hem along a number of fx<br><br>Moderately Sericitised, Slightly Chloritised, Patches of moderate Ser and/or pk feldspar alteration | | FRACTURE, A 45, Fx and ser vn at 45 and sub parallel to LCA |

GRAPHIC: Depth 0, 10, 20

5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

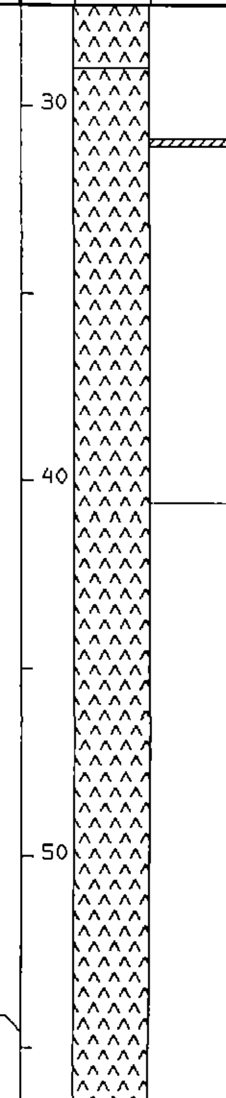
HOLE No. BPD83

PROJECT: BURNS PEAK

Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 29.00 | 96.30 | ANDESITE Green, Grey, Fine grained, Medium grained, Massive, Feldspar phyric, Hornblende phyric, Fine feldspar crystals and rare coarse hornblende crystals to 2mm, colour dk grn - gy becomes gradually lighter downhole, some flowbanding 40.4-40.8<br>CONTACT: Gradational, | Slightly Sericitised, Slightly Chloritised, Patches of moderate Ser and/or pk feldspar alteration | | |
| | | | | | VEIN, A 45, Carbonate, Quartz, Sericite, Moderate to strong veining at 45 and sub parallel to LCA |
| | | | | | PRIMARY FABRIC, A 40, Flowbanding |
| | | | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Patches of moderate Ser and/or pk feldspar alteration, fine carbonate | DISSEMINATED, 2% pyrite in veinlets. | |



74128

5 cm

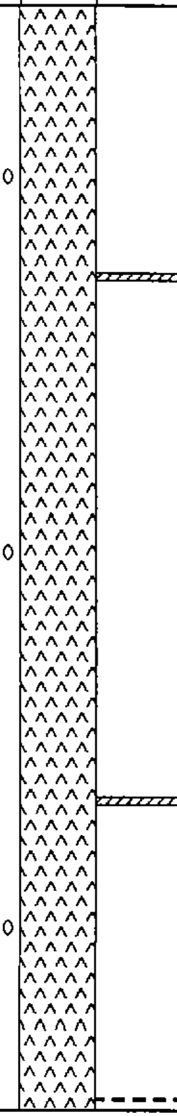
PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG
Vertical Scale 1 : 200

HOLE No. BPD83

PROJECT: BURNS PEAK



| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | | and/or pk feldspar alteration, fine carbonate in matrix | | 60 | | | |
| | | | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Patches of strong pk feldspar alteration, fine carbonate in matrix | | 70 | | | |
| | | | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Patches of moderate Ser and/or pk feldspar alteration, fine carbonate in matrix | | | | | VEIN, R 35, Carbonate, Quartz, Sericite. There is strong carbonate/quartz/sericite veining all down the hole |
| | | | | | | | | VEIN, Carbonate, V strong |
| | | | | trace chalcopyrite in veins, | 80 | | | |
| | | | | | | | | FAULT, Pug, Breccia |



621172

5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

**HOLE No.** BPD83

**PROJECT:** BURNS PEAK

Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| | | | | DISSEMINATED, trace pyrite in veins. | FAULT. Pug. Breccia.<br>VEIN. Carbonate. Increase in the frequency of carbonate veining down hole |
| 96.30 | 97.00 | ANDESITE AND BRECCIA Green, Grey, Fine grained, Medium grained, Brecciated, Hyaloclastitic, Feldspar phyric, Hornblende phyric, Crystal, CONTACT: Gradational, | | DISSEMINATED, very minor pyrite on fractures. pyrite in mx between bx fragments. | |
| 97.00 | 101.70 | ANDESITE Green, Grey, Medium grained, Porphyritic, Massive, Feldspar phyric, Hornblende phyric, Crystal, Feldspar crystals to 1mm, hornblende crystals to 3mm CONTACT: Conformable abrupt, at 45 degrees to Possible inclusion of clast of lower unit at contact | | DISSEMINATED, very minor pyrite in veins. also pyrite along some fractures. | PRIMARY FABRIC, A 50. Flowbanding<br>VEIN. Carbonate. Quartz. 5cm wide, strong carbonate quartz veining throughout the hole |
| 101.70 | 108.00 | ANDESITE Green, Grey, Medium grained, Coarse grained, Porphyritic, Massive, Feldspar phyric, Hornblende phyric, Crystal, CONTACT: Conformable abrupt, at 40 degrees to | Slightly Sericitised. Slightly Chloritised. Slightly Carbonatised. Ser and/or clt alteration of phenocrysts and in ground mass, moderate in patches; patches of pk feldspar alteration, especially 108-114m, 126.4-128m, 152.6-161m; fine carbonate in matrix in most of the interval | | |
| 108.00 | 117.00 | INTERMEDIATE LAVA Grey, Medium grained, Massive, Crystal, CONTACT: Gradational, | | DISSEMINATED, 0.1% pyrite in veins.<br>DISSEMINATED, trace pyrite in veins, trace pyrite disseminated. | FAULT. A 60, Pug, 5cm wide |

5 cm

**HOLE No.** BPD83

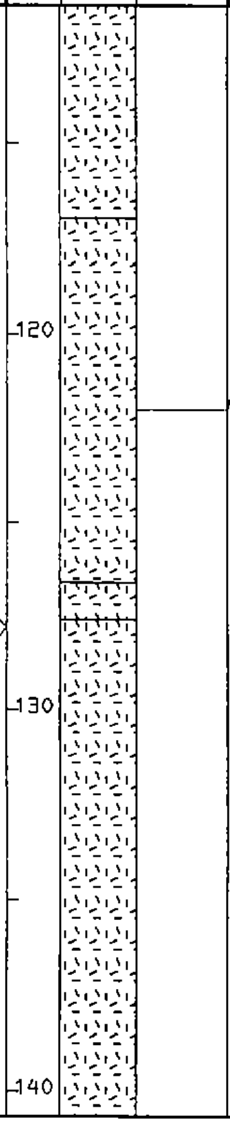
**PROJECT:** BURNS PEAK

Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 117.00 | 126.60 | INTERMEDIATE LAVA Grey, Medium grained, Coarse grained, Porphyritic, Massive, Feldspar phyric, Hornblende phyric, Crystal, CONTACT: Conformable abrupt, | | | PRIMARY FABRIC, A 45, Possible primary fabric indicated by phenocryst orientation |
| 126.60 | 127.60 | INTERMEDIATE LAVA AND BRECCIA Grey, Pink, Medium grained, Brecciated, Hyaloclastitic, Feldspar phyric, Hornblende phyric, Crystal, Interflow breccia or auto brecciated lava margin CONTACT: Conformable abrupt, | | trace chalcopyrite in veins. | |
| 127.60 | 142.70 | INTERMEDIATE LAVA Dark, Grey, Fine grained, Medium grained, Massive, Crystal, CONTACT: Gradational, | | DISSEMINATED, trace pyrite in veins. | |

GRAPHIC (Depth, Lith, Structures)




5 cm

PASMINCO EXPLORATION

DIAMOND DRILL CORE LOG

Vertical Scale 1 : 200

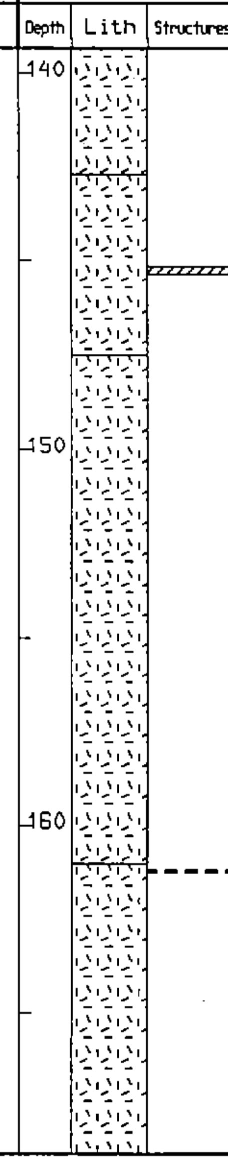
HOLE No. BPD83

PROJECT: BURNS PEAK



| DESCRIPTION | | | | | STRUCTURES |
|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
| 142.70 | 147.50 | INTERMEDIATE LAVA Dark, Grey, Fine grained, Aphyric, Massive, Felsic lava<br>CONTACT: Gradational, | | | VEIN, Carbonate, 10cm zone of intense carbonate veining, note quartz/carbonate veining is strong right through the hole |
| 147.50 | 161.00 | INTERMEDIATE LAVA Dark, Grey, Fine grained, Medium grained, Massive, Feldspar phyric, Dark grey green with a number of pink patches<br>CONTACT: Indistinct, | Highly Silicified, Moderately Sericitised, Patches of strong pk Feldspar alteration | | |
| 161.00 | 169.80 | INTERMEDIATE LAVA AND BRECCIA Grey, Pink, Brecciated, Feldspar phyric, Altered felsic lava, veining after fracturing and brecciation<br>CONTACT: Gradational, | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Patches of moderate pk Feldspar alteration especially 163.5-169.8m; some slightly silicified patches? | | FAULT, A 70, 5cm |

GRAPHIC




5 cm

## DESCRIPTION

| From | To | LITHOLOGY |
|---|---|---|
| 169.80 | 170.30 | INTERMEDIATE LAVA Grey, Medium grained, Coarse grained, Porphyritic, Feldspar phyric, Hornblende phyric, Crystal, Altered lava, some chlorite altered hornbende phenocrysts to 3mm<br>CONTACT: Faulted, |
| 170.30 | 176.10 | INTERMEDIATE LAVA Grey, Green, Fine grained, Massive, Flow banded, Altered lava, flowbanding lower in interval at 40 to LCA<br>CONTACT: Conformable abrupt, at 35 degrees to |
| 176.10 | 177.05 | INTERMEDIATE LAVA AND BRECCIA Grey, Green, Medium grained, Brecciated, Hyaloclastitic, Feldspar phyric, Hornblende phyric, Crystal, Interflow breccia and/or hyaloclastite margin of lava, minimal reworking of fragments, many have a jigsaw fit<br>CONTACT: Conformable abrupt, at 50 degrees to |
| 177.05 | 207.90 | INTERMEDIATE LAVA WITH MINOR BRECCIA Grey, Green, Medium grained, Massive, Hyaloclastitic, Feldspar phyric, Hornblende phyric, Crystal, Altered felsic lava porphyritic in places, with auto?breccia intervals (<20cm) at 177.6m, 178.2m, 182.6m; possible flowbanding at 20 to LCA at 187m, a green mineral possibly fuchsite around 177m<br>CONTACT: Indistinct, Intrusive? obscured by alteration |

### ALTERATION

patches?

Slightly Quartz-sericite-pyrite, Slightly Chloritised, Slightly Carbonatised, Increase in degree of alteration

### MINERALISATION

DISSEMINATED, minor pyrite in veins,

trace sphalerite in veinlets,

DISSEMINATED, minor pyrite in veins,

trace sphalerite in veinlets, trace galena in veinlets,

DISSEMINATED, minor pyrite in veins, pyrite also in mx between breccia fragments,

DISSEMINATED, minor pyrite in veins, very minor pyrite disseminated, pyrite locally to 2% in veins and breccia zones,

### GRAPHIC

Depth | Lith | Structures

170

180

190

### STRUCTURES

FAULT, Pug, Shear, 5cm

PRIMARY FABRIC, A 30, Flowbanding?

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL CORE LOG**

**HOLE No.** BPD83

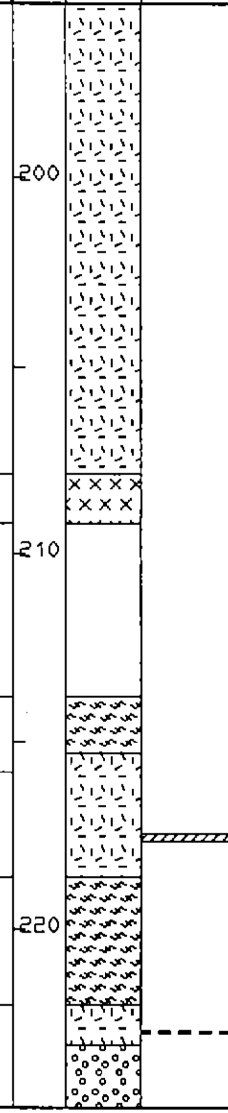
**PROJECT:** BURNS PEAK

Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 207.90 | 209.20 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Green, Grey, Fine grained, Massive, Dyke? less altered than surrounding rocks CONTACT: Indistinct, Intrusive? obscured by alteration | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Less altered dyke? | DISSEMINATED, trace pyrite disseminated. | |
| 209.20 | 213.80 | ALTERATION ZONE Pale, Grey, Strongly altered lava CONTACT: Indistinct, Obscured by alteration, probably conformable | Highly Quartz-sericite-pyrite, Highly Detextured. | DISSEMINATED, minor pyrite disseminated, abundant in veins, pyrite locally to 1%. | |
| 213.80 | 215.30 | RHYOLITE Pink, Grey, Fine grained, Massive, Rare phenocrysts CONTACT: Conformable abrupt, at 35 degrees to Some brecciation of lower unit and inclusions of rhyolite in top of lower unit, flow top | Moderately Silicified, M pk Feldspar alteration | DISSEMINATED, very minor pyrite disseminated. | |
| 215.30 | 218.60 | INTERMEDIATE LAVA AND BRECCIA Green, Grey, Medium grained, Brecciated, Hyaloclastitic, Feldspar phyric, Hornblende phyric, Possible inclusion of lower unit at 218.0, altered at base CONTACT: Indistinct, Obscured by alteration | Slightly Silicified, Slightly Sericitised, Slightly Carbonatised, And chlorite alteration | DISSEMINATED, 0.5% pyrite disseminated. | VEIN, A 45, Carbonate, 10cm carbonate vein, note carbonate/quartz +/- pyrite is common downhole |
| 218.60 | 222.00 | RHYOLITE Pink, Grey, Fine grained, Massive, CONTACT: Conformable abrupt, at 45 degrees to | Slightly Silicified, M pk Feldspar alteration | DISSEMINATED, trace pyrite disseminated. | |
| 222.00 | 223.00 | INTERMEDIATE LAVA AND BRECCIA AND CONGLOMERATE Green, Grey, Some clasts of rhyolite? s/rnd from lower unit? CONTACT: Conformable abrupt, at 45 degrees to Contact partly faulted | Moderately Quartz-sericite-pyrite. | DISSEMINATED, 0.5% pyrite disseminated, py in vn and between bx fragments. | FAULT, A 45. |
| 223.00 | 224.70 | CONGLOMERATE CONTAINING CLASTS OF RHYOLITE AND INTERMEDIATE LAVA Green, Pink, Very coarse grained, | | | |

GRAPHIC (Depth / Lith / Structures)

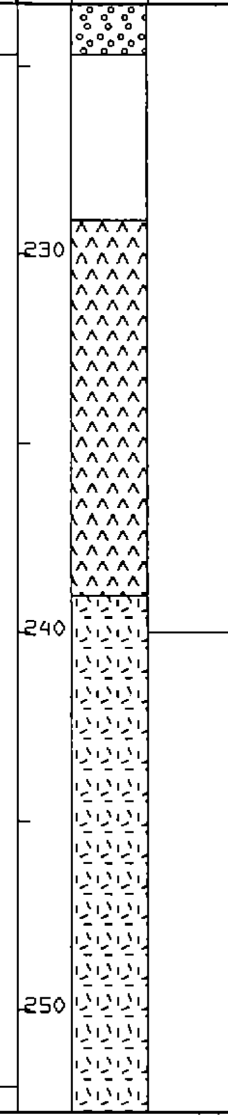



5 cm

| DESCRIPTION | | | | | STRUCTURES |
|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
| 223.00 | 224.70 | CONGLOMERATE CONTAINING CLASTS OF RHYOLITE AND INTERMEDIATE LAVA Green, Pink, Very coarse grained, Reworked, Clast supported, Polymict, Clasts s/ang to s/rnd up to 5cm<br>CONTACT: Indistinct, Obscured by alteration | | | |
| 224.70 | 229.10 | ALTERATION ZONE Grey, Green, Inclusions of clasts of rhyolite toward base of interval<br>CONTACT: Indistinct, Obscured by alteration | Highly Quartz-sericite-pyrite, Moderately Detextured.<br>Moderately Quartz-sericite-pyrite. | DISSEMINATED, very minor pyrite disseminated. | |
| 229.10 | 239.00 | ANDESITE Green, Grey, Medium grained, Massive, Feldspar phyric, Hornblende phyric, Distinct zoning of alteration/bleaching around fractures (234-239), becomes coarser towards base of interval<br>CONTACT: Indistinct, Possible contact, mnr brecciation | | | A 90, Shear, Minor |
| 239.00 | 253.20 | INTERMEDIATE LAVA Green, Grey, Medium grained, Flow banded, Mnr brecciation in places (241.3,246.6),wk flow foln 45 to LCA around 240m, developement of a perlitic?? texture around 242m<br>CONTACT: Gradational, | Moderately Quartz-sericite-pyrite, Slightly Detextured, Slightly Bleached, Patches of strong alteration, mnr pk Feldspar alteration | DISSEMINATED, pyrite associated with | PRIMARY FABRIC, A 45, Flow foliation |

GRAPHIC

Depth | Lith | Structures




5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| | | | Intensely Sericitised, Patch of ser alteration/vn | DISSEMINATED, pyrite associated with alteration, 0.5% in veins. | |
| 253.20 | 255.60 | INTERMEDIATE LAVA Green, Pink, Fine grained, Medium grained, Feldspar phyric, Hornblende phyric, CONTACT: Conformable abrupt, at 45 degrees to | Highly Quartz-sericite-pyrite, Moderately Detextured, Moderately Bleached, Moderate pk Feldspar alteration | | VEIN, Sericite, Quartz, Note strong quartz/carbonate/sericite/ +/- pyrite veining downhole |
| 255.60 | 267.20 | RHYOLITE Pink, Grey, Fine grained, Medium grained, Massive, Aphyric, Bleached or pink around fractures, becomes very bleached towards base of interval CONTACT: Gradational, Contact obscured by alteration | | DISSEMINATED, minor pyrite disseminated, py locally abundant in vns. | |
| 267.20 | 267.60 | ALTERATION ZONE AND ACID LAVA Cream, Grey, Brecciated, Matrix supported, Sericite vn/alteration brecciating lava CONTACT: Indistinct, Intrusive contact? | Intensely Sericitised, Patch of ser alteration/vn | DISSEMINATED, pyrite associated with alteration, 2% in veins. | |
| 267.60 | 270.90 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Dark, Green, Fine grained, Massive, Dyke? or andesite lava, less altered than surrounding rock CONTACT: Conformable abrupt, at 40 degrees to Intrusive?, obscured by alteration | Moderately Sericitised, Slightly Chloritised, Slightly Carbonatised. | DISSEMINATED, trace pyrite disseminated. | |
| 270.90 | 272.10 | INTERMEDIATE LAVA AND ALTERATION ZONE Grey, Altered lava CONTACT: Indistinct, Obscured by alteration, lower intrusive? is brecciated? at contact | Highly Quartz-sericite-pyrite, Moderately Detextured. | DISSEMINATED, pyrite associated with alteration, 1% in veins. | |
| 272.10 | 273.60 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Dark, Green, Medium grained, Porphyritic, Vitric, Wisps, Feldspar phyric, Dyke?, or andesite lava, chloritised wisps of glass?, some phenocrysts. CONTACT: Conformable abrupt, at 35 degrees to Intrusive? possible chilled margin | Slightly Sericitised, Slightly Chloritised, Slightly Carbonatised, Less altered dyke? | DISSEMINATED, trace pyrite disseminated. | |
| 273.60 | 280.20 | ALTERATION ZONE GRADING WITH INTERMEDIATE LAVA GRADING WITH ACID LAVA Grey, Altered felsic lava CONTACT: Gradational, Probably an alteration zoning | Highly Quartz-sericite-pyrite, Moderately Detextured. | DISSEMINATED, very minor pyrite disseminated. | |
| 280.20 | 286.60 | INTERMEDIATE LAVA Grey, Green, Medium grained, Altered | | DISSEMINATED, pyrite associated with | |

Depth: 260, 270, 280

5 cm

**HOLE No.** BPD83

**PROJECT:** BURNS PEAK

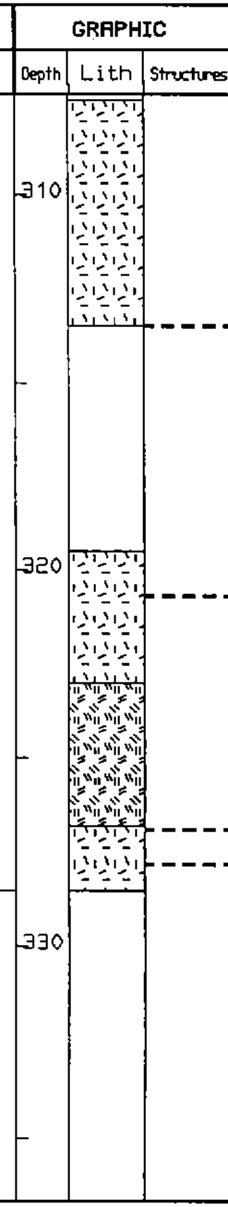
Vertical Scale 1 : 200



| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 280.20 | 286.60 | INTERMEDIATE LAVA Grey, Green, Medium grained, Altered felsic lava<br>CONTACT: Gradational, Probably an alteration zoning | Moderately Silicified,<br>Slightly Sericitised,<br>Slightly Carbonatised, | DISSEMINATED, pyrite associated with alteration, abundant in veins, py locally to 5% in vn. | 280 | | | |
| 286.60 | 307.50 | ALTERATION ZONE GRADING WITH ACID LAVA Grey, Very altered lava<br>CONTACT: Gradational, Obscured by alteration | Highly<br>Quartz-sericite-pyrite,<br>Moderately Detextured, | DISSEMINATED, very minor pyrite disseminated,<br>DISSEMINATED, pyrite disseminated, minor in veins, py common (except in basic dykes) and lcally to 2%. | 290<br>300 | | | |
| 307.50 | 313.50 | INTERMEDIATE LAVA Grey, Green, Medium grained, Altered intermediate lava | Moderately Sericitised,<br>Slightly Silicified | | | | | |

5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 307.50 | 313.50 | INTERMEDIATE LAVA Grey, Green, Medium grained, Altered intermediate lava<br>CONTACT: Conformable abrupt, ?very abrupt contact, lithologic? | Moderately Sericitised, Slightly Silicified, Slightly Carbonatised. | | |
| 313.50 | 319.50 | ALTERATION ZONE GRADING WITH ACID LAVA Grey, White, Very altered lava<br>CONTACT: Conformable abrupt, ? abruptcontact, probably lithologic? | Highly Quartz-sericite-pyrite, Moderately Detextured. | | FAULT, Pug. |
| 319.50 | 323.00 | INTERMEDIATE LAVA Green, Grey, Medium grained, Flow banded, Feldspar phyric, Variable alteration makes rocks look v different within interval, some flow textures at 40 to LCA<br>CONTACT: Indistinct, Obscured by alteration | Moderately Quartz-sericite-pyrite.<br>Moderately Sericitised, Slightly Carbonatised.<br>Moderately Quartz-sericite-pyrite. | | FAULT, Pug. |
| 323.00 | 326.80 | ACID LAVA Grey, Fine grained, | Highly Quartz-sericite-pyrite, Pk Feldspar alteration | | |
| 326.80 | 328.50 | INTERMEDIATE LAVA Grey, Green, Medium grained, Altered lava<br>CONTACT: Indistinct, Contact obscured, mnr brecciation | Moderately Quartz-sericite-pyrite, Slightly Carbonatised. | | FAULT, A 40.<br>FAULT, A 40. |
| 328.50 | 343.30 | ALTERATION ZONE GRADING WITH ACID LAVA GRADING WITH INTERMEDIATE LAVA Pale, Grey, V altered lava, some less altered patches (eg 336, 342m) with relict flowbanding 40 to LCA defined by chlorite/pyrite clots (amygdales?), brecciation at 332.3 and 333.5m<br>CONTACT: Faulted, at 80 degrees to | Highly Quartz-sericite-pyrite, Moderately Detextured, Moderately Bleached. | DISSEMINATED, pyrite disseminated. associated with alteration. 1% in veins. strong pyrite developement especially in veins and breccia zones. | |




5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | STRUCTURES |
|---|---|---|---|---|---|---|
| | | | Moderately Quartz-sericite-pyrite, Slightly Carbonatised. | | 340 | |
| | | | Highly Quartz-sericite-pyrite, Moderately Detextured, Moderately Bleached. | | | |
| 343.30 | 345.70 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Dark, Green, Fine grained, Medium grained, Dyke or lava?, much less altered than surrounding rocks<br>CONTACT: Conformable abrupt, at 20 degrees to Intrusive contact? bleaching at bottom of dyke | Moderately Sericitised, Slightly Chloritised, Slightly Carbonatised, Some silicification? | VEIN, very minor pyrite | | FAULT. |
| 345.70 | 354.30 | ALTERATION ZONE GRADING WITH ACID LAVA GRADING WITH INTERMEDIATE LAVA Pale, Grey, V altered lava<br>CONTACT: Conformable abrupt, at 45 degrees to Intrusive contact? bleaching of dyke | Highly Quartz-sericite-pyrite, Moderately Detextured. | DISSEMINATED, pyrite associated with alteration, minor in veins, py common with local strong developement in veins and with strong silicification. | 350 | |
| 354.30 | 357.60 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Dark, Green, Fine grained, Medium grained, Flow banded, Feldspar phyric, Dyke or lava?,much less altered than surrounding rocks, flowbanding at 30 to LCA<br>CONTACT: Conformable abrupt, at 30 degrees to Intrusive contact? bleaching of dyke? | Moderately Sericitised, Slightly Carbonatised, Slightly Chloritised. | | | |
| 357.60 | 359.60 | ALTERATION ZONE GRADING WITH ACID LAVA Pale, Grey, V altered lava<br>CONTACT: Conformable abrupt, at 45 degrees to Intrusive contact? | Highly Quartz-sericite-pyrite. | | | |
| 359.60 | 363.40 | INTERMEDIATE INTRUSIVE GRADING WITH BASIC INTRUSIVE Dark, Green, Fine grained, Medium grained, Dyke or lava? less altered than surroundings<br>CONTACT: Gradational. | Moderately Sericitised, Slightly Carbonatised, Slightly Chloritised. | DISSEMINATED, pyrite associated with alteration, 0.2% in veins, py common with local strong developement in veins and with strong silicification. | 360 | |
| 363.40 | 367.50 | BRECCIA AND BASIC INTRUSIVE GRADING WITH INTERMEDIATE LAVA Grey, Green, Fine grained, Very coarse grained, Brecciated, Small patches of int-basic volcanic (blocks [illegible] | Moderately Quartz-sericite-pyrite, Patches of strong [illegible] | | | |

5 cm

## DESCRIPTION

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 363.40 | 367.50 | LAVA Grey, Green, Fine grained, Very coarse grained, Brecciated, Small patches of int-basic volcanic (blocks of lava?, small dykes?) and polymict breccia of silicified lava fragments and more basic volcanics CONTACT: Gradational, | Moderately Quartz-sericite-pyrite, Patches of strong alteration, and some less altered sections with carbonate, chlorite | | |
| 367.50 | 368.70 | ALTERATION ZONE GRADING WITH ACID LAVA Pale, Grey, V altered lava CONTACT: Gradational, | Highly Quartz-sericite-pyrite, | | |
| 368.70 | 369.90 | BRECCIA WITH MINOR BASIC INTRUSIVE Grey, Green, Medium grained, Very coarse grained, Brecciated, Matrix supported, Polymict, Breccia with fragments of int and sil lava, 20cm of basic dyke with calcite filled amygdales? CONTACT: Gradational, | Moderately Quartz-sericite-pyrite, Patches of strong alteration, dyke is much les altered | DISSEMINATED, pyrite associated with alteration, 2% in veins, strong pyrite developement. | |
| 369.90 | 384.30 | ALTERATION ZONE GRADING WITH ACID LAVA Pale, Grey, Hyaloclastitic, Peperitic, Altered lava, autobrecciated? with a possible pepperitic texture, silicified lava is broken by streaky sericite rich patches that may have been sediment. 374.5-374.9m large block ofless altered rock CONTACT: Conformable abrupt, at 55 degrees to Intrusive contact? | Highly Quartz-sericite-pyrite, Except for less altered dykes | | |
| 384.30 | 384.90 | BASIC INTRUSIVE GRADING WITH INTERMEDIATE INTRUSIVE Dark, Green, Fine grained, Medium grained, Feldspar phyric, Dyke or lava? CONTACT: Conformable abrupt, at 45 degrees to Intrusive contact | Moderately Sericitised, Slightly Carbonatised, Slightly Chloritised, | | |
| 384.90 | 388.60 | BRECCIA WITH MINOR BASIC INTRUSIVE Grey, Green, Medium grained, Very coarse grained, Brecciated, Polymict, Breccia with blocks/patches of altered lava and less altered basic volcanics (dykes?), strongly faulted CONTACT: Faulted, at 60 degrees to | Moderately Quartz-sericite-pyrite, Highly Quartz-sericite-pyrite, | | FAULT, A 60, FAULT, A 50, FAULT, A 60, |
| 388.60 | 391.90 | BASIC INTRUSIVE GRADING WITH INTERMEDIATE INTRUSIVE Dark, Green, Fine grained, Medium grained, Feldspar phyric, Dyke or lava? mostly mg with a section of fg rock (dyke within a dyke?) 390.8-391.8m CONTACT: Conformable abrupt, at 60 degrees to Microfaulting on contact, bleaching of basic rock at | Moderately Sericitised, Slightly Carbonatised, Slightly Chloritised, | DISSEMINATED, very minor pyrite | |
| 391.90 | 396.50 | | Intensely | DISSEMINATED, pyrite associated with | |

GRAPHIC: Depth 370, 380, 390

5 cm

| From | To | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| | | CONTACT: Conformable abrupt, at 60 degrees to Microfaulting on contact, bleaching of basic rock at contact | | | |
| 391.90 | 396.50 | ALTERATION ZONE GRADING WITH ACID LAVA Pale, Grey, V altered volcanic<br>CONTACT: Gradational, | Intensely Quartz-sericite-pyrite, | DISSEMINATED, pyrite associated with alteration, 2% in veins, 5% | Shear, |
| 396.50 | 402.60 | BRECCIA AND ALTERATION ZONE GRADING WITH ACID LAVA Grey, Medium grained, Very coarse grained, Brecciated, Polymict, Blocks of rhyolite? (pk) and less altered intermediate lava in altered volcanic<br>CONTACT: Gradational, | Moderately Quartz-sericite-pyrite, Highly Quartz-sericite-pyrite, | DISSEMINATED, pyrite associated with alteration, 1% in veins, strong pyrite developement locally to 5% in vn and bx?, v mnr py in basic dykes, | |
| 402.60 | 406.00 | ALTERATION ZONE GRADING WITH ACID LAVA Pale, Grey, V altered volcanic, still some indications of a brcciated texture in places<br>CONTACT: Gradational, | Highly Quartz-sericite-pyrite, | | |
| 406.00 | 410.00 | ACID LAVA GRADING WITH ALTERATION ZONE Grey, Medium grained, Coarse grained, Brecciated, Altered lava some indications of brecciarion, and some streaky strongly sericitic patches (relict pepperitic? texture)<br>CONTACT: Gradational, | Moderately Quartz-sericite-pyrite, Highly Quartz-sericite-pyrite, | | |
| 410.00 | 415.20 | ACID LAVA Grey, Pink, Medium grained, Brecciated, Altered lava, rhyolitic? (pk), lots of healed fractures<br>CONTACT: Indistinct, | Moderately Quartz-sericite-pyrite, Some pk Feldspar alteration | | |
| | | INTERMEDIATE LAVA ACID LAVA Grey, Coarse grained, Clots of chlorite and pyrite (amygdales?) define a flow fabric at 30 to LCA<br>CONTACT: Conformable abrupt, at 20 degrees to Intrusive contact | | | |
| 415.20 | 416.80 | BASIC INTRUSIVE GRADING WITH INTERMEDIATE INTRUSIVE Green, Fine grained, Flow banded, Feldspar phyric, Flow texture at 20 to LCA, bleacing at chilled margins, inclusions of upper unit at contact<br>CONTACT: Conformable abrupt, at 20 degrees to Intrusive contact | Moderately Sericitised, Moderately Bleached, Slightly Carbonatised, | | |
| 416.80 | 417.60 | | | | |
| 417.60 | 419.90 | | Highly Quartz-sericite-pyrite, | | |
| 419.90 | 426.60 | ALTERATION ZONE GRADING WITH ACID LAVA GRADING WITH BRECCIA Grey, Some textures imply brecciated fragments of | Moderately ... | | |

GRAPHIC: Depth 400, 410, 420

5 cm

# PASMINCO EXPLORATION
## DIAMOND DRILL CORE LOG

HOLE No. BPD83

PROJECT: BURNS PEAK

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| From | To | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Structures | STRUCTURES |
| | | ALTERATION ZONE GRADING WITH ACID LAVA GRADING WITH BRECCIA Grey, Some textures imply brecciated fragments of less altered lava, or possibly pepperitic texture, but these may well be alteration feature CONTACT: Indistinct, | Moderately Quartz-sericite-pyrite, Slightly Chloritised. | | 420 | | | |
| 419.90 | 426.60 | INTERMEDIATE LAVA GRADING WITH ACID LAVA WITH MINOR BASIC INTRUSIVE Grey, Coarse grained, Flow banded, Clots to 1cm of containing pyrite and chlorite (amygdales?) define a flow fabric at 40 to LCA, at 422m is a 30cm bleached fg basic dyke with sharp contacts at 40 to LCA | Moderately Sericitised, Moderately Bleached. Moderately Quartz-sericite-pyrite, Slightly Chloritised. | | | | | |
| | | | | | 430 | | | |
| | | | | | 440 | | | |

5 cm

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

Hole ID
BPD84

## DRILLING

| | |
|---|---|
| Location | TASMANIA |
| Project | BURNS PEAK |
| Prospect | EAST HOLLWAY |
| Design By | M S Saxon |
| Logged By | M S Saxon |
| Relogged | |
| Commenced | 4/2/95 |
| Completed | 21/2/95 |
| Drilled By | Contract Diamond Drilling |
| Drill Rig | Mindrill S5 |

## OBJECTIVE

To test an area of weak Zn-Au mineralisation in rock chips, coincident with a weak soil anomaly, within East Hollway Magnetic Low. Target zone is at or about the base of the Hollway Andesite.

## RESULT

Hole collared into Hollway Andesite and drilled through a thin Animal Creek Greywacke interval to 49.5m. The remainder of the hole intersected felsic lava and lava breccia of the CVC, with patchy intense silica-sericite-feldspar alteration, with pyrite, sphalerite and minor Au mineralisation.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5383551.8 | Bearing | 136.0 |
| AMG mE | 379002.7 | Dip | -50.0 |
| mN | | Hole Length | 385.1 |
| mE | | DH Survey Type | Eastman Camera |
| RL | 422.3 | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 0 | 136.0 | -50.0 |
| 34 | 136.0 | -51.0 |
| 67 | 136.0 | -51.0 |
| 97 | 135.5 | -51.0 |
| 130 | 135.0 | -51.5 |
| 160 | 135.0 | -51.0 |
| 190 | 136.0 | -51.0 |
| 250 | 135.0 | -51.0 |
| 310 | 136.0 | -51.0 |
| 352 | 137.0 | -51.0 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 0 | 3 | HW |
| 3 | 44 | HQ |
| 44 | 385.1 | NQ |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | 3m steel casing at collar |
| Steel Casing | |
| PVC Casing | 48mm PVC to EOH |
| Ground Water | |
| Wedge | |
| Drill Pad | |

## SIGNIFICANT INTERSECTIONS

| From | To | Int | Cu | Pb | Zn | Ag | Au | Comments |
|---|---|---|---|---|---|---|---|---|
| 116 | 125 | 9 | | | 0.2 | | | |
| 141.7 | 144.2 | 2.5 | | 0.2 | 0.4 | | | |
| 168 | 169 | 1 | 0.3 | 0.9 | 1.4 | | 1.9 | |
| 179 | 182 | 3 | | 0.1 | 0.3 | | 0.6 | |
| 215 | 218 | 3 | | 0.5 | | | 0.1 | |

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

Vertical Scale 1 : 200

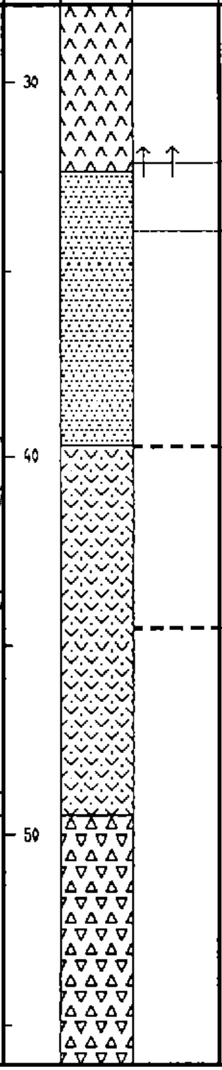


DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 32.40 | ANDESITE WITH MINOR CONGLOMERATE. Green to grey andesite where fresh, orange where weathered; weathered to 25m; common chlorite-quartz filled vesicles; feldspar phyric, increasingly feldspar-rich downhole; 32.1-32.2m bed of uphole fining lithic gravel.. CONTACT: conformable mixed | | | BEDDING facing uphole grading uphole |
| 32.40 | 39.70 | SILTSTONE INTERBEDDED WITH SANDSTONE WITH MINOR CONGLOMERATE. Mid grey to green laminated and bedded siltstone with sandstone; common pyrite as lenses and dissemination; lithic rich and pumiceous near base; common fracture controlled dark grey alteration (chlorite?) about pyrite veinlets.. CONTACT: faulted | 38.0-39.7m: moderate sericite. | DISSEMINATED 2% pyrite disseminated. 32.4-39.7m: pyrite as dissem. and blebs in sst. replacing lams in siltst.: occasional pyrite replacement of clasts. | BEDDING A80 |
| 39.70 | 49.50 | PUMICEOUS MASS FLOW WITH MINOR SILTSTONE. Mixed sericite green and grey partly altered pumice breccia; feldspar crystal rich in part; mixed zone of irregular silica and sericite wisps due to variable alteration; undulose laminations; minor siltstone as pale gry silicified lenses; mnr chl veining. | 39.7-49.5m: strongly silica-sericte-pyrite. possible chlorite alt'n of pumice: feldspars ser-pyrite replaced. | DISSEMINATED pyrite disseminated. 39.7-48.9m: 2-10% pyrite dissem. and replacing feldspar xls and pum. clots; occasional small lenses.<br>DISSEMINATED sphalerite disseminated. 40.7-40.8m: 10%<br>VEIN 1% sphalerite in veins. 43.6-43.7m: | FAULT A65 pug<br>FAULT A25 shear breccia |
| 49.50 | 59.50 | BRECCIA. Blotchy green and cream lava breccia, with some wispy pumiceous texture; resedimented but monomict; common blocky and shardy fragments; both angular and rounded clasts;. CONTACT: conformable abrupt | | DISSEMINATED pyrite associated with alteration. 49.5-59.1m: | |

GRAPHIC

Depth | Lith | Struct




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

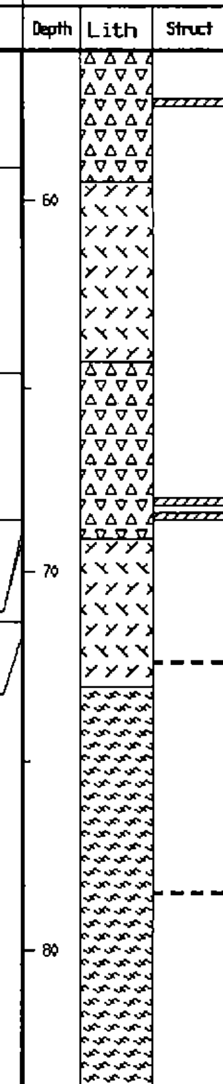
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 49.50 | 59.50 | BRECCIA. Blotchy green and cream lava breccia, with some wispy pumiceous texture; resedimented but monomict; common blocky and shardy fragments; both angular and rounded clasts;. CONTACT: conformable abrupt | | DISSEMINATED pyrite associated with alteration. 49.5-59.1m: | VEIN carbonate pyrite |
| 59.50 | 64.30 | BASIC INTRUSIVE CONTAINING INCLUSIONS OF ACID LAVA. Dark green basalt dyke, with common carb-py filled vesicles and veins; hematitic in part, and hematite-chlorite alteration about margins;. CONTACT: conformable abrupt | 59.1-64.3m: moderate carbonate alteration associated with basalt dyke; assoc. veins; wallrock hematite-silica altered. | | |
| 64.30 | 69.10 | BRECCIA. Flow banded and brecciated lava breccia; olive green to hematitic pink clasts in a chloritic matrix; moderately feldspar phyric (xls 3mm); common misorientated clasts; | 64.3-64.6m: strong silica-hematite alteration with assoc. qtz veining. | DISSEMINATED 2% pyrite disseminated. 64.6-69.1m: | VEIN quartz sphalerite<br>VEIN |
| 69.10 | 73.00 | BASIC INTRUSIVE. Aphyric vesicular basalt dyke, dark green; carbonate-pyrite vesicle fill; | 69.1-73.0m: moderate carbonate alteration associated with basalt dyke; | DISSEMINATED 2% sphalerite disseminated trace chalcopyrite disseminated. 68.6-68.8m: mineralization as small clots.<br>VEIN 5% galena on fractures trace chalcopyrite on fractures. 71.3-71.6m: | FAULT |
| 73.00 | 100.20 | RHYOLITE GRADING TO BRECCIA. Flow banded and in part brecciated rhyolite lava; olive green to pink, clasts typically pale pink except where sericite altered; interval all sericite altered, plus texture locally destroyed by sericite alteration; moderately feldspar phyric (xls 3mm), rarely quartz phyric or aphyric; common misorientated clasts to 10cm; clast edges sericitised; basal 2m strongly sericitic; weak carbonate alteration from 85.0m; | | | FAULT AIS pug |

GRAPHIC




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

Vertical Scale 1 : 200

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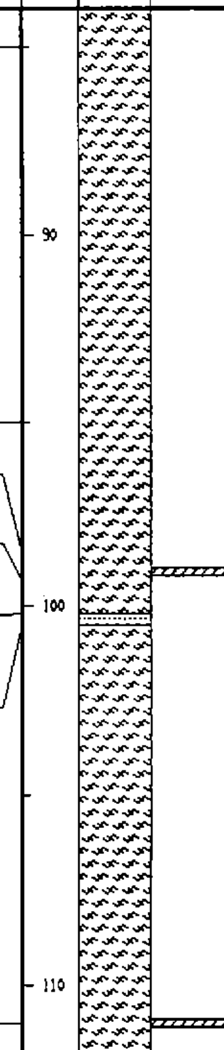
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 73.00 | 100.20 | RHYOLITE GRADING TO BRECCIA. Flow banded and in part brecciated rhyolite lava; olive green to pink, clasts typically pale pink except where sericite altered; interval all sericite altered, plus texture locally destroyed by sericite alteration; moderately feldspar phyric (xls 3mm), rarely quartz phyric or aphyric; common misorientated clasts to 10cm; clast edges sericitised; basal 2m strongly sericitic; weak carbonate alteration from 85.0m; | 85.6-87.6m: moderate sericite alteration.<br>89.3-94.0m: moderate sericite alteration.<br>98.6-100.5m: moderate sericite alteration; minor cloudy silica nodules and lenses; matrix sericitized. | DISSEMINATED 2% pyrite disseminated trace galena disseminated. 85.0-95.0m: dissem. in clasts and matrix, replacing xls.<br>DISSEMINATED 2% pyrite disseminated. 98.6-100.2m: associated with sericite.<br>VEIN trace sphalerite in veinlets trace sphalerite disseminated. 99.3-100.2m: | VEIN quartz carbonate sphalerite |
| 100.20 | 100.50 | SILTSTONE. Dk grn vitric siltstone with sandy base. | | VEIN trace sphalerite in veinlets. 100.2-111.0m: common fine sphal-carb, mnr gal-pyrite veinlets. | |
| 100.50 | 124.70 | RHYOLITE GRADING TO BRECCIA. Pale grey-cream, strongly bleached lava/lava breccia with moderate silica-sericite-pyrite alteration; feldspar phenocrysts visible in hand specimen and feldspathic in thin section; flow banding in part visible; sericite increases downhole.. CONTACT: faulted | 100.5-124.7m: moderate intensity alt'n zone with bleaching and minor mineralisation: combined silica-sericite-pyrite; increase in sericite downhole; feldspars partly replaced in thin section; pyrite as irregular stockwork; | DISSEMINATED pyrite disseminated pyrite in veinlets. 100.5-124.7m: stockwork of pyrite veins associated with bleaching, plus replacing feldspar xls. | VEIN quartz carbonate sphalerite |

GRAPHIC




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

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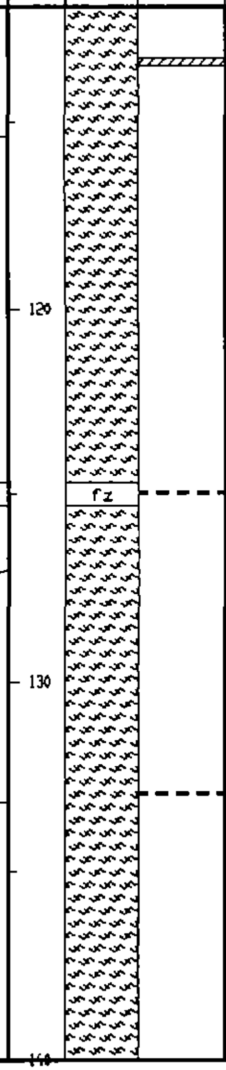
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 100.50 | 124.70 | RHYOLITE GRADING TO BRECCIA. Pale grey-cream, strongly bleached lava/lava breccia with moderate silica-sericite-pyrite alteration; feldspar phenocrysts visible in hand specimen and feldspathic in thin section; flow banding in part visible; sericite increases downhole.. CONTACT: faulted | 100.5-124.7m: moderate intensity alt'n zone with bleaching and minor mineralisation: combined silica-sericite-pyrite; increase in sericite downhole: feldspars partly replaced in thin section: pyrite as irregular stockwork; | DISSEMINATED pyrite disseminated pyrite in veinlets. 100.5-124.7m: stockwork of pyrite veins associated with bleaching. plus replacing feldspar xls.<br>DISSEMINATED 0.5% sphalerite disseminated. 115.4-124.7m: black sphalerite as fine disseminated halo to pyrite veinlets, and as dissemination and replacing feld xls. | VEIN quartz carbonate sphalerite |
| 124.70 | 125.30 | FAULT ZONE (PUG). Slightly puggy. | | | FAULT pug carbonate sphalerite |
| 125.30 | 142.80 | RHYOLITE GRADING TO BRECCIA. Pink and green rhyolite lava clasts within cream matrix; monomict, hyaloclastic lava breccia and minor coherent lava; common flow banding; perlite gives granular texture;. CONTACT: faulted | 125.3-126.8m: weak silica-sericite alt'n.<br>133.2-142.8m: moderate sericite alteration with irregular silica-pyrite lenses. | DISSEMINATED trace pyrite disseminated. 125.3-125.7m: assoc. with silica-sericite alt'n.<br>DISSEMINATED 2% pyrite disseminated. 133.2-144.8m: assoc. with silicification. | FAULT |

GRAPHIC (Depth, Lith, Struct)




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

Vertical Scale 1 : 200

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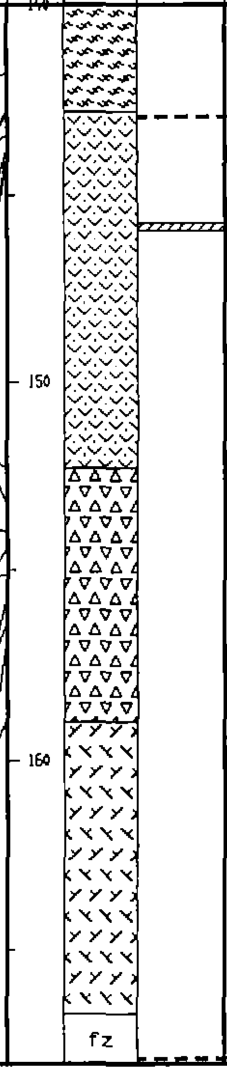
DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 125.30 | 142.80 | RHYOLITE GRADING TO BRECCIA. Pink and green rhyolite lava clasts within cream matrix; monomict, hyaloclastic lava breccia and minor coherent lava; common flow banding; perlite gives granular texture;. CONTACT: faulted | 133.2-142.8m: moderate sericite alteration with irregular silica-pyrite lenses. | DISSEMINATED 2% pyrite disseminated. 133.2-144.8m: assoc. with silicification.<br>VEIN. 141.7-142.7m: qtz-sph-gal-chal vein plus dissem. halo. | FAULT pug breccia |
| 142.80 | 152.30 | PUMICEOUS MASS FLOW GRADING TO MINERALISATION/ALTERATION. Variably altered pumiceous zone; mixed dark green sericite and mid grey silica-chlorite; wispy texture of partial replacement; mid gry silica-chlorite replacement of sericitised pumice leaves isolated sericite wisps; pyrite replacement of sericite-silica to semi-massive; lithic and silica clasts to 146.0m, then wavy laminate pumice; feldspar overprint; moderate foliation; | 143.2-152.3m: intense sericite-silica/chlorite-pyrite alteration in order: pale grey silica overprints sericite altered pumice. overprinted by dusty pyrite: plus sericite lenses increase downhole: silica lenses brecciated. | MASSIVE 50% pyrite massive. 143.4-144.1m: assoc. with alteration.<br>VEIN. 143.7-143.8m: sph-gal-py-qtz-carb veining.<br>DISSEMINATED 2% pyrite disseminated. 144.1-152.3m: assoc. with ser-silica alt'n: includes 147.0-147.3 30% pyrite. | VEIN carbonate |
| 152.30 | 159.00 | BRECCIA. Rhyolite lava breccia, comprised of blocky to wispy and shardy clasts; clast size increase downhole; feldspar phyric, rarely quartz phyric; pseudoclast txt due to alteration; basal 1m is coherent lava;. CONTACT: conformable abrupt | 153.3-156.3m: strong sericite alt'n of clasts/pseudoclasts. | DISSEMINATED 2% pyrite disseminated trace galena disseminated. 153.3-158.9m:<br>DISSEMINATED 2% galena disseminated. 154.0-154.4m:<br>DISSEMINATED galena in veinlets minor galena disseminated. 155.1-155.7m: more frequent in lava blocks than matrix.<br>DISSEMINATED galena in veinlets minor galena disseminated. 156.3-156.7m: more frequent in lava blocks than matrix. | |
| 159.00 | 166.70 | BASIC INTRUSIVE. Dark green-grey at top, bleached crm-grn at base; magnetic basalt lava; commonly feldspar phyric; common quartz filled vesicles; chloritic zones;. CONTACT: faulted | 159.0-166.7m: moderate carbonate alteration associated with carbonate veining.<br>163.3-166.7m: moderate bleaching associated with basalt. | | |
| 166.70 | 168.00 | FAULT ZONE (PUG), brecciated sheared. Puggy zone, qtz sealed in part; change in alt'n across fault; | | | FAULT pug shear quartz |

GRAPHIC (Depth, Lith, Struct)




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

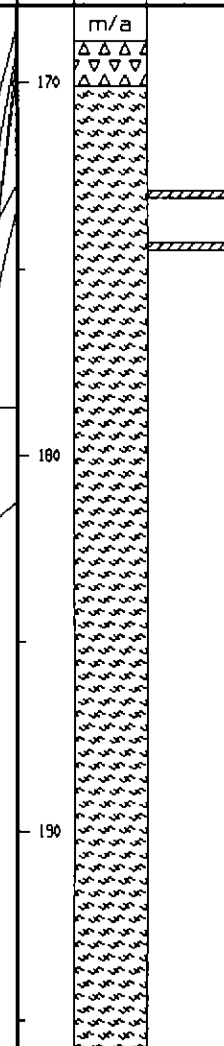
Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 168.00 | 168.90 | MINERALISATION/ALTERATION. Intense and unusual sil/ser/carb/feld? alt. with later pyrite stockwork and gal-cpy-sph vein and disseminated minz. Au bearing. | 168.0-168.9m: altered/minz zone; intense silica/sericite/carbonate/feld? alteration with stockwork pyrite veining; | VEIN 5% pyrite in veinlets 5% galena as haloes. 168.0-169.1m: stockwork of pyrite with halo of cloudy galena. |
| 168.90 | 170.10 | BRECCIA. Fragmetal zone with angular clasts hosted by white silica matrix; clasts appear to be wallrock, and are part replaced by matrix; | | VEIN. 168.5-169.2m: gal-sph-qtz-carb veinlets. |
| | | | | DISSEMINATED 1% pyrite disseminated trace galena disseminated. 169.1-169.7m: |
| 170.10 | 197.70 | RHYOLITE GRADING TO BRECCIA. Hyaloclastic and feldspar phyric rhyolite lava breccia; mid green clasts in cream matrix typical; hyaloclastic to 170.3m; mnr flow banding; note common zones of silica-feld alteration which removes volcanic textures;. CONTACT: conformable abrupt | 170.0-174.9m: moderate to intense silica alteration associated with brecciation; | DISSEMINATED galena disseminated. 172.7-173.3m: plus vein gal/sph to 2%: assoc. with silicification. |
| | | | 178.7-182.0m: detextured zone of intense silica/feldspar alt'n associated with minz; sericite alteration at margins; | DISSEMINATED galena disseminated sphalerite disseminated. 178.7-181.2m: plus veinlet gal/sph/py: assoc with silicification. |

GRAPHIC

| Depth | Lith | Struct |
|---|---|---|
| | m/a | |




STRUCTURES

VEIN quartz carbonate

VEIN quartz chlorite sphalerite

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

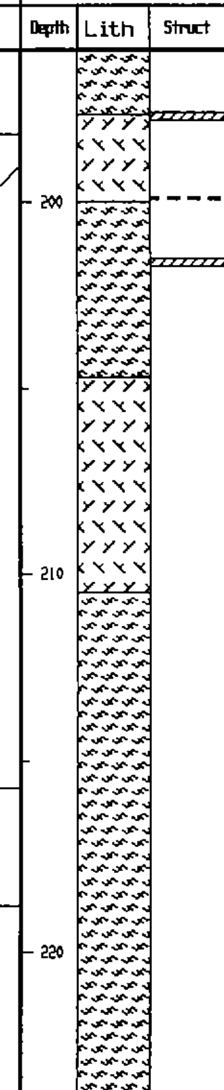
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 170.10 | 197.70 | RHYOLITE GRADING TO BRECCIA. Hyaloclastic and feldspar phyric rhyolite lava breccia; mid green clasts in cream matrix typical; hyaloclastic to 170.3m; mnr flow banding; note common zones of silica-feld alteration which removes volcanic textures;. CONTACT: conformable abrupt | | |
| 197.70 | 200.00 | BASIC INTRUSIVE CONTAINING INCLUSIONS OF RHYOLITE. Dk grn; carbonate amygdales and veins.. CONTACT: faulted | 197.7-199.8m: moderate carbonate alteration associated with basalt dyke; chlor-hematite alt'n of wall rock. | DISSEMINATED 10% pyrite disseminated. 198.2-199.0m: |
| 200.00 | 204.70 | RHYOLITE BRECCIA. Sericite green and hematite pink clasts in siliceous matrix; angular flow banded fragments; | 200.0-202.4m: moderate sericite-silica alt'n. | |
| 204.70 | 210.50 | BASIC INTRUSIVE dark green, massive. CONTACT: conformable abrupt | 204.7-210.5m: moderate carbonate alteration associated with basalt dyke; chlor-hematite alt'n of wall rock. | |
| 210.50 | 255.20 | RHYOLITE GRADING TO BRECCIA. Rhyolite lava and lava breccia with 2-10cm clasts; typically pale pink-pale green or cream matrix except where altered; variable pink and green clasts; blocky angular clasts typical, rarely shardy; flow banding common; feldspar phyric; note common intense and detexturing alteration;. CONTACT: indistinct | 212.2-216.0m: moderate to intense silica-sericite-chlorite alteration; marginal to intense silica-feld with minz.<br>216.0-218.9m: intense silica/feldspar, plus minor sericite alteration; pale grey silicification with fine pyrite veinlets and mineralisation; no chlorite as above.<br>218.9-227.6m: intense silica-chlorite, plus minor sericite alteration; marginal to minz zone; some volcanic textures preserved; produceds blotchy/mixed white-green colour; | VEIN 5% pyrite in veinlets 5% galena disseminated. 215.7-218.8m: pyrite stockwork assoc. with intense silicification; halo of cloudy gal-cpy dusting. |

GRAPHIC




STRUCTURES

- VEIN carbonate
- FAULT
- VEIN quartz chlorite carbonate

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

PROJECT: Vertical Scale 1 : 200

Hole No. BPD84

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| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 210.50 | 255.20 | RHYOLITE GRADING TO BRECCIA. Rhyolite lava and lava breccia with 2-10cm clasts; typically pale pink-pale green or cream matrix except where altered; variable pink and green clasts; blocky angular clasts typical, rarely shardy; flow banding common; feldspar phyric; note common intense and detexturing alteration;. CONTACT: indistinct | 218.9-227.6m: intense silica-chlorite, plus minor sericite alteration; marginal to minz zone; some volcanic textures preserved; produceds blotchy/mixed white-green colour; | | 230 | | | |
| | | | | | 240 | | | |
| | | | 244.2-247.1m: weak silica-albite alt'n giving pink colour; | | | | | |
| | | | 247.1-250.2m: moderate silica-sericite alteration; | | 250 | | | |
| | | | 250.2-253.0m: weak silica-albite alt'n giving pink colour; | | | | | |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

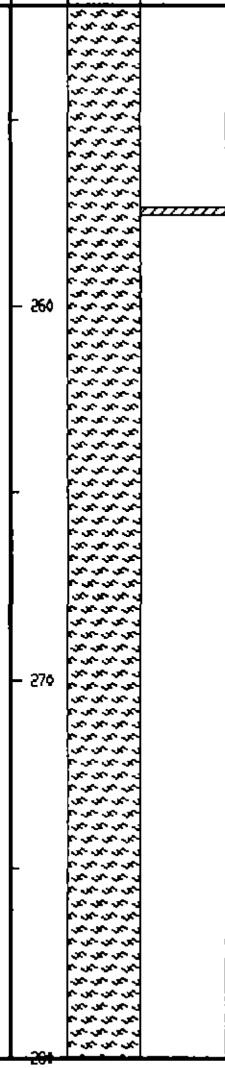
**Vertical Scale 1 : 200**



## DESCRIPTION

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 210.50 | 255.20 | RHYOLITE GRADING TO BRECCIA. Rhyolite lava and lava breccia with 2-10cm clasts; typically pale pink-pale green or cream matrix except where altered; variable pink and green clasts; blocky angular clasts typical, rarely shardy; flow banding common; feldspar phyric; note common intense and detexturing alteration;. CONTACT: indistinct | 250.2-253.0m: weak silica-albite alt'n giving pink colour; | | |
| 255.20 | 291.00 | RHYOLITE WITH MINOR BRECCIA. Stongly flow banded semi-massive rhyolite lava with occasional breccia zones; pink to mid chloritic green; feldspar phyric, regularly perlitic; note common intense alteration; trace pyrite throughout.. CONTACT: indistinct | 256.1-259.3m: weak patchy sericite, minor silica alteration; zoned.<br>259.3-273.0m: intense silica with blotchy sericite zones; silica phases both white and pale grey; margins more sericitic; no associated mineralization.<br>273.0-275.0m: strong silica-sericite alteration; blotchy and mixed. | | VEIN quartz chlorite carbonate |

GRAPHIC (Depth, Lith, Struct):




5 cm

**PASMINCO EXPLORATION**

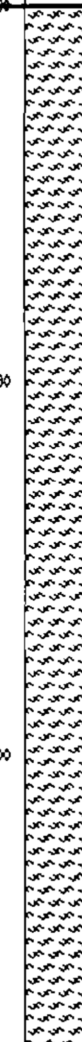
**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
| 255.20 | 291.00 | RHYOLITE WITH MINOR BRECCIA. Stongly flow banded semi-massive rhyolite lava with occasional breccia zones; pink to mid chloritic green; feldspar phyric, regularly perlitic; note common intense alteration; trace pyrite throughout.. CONTACT: indistinct | 280.3-281.5m: moderate sericite-silica alteration; abrupt lower contact.<br>281.5-291.9m: intense white and pale grey silica with minor chlorite and sericite; volcanic unit detextured. | | 280<br>290 |  | | |
| 291.00 | 325.10 | RHYOLITE GRADING TO BRECCIA. Strongly flow banded clasts of rhyolite lava plus rare compotent lava; pink to chloritic green; feldspar phyric, perlitic; trace pyrite throughout.. CONTACT: conformable abrupt | 304.7-311.0m: moderate silica alteration with minor sericite and trace pyrite. | | 300 | | | |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

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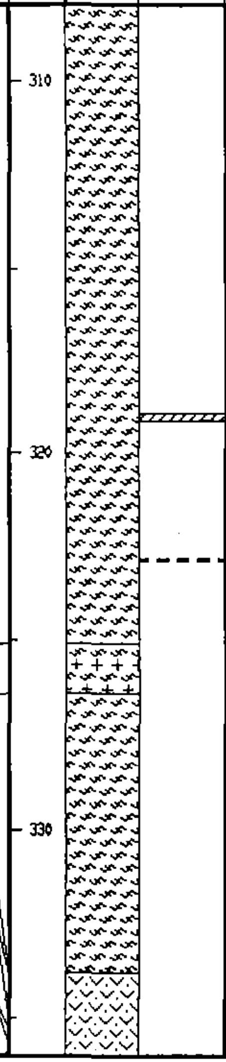
| DESCRIPTION | | | | | GRAPHIC | STRUCTURES |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | STRUCTURES |
| 291.00 | 325.10 | RHYOLITE GRADING TO BRECCIA. Strongly flow banded clasts of rhyolite lava plus rare compotent lava; pink to chloritic green; feldspar phyric, perlitic; trace pyrite throughout.. CONTACT: conformable abrupt | 304.7-311.0m: moderate silica alteration with minor sericite and trace pyrite. | | | VEIN quartz chlorite<br>FAULT pug |
| 325.10 | 326.40 | ACID INTRUSIVE CONTAINING INCLUSIONS OF RHYOLITE. Dark green intrusive with small round chl-carb filled vesicles and veining; non-magnetic. | | DISSEMINATED 2% pyrite disseminated. 325.1-326.4m: | | |
| 326.40 | 333.80 | RHYOLITE. Massive grey-green-pink lava with strongly developed perlite texture enhanced by alteration; aphyric; | 328.8-329.6m: mid grey silica alteration of lava controlled by perlitic fractures. | DISSEMINATED 5% pyrite disseminated. 333.9-334.0m: | | |
| 333.80 | 336.30 | PUMICEOUS MASS FLOW INTERBEDDED WITH CHERT. Pink-gry pumice breccia, pumice to 1cm size; mid gry cht, fine sed or alteration?; common feldspar; 0.1m acid intr. at top of unit. | | DISSEMINATED 5% sphalerite on selvedges. 335.1-335.3m: sphalerite at pumice bx-sed contact.<br>DISSEMINATED minor galena disseminated minor galena in veinlets. 335.7-335.9m: | | |




5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

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## DESCRIPTION

| FROM | TO |
|---|---|
| 336.30 | 337.10 |
| 337.10 | 339.00 |
| 339.00 | 339.90 |
| 339.90 | 342.70 |
| 342.70 | 343.70 |
| 343.70 | 345.30 |
| 345.30 | 347.10 |
| 347.10 | 351.20 |
| 351.20 | 355.50 |
| 355.50 | 363.00 |
| 363.00 | 371.30 |

### LITHOLOGY

PUMICEOUS MASS FLOW INTERBEDDED WITH CHERT. Pink-gry pumice breccia, pumice to 1cm size; mid gry cht, fine sed or alteration?; common feldspar; 0.1m acid intr. at top of unit.

ACID LAVA green grey, perlitic aphyric

PUMICEOUS MASS FLOW INTERBEDDED WITH CHERT. Mid gry-grn wispy textured pumice breccia, mid gry cht;

ACID INTRUSIVE green, feldspar phyric

PUMICEOUS MASS FLOW. Crm to mid grn pumice breccia with wispy texture and, occasional lithics;

ACID INTRUSIVE. Massive dark green intrusive with quartz filled amygdayles or quartz crystals.

ACID LAVA green, perlitic aphyric. Perlite fracture controls alteration.

FAULT ZONE (PUG) AND DEFORMED ZONE, brecciated. Mixed and faulted zone containing pumice, qtz amygdular intrusive; silica-sericite-mnr fucite alt'n; angular frags, cataclasite in part.

RHYOLITE GRADING TO BRECCIA, flow banded massive. Weakly feld-phyric.. CONTACT: faulted

FAULT ZONE (PUG) CONTAINING INCLUSIONS OF RHYOLITE CONTAINING INCLUSIONS OF BASIC LAVA

BASIC INTRUSIVE MIXED WITH RHYOLITE. Numerous basalt dykes invading flow banded feldspar phyric rhyolite lava.. CONTACT: faulted

DACITE. Mid green to pale pink non vesicular and aphyric dacitic? lava; bleached from 366.6.

### ALTERATION

336.3-337.1m: moderate sericite alteration of pumice breccia.

338.4-339.0m: strong silica alteration with trace pyrite.

342.7-343.5m: moderate silica alteration. trace pyrite; probably related to basalt intrusion; assoc qtz-pyrite veining.

349.4-351.2m: chlorite-silica-hematite alt'n adjacent to fault.

### MINERALISATION

DISSEMINATED pyrite. 343.1-345.1m: 1-10% diss pyrite: mnr gal/sphal blebs and veinlets.

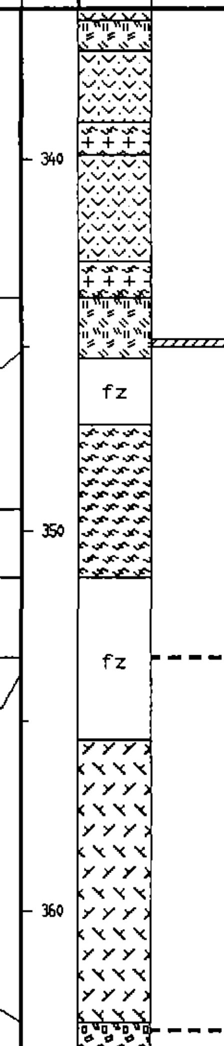
DISSEMINATED 1% pyrite disseminated. 349.4-351.2m:

VEIN 20% pyrite in veinlets. 353.3-353.7m:

VEIN pyrite in veinlets quartz in veinlets. 363.0-364.4m:

### GRAPHIC

Depth | Lith | Struct




### STRUCTURES

VEIN carbonate sphalerite

FAULT pug brittle carbonate

FAULT

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. BPD84

PROJECT:

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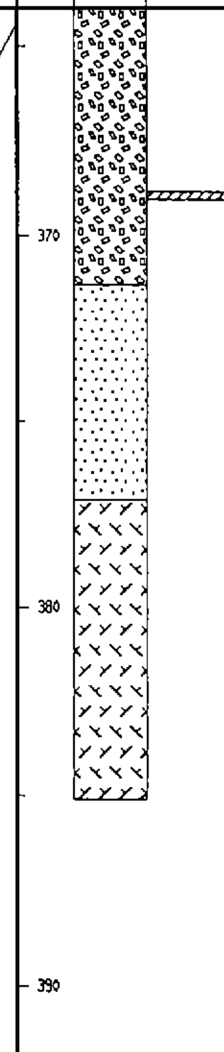
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 363.00 | 371.30 | DACITE. Mid green to pale pink non vesicular and aphyric dacitic? lava; bleached from 366.6. | 366.6-373.0m: moderate bleaching. | VEIN pyrite in veinlets quartz in veinlets. 363.0-364.4m: | VEIN breccia quartz |
| 371.30 | 377.10 | SANDSTONE. Massive crystal lithic sandstone with abundant feldspar, mnr quartz, rounded lithics; mnr chl and hematite overprint. | | | |
| 377.10 | 385.10 | BASIC INTRUSIVE MIXED WITH RHYOLITE. Dk grn basalt dykes invading pink, feld phyric, flow banded rhyolite lava; trace pyrite. | 381.5-383.5m: strong silicification due to basalt. | | |

GRAPHIC: Depth | Lith | Struct




5 cm

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

Hole ID
BPD85

## DRILLING

| | |
|---|---|
| Location | TASMANIA |
| Project | BURNS PEAK |
| Prospect | BROWNS TUNNEL |
| Design By | M S Saxon |
| Logged By | M S Saxon |
| Relogged | |
| Commenced | 24/2/95 |
| Completed | 8/3/95 |
| Drilled By | Contract Diamond Drilling |
| Drill Rig | Mindrill 55 |

## OBJECTIVE

To test the Browns Tunnel Host Sequence on section 5100N, 200m down dip from BAF16. Signficant mineralisation was intersected within BAF16, and on drilled sections 100m to the north and south.

## RESULT

The complete Browns Tunnel Host Sequence was intersected. 0.5m of massive sulphide mineralisation was intersected within the lower BTHS, immediately beneath a peperitic rhyolite sill.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5384493.5 | Bearing | 102.0 |
| AMG mE | 377352.9 | Dip | -50.0 |
| mN | | Hole Length | 394.3 |
| mE | | DH Survey Type | Eastman Camera |
| RL | 415.3 | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 0 | 102 | -50 |
| 58 | 103 | -52.75 |
| 97 | 103 | -52.5 |
| 127 | 103 | -52.5 |
| 160 | 104 | -52 |
| 190 | 105 | -51 |
| 220 | 106 | -51 |
| 261 | 107 | -51 |
| 295 | 108 | -50.5 |
| 358 | 108.5 | -49.75 |
| 388 | 108.5 | -49.25 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 0 | 3 | HW |
| 3 | 50 | HQ |
| 50 | 394.3 | NQ |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | 3m Collar pipe within hole |
| Steel Casing | |
| PVC Casing | 48mm PVC to EOH |
| Ground Water | |
| Wedge | |
| Drill Pad | |

## SIGNIFICANT INTERSECTIONS

| From | To | Int | Cu | Pb | Zn | Ag | Au | Comments |
|---|---|---|---|---|---|---|---|---|
| 235.5 | 236 | 0.5 | 2.7 | 8.3 | 17.8 | 260 | 15.5 | |
| 262.4 | 263.3 | 0.9 | 0.2 | 1.2 | 1.9 | 29 | 1.3 | |

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. **BPD85**

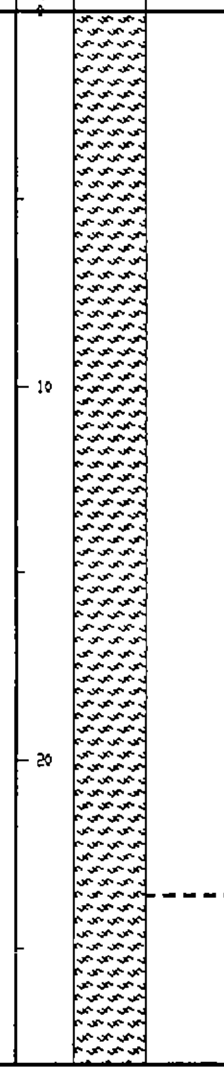
PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 101.80 | RHYOLITE WITH MINOR BRECCIA pink green, massive porphyritic, felspar phyric quartz phyric. Very massive Pinnacles Rhyolite; common subrounded clasts/pseudoclasts within lava; evenly porphyritic, crystal rich, crystals euhedral, feldspars typically 1mm in size; slight clastic appearance from 96m. Trace pyrite throughout.. CONTRACT: conformable mixed | | | FAULT pug |

GRAPHIC (Depth, Lith, Struct)




5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 0.00 | 101.80 | RHYOLITE WITH MINOR BRECCIA pink green, massive porphyritic, feldspar phyric quartz phyric. Very massive Pinnacles Rhyolite; common subrounded clasts/pseudoclasts within lava; evenly porphyritic, crystal rich, crystals euhedral, feldspars typically 1mm in size; slight clastic appearance from 96m. Trace pyrite throughout.. CONTACT: conformable mixed | 40.5-42.5m: bleaching to pale pink - albite/hematite?<br>50.0-51.0m: bleaching to pale pink - albite/hematite? | | 30<br>40<br>50 | | | |

5 cm

741159

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | STRUCTURES |
|---|---|---|---|---|---|---|
| 0.00 | 101.90 | RHYOLITE WITH MINOR BRECCIA pink green, massive porphyritic, felcspar phyric quartz phyric. Very massive Pinnacles Rhyolite; common subrounded clasts/pseudoclasts within lava; evenly porphyritic, crystal rich, crystals euhedral, feldspars typically 1mm in size; slight clastic appearance from 96m. Trace pyrite throughout.. CONTACT: conformable mixed | 67.0-68.5m: bleaching to pale pink - albite/hematite? | | 60 | |
| | | | 76.5-79.6m: bleaching to pale pink - albite/hematite? | | 70 | |
| | | | 82.0-88.8m: : bleaching to pale pink - albite/hematite? | | 80 | |

5 cm

74160

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

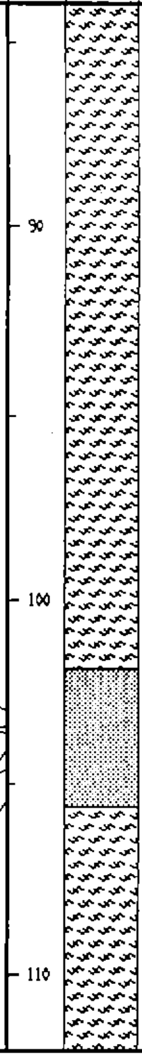
Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 0.00 | 101.80 | RHYOLITE WITH MINOR BRECCIA pink green, massive porphyritic, feldspar phyric quartz phyric. Very massive Pinnacles Rhyolite; common subrounded clasts/pseudoclasts within lava; evenly porphyritic, crystal rich, crystals euhedral, feldspars typically 1mm in size; slight clastic appearance from 96m. Trace pyrite throughout.. CONTACT: conformable mixed | 82.0-88.8m: : bleaching to pale pink - albite/hematite? | | |
| 101.80 | 105.60 | CHERT INTERBEDDED WITH PUMICEOUS MASS FLOW, brecciated. Mid-grey cherty sediment with interbedded green-grey pumice breccia; brecciated, darker grey silica-pyrite matrix to 'clasts'; stylolites define 'clast' edges.. CONTACT: conformable mixed | 103.6-104.2m: pale grey silicification. | 103-103.4m: 10% pyrite in matrix.<br>103.6-104.0m: minor galena-sphalerite veinlets.<br>104.6-105.4m: minor galena/sphalerite disseminated. | |
| 105.60 | 124.90 | RHYOLITE WITH MINOR BRECCIA pink, massive porphyritic, feldspar phyric quartz phyric. Pinnacles Rhyolite as above; common irregular bleached clasts/pseudoclasts with eroded edges, equivalently phyric to lava; more quartz than above unit; feldspars commonly chlorite altered, common carbonate veins including local purple carbonate; | 108.1-109.0m: moderate chlorite veining and alt'n. | | |

GRAPHIC

Depth | Lith | Struct




5 cm

741161

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

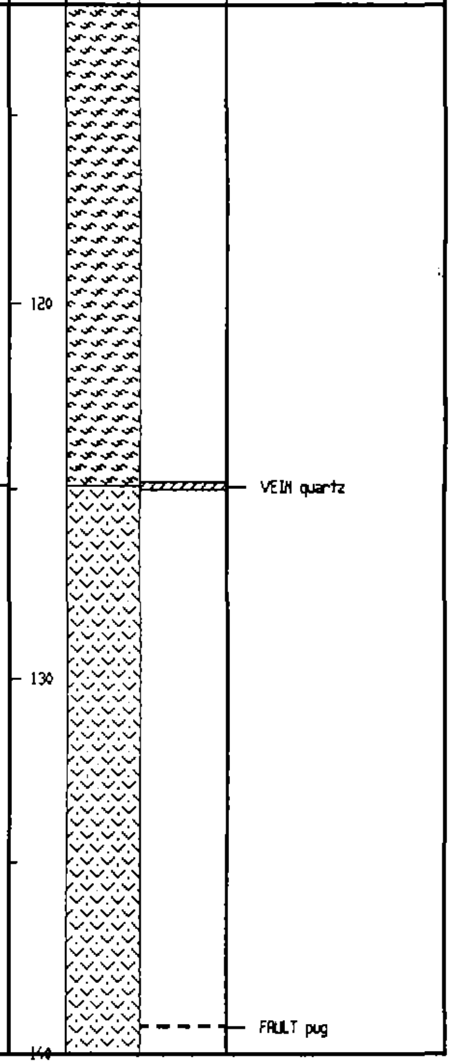
Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200

Page of 1

| DESCRIPTION | | | | | GRAPHIC | STRUCTURES |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | |
| 105.60 | 124.90 | RHYOLITE WITH MINOR BRECCIA pink, massive porphyritic, feldspar phyric quartz phyric. Pinnacles Rhyolite as above; common irregular bleached clasts/pseudoclasts with eroded edges, equivalently phyric to lava; more quartz than above unit; feldspars commonly chlorite altered, common carbonate veins including local purple carbonate; | | | | VEIN quartz |
| 124.90 | 150.40 | PUMICEOUS MASS FLOW green grey, massive, pumiceous. Tube pumice breccia with moderate patchy sericite-silica overprint giving blotchy-mottled texture, mid-dk green where unaltered, sericite green where altered; 10% carbonate, replacing feldspar and lithics from 129m; pink carbonate veining throughout; clasts vary from 3cm to 1cm average; lithic clasts mixed with upper 0.5m;. CONTACT: faulted | 124.9-133.5m: blotchy to pervasive ser-sil alt'n.<br>138.1-138.6m: strong sericite alt'n. | 124.9-150.4m: 1% pyrite spotted within pumice breccia. | | FAULT pug |




5 cm

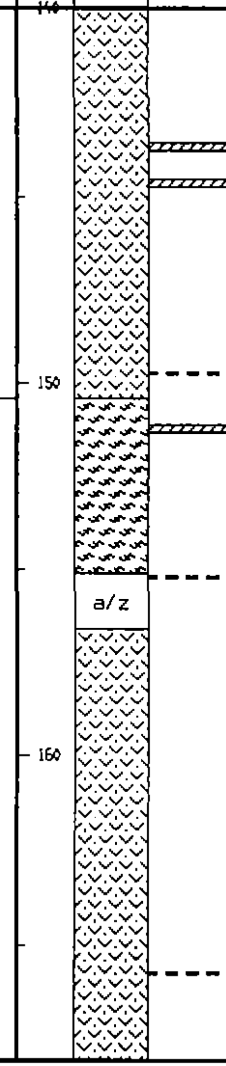
**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

PROJECT: | Vertical Scale 1 : 200 | Hole No. **BPD85** | Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 124.90 | 150.40 | PUMICEOUS MASS FLOW green grey, massive, pumiceous. Tube pumice breccia with moderate patchy sericite-silica overprint giving blotchy-mottled texture, mid-dk green where unaltered, sericite green where altered; 10% carbonate, replacing feldspar and lithics from 129m; pink carbonate veining throughout; clasts vary from 3cm to 1cm average; lithic clasts mixed with upper 0.3m;. CONTACT: faulted | 145.4-145.7m: strong sericite alt'n.<br>149.1-150.4m: moderate ser-sil alt'n. | 124.9-150.4m: 1% pyrite spotted within pumice breccia. |
| 150.40 | 155.10 | RHYOLITE GRADING TO BRECCIA pink green. Very similar to Pinnacles Rhyolite; occasional bleached clasts/pseudoclasts; quartz poor, feldspar phyric; lava breccia from 154.3-155.1; pumice breccia with fault contacts from 150.0-151.2m;. CONTACT: faulted | 150.8-151.2m: moderate cloudy sil-ser alt'n. | |
| 155.10 | 156.60 | ALTERATION ZONE. Cloudy silica-sericite, probably altered pumice breccia; 0.1m shear zone at base of unit | | |
| 156.60 | 171.60 | PUMICEOUS MASS FLOW khaki green, massive, pumiceous feldspar phyric. Homogeneous moderately sericite altered pumice breccia, pumice clasts <5mm size; feldspar all carbonate altered, commonly fractured/shattered; blotchy texture due to blotchy alteration; rare lithics; occasional carbonate veins throughout. | 165.0-166.4m: moderate ser-chl alt'n.<br>166.4-167.0m: moderate ser-cloudy silica alt'n. | |

GRAPHIC




| STRUCTURES |
|---|
| VEIN quartz |
| VEIN quartz |
| FAULT shear |
| VEIN quartz |
| FAULT |
| FAULT shear |

5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200



## DESCRIPTION

| FROM | TO | LITHOLOGY |
|---|---|---|
| 156.60 | 171.60 | PUMICEOUS MASS FLOW khaki green, massive, pumiceous feldspar phyric. Homogeneous moderately sericite altered pumice breccia, pumice clasts <5mm size; feldspar all carbonate altered, commonly fractured/shattered; blotchy texture due to blotchy alteration; rare lithics; occasional carbonate veins throughout. |
| 171.60 | 173.60 | ALTERATION ZONE, pumiceous. Intense sericite-cloudy silica, probably altered pumice breccia; mixed pale grey siliceous zones with anastomosing sericitic cleavage zones; chlorite-pyrite spotting; sericite-chlorite rather than ser-sil more common from 173.0-173.6m. |
| 173.60 | 176.20 | SILTSTONE CONTAINING INCLUSIONS OF ANDESITE, laminated. Mixed mid grey cherty siltstone and 20% bleached irregular andesite clasts; minor fine grained sandstone; occasional pyrite lenses; |
| 176.20 | 180.00 | PUMICEOUS MASS FLOW INTERBEDDED WITH SANDSTONE WITH MINOR ANDESITE. Interbedded pale green sericitic pumice breccia and mid grey fine grained sandstone; sandstone clasts in pumice breccia; 0.1m andesite lava?; anastomosing cleavage zones common; |
| 180.00 | 186.40 | SILTSTONE INTERBEDDED WITH SANDSTONE WITH MINOR ANDESITE. Interbedded crystal-lithic volcaniclastic sandstone, pale grey cherty/siliceous siltstone, with minor coherent andesite lava and pumice breccia; typically well laminated, rare grading; rip up clasts common in horizons; siltstone vitric;. CONTACT: conformable abrupt |
| 186.40 | 234.70 | RHYOLITE. Feldspar-quartz rhyolite; semi-massive, coherent, pink to green-grey; locally peperitic, jigsaw fit of clasts with mixed pale grey silicified sediment; bleached in part; peperite at 189.1-192.2, 195.6-196.6, 217.4-220.6, 229.8-231.3, |

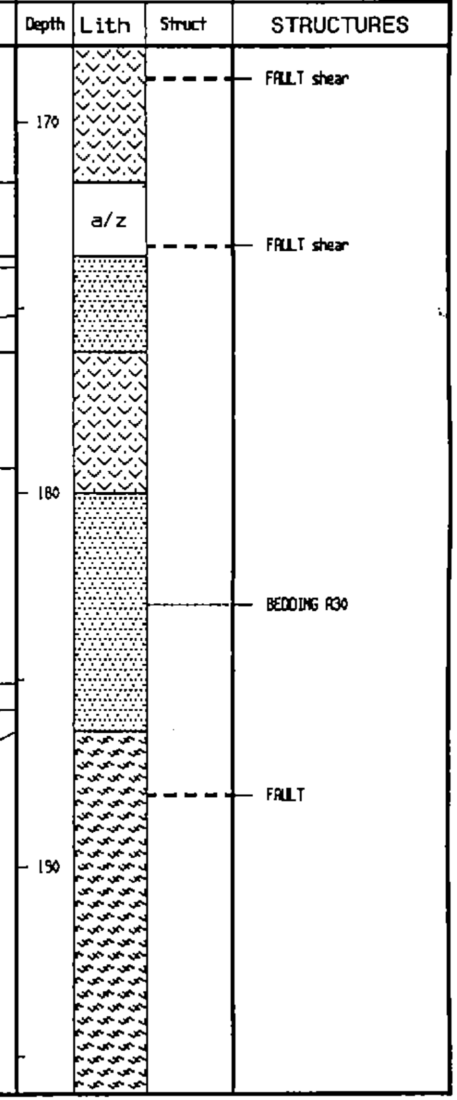
### ALTERATION

- 168.3-170.6m: ser-chl and ser-chl-cloudy silica assoc. with shear zone; felspar destroyed.
- 173.6-176.2m: minor silicification of siltstone, minor ser.
- 176.2-180.0m: mod ser of pumice, siltstone cherty.
- 184.1-184.3m: weak ser alt'n.

### MINERALISATION

- 171.6-173.6m: 1% pyrite associated with sericitic cleavage zones. Trace gal/sphal veining.
- 173.9-175.2m: 5% pyrite as lenses, veins, dissem, and clots.
- 176.2-179.3m: 2% pyrite spotted in pumice, associated with ser. and as dissem. and lenses in sediment matrix. Mnr dissem. gal-sph-chalco.
- 179.3-185.1m: Disseminated pyrite-chacopyrite-gal-sphal in sst matrix to 5%. Best 180-181.9m.
- 185.8-186.4m: 5% pyrite as lenses.

GRAPHIC | STRUCTURES




5 cm

41164

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

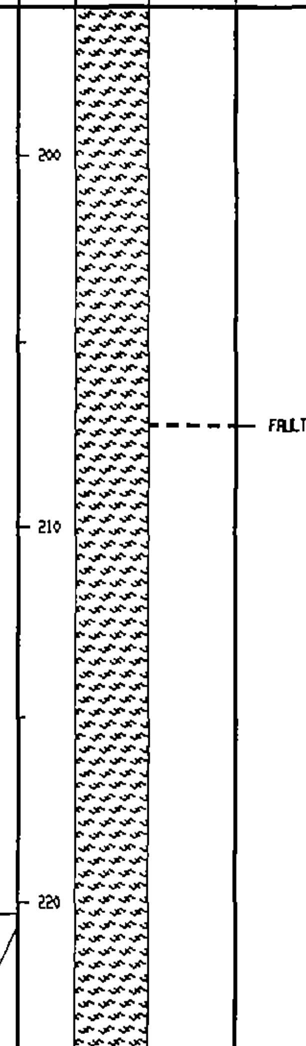
Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | STRUCTURES |
| 186.40 | 234.70 | RHYOLITE. Feldspar+-quartz rhyolite; semi-massive, coherent, pink to green-grey; locally peperitic, jigsaw fit of clasts with mixed pale grey silicified sediment; bleached in part; peperite at 189.1-192.2, 195.6-196.6, 217.4-220.6, 229.3-231.3, | | 220.3-220.6m: 1% sphalerite in veins. | | FAULT |




5 cm

741165

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Lith | STRUCTURES |
|---|---|---|---|---|---|---|
| 186.40 | 234.70 | RHYOLITE. Feldspar+-quartz rhyolite; semi-massive, coherent, pink to green-grey; locally peperitic, jigsaw fit of clasts with mixed pale grey silicified sediment; bleached in part; peperite at 189.1-192.2, 195.6-196.5, 217.4-220.6, 229.8-231.3, | | | | FAULT<br>FAULT<br>FAULT |
| 234.70 | 235.50 | CONGLOMERATE. Lithic clasts with green-grey sandy matrix; clasts of grey cherty siltstone; angular peperitic inclusions of porphyry fragments from above unit; | | 234.7-235.5m: 2% pyrite as spots, 1% gal-sphal-calco veining. | | |
| 235.50 | 236.00 | MASSIVE SULPHIDE. Massive Zn-Pb-Cu sulphide, plus silica-carbonate gangue; banded in part, abrupt upper and lower contacts; Cu rich upper contact, galena rich ground mass hosting sphalerite lenses; banding 50deg to LCA; cleavage in unminz zone parallel to banding; | | 235.5-236.0m: Massive Zn-Pb-Cu sulphide, 17.6% Zn, 8.3% Pb, 2.7% Cu, 15.5 g/t Au. | m/s | |
| 236.00 | 243.10 | ALTERATION ZONE GRADING TO PUMICEOUS MASS FLOW. Cloudy silica-pyrite-sericite altered zone grades downhole to pumice-crystal breccia; weak bedding trace; cloudy silica appears ore associated; | 236.0-238.0m: intense cloudy sil-ser-pyrite alt'n of pumice.<br>238.6-243.1m: patchy to intense ser-feldspar alt'n, euhedral felds. Associate mid grey silicification. | 236.0-243.1m: 5-15% pyrite in matrix of sandstone and as irregular veinlets associated with cloudy silica alteration. 1% disseminated sphal-gal decreasing downhole. | a/z | FAULT shear |
| 243.10 | 251.30 | SILTSTONE INTERBEDDED WITH SANDSTONE WITH MINOR CONGLOMERATE. Well laminated pale grey cherty siltstone plus minor sandstone and lithic conglomerate; siltstone commonly bleached andesitic appearance; fine planar lamination; bedding fractured near base of unit; | 247.8-248.3m: moderate ser alt'n of pumice.<br>249.6-251.3m: silicified mudstone, cherty appearance. | 245.2-245.6m: Irregular pyrite vein/replacement to 10%.<br>248.9-249.1m: 20% pyrite as dissemination and lenses.<br>249.1-250.9m: pyrite lenses associated with silicification to 5%. Some breccia fill.<br>250.9-251.1m: Irreglar breccia matrix of sphal-chalco-pyrite. | | FAULT |
| 251.30 | 262.50 | RHYOLITE. Feldspar+-quartz rhyolite; semi-massive, coherent, pink to green-grey; locally peperitic, jigsaw fit of clasts with mixed pale grey silicified sediment; peperite at 253.6-253.8m; minor carbonate veining; | | | | |

5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. **BPD85**

PROJECT: | Vertical Scale 1 : 200 | Page of 1

DESCRIPTION | GRAPHIC

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 251.30 | 262.50 | RHYOLITE. Feldspar-quartz rhyolite; semi-massive, coherent, pink to green-grey; locally peperitic, jigsaw fit of clasts with mixed pale grey silicified sediment; peperite at 253.6-253.8m; minor carbonate veining; | 258.0-258.2m: weak ser alt'n. 258.2-258.8m: weak sil alt'n. | | 260: FAULT |
| 262.50 | 263.30 | SILTSTONE MIXED WITH SANDSTONE | | 262.7-263.2m: Semi massive nodular carbonate and pyrite, with minor sphal-gal veining. | |
| 263.30 | 265.70 | RHYOLITE, peperitic. Peperitic mixture of pale pink rhyolite lava and pale grey silicified sediment; varies from angular lava clasts hosted by sediment, to lava with sediment veining; hot contact; | | | FAULT |
| 265.70 | 269.20 | SILTSTONE INTERBEDDED WITH SANDSTONE. Mid grey laminated siltstone bedded with grey granular sandstone; minor downhole coarsening of unit; | | 266.2-269.2m: Sphal-chalco veins and blebs to 2%. Assoc. with carbonate. | BEDDING A45 |
| 269.20 | 274.80 | PUMICEOUS MASS FLOW. Altered pumice breccia with minor feldspar crystal sandstone with strong cloudy silica-sericite alteration; best mineralization associated with strongest silica alteration; | 269.2-271.0m: strong cloudy silica-mid grey silica-sericite alt'n. 271.0-274.8m: mod ser-sil. | 268.2-274.8m: Common sphal-chalco-gal veins and blebs, to 2% Zn over 1m. | |
| 274.80 | 281.70 | RHYOLITE. Peperitic pale pink rhyolite with pale grey silicified sediment 'veins'; margins very peperitic, centre coherent; | | | |

Depth: 260, 270, 280

5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPDB5

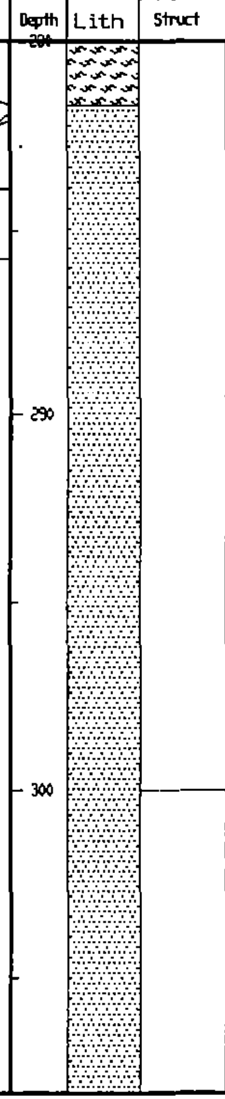
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 274.80 | 281.70 | RHYOLITE. Peperitic pale pink rhyolite with pale grey silicified sediment 'veins'; margins very peperitic, centre coherent; | | 281.1-281.9m: Semi massive pyrite. | |
| 281.70 | 308.10 | SILTSTONE INTERBEDDED WITH SANDSTONE, laminated. Bedded dark grey laminated siltstone and 10% mid grey crystal rich sandstone with minor pumiceous mass flow, rhyolite lava (as above) and lithic conglomerate; rhyolite lava peperitic at 303.1-306.6m; bedding throughout typically disrupted and irregular; | 283.8-285.8m: strong cloudy silica-ser-pyrite alt'n of pumice.<br>289.5-295.0m: moderate silicification of siltstone, cherty appearance. | 282.1-283.9m: 2% sphal-gal in irregular veins in siltst.<br>283.9-285.8m: Sphal-gal blebs, pyrite veinlets associated with cloudy silica.<br>285.8-308.1m: Network of sphal-gal veins and blebs assoc. with carbonate and chlorite selvage; post-cleavage mineralisation; siltstone hosted. | BEDDING A40 |

GRAPHIC




5 cm

741168

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

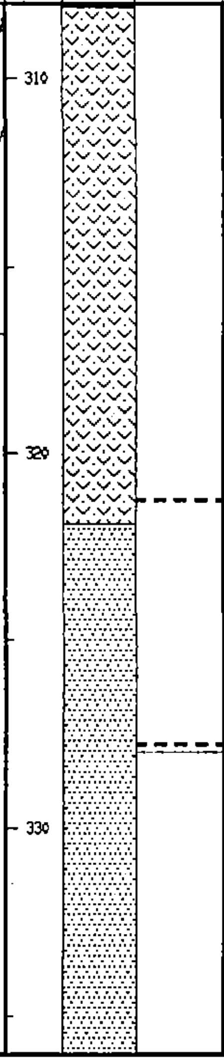
PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 308.10 | 321.90 | SILTSTONE INTERBEDDED WITH SANDSTONE, laminated. Bedded dark grey laminated siltstone and 10% mid grey crystal rich sandstone with minor pumiceous mass flow, rhyolite lava (as above) and lithic conglomerate; rhyolite lava peperitic at 303.1-306.6m; bedding throughout typically disrupted and irregular; PUMICEOUS MASS FLOW INTERBEDDED WITH SILTSTONE. Pumice-lithic breccia/sandstone with 15% interbedded dark grey siltstone, increasing towards base; pumice is cloudy silica-sericite altered, with sericite wisps commonly after pumice; lithics of rhyolite, mudstone; siltstone massive and slightly contorted; | 308.1-311.1m: cloudy sil-ser-pyrite alt'n of pumice. 311.1-321.9m: wk ser alt'n. | 285.8-308.1m: Network of sphal-gal veins and blebs assoc. with carbonate and chlorite selvage; post-cleavage mineralisation; siltstone hosted. 308.1-311.1m: Spotty sphal-gal assocaited with cloudy silica and veinlet pyrite. 316.8-349.0m: Sphal-gal-carbonate veins and blebs in siltstone with chlorite selvage; post cleavage mineralisation; highly irregular; best zone 316.8-318.4m; trace pyrite throughout. | FAULT A10 |
| 321.90 | 349.00 | SILTSTONE WITH MINOR SANDSTONE WITH MINOR ANDESITE WITH MINOR PUMICEOUS MASS FLOW. Mid grey to black laminated siltstone/mudstone with occasional interbeds of pumice breccia (as above), bleached andesite, and feldspar crystal-lithic rich sandstone; increasingly sandy towards unit base; siliceous in part; | | | FAULT<br>BEDDING A22 |

GRAPHIC (Depth, Lith, Struct)




5 cm

69147

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION |
|---|---|---|---|---|
| 321.90 | 349.00 | SILTSTONE WITH MINOR SANDSTONE WITH MINOR ANDESITE WITH MINOR PUMICEOUS MASS FLOW. Mid grey to black laminated siltstone/mudstone with occasional interbeds of pumice breccia (as above), bleached andesite, and feldspar crystal-lithic rich sandstone; increasingly sandy towards unit base; siliceous in part; | | 316.8-349.0m: Sphal-gal-carbonate veins and blebs in siltstone with chlorite selvage; post cleavage mineralisation; highly irregular; best zone 316.8-318.4m; trace pyrite throughout. |
| 349.00 | 349.50 | FAULT ZONE (PUG). Fractured core, calcite veining; | | |
| 349.50 | 355.80 | SANDSTONE. Bedded feldspar crystal sandstone and minor lithic conglomerate and siltstone; lithics (1-2cm) typically siltstone; bedding angular and fractured; minor pumice clasts | | 349.5-355.8m: 2% disseminated pyrite in sst matrix. |
| 355.80 | 394.30 | PUMICEOUS MASS FLOW green cream, massive, pumiceous. Sericitic pumice breccia; massive; common pyrite spotting; pumice 3-5cm; | 355.8-394.3m: carbonate and pyrite spotting, moderate ser alt'n. | |

GRAPHIC: Depth 340, 350, 360; Lith: fz

| Depth | STRUCTURES |
|---|---|
| | FAULT |
| | FAULT |
| 340 | BEDDING A40 |
| | BEDDING A45 |
| | FAULT |

5 cm

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200

Page of 1

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
|---|---|---|---|---|---|---|---|---|
| 355.80 | 394.30 | PUMICEOUS MASS FLOW green cream, massive, pumiceous. Sericitic pumice breccia; massive; common pyrite spotting; pumice 3-5cm; | 355.8-394.3m: carbonate and pyrite spotting, moderate ser alt'n. | | 370<br>380<br>390 | | | FAULT<br>FAULT |

5 cm

171

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BPD85

PROJECT:

Vertical Scale 1 : 200



| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
| 355.80 | 394.30 | PUMICEOUS MASS FLOW green cream, massive, pumiceous. Sericitic pumice breccia; massive; common pyrite spotting; pumice 3-5cm; | 355.8-394.3m: carbonate and pyrite spotting, moderate ser alt'n. | | | | | |
| | | | | | 400 | | | |
| | | | | | 410 | | | |
| | | | | | 420 | | | |

G71147

5 cm

# PASMINCO EXPLORATION
# DIAMOND DRILL HOLE LOG

Hole ID
BPD86

## DRILLING

| | |
|---|---|
| Location | TASMANIA |
| Project | BURNS PEAK |
| Prospect | SOUTH KERSHAW |
| Design By | M S Saxon |
| Logged By | M S Saxon |
| Relogged | |
| Commenced | 22/2/95 |
| Completed | 23/3/95 |
| Drilled By | A.T.E. |
| Drill Rig | Gopher Mini Rig |

## OBJECTIVE

To test an IP anomaly SW of Chester Mine, along the Chester Shear Zone. The area is strongly cleaved and known to host minr mineralisation.

## RESULT

Intersected a 15m thick zone of pyritic sericte-quartz augen schist near top of hole which adequately explained IP anomaly. No significant mineralisation was located.

## COLLAR SURVEY (AMG)

| | | | |
|---|---|---|---|
| AMG mN | 5379517.6 | Bearing | 114.0 |
| AMG mE | 377754.6 | Dip | -50.0 |
| mN | 318.1 | Hole Length | 129.2 |
| mE | | DH Survey Type | Eastman Camera |
| RL | | | |

## DOWNHOLE SURVEY (AMG)

| Depth | Bearing | Dip |
|---|---|---|
| 50 | 114 | -53 |
| 98 | 114 | -52.5 |
| 126 | 113 | -48 |

## SIGNIFICANT CORE LOSS

## POOR GROUND CONDITION ZONES

## HOLE SIZE

| From | To | Size |
|---|---|---|
| 0 | 129.2 | BQ2 |

## HOLE CONDITIONS AFTER COMPLETION

| | |
|---|---|
| Collar | |
| Steel Casing | 3m steel casing remained in hole. |
| PVC Casing | |
| Ground Water | |
| Wedge | |
| Drill Pad | |

## SIGNIFICANT INTERSECTIONS

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. **BPD86**

PROJECT:

Vertical Scale 1 : 200



| DESCRIPTION | | | | | | STRUCTURES |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | GRAPHIC (Depth / Lith / Struct) | STRUCTURES |
| 0.00 | 11.70 | DACITE. Massive to moderately clvd feldspathic dacite lava; feld xls typically 1mm, 10% of unit; variable cream-green colour; weath. to 5.5m.. CONTACT: conformable abrupt | 8.5-11.7m: Moderately sericitised and bleached; ple yell brn; | DISSEMINATED trace pyrite disseminated. 9.9-11.7m<br>DISSEMINATED 1% pyrite disseminated. 11.7-11.8m: pyrite-chlorite spotting. | 10 | FIRST CLEAVAGE A35 strong schistose anastamosing<br>FIRST CLEAVAGE A35 weak spaced |
| 11.70 | 15.20 | SCHIST, augen. Qtz-ser-pyrite augen schist; 5mm qtz eyes with anastomosing ser-pyrite selvages; no visible feldspar. | 11.7-21.6m: Strongly quartz-sericite-pyrite altered and bleached. associated with schist development; pyrite-ser selvages about quartz eyes. | DISSEMINATED pyrite on selvedges. 11.8-20.4m: pyrite-sericite-silica assoc.: pyrite to 5%<br>DISSEMINATED trace sphalerite disseminated trace galena disseminated. 12.3-12.4m | | FIRST CLEAVAGE A32 strong schistose anastamosing<br>VEIN carbonate quartz |
| 15.20 | 21.20 | ALTERATION ZONE AND SCHIST. Altered cream-green dacite, with minor preserved dacite txt; augen schist from 19.5-20.4m; strongest alt'n is ser-pyrite+-silica, wk alt'n is pyrite-chl; schist as above. | | DISSEMINATED 2% pyrite disseminated. 20.4-21.2m: pyrite-chlorite spotting.<br>VEIN. 20.5-20.8m: carb-py-mnr gal vein assoc. with ft pug. | a/z<br>20 | FIRST CLEAVAGE A35 weak spaced<br>FIRST CLEAVAGE A35 strong schistose anastamosing<br>FAULT pug |
| 21.20 | 129.20 | DACITE. Massive to weakly clvd feldspar phyric dacite lava, grey to green in colour; feldspar xls 1-2mm size, commonly attenuated in clvg; feld xls fractured and corroded; core of feld xls silica replaced. | | DISSEMINATED trace pyrite disseminated. 21.2-129.2: disseminated pyrite to EOH.<br>DISSEMINATED trace magnetite disseminated. 22.0-59.2m: euhedral xls. | | FIRST CLEAVAGE A35 weak spaced |

5 cm

**PASMINCO EXPLORATION**

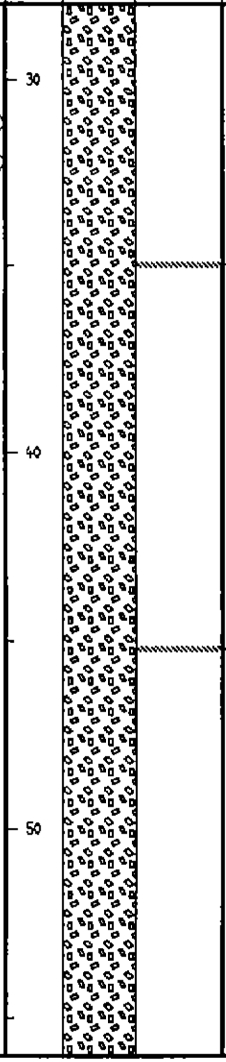
**DIAMOND DRILL HOLE LOG**

Hole No. BPD86

PROJECT:

Vertical Scale 1 : 200

Page of 1

| DESCRIPTION | | | | | GRAPHIC | |
|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth / Lith / Struct | STRUCTURES |
| 21.20 | 129.20 | DACITE. Massive to weakly clvd feldspar phyric dacite lava, grey to green in colour; feldspar xls 1-2mm size, commonly attenuated in clvg; feld xls fractured and corroded; core of feld xls silica replaced. | 44.8-45.6m: Moderately silicified, silica nodules developed. | DISSEMINATED trace magnetite disseminated. 22.0-59.2m: euhedral xls.<br>VEIN pyrite on fractures. 31.2-31.2m<br>VEIN pyrite on fractures. 32.2-32.2m |  | FIRST CLEAVAGE R35 weak spaced<br>FIRST CLEAVAGE strong schistose anastamosing |



5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

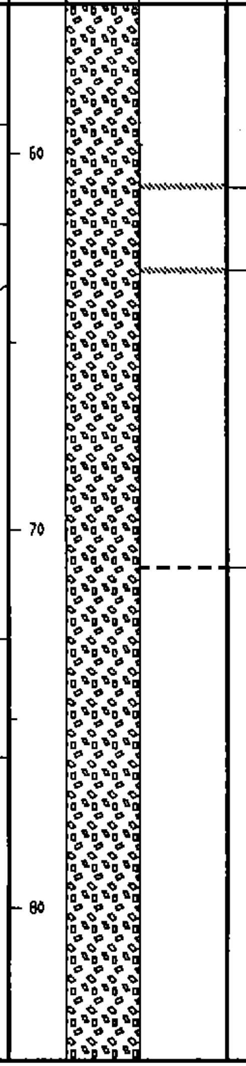
PROJECT: Vertical Scale 1 : 200

Hole No. **BPD86**



| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | STRUCTURES |
|---|---|---|---|---|---|
| 21.20 | 129.20 | DACITE. Massive to weakly clvd feldspar phyric dacite lava, grey to green in colour; feldspar xls 1-2mm size, commonly attenuated in clvg; feld xls fractured and corroded; core of feld xls silica replaced. | 58.5-72.9m: Slightly sericite-silica altered and bleached: zone of patchy alteration: mixed sericite-bleached and sil-chlorite zones. | DISSEMINATED trace magnetite disseminated. 22.0-59.2m: euhedral xls. | FIRST CLEAVAGE strong schistose anastamosing |
| | | | 60.6-61.2m: Moderate silica-chlorite alteration associated with schist development. | DISSEMINATED 2% pyrite disseminated. 61.9-63.5m: in part on cleavage zones. | FIRST CLEAVAGE weak spaced |
| | | | | DISSEMINATED trace magnetite disseminated. 72.9-76.9m | FAULT pug |
| | | | 76.0-86.8m: Weak silica-albite associated with frequent qtz-carb-chl veining; altn destroys magnetism. | | |

GRAPHIC (Depth / Lith / Struct)




5 cm

241176

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

Hole No. **BPD86**

PROJECT: | Vertical Scale 1 : 200 | Page of 1

| DESCRIPTION | | | | | GRAPHIC | | | |
|---|---|---|---|---|---|---|---|---|
| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | Lith | Struct | STRUCTURES |
| 21.20 | 129.20 | DACITE. Massive to weakly clvd feldspar phyric dacite lava, grey to green in colour; feldspar xls 1-2mm size, commonly attenuated in clvg; feld xls fractured and corroded; core of feld xls silica replaced. | 76.0-86.8m: Weak silica-albite associated with frequent qtz-carb-chl veining: altn destroys magnetism. | | | | | |
| | | | | DISSEMINATED trace magnetite disseminated. 86.8-93.0m | 90 | | | |
| | | | 93.4-107.0m: Weak silica-albite associated with frequent qtz-carb-chl veining: altn destroys magnetism. | | 100 | | | |
| | | | | DISSEMINATED trace magnetite disseminated. 107-112m | 110 | | | |

5 cm

**PASMINCO EXPLORATION**

**DIAMOND DRILL HOLE LOG**

PROJECT: | Vertical Scale 1 : 200 | Page of 1

Hole No. BPD86

| FROM | TO | LITHOLOGY | ALTERATION | MINERALISATION | Depth | STRUCTURES |
|---|---|---|---|---|---|---|
| 21.20 | 129.20 | DACITE. Massive to weakly clvd feldspar phyric dacite lava, grey to green in colour; feldspar xls 1-2mm size, commonly attenuated in clvg; feld xls fractured and corroded; core of feld xls silica replaced. | 112.4-117.9m: Weak sericitisation, associated with carbonate veining. | DISSEMINATED 5% pyrite disseminated. 113.4-113.5m | | FAULT pug |
| | | | 117.9-123.4m: Weak silica-albite associated with frequent qtz-carb-chl veining. | | 120 | |
| | | | | DISSEMINATED trace magnetite disseminated. 123.4-129.2m | | |
| | | | | | 130 | |
| | | | | | 140 | |

Column headings: DESCRIPTION; GRAPHIC (Depth, Lith, Struct)

5 cm

# APPENDIX 4

## Drill hole Metal Assay Results for Licence Year

# EAF2 ASSAYS

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| A220 | 6.00 | 7.50 | 25 | 120 | 95 | 0.2 | 0.03 | |
| A221 | 7.50 | 8.60 | 20 | 130 | 125 | 0.2 | 0.01 | |
| A222 | 8.60 | 10.00 | 20 | 325 | 225 | 0.2 | 0.02 | |
| A223 | 10.00 | 11.00 | 20 | 155 | 130 | 0.2 | 0 | |
| A224 | 11.00 | 12.00 | 20 | 140 | 155 | 0.2 | 0 | |
| A225 | 12.00 | 13.00 | 15 | 170 | 150 | 0.2 | 0 | |
| A226 | 13.00 | 14.00 | 20 | 180 | 180 | 0.2 | 0 | |
| A227 | 14.00 | 15.00 | 15 | 165 | 145 | 0.2 | 0 | |
| A228 | 15.00 | 16.00 | 10 | 160 | 120 | 0.2 | 0.02 | |
| A229 | 16.00 | 17.00 | 10 | 195 | 115 | 0.2 | 0 | |
| A230 | 17.00 | 18.00 | 10 | 185 | 145 | 0.2 | 0 | |
| A231 | 18.00 | 19.00 | 10 | 125 | 120 | 0.2 | 0 | |
| A232 | 19.00 | 20.00 | 10 | 115 | 145 | 0.2 | 0 | |
| A233 | 20.00 | 21.00 | 10 | 110 | 115 | 0.2 | 0 | |
| A234 | 21.00 | 22.10 | 10 | 115 | 125 | 0.2 | 0 | |
| A235 | 22.10 | 23.00 | 10 | 285 | 165 | 0.2 | 0 | |
| A236 | 23.00 | 24.00 | 15 | 385 | 245 | 0.2 | 0 | |
| A237 | 24.00 | 25.00 | 20 | 200 | 175 | 0.2 | 0 | |
| A238 | 25.00 | 26.00 | 10 | 110 | 95 | 0.2 | 0 | |
| A239 | 26.00 | 27.00 | 15 | 150 | 125 | 0.2 | 0 | |
| A240 | 27.00 | 29.60 | 10 | 20 | 70 | 0.2 | 0 | |
| A241 | 29.60 | 32.00 | 15 | 85 | 155 | 0.2 | 0 | |
| A242 | 32.00 | 33.00 | 10 | 135 | 95 | 0.2 | 0 | |
| A243 | 33.00 | 34.00 | 15 | 230 | 180 | 0.2 | 0 | |
| A244 | 34.00 | 35.00 | 15 | 515 | 730 | 0.5 | 0 | |
| A245 | 35.00 | 36.00 | 10 | 195 | 350 | 0.2 | 0 | |
| A246 | 36.00 | 37.40 | 10 | 175 | 740 | 0.2 | 0 | |
| A247 | 37.40 | 38.80 | 10 | 240 | 265 | 0.2 | 0 | |
| A248 | 38.80 | 40.00 | 10 | 95 | 185 | 0.2 | 0 | |
| A249 | 40.00 | 41.00 | 10 | 1150 | 555 | 0.2 | 0 | |
| A250 | 41.00 | 42.00 | 15 | 600 | 240 | 0.2 | 0 | |
| A251 | 42.00 | 43.00 | 10 | 65 | 165 | 0.2 | 0 | |
| A252 | 43.00 | 44.00 | 10 | 65 | 215 | 0.2 | 0 | |
| A253 | 44.00 | 45.45 | 10 | 140 | 360 | 0.2 | 0 | |
| A254 | 45.45 | 46.00 | 12 | 600 | 1225 | 1 | 0 | |
| A255 | 46.00 | 47.00 | 25 | 550 | 950 | 1 | 0.03 | |
| A256 | 47.00 | 48.00 | 50 | 1200 | 3100 | 8 | 0.19 | |
| A257 | 48.00 | 49.00 | 50 | 1075 | 2700 | 3 | 0.07 | |
| A258 | 49.00 | 50.00 | 25 | 1300 | 2700 | 2 | 0.05 | |
| A259 | 50.00 | 51.00 | 25 | 525 | 2525 | 1 | 0.02 | |
| A260 | 51.00 | 52.30 | 25 | 1100 | 6200 | 1 | 0.05 | |
| A261 | 52.30 | 53.00 | 50 | 275 | 1725 | 1 | 0.01 | |
| A262 | 53.00 | 54.56 | 25 | 125 | 2450 | 2 | 0 | |
| A263 | 54.56 | 55.56 | 50 | 1150 | 4325 | 3 | 0.03 | |
| A264 | 55.56 | 56.56 | 40 | 1700 | 8700 | 2 | 0.02 | |
| A265 | 56.56 | 57.56 | 100 | 1550 | 6500 | 1 | 0.04 | |
| A266 | 57.56 | 58.56 | 25 | 1100 | 6300 | 1 | 0 | |
| A267 | 58.56 | 59.30 | 20 | 220 | 1100 | 2 | 0.02 | |
| A268 | 59.30 | 60.00 | 50 | 1700 | 5150 | 2 | 0 | |
| A269 | 60.00 | 61.00 | 25 | 600 | 2425 | 1 | 0 | |
| A270 | 61.00 | 62.00 | 40 | 520 | 1500 | 10 | 0 | |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| A271 | 62.00 | 63.00 | 25 | 450 | 2800 | 1 | 0 | |
| A272 | 63.00 | 64.00 | 25 | 375 | 2150 | 1 | 0 | |
| A273 | 64.00 | 65.00 | 25 | 375 | 1975 | 1 | 0 | |
| A274 | 65.00 | 66.00 | 450 | 475 | 8600 | 1 | 0 | |
| A275 | 66.00 | 67.00 | 1400 | 2200 | 32300 | 4 | 0.02 | |
| A276 | 67.00 | 68.00 | 100 | 2475 | 7800 | 3 | 0.04 | |
| A277 | 68.00 | 69.00 | 25 | 375 | 1750 | 1 | 0.02 | |
| A278 | 69.00 | 70.00 | 25 | 600 | 2475 | 1 | 0.01 | |
| A279 | 70.00 | 71.00 | 20 | 250 | 1100 | 1.5 | 0.05 | |
| A280 | 71.00 | 72.00 | 25 | 200 | 1075 | 1 | 0.03 | |
| A281 | 72.00 | 73.00 | 25 | 800 | 2125 | 1 | 0.03 | |
| A282 | 73.00 | 74.00 | 12 | 475 | 1250 | 1 | 0.01 | |
| A283 | 74.00 | 75.00 | 0 | 575 | 1025 | 1 | 0.02 | |
| A284 | 75.00 | 76.00 | 25 | 375 | 1075 | 1 | 0.02 | |
| A285 | 76.00 | 77.00 | 50 | 3700 | 8900 | 5 | 0.06 | |
| A286 | 77.00 | 78.00 | 25 | 775 | 1850 | 1 | 0.01 | |
| A287 | 78.00 | 79.00 | 50 | 725 | 3750 | 1 | 0.02 | |
| A288 | 79.00 | 80.00 | 25 | 450 | 3625 | 1 | 0.02 | |
| A289 | 80.00 | 81.00 | 50 | 775 | 3350 | 3 | 0.03 | |
| A290 | 81.00 | 82.00 | 75 | 4150 | 9700 | 4 | 0.01 | |
| A291 | 82.00 | 83.00 | 75 | 2175 | 2200 | 3 | 0 | |
| A292 | 83.00 | 84.00 | 25 | 425 | 1475 | 1 | 0 | |
| A293 | 84.00 | 85.00 | 25 | 375 | 450 | 1 | 0.01 | |
| A294 | 85.00 | 86.00 | 15 | 180 | 1000 | 0.5 | 0 | |
| Q295 | 86.00 | 87.00 | 25 | 450 | 1150 | 3 | 0.01 | |
| A296 | 87.00 | 88.00 | 50 | 525 | 2175 | 3 | 0.01 | |
| A297 | 88.00 | 89.00 | 75 | 1225 | 4250 | 3 | 0 | |
| A298 | 89.00 | 90.00 | 50 | 1575 | 8100 | 3 | 0 | |
| A299 | 90.00 | 91.00 | 75 | 975 | 4650 | 4 | 0.01 | |
| A300 | 91.00 | 92.00 | 50 | 375 | 1225 | 3 | 0 | |
| A301 | 92.00 | 93.00 | 75 | 1075 | 3075 | 3 | 0.01 | |
| A302 | 93.00 | 94.00 | 50 | 575 | 2550 | 4 | 0.02 | |
| A303 | 94.00 | 95.00 | 50 | 250 | 1050 | 2 | 0.01 | |
| A304 | 95.00 | 96.00 | 25 | 125 | 625 | 1 | 0 | |
| A305 | 96.00 | 97.00 | 20 | 490 | 860 | 1 | 0 | |
| A306 | 97.00 | 98.00 | 20 | 400 | 330 | 1 | 0 | |
| A307 | 98.00 | 99.00 | 15 | 95 | 1550 | 0.5 | 0 | |
| A308 | 99.00 | 100.00 | 15 | 75 | 85 | 0.5 | 0 | |
| A309 | 100.00 | 102.00 | 15 | 70 | 100 | 0.5 | 0 | |
| A310 | 102.00 | 104.00 | 10 | 75 | 225 | 0.5 | 0 | |
| A311 | 104.00 | 106.70 | 15 | 100 | 290 | 0.2 | 0 | |
| A312 | 106.70 | 107.26 | 15 | 115 | 820 | 0.5 | 0 | |
| A313 | 107.26 | 108.00 | 40 | 735 | 1300 | 2 | 0 | |
| A314 | 108.00 | 110.00 | 35 | 745 | 2450 | 1 | 0.03 | |
| A315 | 110.00 | 113.00 | 25 | 665 | 2150 | 1.5 | 0.02 | |
| A316 | 113.00 | 114.00 | 15 | 135 | 295 | 0.5 | 0 | |
| A317 | 114.00 | 116.00 | 15 | 410 | 380 | 1.5 | 0 | |
| A318 | 116.00 | 118.00 | 20 | 115 | 815 | 0.5 | 0.02 | |
| A319 | 118.00 | 120.00 | 15 | 130 | 630 | 1 | 0.02 | |
| A320 | 120.00 | 122.00 | 20 | 65 | 170 | 0.2 | 0 | |
| A321 | 122.00 | 124.00 | 20 | 60 | 150 | 0.2 | 0 | |
| A322 | 124.00 | 126.00 | 20 | 80 | 135 | 0.2 | 0 | |
| A323 | 126.00 | 128.00 | 25 | 110 | 315 | 0.2 | 0 | |
| A324 | 128.00 | 130.00 | 20 | 290 | 625 | 1 | 0.02 | |
| A325 | 130.00 | 132.40 | 10 | 60 | 275 | 0.2 | 0 | |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| 38801 | 136.00 | 137.00 | 62 | 219 | 1586 | 1 | 0.03 | 4923 |
| 38802 | 137.00 | 138.00 | 1596 | 1412 | 9100 | 21 | 0.02 | 8300 |
| 38803 | 138.00 | 139.00 | 78 | 340 | 2808 | 2 | 0.03 | 3638 |
| 38804 | 139.00 | 140.00 | 37 | 34 | 515 | 1 | 0.01 | 3541 |
| 38805 | 140.00 | 141.00 | 6 | 31 | 188 | <1 | <0.008 | 2106 |
| 38806 | 141.00 | 142.00 | 30 | 47 | 186 | <1 | <0.008 | 3608 |
| 38807 | 142.00 | 143.00 | 375 | 1080 | 366 | 9 | 0.03 | 2857 |
| 38808 | 143.00 | 144.00 | 53 | 800 | 216 | 12 | 0.06 | 250 |
| 38809 | 144.00 | 145.00 | 47 | 420 | 63 | 24 | 0.23 | 160 |
| 38810 | 145.00 | 146.00 | 42 | 205 | 194 | 6 | 0.03 | 288 |
| 38811 | 146.00 | 147.00 | 57 | 686 | 650 | 8 | 0.05 | 262 |
| 38812 | 147.00 | 148.00 | 36 | 168 | 87 | 3 | 0.02 | 268 |
| 38813 | 148.00 | 149.00 | 117 | 189 | 111 | 5 | 0.07 | 329 |
| 38814 | 149.00 | 150.00 | 1206 | 175 | 152 | 13 | 0.06 | 191 |
| 38815 | 150.00 | 151.00 | 32 | 246 | 111 | 8 | 0.07 | 182 |
| 38816 | 151.00 | 152.00 | 8 | 198 | 251 | 2 | 0.01 | 211 |
| 38817 | 152.00 | 154.00 | 32 | 1304 | 1413 | 4 | 0.02 | 549 |
| 38818 | 154.00 | 156.00 | 718 | 2391 | 8100 | 5 | 0.29 | 1183 |
| 38819 | 156.00 | 158.00 | 359 | 7600 | 16900 | 5 | 0.15 | 1854 |
| 38820 | 158.00 | 160.00 | 485 | 7800 | 19300 | 4 | 0.27 | 516 |
| 38821 | 160.00 | 162.00 | 746 | 4700 | 11600 | 4 | 0.14 | 576 |
| 38822 | 162.00 | 164.00 | 511 | 8400 | 13200 | 4 | 0.07 | 863 |
| 38823 | 164.00 | 166.00 | 132 | 4700 | 11800 | 4 | 0.07 | 761 |
| 38824 | 166.00 | 168.00 | 304 | 4500 | 14300 | 4 | 0.1 | 785 |
| 38825 | 168.00 | 170.00 | 185 | 5100 | 10900 | 4 | 0.08 | 786 |
| 38826 | 170.00 | 172.00 | 219 | 5400 | 9600 | 3 | 0.35 | 951 |
| 38827 | 172.00 | 174.00 | 146 | 3000 | 9400 | 2 | 0.32 | 400 |
| 38828 | 174.00 | 176.00 | 59 | 1487 | 8700 | 1 | 0.13 | 1070 |
| 38829 | 176.00 | 178.00 | 16 | 444 | 6200 | <1 | 0.01 | 2486 |
| 38830 | 178.00 | 180.00 | 64 | 395 | 6200 | 1 | 0.02 | 3077 |
| 38831 | 180.00 | 182.00 | 46 | 525 | 6800 | 2 | 0.01 | 3240 |
| 38832 | 311.00 | 313.00 | 20 | 337 | 2067 | 3 | 0.03 | 1938 |
| 39001 | 338.00 | 340.00 | 18 | <3 | 88 | 1 | <0.008 | 1567 |
| 39002 | 340.00 | 342.00 | 7 | 9 | 506 | <1 | <0.008 | 1211 |
| 39003 | 342.00 | 344.00 | 3 | 5 | 78 | <1 | <0.008 | 1226 |
| 39004 | 344.00 | 346.00 | 5 | 14 | 129 | <1 | <0.008 | 1672 |
| 39005 | 346.00 | 348.00 | 3 | 14 | 108 | <1 | <0.008 | 1233 |
| 39006 | 348.00 | 350.00 | 25 | 1490 | 17100 | 1 | 0.01 | 2106 |
| 39007 | 350.00 | 352.00 | 65 | 3142 | 16000 | 4 | <0.008 | 2450 |
| 39008 | 352.00 | 354.00 | 44 | 1287 | 11300 | 2 | 0.01 | 2748 |
| 39009 | 354.00 | 356.00 | 42 | 147 | 5900 | 1 | 0.01 | 1871 |
| 39010 | 356.00 | 358.00 | 33 | 191 | 7000 | <1 | 0.01 | 2522 |
| 39011 | 358.00 | 360.00 | 55 | 2515 | 19400 | 3 | 0.02 | 2256 |
| 39012 | 360.00 | 362.00 | 54 | 1897 | 15200 | 2 | 0.01 | 2455 |
| 39013 | 362.00 | 364.00 | 58 | 275 | 18400 | 1 | 0.01 | 2660 |
| 39014 | 364.00 | 366.00 | 88 | 310 | 24000 | 2 | 0.03 | 2033 |
| 39015 | 366.00 | 368.00 | 28 | 472 | 9900 | <1 | <0.008 | 2103 |
| 39016 | 368.00 | 370.00 | 49 | 1207 | 14500 | 2 | 0.01 | 1929 |
| 39017 | 370.00 | 372.00 | 34 | 1105 | 8000 | 1 | 0.01 | 1741 |
| 39018 | 372.00 | 374.00 | 101 | 2713 | 16300 | 4 | 0.01 | 1904 |
| 39019 | 374.00 | 376.00 | 63 | 4205 | 11000 | 4 | 0.01 | 2233 |
| 39020 | 376.00 | 378.00 | 30 | 2018 | 7400 | 2 | <0.008 | 2844 |
| 39021 | 378.00 | 380.00 | 19 | 1297 | 3617 | 1 | <0.008 | 2537 |
| 39022 | 380.00 | 382.00 | 23 | 1803 | 7200 | 2 | <0.008 | 2516 |
| 39023 | 382.00 | 384.00 | 43 | 1240 | 9600 | 1 | 0.01 | 2516 |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| 39024 | 384.00 | 386.00 | 22 | 427 | 6900 | 1 | <0.008 | 2284 |
| 39025 | 386.00 | 388.00 | 26 | 1734 | 9800 | 2 | <0.008 | 2644 |
| 39026 | 388.00 | 390.00 | 39 | 431 | 10200 | 1 | 0.01 | 2243 |
| 39027 | 390.00 | 392.00 | 25 | 1097 | 9900 | 1 | 0.02 | 1935 |
| 39028 | 392.00 | 394.00 | 31 | 973 | 9400 | <1 | 0.04 | 2046 |
| 39029 | 394.00 | 396.00 | 16 | 230 | 3009 | <1 | 0.02 | 1980 |
| 39030 | 396.00 | 398.00 | 8 | 6 | 51 | <1 | <0.008 | 2115 |
| 39031 | 398.00 | 400.00 | 15 | 53 | 93 | <1 | <0.008 | 2297 |
| 39032 | 400.00 | 402.00 | 22 | 602 | 3360 | <1 | 0.01 | 3034 |
| 39033 | 402.00 | 404.00 | 10 | 10 | 51 | <1 | <0.008 | 1203 |
| 39034 | 404.00 | 406.00 | 11 | 14 | 154 | <1 | <0.008 | 870 |
| 39035 | 406.00 | 408.00 | 10 | 82 | 598 | <1 | <0.008 | 2083 |
| 39036 | 408.00 | 410.00 | 9 | 32 | 92 | <1 | <0.008 | 2713 |
| 39037 | 410.00 | 412.00 | 6 | 16 | 43 | <1 | <0.008 | 2931 |
| 39038 | 412.00 | 414.00 | 22 | 38 | 94 | <1 | <0.008 | 2101 |
| 39039 | 414.00 | 416.00 | 6 | 71 | 83 | <1 | <0.008 | 3142 |
| 39040 | 416.00 | 418.00 | 3 | 213 | 361 | <1 | <0.008 | 3379 |
| 39041 | 418.00 | 420.00 | 9 | 180 | 1474 | <1 | <0.008 | 2445 |
| 39042 | 420.00 | 422.00 | 40 | 215 | 2122 | <1 | 0.01 | 2388 |
| 39048 | 432.00 | 434.00 | 25 | 213 | 3899 | <1 | 0.01 | 2180 |
| 39049 | 434.00 | 436.00 | 5 | 44 | 494 | <1 | <0.008 | 837 |
| 39050 | 436.00 | 438.00 | 6 | 49 | 700 | <1 | <0.008 | 959 |
| 39051 | 438.00 | 440.00 | 3 | 65 | 292 | <1 | <0.008 | 883 |
| 39052 | 440.00 | 442.00 | 5 | 86 | 1608 | <1 | <0.008 | 812 |
| 39053 | 442.00 | 444.00 | 4 | 86 | 1488 | <1 | <0.008 | 740 |
| 39054 | 444.00 | 446.00 | 4 | 79 | 2706 | <1 | <0.008 | 804 |
| 39055 | 446.00 | 448.00 | 4 | 66 | 1227 | <1 | <0.008 | 830 |
| 39056 | 448.00 | 450.00 | 5 | 60 | 811 | <1 | <0.008 | 520 |
| 39057 | 450.00 | 452.00 | 4 | 148 | 390 | <1 | <0.008 | 866 |
| 39058 | 452.00 | 454.00 | 4 | 165 | 228 | <1 | <0.008 | 892 |

# CP7 ASSAYS

741184

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| T1 | 6 | 7 | 22 | 120 | 330 | <1 | | |
| T2 | 7 | 8 | 22 | 140 | 350 | <1 | | |
| T3 | 8 | 9 | 12 | 130 | 280 | <1 | | |
| T4 | 9 | 10 | 15 | 160 | 350 | <1 | | |
| T5 | 10 | 11 | 5 | 120 | 230 | <1 | | |
| T6 | 11 | 12 | 5 | 8 | 150 | <1 | | |
| T7 | 12 | 13 | 5 | 18 | 170 | <1 | | |
| T8 | 13 | 14 | 5 | 70 | 130 | <1 | | |
| T9 | 14 | 15 | 2 | 35 | 150 | <1 | | |
| T10 | 15 | 16 | 2 | 5 | 140 | <1 | | |
| T11 | 16 | 17 | 2 | 12 | 150 | <1 | | |
| T12 | 17 | 18 | 2 | 5 | 140 | <1 | | |
| T13 | 18 | 19 | 2 | 12 | 150 | <1 | | |
| T14 | 19 | 20 | 2 | 32 | 160 | <1 | | |
| T15 | 20 | 21 | <2 | 40 | 170 | <1 | | |
| T16 | 21 | 22 | 2 | 55 | 250 | <1 | | |
| T17 | 22 | 23 | 2 | 60 | 150 | <1 | | |
| T18 | 23 | 24 | <2 | 42 | 190 | <1 | | |
| T19 | 24 | 25 | 2 | 30 | 300 | <1 | | |
| T20 | 25 | 26 | 2 | 25 | 410 | <1 | | |
| T21 | 26 | 27 | <2 | <5 | 1400 | <1 | | |
| T22 | 27 | 28 | <2 | 100 | 1050 | <1 | | |
| T23 | 28 | 29 | <2 | 70 | 170 | <1 | | |
| T24 | 29 | 30 | <2 | 30 | 190 | <1 | | |
| T25 | 30 | 31 | <2 | 25 | 350 | <1 | | |
| T26 | 31 | 32 | 5 | 12 | 680 | <1 | | |
| T27 | 32 | 33 | 2 | 45 | 620 | <1 | | |
| T28 | 33 | 34 | 2 | 22 | 550 | <1 | | |
| T29 | 34 | 35 | 2 | 8 | 480 | <1 | | |
| T30 | 35 | 36 | 2 | 55 | 250 | <1 | | |
| T31 | 36 | 37 | <2 | 75 | 130 | <1 | | |
| T32 | 37 | 38 | <2 | 65 | 110 | <1 | | |
| T33 | 38 | 39 | 2 | 50 | 70 | <1 | | |
| T34 | 39 | 40 | <2 | 55 | 110 | <1 | | |
| T35 | 40 | 41 | 2 | 60 | 100 | <1 | | |
| T36 | 41 | 42 | 8 | 70 | 120 | <1 | | |
| T37 | 42 | 43 | 2 | 70 | 130 | <1 | | |
| T38 | 43 | 44 | 2 | 100 | 170 | <1 | | |
| T39 | 44 | 45 | 2 | 70 | 150 | <1 | | |
| T40 | 45 | 46 | 5 | 55 | 95 | <1 | | |
| T41 | 46 | 47 | 5 | 100 | 100 | <1 | | |
| T42 | 47 | 48 | 5 | 75 | 80 | <1 | | |
| T43 | 48 | 49 | 2 | 30 | 75 | <1 | | |
| T44 | 49 | 50 | 2 | 75 | 100 | <1 | | |
| T45 | 50 | 51 | 2 | 60 | 110 | | | |
| T46 | 51 | 52 | 2 | 75 | 110 | | | |
| T47 | 52 | 53 | 2 | 55 | 120 | | | |
| T48 | 53 | 54 | 2 | 60 | 180 | | | |
| T49 | 54 | 55 | 2 | 85 | 80 | | | |
| T50 | 55 | 56 | 2 | 85 | 65 | | | |
| T51 | 56 | 57 | 2 | 90 | 85 | | | |
| T52 | 57 | 58 | 2 | 110 | 75 | | | |
| T53 | 58 | 59 | 2 | 85 | 90 | | | |
| T54 | 59 | 60 | 2 | 95 | 95 | | | |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| T55 | 60 | 61 | 5 | 90 | 85 | | | |
| T56 | 61 | 62 | 2 | 75 | 80 | | | |
| T57 | 62 | 63 | 2 | 200 | 200 | | | |
| T58 | 63 | 64 | 2 | 160 | 150 | | | |
| T59 | 64 | 65 | 5 | 110 | 520 | | | |
| T60 | 65 | 66 | 18 | 230 | 1050 | | | |
| T61 | 66 | 67 | 25 | 190 | 5000 | | | |
| T62 | 67 | 68 | 10 | 190 | 390 | | | |
| T63 | 68 | 69 | 10 | 210 | 1500 | | | |
| T64 | 69 | 70 | 95 | 480 | 2100 | | | |
| T65 | 70 | 71 | 38 | 220 | 650 | | | |
| T66 | 71 | 72 | 2 | 170 | 4700 | | | |
| T67 | 72 | 73 | 2 | 370 | 3750 | | | |
| T68 | 73 | 74 | 2 | 250 | 1400 | | | |
| T69 | 74 | 75 | 8 | 240 | 1470 | | | |
| T70 | 75 | 76 | 2 | 130 | 1980 | | | |
| T71 | 76 | 77 | 2 | 180 | 650 | | | |
| T72 | 77 | 78 | 2 | 410 | 4800 | | | |
| T73 | 78 | 79 | 5 | 75 | 230 | | | |
| T74 | 79 | 80 | 18 | 240 | 260 | | | |
| T75 | 80 | 81 | 15 | 60 | 180 | | | |
| T76 | 81 | 82 | 5 | 5 | 110 | | | |
| T77 | 82 | 83 | 5 | <5 | 100 | | | |
| T78 | 83 | 84 | 10 | 10 | 160 | | | |
| T79 | 84 | 85 | 12 | 30 | 360 | | | |
| T80 | 85 | 86 | 2 | 10 | 120 | | | |
| T81 | 86 | 87 | 12 | 15 | 550 | | | |
| T82 | 87 | 88 | 18 | 50 | 690 | | | |
| T83 | 88 | 89 | 22 | 20 | 140 | | | |
| T84 | 89 | 90 | 18 | 100 | 110 | | | |
| T85 | 90 | 91 | 10 | 50 | 80 | | | |
| T86 | 91 | 92 | 15 | 100 | 700 | | | |
| T87 | 92 | 93 | 250 | 700 | 2850 | | | |
| T88 | 93 | 94 | 840 | 4350 | 8200 | | | |
| T89 | 94 | 95 | 970 | 4100 | 12000 | | | |
| T90 | 95 | 96 | 940 | 1600 | 9800 | | | |
| T91 | 96 | 97 | 290 | 600 | 3400 | | | |
| T92 | 97 | 98 | 290 | 700 | 4050 | | | |
| T93 | 98 | 99 | 45 | 450 | 820 | | | |
| T94 | 99 | 100 | 15 | 220 | 340 | <1 | | |
| T95 | 100 | 101 | 10 | 180 | 870 | <1 | | |
| T96 | 101 | 102 | 5 | 260 | 600 | <1 | | |
| T97 | 102 | 103 | 8 | 460 | 900 | <1 | | |
| T98 | 103 | 104 | 12 | 600 | 1950 | <1 | | |
| T99 | 104 | 105 | 300 | 2050 | 6000 | 15 | | |
| T100 | 105 | 106 | 35 | 210 | 370 | <1 | | |
| T101 | 106 | 107 | 5 | 140 | 290 | <1 | | |
| T102 | 107 | 108 | 5 | 180 | 550 | | | |
| T103 | 108 | 109 | 22 | 260 | 340 | <1 | | |
| T104 | 109 | 110 | 2 | 180 | 590 | <1 | | |
| T105 | 110 | 110.57 | 2 | 120 | 140 | <1 | | |
| T106 | 110.57 | 111 | 2 | 35 | 80 | <1 | | |
| T107 | 111 | 112 | 5 | 95 | 680 | <1 | | |
| T108 | 112 | 113 | 5 | 100 | 450 | | | |
| T109 | 113 | 114 | 8 | 95 | 380 | | | |
| T110 | 114 | 115 | 8 | 410 | 550 | | | |
| T111 | 115 | 116 | 5 | 230 | 850 | <1 | | |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| T112 | 116 | 117 | 5 | 130 | 880 | <1 | | |
| T113 | 117 | 118 | 5 | 600 | 1600 | <1 | | |
| T114 | 118 | 119 | 2 | 160 | 300 | <1 | | |
| T115 | 119 | 120 | 2 | 230 | 920 | <1 | | |
| T116 | 120 | 121 | 5 | 260 | 1050 | <1 | | |
| T117 | 121 | 122 | 2 | 330 | 1300 | <1 | | |
| T118 | 122 | 123 | 5 | 300 | 900 | <1 | | |
| T119 | 123 | 124 | 5 | 550 | 1700 | | | |
| T120 | 124 | 125 | 8 | 700 | 3250 | | | |
| T121 | 125 | 126 | 8 | 360 | 1850 | | | |
| T122 | 126 | 127 | 8 | 360 | 1500 | | | |
| T123 | 127 | 128 | 38 | 370 | 1250 | | | |
| T124 | 128 | 129 | 5 | 660 | 1800 | | | |
| T125 | 129 | 130 | 5 | 650 | 1300 | | | |
| T126 | 130 | 131 | 8 | 360 | 2800 | | | |
| T127 | 131 | 132 | 5 | 150 | 470 | | | |
| T128 | 132 | 133 | 5 | 220 | 290 | | | |
| T129 | 133 | 134 | 5 | 130 | 300 | | | |
| T130 | 134 | 135 | 5 | 150 | 500 | | | |
| T131 | 135 | 136 | 5 | 360 | 260 | | | |
| T132 | 136 | 137 | 5 | 430 | 500 | | | |
| T133 | 137 | 138 | 10 | 340 | 1560 | | | |
| T134 | 138 | 139 | 15 | 600 | 2100 | | | |
| T135 | 139 | 140 | 10 | 410 | 1060 | | | |
| T136 | 140 | 141 | 30 | 6500 | 3600 | | | |
| T137 | 141 | 142 | 12 | 700 | 380 | | | |
| T138 | 142 | 143 | 2 | 35 | 38 | <1 | | |
| T139 | 143 | 144 | 2 | 45 | 85 | <1 | | |
| T140 | 144 | 144.56 | 2 | 170 | 120 | <1 | | |
| T141 | 144.56 | 145 | 2 | 10 | 130 | <1 | | |
| T142 | 145 | 146 | 2 | 25 | 120 | <1 | | |
| T143 | 146 | 146.82 | 5 | 32 | 120 | <1 | | |
| T144 | 146.82 | 147 | 5 | 70 | 50 | <1 | | |
| T145 | 147 | 148 | 5 | 100 | 140 | <1 | | |
| T146 | 148 | 149 | 2 | 130 | 270 | | | |
| T147 | 149 | 150 | 5 | 85 | 140 | | | |
| T148 | 150 | 151 | 2 | 80 | 65 | | | |
| T149 | 151 | 152 | 5 | 130 | 650 | | | |
| T150 | 152 | 153 | 2 | 85 | 70 | | | |
| T151 | 153 | 154 | 2 | 130 | 140 | | | |
| T152 | 154 | 154.64 | 5 | 100 | 320 | | | |
| T153 | 154.64 | 155 | 2 | 35 | 150 | | | |
| T154 | 155 | 156 | 2 | 75 | 110 | | | |
| T155 | 156 | 157 | 2 | 40 | 100 | <1 | | |
| T156 | 157 | 158 | 2 | 45 | 100 | <1 | | |
| T157 | 158 | 159 | 2 | 45 | 200 | <1 | | |
| T158 | 159 | 160 | 2 | 50 | 310 | <1 | | |
| T159 | 160 | 161 | 2 | 25 | 210 | <1 | | |
| T160 | 161 | 162 | 2 | 80 | 110 | <1 | | |
| T161 | 162 | 163 | 2 | 120 | 140 | | | |
| T162 | 163 | 164 | 5 | 400 | 650 | | | |
| T163 | 164 | 165 | 5 | 230 | 280 | | | |
| T164 | 165 | 166 | 5 | 310 | 1000 | | | |
| T165 | 166 | 167 | 5 | 380 | 1120 | | | |
| T166 | 167 | 168 | 5 | 180 | 950 | | | |
| T167 | 168 | 169 | 5 | 550 | 1740 | | | |
| T168 | 169 | 170 | 5 | 410 | 580 | | | |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| T169 | 170 | 171 | 2 | 100 | 430 | | | |
| T170 | 171 | 172 | 5 | 240 | 750 | | | |
| T171 | 172 | 173 | 2 | 200 | 90 | | | |
| T172 | 173 | 174 | 5 | 180 | 320 | | | |
| T173 | 174 | 175 | 5 | 160 | 1250 | | | |
| T174 | 175 | 176 | 5 | 110 | 700 | | | |
| T175 | 176 | 177 | 5 | 240 | 950 | | | |
| T176 | 177 | 178 | 5 | 210 | 1450 | | | |
| T177 | 178 | 179 | 5 | 600 | 1950 | | | |
| T178 | 179 | 180 | 5 | 700 | 1450 | | | |
| T179 | 180 | 181 | 8 | 410 | 2100 | | | |
| T180 | 181 | 182 | 5 | 430 | 1150 | | | |
| T181 | 182 | 183 | 5 | 220 | 1350 | | | |
| T182 | 183 | 184 | 5 | 420 | 1250 | | | |
| T183 | 184 | 185 | 2 | 95 | 100 | | | |
| T184 | 185 | 186 | 5 | 140 | 270 | | | |
| T185 | 186 | 187 | 5 | 250 | 680 | | | |
| T186 | 187 | 188 | 8 | 700 | 4600 | | | |
| T187 | 188 | 189 | 8 | 850 | 2450 | | | |
| T188 | 189 | 190 | 5 | 330 | 1050 | | | |
| T189 | 190 | 191 | 5 | 1750 | 720 | | | |
| T190 | 191 | 192 | 5 | 410 | 120 | | | |
| T191 | 192 | 193 | 2 | 110 | 600 | | | |
| T192 | 193 | 194 | 2 | 90 | 230 | | | |
| T193 | 194 | 195 | 5 | 260 | 1700 | | | |
| T194 | 195 | 196 | 8 | 950 | 3850 | | | |
| T195 | 196 | 197 | 28 | 1750 | 18500 | | | |
| T196 | 197 | 198 | 8 | 300 | 2000 | | | |
| T197 | 198 | 199 | 5 | 70 | 280 | | | |
| T198 | 199 | 200 | 5 | 85 | 620 | | | |
| T199 | 200 | 200.7 | 10 | 110 | 370 | | | |
| 39060 | 202 | 204 | 18 | 540 | 1964 | <1 | 0.02 | 955 |
| 39061 | 204 | 206 | 14 | 300 | 1147 | <1 | 0.03 | 1093 |
| 39062 | 206 | 208 | 13 | 309 | 911 | <1 | 0.03 | 2053 |
| 39063 | 208 | 210 | 13 | 176 | 200 | <1 | 0.01 | 2425 |
| 39064 | 210 | 212 | 102 | 771 | 3018 | 2 | 0.04 | 2760 |
| 39065 | 212 | 214 | 49 | 856 | 4311 | 2 | 0.02 | 2623 |
| 39066 | 214 | 216 | 52 | 851 | 2792 | 3 | 0.02 | 3542 |
| 39067 | 216 | 218 | 76 | 1406 | 3957 | 3 | 0.02 | 6500 |
| 39068 | 218 | 220 | 75 | 2370 | 8200 | 4 | 0.02 | 3125 |
| 39069 | 220 | 222 | 46 | 1599 | 10300 | 3 | 0.04 | 2914 |
| 39070 | 222 | 224 | 317 | 8100 | 9200 | 14 | 0.06 | 2497 |
| 39071 | 224 | 226 | 45 | 11700 | 1518 | 12 | 0.08 | 3056 |
| 39072 | 226 | 228 | 161 | 3117 | 2863 | 9 | 0.13 | 443 |
| 39073 | 228 | 230 | 3582 | 2939 | 7400 | 12 | 0.23 | 1120 |
| 39074 | 230 | 232 | 335 | 1320 | 2574 | 6 | 0.14 | 716 |
| 39075 | 232 | 234 | 147 | 1107 | 2839 | 5 | 0.1 | 265 |
| 39076 | 234 | 236 | 170 | 1174 | 4106 | 4 | 0.13 | 441 |
| 39077 | 236 | 238 | 69 | 4071 | 3404 | 5 | 0.05 | 703 |
| 39078 | 238 | 240 | 247 | 2913 | 5500 | 7 | 0.02 | 1126 |
| 39079 | 240 | 242 | 63 | 1087 | 934 | 2 | 0.02 | 1079 |

741188

# BPD82 ASSAYS

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Mn |
|---|---|---|---|---|---|---|---|---|
| 39080 | 56 | 58 | 68 | 29 | 1579 | <1 | <0.008 | 1653 |
| 39081 | 58 | 60 | 25 | 14 | 1191 | <1 | 0.14 | 1721 |
| 39082 | 170 | 172 | 40 | 216 | 11400 | 2 | 0.02 | 2056 |
| 39083 | 172 | 174 | 84 | 278 | 11700 | 3 | 0.09 | 2142 |
| 39084 | 174 | 176 | 45 | 182 | 8300 | 2 | 0.02 | 2890 |
| 39085 | 176 | 178 | 29 | 204 | 6500 | 1 | 0.04 | 1909 |
| 39086 | 178 | 180 | 70 | 327 | 10200 | 2 | 0.05 | 1695 |
| 39087 | 180 | 182 | 26 | 60 | 5900 | <1 | 0.04 | 1548 |
| 39088 | 182 | 184 | 25 | 84 | 3657 | <1 | 0.01 | 2142 |
| 39089 | 184 | 186 | 37 | 150 | 5800 | 1 | 0.02 | 2527 |
| 39090 | 186 | 188 | 52 | 223 | 9600 | 1 | 0.02 | 2229 |
| 39091 | 188 | 190 | 34 | 81 | 10200 | 1 | 0.02 | 1538 |
| 39092 | 190 | 192 | 25 | 57 | 8100 | <1 | 0.01 | 1591 |
| 39093 | 192 | 194 | 24 | 61 | 6300 | <1 | 0.02 | 1723 |
| 39094 | 194 | 196 | 11 | 108 | 2130 | <1 | <0.008 | 1451 |
| 39626 | 238 | 240 | 16 | 26 | 3145 | <1 | <0.008 | 1748 |
| 39095 | 240 | 242 | 8 | 19 | 3542 | <1 | 0.01 | 1608 |
| 39096 | 242 | 244 | 8 | 11 | 3570 | <1 | <0.008 | 1401 |
| 39097 | 244 | 246 | 3 | 6 | 418 | <1 | <0.008 | 920 |
| 39098 | 246 | 248 | 3 | 22 | 795 | <1 | <0.008 | 902 |
| 39099 | 248 | 250 | 6 | 33 | 1710 | <1 | <0.008 | 1125 |
| 39100 | 250 | 252 | 4 | 9 | 688 | <1 | <0.008 | 845 |
| 39601 | 252 | 254 | 4 | 10 | 510 | <1 | <0.008 | 1531 |
| 39602 | 254 | 256 | 6 | 29 | 765 | <1 | <0.008 | 1096 |
| 39603 | 256 | 258 | 18 | 74 | 704 | <1 | <0.008 | 548 |
| 39604 | 258 | 260 | 9 | 85 | 417 | <1 | <0.008 | 399 |
| 39605 | 260 | 262 | 7 | 99 | 332 | <1 | <0.008 | 403 |
| 39606 | 262 | 264 | 5 | 122 | 310 | <1 | <0.008 | 1283 |
| 39607 | 264 | 266 | 4 | 77 | 732 | <1 | <0.008 | 1362 |
| 39608 | 318 | 320 | 18 | 51 | 2022 | <1 | <0.008 | 1326 |
| 39609 | 320 | 322 | 16 | 67 | 3068 | 1 | 0.01 | 2138 |
| 39610 | 322 | 324 | 17 | 26 | 2554 | <1 | <0.008 | 1457 |
| 39611 | 324 | 326 | 651 | 181 | 10500 | 1 | 0.01 | 1469 |
| 39612 | 326 | 328 | 50 | 57 | 3124 | 1 | <0.008 | 1433 |
| 39613 | 328 | 330 | 34 | 181 | 3689 | 1 | <0.008 | 1592 |
| 39614 | 330 | 332 | 88 | 454 | 19200 | 1 | <0.008 | 2759 |
| 39615 | 332 | 334 | 42 | 316 | 9900 | 1 | <0.008 | 1332 |
| 39616 | 334 | 336 | 18 | 176 | 12800 | 1 | <0.008 | 2017 |
| 39617 | 336 | 338 | 13 | 235 | 22000 | 1 | <0.008 | 1839 |
| 39618 | 338 | 340 | 255 | 512 | 11400 | 2 | 0.01 | 3062 |
| 39619 | 340 | 342 | 108 | 149 | 15300 | 1 | 0.01 | 1726 |
| 39620 | 342 | 344 | 17 | 51 | 5700 | <1 | <0.008 | 1138 |
| 39621 | 344 | 346 | 36 | 247 | 3996 | <1 | <0.008 | 2103 |
| 39622 | 346 | 348 | 8 | 215 | 1137 | 1 | <0.008 | 1947 |
| 39623 | 348 | 350 | 7 | 92 | 1347 | 1 | <0.008 | 1206 |
| 39624 | 350 | 352 | 51 | 89 | 1801 | <1 | <0.008 | 1238 |
| 39625 | 352 | 354 | 35 | 63 | 1873 | <1 | <0.008 | 1390 |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 39694 | 371.6 | 373.6 | 12 | 8 | 43 | <1 | | 5.72 | 316 |
| 39695 | 373.6 | 375.6 | 9 | 9 | 28 | <1 | | 2.84 | 65 |
| 39696 | 378.9 | 380.9 | 9 | 8 | 10 | <1 | | 1.91 | 66 |
| 39697 | 380.9 | 382.9 | 10 | 10 | 18 | <1 | | 1.53 | 52 |
| 39698 | 382.9 | 384.9 | 10 | 13 | 113 | <1 | | 3.37 | 1046 |
| 39699 | 384.9 | 386.9 | 11 | 11 | 96 | <1 | | 4.47 | 996 |
| 39700 | 386.9 | 388.6 | 11 | 11 | 119 | <1 | | 3.34 | 1082 |
| 39875 | 391.9 | 393.9 | 17 | 8 | 43 | <1 | | 7.33 | 547 |
| 39876 | 393.9 | 395.9 | 27 | 10 | 85 | <1 | | 7.79 | 159 |
| 39877 | 395.9 | 397.9 | 30 | 10 | 70 | <1 | | 9.01 | 724 |
| 39878 | 397.9 | 399.9 | 18 | 9 | 59 | <1 | | 4.90 | 1010 |
| 39879 | 399.9 | 401.9 | 16 | 14 | 83 | <1 | | 7.15 | 1285 |
| 39880 | 401.9 | 403.9 | 9 | 10 | 42 | <1 | | 3.41 | 1082 |
| 39881 | 403.9 | 405.9 | 10 | 8 | 16 | <1 | | 1.30 | 129 |
| 39882 | 405.9 | 407.9 | 12 | 6 | 23 | <1 | | 3.90 | 310 |
| 39883 | 407.9 | 409.9 | 13 | 12 | 84 | <1 | | 4.50 | 1136 |
| 39884 | 409.9 | 411.9 | 14 | 14 | 75 | <1 | | 5.46 | 1197 |
| 39885 | 411.9 | 413.9 | 12 | 8 | 69 | <1 | | 5.62 | 990 |
| 39886 | 413.9 | 415.9 | 20 | 25 | 89 | <1 | | 6.28 | 1213 |
| 39887 | 415.9 | 416.8 | 17 | 17 | 283 | <1 | | 4.36 | 2317 |
| 39888 | 416.8 | 417.6 | 21 | 23 | 102 | <1 | | 6.10 | 1078 |
| 39889 | 417.6 | 419.9 | 15 | 24 | 77 | <1 | | 4.77 | 1069 |

# BPD83 ASSAYS

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 39646 | 176 | 178 | 15 | 36 | 55 | <1 | <0.008 | 3.66 | 1049 |
| 39648 | 180 | 182 | 10 | 42 | 143 | <1 | <0.008 | 4.04 | 1266 |
| 39665 | 222 | 224 | 14 | 19 | 56 | <1 | <0.008 | 3.69 | 758 |
| 39666 | 224 | 226 | 12 | 13 | 30 | <1 | <0.008 | 2.37 | 247 |
| 39671 | 265.8 | 267.8 | 20 | 11 | 21 | <1 | <0.008 | 2.81 | 72 |
| 39672 | 270.2 | 272.2 | 23 | 13 | 140 | <1 | <0.008 | 7.55 | 1169 |
| 39673 | 280 | 282 | 14 | 7 | 222 | <1 | <0.008 | 7.32 | 2354 |
| 39674 | 282 | 284 | 14 | 11 | 333 | <1 | <0.008 | 7.8 | 4224 |
| 39675 | 284 | 286 | 21 | 13 | 212 | <1 | <0.008 | 5.75 | 1873 |
| 39676 | 286 | 288 | 16 | 14 | 122 | <1 | <0.008 | 6.03 | 933 |
| 39677 | 288 | 290 | 18 | 15 | 26 | <1 | <0.008 | 2.8 | 53 |
| 39681 | 328.6 | 330.6 | 11 | 11 | 18 | <1 | <0.008 | 2 | 36 |
| 39683 | 332.6 | 334.6 | 27 | 96 | 93 | <1 | <0.008 | 7.17 | 385 |
| 39687 | 340.6 | 342.6 | 21 | 35 | 164 | <1 | 0.01 | 4.92 | 1178 |
| 39693 | 369.6 | 371.6 | 13 | 9 | 28 | <1 | <0.008 | 3.37 | 401 |
| 39694 | 371.6 | 373.6 | 12 | 8 | 43 | <1 | <0.008 | 5.72 | 316 |
| 39695 | 373.6 | 375.6 | 9 | 9 | 28 | <1 | <0.008 | 2.84 | 65 |
| 39696 | 378.9 | 380.9 | 9 | 8 | 10 | <1 | 0.01 | 1.91 | 66 |
| 39697 | 380.9 | 382.9 | 10 | 10 | 18 | <1 | 0.01 | 1.53 | 52 |
| 39698 | 382.9 | 384.9 | 10 | 13 | 113 | <1 | 0.01 | 3.37 | 1046 |
| 39699 | 384.9 | 386.9 | 11 | 11 | 96 | <1 | 0.01 | 4.47 | 996 |
| 39700 | 386.9 | 388.6 | 11 | 11 | 119 | <1 | <0.008 | 3.34 | 1082 |
| 39875 | 391.9 | 393.9 | 17 | 8 | 43 | <1 | <0.008 | 7.33 | 547 |
| 39876 | 393.9 | 395.9 | 27 | 10 | 85 | <1 | <0.008 | 7.79 | 159 |
| 39877 | 395.9 | 397.9 | 30 | 10 | 70 | <1 | <0.008 | 9.01 | 724 |
| 39878 | 397.9 | 399.9 | 18 | 9 | 59 | <1 | <0.008 | 4.9 | 1010 |
| 39879 | 399.9 | 401.9 | 16 | 14 | 83 | <1 | <0.008 | 7.15 | 1285 |
| 39880 | 401.9 | 403.9 | 9 | 10 | 42 | <1 | <0.008 | 3.41 | 1082 |
| 39881 | 403.9 | 405.9 | 10 | 8 | 16 | <1 | <0.008 | 1.3 | 129 |
| 39882 | 405.9 | 407.9 | 12 | 6 | 23 | <1 | <0.008 | 3.9 | 310 |
| 39883 | 407.9 | 409.9 | 13 | 12 | 84 | <1 | <0.008 | 4.5 | 1136 |
| 39884 | 409.9 | 411.9 | 14 | 14 | 75 | <1 | 0.01 | 5.46 | 1197 |
| 39885 | 411.9 | 413.9 | 12 | 8 | 69 | <1 | <0.008 | 5.62 | 990 |
| 39886 | 413.9 | 415.9 | 20 | 25 | 89 | <1 | <0.008 | 6.28 | 1213 |
| 39887 | 415.9 | 416.8 | 17 | 17 | 283 | <1 | 0.01 | 4.36 | 2317 |
| 39888 | 416.8 | 417.6 | 21 | 23 | 102 | <1 | 0.01 | 6.1 | 1078 |
| 39889 | 417.6 | 419.9 | 15 | 24 | 77 | <1 | <0.008 | 4.77 | 1069 |
| 39893 | 82 | 83 | 10 | 9 | 204 | <1 | <0.008 | 7.73 | 2907 |
| 39894 | 128 | 129 | 15 | 9 | 176 | <1 | <0.008 | 6.05 | 2227 |
| 40964 | 173 | 175 | 21 | 25 | 206 | <1 | <0.008 | 6.5 | 1636 |
| 39647 | 178 | 180 | 12 | 156 | 101 | <1 | 0.02 | 5.08 | 1322 |
| 39649 | 182 | 184 | 5 | 15 | 177 | <1 | <0.008 | 4.95 | 1818 |
| 39650 | 184 | 186 | 13 | 21 | 146 | <1 | <0.008 | 4.87 | 1560 |
| 39651 | 186 | 188 | 3 | 16 | 190 | <1 | <0.008 | 4.62 | 1906 |
| 39652 | 188 | 190 | 16 | 45 | 127 | <1 | <0.008 | 4.84 | 1397 |
| 39653 | 190 | 192 | 10 | 17 | 188 | <1 | <0.008 | 4.86 | 1886 |
| 39654 | 192 | 194 | 10 | 24 | 269 | <1 | <0.008 | 4.71 | 1976 |
| 39655 | 194 | 196 | 9 | 84 | 1392 | <1 | <0.008 | 4.8 | 1670 |
| 39656 | 196 | 198 | 12 | 51 | 495 | <1 | <0.008 | 4.86 | 1723 |
| 39657 | 198 | 200 | 6 | 16 | 214 | <1 | <0.008 | 4.9 | 2286 |
| 39658 | 200 | 202 | 10 | 82 | 1003 | <1 | <0.008 | 5 | 2111 |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 39659 | 202 | 204 | 16 | 75 | 371 | <1 | <0.008 | 4.98 | 1734 |
| 39660 | 204 | 206 | 10 | 121 | 342 | <1 | <0.008 | 5 | 1816 |
| 39661 | 206 | 207.8 | 30 | 771 | 504 | <1 | <0.008 | 4.84 | 1139 |
| 39662 | 207.8 | 209.5 | 12 | 32 | 435 | <1 | <0.008 | 5.48 | 3172 |
| 39663 | 209.5 | 211.5 | 14 | 90 | 63 | 2 | <0.008 | 1.6 | 129 |
| 39664 | 211.5 | 213.5 | 7 | 5 | 45 | <1 | <0.008 | 1.79 | 133 |
| 39667 | 247.6 | 249.6 | 15 | <3 | 313 | <1 | <0.008 | 5 | 3091 |
| 39668 | 249.6 | 251.6 | 17 | <3 | 349 | 38 | <0.008 | 5.22 | 3235 |
| 39669 | 251.6 | 253.6 | 18 | 10 | 290 | <1 | <0.008 | 5.76 | 1936 |
| 39670 | 253.6 | 255.6 | 39 | 41 | 250 | <1 | 0.01 | 6.96 | 1463 |
| 39678 | 297 | 299 | 23 | 64 | 136 | <1 | <0.008 | 3.63 | 240 |
| 39679 | 299 | 301 | 13 | 49 | 356 | <1 | <0.008 | 3.17 | 200 |
| 39680 | 326.6 | 328.6 | 24 | 24 | 115 | <1 | 0.01 | 5.95 | 920 |
| 39682 | 330.6 | 332.6 | 12 | 91 | 54 | <1 | <0.008 | 5.05 | 126 |
| 39684 | 334.6 | 336.6 | 19 | 61 | 200 | <1 | <0.008 | 6.37 | 1234 |
| 39685 | 336.6 | 338.6 | 11 | 28 | 243 | 2 | <0.008 | 5.62 | 1556 |
| 39686 | 338.6 | 340.6 | 25 | 49 | 137 | <1 | 0.01 | 6.31 | 309 |
| 39688 | 359.6 | 361.6 | 11 | 8 | 402 | <1 | 0.01 | 6.19 | 3268 |
| 39689 | 361.6 | 363.6 | 14 | 12 | 345 | <1 | 0.01 | 6.58 | 2341 |
| 39690 | 363.6 | 365.6 | 21 | 21 | 287 | 1 | 0.01 | 5.76 | 2397 |
| 39691 | 365.6 | 367.6 | 16 | 16 | 159 | <1 | 0.01 | 4.93 | 1210 |
| 39692 | 367.6 | 369.6 | 14 | 17 | 91 | 1 | 0.04 | 3.23 | 1253 |

# BPD84 ASSAYS

741192

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 39823 | 31 | 32 | 22 | 43 | 739 | <1 | <0.008 | 7.60 | 1919 |
| 39824 | 32 | 33 | 35 | 24 | 416 | <1 | <0.008 | 6.12 | 1246 |
| 39825 | 33 | 34 | 24 | 21 | 181 | <1 | <0.008 | 4.41 | 825 |
| 39826 | 34 | 35 | 47 | 31 | 130 | <1 | <0.008 | 4.80 | 704 |
| 39827 | 35 | 36 | 75 | 83 | 131 | <1 | <0.008 | 5.20 | 714 |
| 39828 | 36 | 37 | 76 | 174 | 154 | <1 | <0.008 | 5.52 | 719 |
| 39829 | 37 | 38 | 58 | 153 | 149 | <1 | <0.008 | 4.04 | 604 |
| 39830 | 38 | 39 | 30 | 210 | 404 | <1 | <0.008 | 2.44 | 779 |
| 39831 | 39 | 40 | 31 | 646 | 404 | 2 | - | 3.59 | 530 |
| 39832 | 40 | 41 | 34 | 173 | 2891 | 1 | - | 2.78 | 758 |
| 39833 | 41 | 42 | 20 | 98 | 253 | 1 | - | 2.89 | 710 |
| 39834 | 42 | 43 | 12 | 126 | 747 | 2 | - | 3.33 | 1740 |
| 39835 | 43 | 44 | 10 | 160 | 989 | 1 | - | 2.74 | 865 |
| 39836 | 44 | 45 | 9 | 88 | 369 | <1 | <0.008 | 2.33 | 641 |
| 39837 | 45 | 46 | 12 | 160 | 277 | <1 | <0.008 | 2.95 | 744 |
| 39838 | 46 | 47 | 13 | 155 | 309 | <1 | - | 1.83 | 628 |
| 39839 | 47 | 48 | 17 | 264 | 714 | <1 | - | 2.66 | 748 |
| 39840 | 48 | 50 | 12 | 108 | 422 | <1 | - | 1.78 | 900 |
| 39841 | 50 | 52 | 13 | 120 | 358 | <1 | - | 1.68 | 1288 |
| 39842 | 52 | 54 | 12 | 90 | 284 | <1 | - | 1.81 | 783 |
| 39843 | 54 | 56 | 10 | 226 | 959 | <1 | - | 1.73 | 515 |
| 39844 | 56 | 58 | 11 | 50 | 230 | <1 | - | 1.89 | 852 |
| 39845 | 58 | 59.1 | 11 | 43 | 241 | <1 | - | 2.04 | 993 |
| 39846 | 67 | 68 | 12 | 14 | 173 | <1 | <0.008 | 2.10 | 1222 |
| 39847 | 68 | 69 | 23 | 20 | 335 | <1 | <0.008 | 1.98 | 981 |
| 39848 | 69 | 70 | 25 | 23 | 411 | <1 | - | 6.59 | 3802 |
| 39849 | 70 | 71 | 81 | 58 | 477 | <1 | - | 8.93 | 4325 |
| 39850 | 71 | 72 | 294 | 73 | 308 | <1 | - | 7.52 | 3828 |
| 39851 | 72 | 73 | 998 | 20 | 326 | <1 | - | 5.61 | 3939 |
| 39852 | 85 | 87 | 10 | <3 | 109 | <1 | - | 1.70 | 1210 |
| 39853 | 87 | 89 | 9 | 10 | 100 | <1 | - | 1.42 | 1071 |
| 39854 | 98 | 99 | 6 | 27 | 88 | <1 | - | 1.64 | 924 |
| 39855 | 99 | 100 | 13 | 47 | 420 | <1 | - | 2.36 | 1019 |
| 39856 | 100 | 101 | 7 | 41 | 159 | <1 | - | 1.90 | 1056 |
| 39857 | 101 | 102 | 11 | 378 | 2038 | <1 | - | 1.43 | 576 |
| 39858 | 102 | 103 | 9 | 279 | 961 | <1 | - | 0.96 | 352 |
| 39859 | 103 | 104 | 8 | 91 | 472 | <1 | - | 1.05 | 391 |
| 39860 | 104 | 105 | 9 | 157 | 905 | 1 | - | 1.15 | 497 |
| 39861 | 105 | 106 | 8 | 158 | 1767 | 1 | - | 1.17 | 274 |
| 39862 | 106 | 107 | 6 | 141 | 686 | <1 | - | 1.11 | 496 |
| 39863 | 115 | 116 | 6 | 122 | 673 | <1 | - | 1.27 | 503 |
| 39864 | 116 | 117 | 22 | 290 | 1010 | <1 | <0.008 | 1.44 | 484 |
| 39865 | 117 | 118 | 73 | 154 | 1025 | 2 | <0.008 | 1.25 | 326 |
| 39866 | 118 | 119 | 17 | 256 | 1036 | <1 | <0.008 | 1.19 | 336 |
| 39867 | 119 | 120 | 13 | 183 | 817 | <1 | <0.008 | 1.43 | 396 |
| 39868 | 120 | 121 | 25 | 334 | 291 | <1 | <0.008 | 1.41 | 672 |
| 39869 | 121 | 122 | 22 | 634 | 946 | <1 | <0.008 | 1.44 | 410 |
| 39870 | 122 | 123 | 220 | 855 | 1519 | <1 | - | 1.51 | 972 |
| 39871 | 123 | 124 | 177 | 460 | 2792 | 4 | - | 1.37 | 2156 |
| 39872 | 124 | 125 | 189 | 758 | 6800 | 3 | - | 1.24 | 978 |
| 39895 | 133 | 134 | 8 | 24 | 171 | <1 | - | 1.50 | 1179 |
| 39896 | 134 | 135 | 8 | 30 | 148 | <1 | - | 1.38 | 725 |
| 39897 | 140 | 141.7 | 14 | 473 | 695 | <1 | - | 1.62 | 955 |
| 39898 | 141.7 | 142.8 | 214 | 2918 | 4145 | <1 | 0.05 | 1.31 | 1110 |
| 39899 | 143.2 | 144.2 | 42 | 1928 | 4541 | 6 | 0.04 | 9.20 | 1250 |
| 39900 | 144.2 | 145.2 | 11 | 42 | 125 | <1 | <0.008 | 2.52 | 1197 |
| 40901 | 145.2 | 146.2 | 18 | 58 | 103 | <1 | <0.008 | 4.99 | 1516 |
| 40902 | 146.2 | 147.2 | 24 | 621 | 832 | 2 | <0.008 | 4.14 | 781 |
| 40903 | 147.2 | 148.2 | 18 | 303 | 401 | 3 | <0.008 | 3.90 | 1028 |

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 40904 | 155.6 | 156.9 | 9 | 152 | 521 | <1 | <0.008 | 1.95 | 700 |
| 41435 | 166.1 | 167.1 | 9 | 7 | 93 | <1 | <0.008 | 3.22 | 1952 |
| 41436 | 167.1 | 168.1 | 10 | 103 | 596 | <1 | 0.01 | 2.64 | 1422 |
| 40905 | 168 | 168.5 | 3749 | 6500 | 7000 | 36 | 2.81 | 16.10 | 340 |
| 40906 | 168.5 | 169 | 1758 | 10600 | 20000 | 20 | 1.01 | 7.19 | 588 |
| 40907 | 169 | 171 | 39 | 229 | 278 | <1 | 0.06 | 1.35 | 420 |
| 40908 | 171 | 173 | 21 | 346 | 751 | <1 | 0.04 | 1.31 | 500 |
| 40909 | 173 | 175 | 46 | 476 | 3607 | <1 | 0.04 | 1.51 | 727 |
| 75101 | 175 | 177 | 14 | 346 | 720 | | <0.008 | 1.71 | 1602 |
| 75102 | 177 | 179 | 12 | 231 | 391 | | <0.008 | 1.49 | 1215 |
| 40910 | 179 | 180 | 99 | 714 | 6400 | 7 | 0.94 | 1.06 | 203 |
| 40911 | 180 | 181 | 24 | 2319 | 1739 | 4 | 0.64 | 1.05 | 311 |
| 40912 | 181 | 182 | 47 | 586 | 1259 | 2 | 0.2 | 1.57 | 942 |
| 75103 | 182 | 184 | 8 | 33 | 88 | | <0.008 | 1.91 | 1334 |
| 75104 | 184 | 186 | 8 | 21 | 98 | | <0.008 | 1.59 | 1243 |
| 75105 | 198 | 200 | 74 | 30 | 213 | | <0.008 | 5.13 | 3105 |
| 75106 | 200 | 202 | 5 | 29 | 82 | | <0.008 | 1.87 | 1524 |
| 75107 | 211 | 213 | 16 | 85 | 158 | | 0.05 | 0.94 | 277 |
| 75108 | 213 | 215 | 15 | 74 | 337 | | <0.008 | 1.30 | 547 |
| 40913 | 215 | 216 | 82 | 194 | 965 | 2 | 0.03 | 1.05 | 378 |
| 40914 | 216 | 217 | 803 | 273 | 12800 | 2 | 0.25 | 1.84 | 183 |
| 40915 | 217 | 218 | 453 | 204 | 2412 | 1 | 0.09 | 1.23 | 149 |
| 40916 | 218 | 219 | 153 | 179 | 259 | <1 | 0.1 | 1.04 | 314 |
| 75109 | 219 | 221 | 7 | 37 | 116 | | <0.008 | 1.42 | 634 |
| 75110 | 221 | 223 | 6 | 10 | 74 | | <0.008 | 1.17 | 552 |
| 75111 | 223 | 225 | 2 | 12 | 96 | | <0.008 | 1.51 | 783 |
| 75112 | 225 | 227 | 3 | 14 | 97 | | <0.008 | 1.05 | 540 |
| 75113 | 227 | 229 | 4 | 15 | 86 | | <0.008 | 1.47 | 661 |
| 75114 | 229 | 231 | 4 | 22 | 228 | | 0.02 | 1.21 | 575 |
| 75115 | 245 | 247 | 6 | 26 | 63 | | <0.008 | 0.92 | 536 |
| 75116 | 247 | 249 | 9 | 62 | 380 | | <0.008 | 1.07 | 450 |
| 75117 | 249 | 251 | 6 | 70 | 288 | | <0.008 | 1.34 | 541 |
| 75118 | 251 | 253 | 5 | 89 | 379 | | <0.008 | 1.41 | 690 |
| 75119 | 253 | 255 | 6 | 99 | 430 | <1 | <0.008 | | 749 |
| 75120 | 255 | 257 | 8 | 54 | 164 | <1 | <0.008 | | 873 |
| 75121 | 257 | 258 | 6 | 29 | 96 | <1 | <0.008 | | 905 |
| 75122 | 258 | 260 | 10 | 147 | 121 | <1 | 0.01 | | 509 |
| 40923 | 258.3 | 258.9 | 13100 | 129 | 240 | 4 | <0.008 | 2.18 | 1462 |
| 40917 | 260.5 | 262.5 | 11 | 87 | 130 | <1 | <0.008 | 0.73 | 102 |
| 75123 | 262.5 | 264.5 | 7 | 99 | 154 | <1 | 0.01 | | 540 |
| 75124 | 264.5 | 266.5 | 7 | 54 | 99 | <1 | 0.01 | | 173 |
| 75125 | 266.5 | 268.5 | 9 | 31 | 94 | <1 | 0.03 | | 155 |
| 75126 | 268.5 | 270.5 | 8 | 22 | 41 | <1 | 0.02 | | 73 |
| 75127 | 281 | 283 | 16 | 62 | 51 | <1 | 0.08 | 0.80 | 206 |
| 75128 | 283 | 285 | 34 | 25 | 27 | <1 | 0.09 | 0.80 | 198 |
| 40918 | 285 | 287 | 8 | 23 | 32 | <1 | - | 0.75 | 316 |
| 40919 | 287 | 289 | 16 | 27 | 40 | 0.5 | 0.02 | 0.79 | 313 |
| 75129 | 289 | 291 | 6 | 23 | 32 | <1 | 0.02 | 1.10 | 347 |
| 40920 | 324.9 | 326 | 14 | 24 | 69 | <1 | - | 2.01 | 983 |
| 40921 | 342.9 | 343.9 | 47 | 601 | 878 | 2 | <0.008 | 4.64 | 1523 |
| 40922 | 343.9 | 344.9 | 24 | 76 | 1875 | 1 | - | 1.53 | 427 |
| 75130 | 353 | 355 | 33 | 31 | 249 | <1 | 0.01 | | 2633 |
| 75131 | 355 | 357 | 31 | 38 | 225 | <1 | <0.008 | | 3172 |

# BPD85 ASSAYS

741194

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 40924 | 173.0 | 175.0 | 36 | 187 | 469 | 2 | 0.05 | 3.26 | 1318 |
| 40925 | 175.0 | 177.0 | 30 | 210 | 207 | 2 | 0.03 | 2.81 | 1287 |
| 40926 | 177.0 | 179.0 | 34 | 204 | 443 | 2 | 0.04 | 2.91 | 2678 |
| 40927 | 179.0 | 180.0 | 86 | 362 | 1103 | 1 | 0.04 | 2.37 | 1723 |
| 40928 | 180.0 | 181.0 | 708 | 3793 | 7200 | 6 | - | 3.44 | 2109 |
| 40929 | 181.0 | 182.0 | 302 | 825 | 3469 | 2 | - | 2.54 | 1571 |
| 40930 | 182.0 | 184.0 | 102 | 437 | 1017 | 2 | - | 1.97 | 733 |
| 40931 | 184.0 | 186.0 | 55 | 367 | 1348 | 2 | - | 1.95 | 802 |
| 40932 | 186.0 | 186.4 | 30 | 317 | 329 | 3 | - | 2.23 | 2158 |
| 40933 | 235.0 | 235.5 | 2243 | 2177 | 2620 | 23 | 0.76 | 3.11 | 557 |
| 40934 | 235.5 | 236.0 | 27300 | 83100 | 178000 | 260 | 15.5 | 5.00 | 2543 |
| 40935 | 236.0 | 237.0 | 470 | 1345 | 5400 | 7 | 0.34 | 5.00 | 839 |
| 40936 | 237.0 | 238.0 | 40 | 713 | 2690 | 2 | 0.11 | 2.71 | 803 |
| 40937 | 238.0 | 240.0 | 30 | 164 | 931 | 1 | 0.04 | 2.79 | 477 |
| 40938 | 240.0 | 242.0 | 19 | 68 | 159 | <1 | <0.008 | 1.45 | 345 |
| 40939 | 242.0 | 243.0 | 24 | 295 | 853 | <1 | - | 3.02 | 1141 |
| 40940 | 248.0 | 250.5 | 53 | 2762 | 3880 | 4 | - | 3.44 | 1116 |
| 40941 | 250.5 | 251.1 | 1309 | 1693 | 3000 | 10 | 0.24 | 4.90 | 801 |
| 40942 | 262.5 | 263.1 | 1533 | 12300 | 19200 | 29 | 1.3 | 5.00 | 3141 |
| 40943 | 265.0 | 267.0 | 215 | 1016 | 8100 | 1 | 0.04 | 2.36 | 1087 |
| 40944 | 267.0 | 269.0 | 602 | 3816 | 15200 | 7 | - | 2.04 | 896 |
| 40945 | 269.0 | 271.0 | 631 | 2682 | 11900 | 5 | - | 1.86 | 1320 |
| 40946 | 271.0 | 273.0 | 100 | 426 | 4852 | 1 | - | 2.46 | 729 |
| 40947 | 273.0 | 275.0 | 26 | 696 | 1795 | 1 | - | 1.71 | 1104 |
| 40948 | 281.7 | 283.7 | 59 | 1526 | 8700 | 3 | - | 3.00 | 1472 |
| 40949 | 283.7 | 285.7 | 42 | 7300 | 2726 | 7 | - | 3.29 | 2232 |
| 40950 | 285.7 | 287.7 | 88 | 7000 | 21800 | 9 | - | 2.84 | 1979 |
| 40951 | 287.7 | 289.7 | 84 | 3658 | 1867 | 4 | - | 2.57 | 2746 |
| 40952 | 296.0 | 298.0 | 159 | 10900 | 10900 | 20 | - | 3.90 | 3528 |
| 40953 | 298.0 | 300.0 | 108 | 3108 | 10300 | 4 | - | 3.72 | 3191 |
| 40954 | 300.0 | 302.0 | 93 | 1533 | 7800 | 2 | - | 2.47 | 2255 |
| 40955 | 308.0 | 310.0 | 371 | 1930 | 6400 | 2 | 0.04 | 1.49 | 831 |
| 40956 | 310.0 | 312.0 | 104 | 725 | 2103 | 1 | 0.03 | 1.61 | 1312 |
| 40957 | 316.8 | 318.8 | 24 | 4442 | 31500 | 5 | <0.008 | 2.48 | 3663 |
| 40958 | 318.8 | 320.8 | 7 | 379 | 5900 | <1 | <0.008 | 1.85 | 3023 |
| 40959 | 320.8 | 322.8 | 19 | 1175 | 7200 | <1 | - | 2.37 | 3232 |
| 40960 | 322.8 | 324.8 | 39 | 1765 | 13000 | 3 | - | 2.93 | 3442 |
| 40961 | 324.8 | 326.8 | 26 | 985 | 8800 | 1 | - | 2.71 | 2198 |
| 40962 | 326.8 | 328.8 | 80 | 740 | 10700 | 1 | - | 3.02 | 2330 |
| 40963 | 346.5 | 348.5 | 65 | 1729 | 7800 | 3 | - | 3.78 | 3868 |

# BPD86 ASSAYS

| SAMPLE | FROM | TO | Cu | Pb | Zn | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|
| 40965 | 12 | 14 | 19 | 53 | 446 | <1 | <0.008 | 4.96 | 4562 |
| 40966 | 14 | 16 | 13 | 39 | 300 | <1 | 0.01 | 4.52 | 10500 |
| 40967 | 16 | 18 | 4 | 10 | 184 | <1 | <0.008 | 2.95 | 17300 |
| 40968 | 18 | 20 | 8 | 17 | 229 | <1 | <0.008 | 3.58 | 12200 |
| 40969 | 40 | 42 | 7 | 11 | 104 | <1 | - | 2.87 | 3005 |
| 40970 | 62 | 64 | 7 | 21 | 132 | <1 | - | 5.00 | 10100 |
| 40971 | 64 | 66 | 4 | 10 | 52 | <1 | - | 1.96 | 3463 |
| 40972 | 110 | 112 | 5 | <3 | 64 | <1 | - | 4.10 | 1706 |

# APPENDIX 5

## Drill hole Whole Rock Assay Results for Licence Year

## BPD83 WHOLE ROCK

| SAMPLE | FROM | TO | Ba | Rb | Sr | V | Nb | Y | Zr | Al2O3 | SiO2 | TiO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41414 | 59.8 | 60.3 | 1275 | 51 | 250 | 111 | 10 | 30 | 164 | 16.9 | 55.6 | 0.81 |
| 41415 | 103.4 | 103.7 | 780 | 69 | 350 | 173 | 8 | 29 | 94 | 16.3 | 52.7 | 0.94 |
| 41417 | 182.6 | 182.9 | 898 | 82 | 207 | 118 | 9 | 30 | 165 | 16.6 | 53.5 | 0.79 |
| 41418 | 224.9 | 225.2 | 1053 | 103 | 17 | 17 | 11 | 24 | 176 | 11.4 | 77.5 | 0.2 |
| 41419 | 264.6 | 264.9 | 710 | 79 | 48 | 32 | 12 | 12 | 204 | 10.8 | 81.9 | 0.46 |
| 41422 | 315.7 | 315.9 | 1108 | 102 | 43 | 8 | 11 | 22 | 190 | 11.9 | 78.6 | 0.19 |
| 41423 | 356.1 | 356.4 | 736 | 86 | 71 | 356 | 5 | 26 | 70 | 16.3 | 47.4 | 1.03 |

| SAMPLE | FROM | TO | Fe2O3 | MnO | CaO | K2O | MgO | P2O5 | SO3 | Na2O | LOI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41414 | 59.8 | 60.3 | 8.98 | 0.42 | 3.03 | 2.18 | 3.67 | 0.33 | <0.01 | 3.69 | 3.87 |
| 41415 | 103.4 | 103.7 | 8.26 | 0.27 | 6.53 | 2.07 | 2.81 | 0.31 | 0.06 | 3.27 | 6.5 |
| 41417 | 182.6 | 182.9 | 7.54 | 0.23 | 5.55 | 3.18 | 2.57 | 0.33 | 2.17 | 2.65 | 5.08 |
| 41418 | 224.9 | 225.2 | 3.29 | 0.01 | 0.28 | 3.81 | 0.68 | 0.03 | 2.34 | <0.05 | 2.95 |
| 41419 | 264.6 | 264.9 | 0.72 | <0.01 | 0.35 | 3.2 | 0.35 | 0.11 | 0.3 | 0.13 | 1.73 |
| 41422 | 315.7 | 315.9 | 2.46 | <0.01 | 0.08 | 3.48 | 0.34 | 0.02 | 1.81 | 0.14 | 2.61 |
| 41423 | 356.1 | 356.4 | 11.3 | 0.63 | 6.5 | 2.88 | 4.21 | 0.19 | 1.27 | 0.14 | 8.53 |

## BPD84 WHOLE ROCK

| SAMPLE | FROM | TO | Ba | Rb | Sr | V | Nb | Y | Zr | Al2O3 | SiO2 | TiO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41401 | 55 | 55.2 | 1388 | 222 | 11 | 6 | 18 | 43 | 244 | 14.2 | 72.9 | 0.26 |
| 41403 | 94.8 | 95.1 | 595 | 179 | 252 | 11 | 13 | 37 | 211 | 13.1 | 72.5 | 0.23 |
| 41404 | 107.4 | 107.7 | 2776 | 113 | 129 | 14 | 13 | 28 | 222 | 12.5 | 75.3 | 0.29 |
| 41405 | 119.9 | 120.1 | 1545 | 89 | 72 | 14 | 13 | 24 | 190 | 10.9 | 77.3 | 0.25 |
| 41406 | 190.1 | 190.3 | 812 | 133 | 185 | 25 | 15 | 39 | 259 | 14.7 | 66.9 | 0.39 |
| 41407 | 207.6 | 207.8 | 638 | 168 | 61 | 312 | 5 | 19 | 110 | 17.2 | 50.1 | 0.85 |
| 41408 | 260.1 | 260.3 | 2555 | 170 | 85 | <5 | 12 | 27 | 159 | 10.5 | 78.9 | 0.17 |
| 41409 | 283.95 | 284.15 | 2561 | 191 | 79 | 9 | 9 | 26 | 172 | 10.4 | 78.4 | 0.19 |
| 41498 | 32 | 32.1 | 799 | 30 | 331 | 178 | 10 | 33 | 211 | 20.7 | 48.7 | 0.95 |

| SAMPLE | FROM | TO | Fe2O3 | MnO | CaO | K2O | MgO | P2O5 | SO3 | Na2O | LOI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41401 | 55 | 55.2 | 2.62 | 0.05 | 0.12 | 4.58 | 1.73 | 0.02 | 0.7 | <0.05 | 3.2 |
| 41403 | 94.8 | 95.1 | 2.2 | 0.14 | 1.88 | 3.19 | 0.79 | 0.02 | 0.94 | 2.08 | 3.49 |
| 41404 | 107.4 | 107.7 | 1.55 | 0.04 | 0.33 | 5.26 | 0.27 | 0.04 | 1.03 | 2.95 | 0.92 |
| 41405 | 119.9 | 120.1 | 2.04 | 0.04 | 0.78 | 3.73 | 0.31 | 0.02 | 1.99 | 1.8 | 2.04 |
| 41406 | 190.1 | 190.3 | 2.34 | 0.22 | 2.53 | 2.74 | 2.06 | 0.06 | 0.11 | 4.05 | 3.6 |
| 41407 | 207.6 | 207.8 | 12.12 | 0.45 | 2.57 | 3.22 | 5.29 | 0.32 | 1.24 | <0.05 | 6.89 |
| 41408 | 260.1 | 260.3 | 0.92 | 0.01 | 0.12 | 7.71 | 0.18 | 0.01 | 0.98 | 0.14 | 0.92 |
| 41409 | 283.95 | 284.15 | 1.12 | 0.01 | 0.18 | 8.56 | 0.11 | 0.01 | 1.12 | 0.35 | 0.71 |
| 41498 | 32 | 32.1 | 11.49 | 0.26 | 0.82 | 0.91 | 5.18 | 0.37 | <0.01 | 3.94 | 6.45 |

## EAF2 WHOLE ROCK

| SAMPLE | FROM | TO | Rb | Sr | Nb | Y | Zr | Al2O3 | SiO2 | TiO2 | Fe2O3 | MnO | CaO | K2O | MgO | P2O5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37718 | 134.7 | 134.8 | 183 | 40 | 10 | 33 | 168 | 13.69 | 68.5 | 0.55 | 2.23 | 0.56 | 2.3 | 4.69 | 1.39 | 0.17 |
| 37719 | 182 | 182.2 | 225 | 56 | 16 | 35 | 255 | 15.26 | 53.6 | 0.34 | 2.05 | 0.88 | 9.39 | 5.23 | 1.91 | 0.05 |
| 37720 | 219 | 219.1 | 205 | 14 | 10 | 40 | 237 | 12.95 | 63.1 | 0.28 | 2.04 | 0.66 | 5.02 | 4.47 | 2.76 | 0.04 |
| 37721 | 232.5 | 232.6 | 231 | 24 | 16 | 35 | 282 | 14.73 | 65.9 | 0.32 | 1.9 | 0.38 | 3.24 | 4.73 | 2.58 | 0.05 |
| 37722 | 242.1 | 242.2 | 194 | 38 | 11 | 34 | 178 | 12.84 | 72.5 | 0.13 | 1.69 | 0.29 | 2.39 | 4.13 | 0.76 | 0.02 |
| 37723 | 251.5 | 251.6 | 246 | 12 | 15 | 37 | 289 | 15.14 | 69.5 | 0.34 | 1.63 | 0.25 | 1.27 | 5.29 | 2.03 | 0.05 |
| 37724 | 271.3 | 271.4 | 210 | 8 | 9 | 27 | 191 | 13.21 | 75.6 | 0.13 | 1.54 | 0.06 | 0.42 | 5.18 | 0.74 | 0.02 |
| 37725 | 331.4 | 331.5 | 99 | 96 | 10 | 27 | 199 | 14.99 | 66.2 | 0.43 | 5.12 | 0.26 | 0.78 | 2.82 | 2.15 | 0.11 |
| 37726 | 340.8 | 341 | 39 | 172 | 8 | 21 | 183 | 12.92 | 74 | 0.29 | 1.72 | 0.13 | 1.04 | 0.83 | 0.52 | 0.05 |
| 37727 | 448.5 | 448.6 | 11 | 176 | 9 | 25 | 186 | 11.31 | 78.9 | 0.21 | 1.03 | 0.06 | 0.82 | 0.29 | 0.24 | 0.05 |

| SAMPLE | FROM | TO | SO3 | Na2O | LOI |
|---|---|---|---|---|---|
| 37718 | 134.7 | 134.8 | 0.86 | 0.43 | 4.17 |
| 37719 | 182 | 182.2 | 0.44 | 0.09 | 9.53 |
| 37720 | 219 | 219.1 | 0.07 | 0.09 | 8.42 |
| 37721 | 232.5 | 232.6 | 0.01 | 0.07 | 5.63 |
| 37722 | 242.1 | 242.2 | 0.01 | 0.76 | 4.27 |
| 37723 | 251.5 | 251.6 | 0.02 | 0.06 | 4.25 |
| 37724 | 271.3 | 271.4 | 0.14 | 0.09 | 2.48 |
| 37725 | 331.4 | 331.5 | 0.34 | 3.6 | 3.3 |
| 37726 | 340.8 | 341 | 0.21 | 5.66 | 2.35 |
| 37727 | 448.5 | 448.6 | 0.23 | 5.78 | 1.4 |

741199

## CP7 WHOLE ROCK

| SAMPLE | FROM | TO | Rb | Sr | Nb | Y | Zr | Al2O3 | SiO2 | TiO2 | Fe2O3 | MnO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37772 | 249.7 | 249.8 | 246 | 32 | 14 | 38 | 275 | 15.32 | 62 | 0.33 | 2.65 | 0.65 |
| 37773 | 267.5 | 267.7 | 265 | 18 | 20 | 56 | 342 | 19.65 | 59.8 | 0.45 | 2.98 | 0.27 |
| 37774 | 286.5 | 286.6 | 284 | 23 | 19 | 43 | 380 | 20.4 | 60.2 | 0.45 | 2.59 | 0.18 |
| 37775 | 292.1 | 292.2 | 177 | 16 | 12 | 33 | 245 | 13.05 | 73.6 | 0.27 | 1.37 | 0.19 |

| SAMPLE | FROM | TO | CaO | K2O | MgO | P2O5 | SO3 | Na2O | LOI |
|---|---|---|---|---|---|---|---|---|---|
| 37772 | 249.7 | 249.8 | 3.31 | 4.85 | 2.58 | 0.04 | 0.7 | 0.11 | 7.36 |
| 37773 | 267.5 | 267.7 | 1.63 | 6.35 | 1.6 | 0.21 | 1.07 | 0.14 | 5.39 |
| 37774 | 286.5 | 286.6 | 1.23 | 6.49 | 1.82 | 0.06 | 0.77 | 0.16 | 5.56 |
| 37775 | 292.1 | 292.2 | 1.59 | 4.01 | 1.22 | 0.03 | 0.04 | 0.09 | 4.46 |

# APPENDIX 6

## Downhole EM Interpretation and Data

741202

PASMINCO
EXPLORATION

A Division of Pasminco Australia Limited,
A.C.N. 004 074 962

Old Burnie Railway Station
Burnie, Tasmania 7320
G.P.O. Box 886
Burnie, Tasmania 7320

# MEMORANDUM

**TO:** RA Poltock

**FROM:** PW Basford

**DATE:** 10 November, 1994

**SUBJECT:** **DHEM BPD69, EL 44/88 Burns Peak**

**FILE:** EP/02/3006/8.4

On October 22, 1994, Outer Rim Exploration surveyed hole BPD69 with the CRONE PEM system. Only the axial data was recorded as no off-hole anomalies were detected (PAS 1152).

The survey was recorded using a 10 msec time base, with 0.5 msec ramp. Seventeen channels of data were recorded from 0.07 to 6.6 msecs.

The aim of the survey was to determine the validity of the SIROTEM off-hole response recorded in 1990 (Bishop, 1991 from Burns Peak EL 44/88 Annual Report 1990-1991). The 3-component system would then aid in determining the location of the source. A larger loop was used for the repeat survey (PAS 1150) , with a nominal current of 4 amps. Note that the coupling from the new loop was similar (PAS 1151 for primary field vector plot) to that produced by the smaller 1989 loop.

As no off-hole response was observed, it is believed that the early survey results may be the result of over-voltage and/or drift of the SIROTEM system.

There are two very small (in-hole) features observable in the data, one at 325m, the other at 405m. Both of these coincide with formational contacts which are assumed to be causing the responses.

EAF 14 was also targeted for DHEM to follow up on the two off-hole conductors detected from previous EM-37 DHEM surveys. Neil Hughes recommended using the same loops, with low current to avoid over-voltage affects.

It was apparent when arriving at the site that the hole collar was accidentally driven over by a bulldozer or drill rig (holes were located on the edge of a road). A collar was found and dug out, however the dummy probe could only go down 35m.

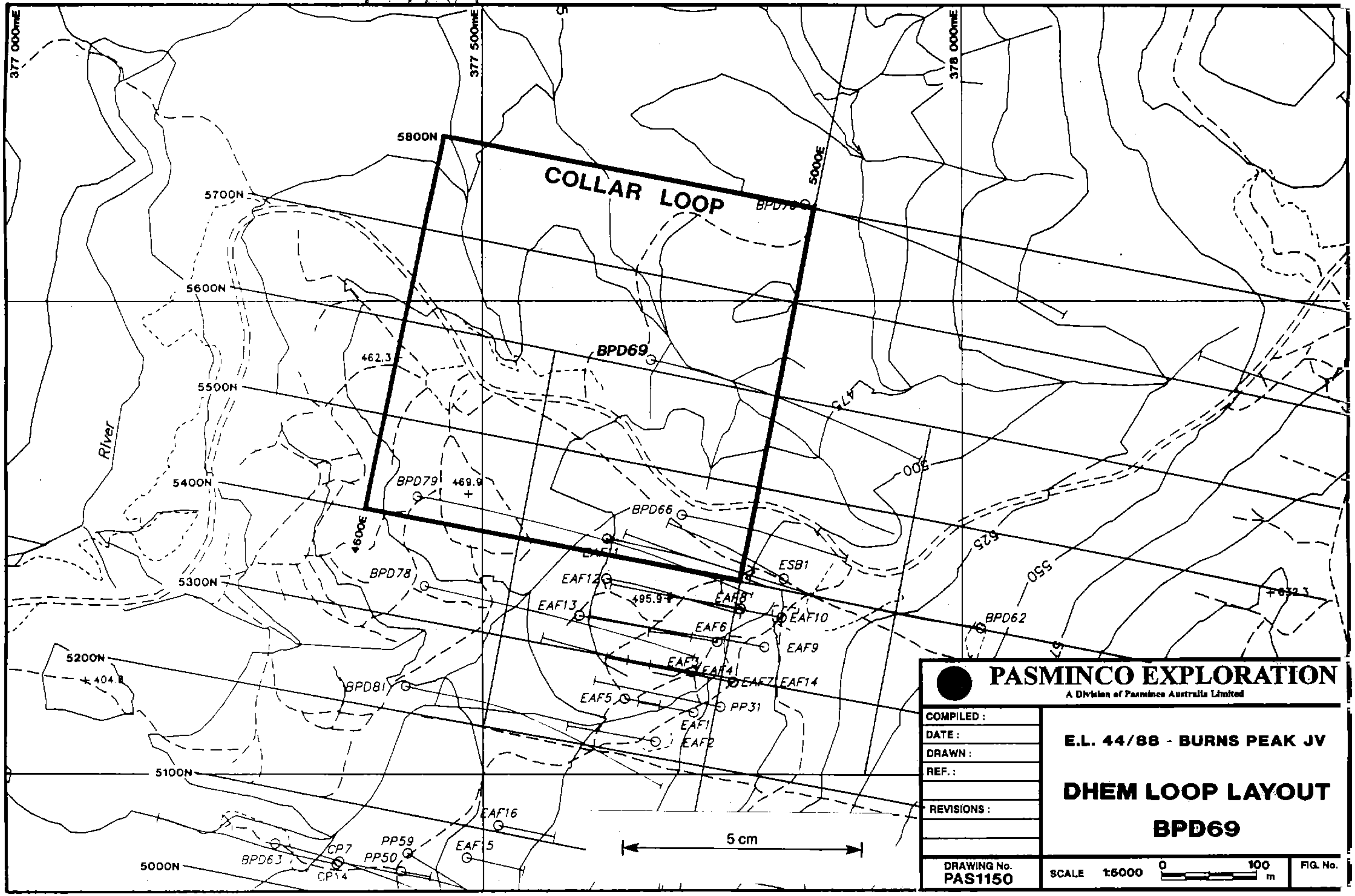
No other holes in the region were deemed suitable, generally due to the short depth of the holes.

Paul Basford

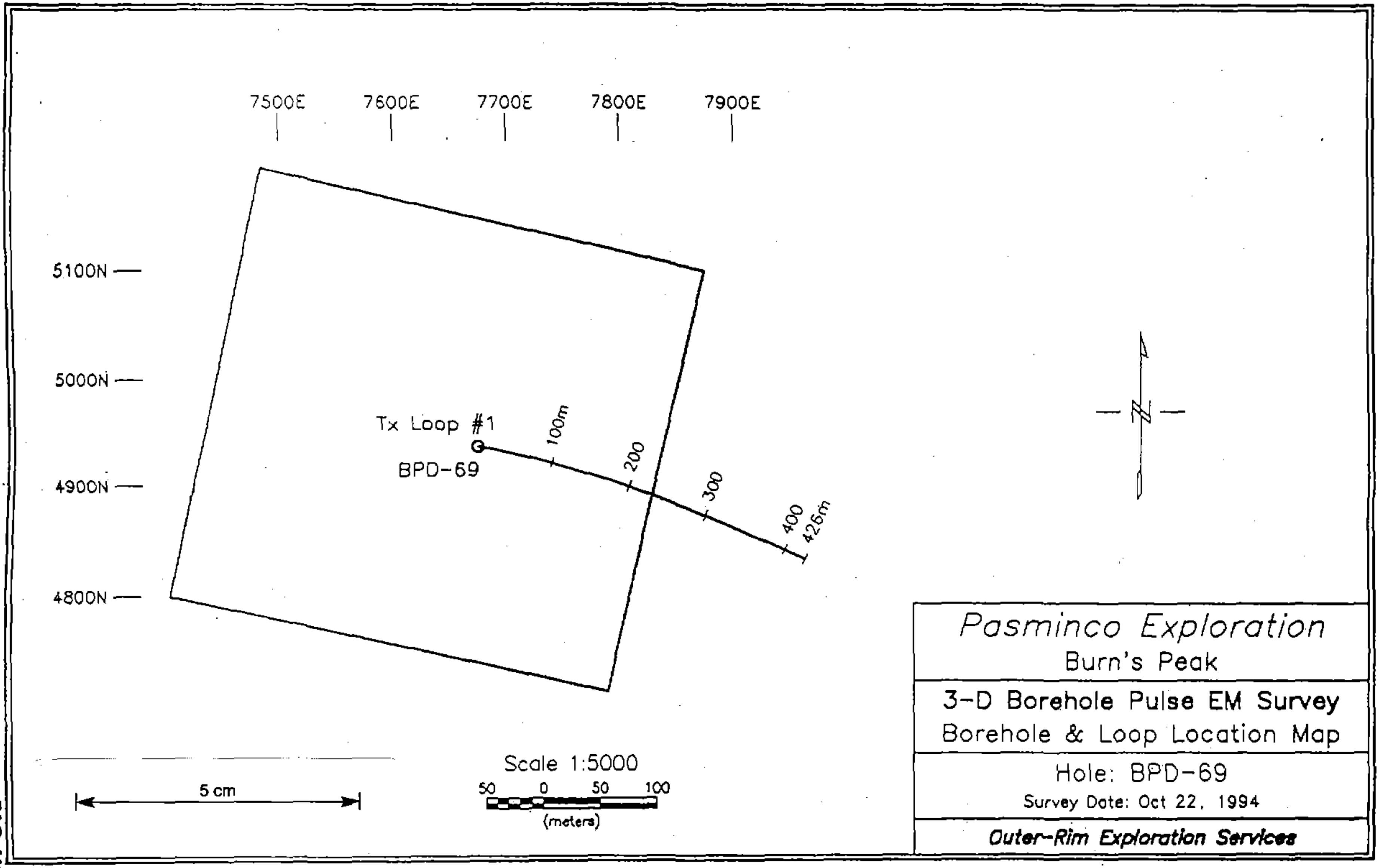
Paul Basford

ajs:pwb:94005

741204

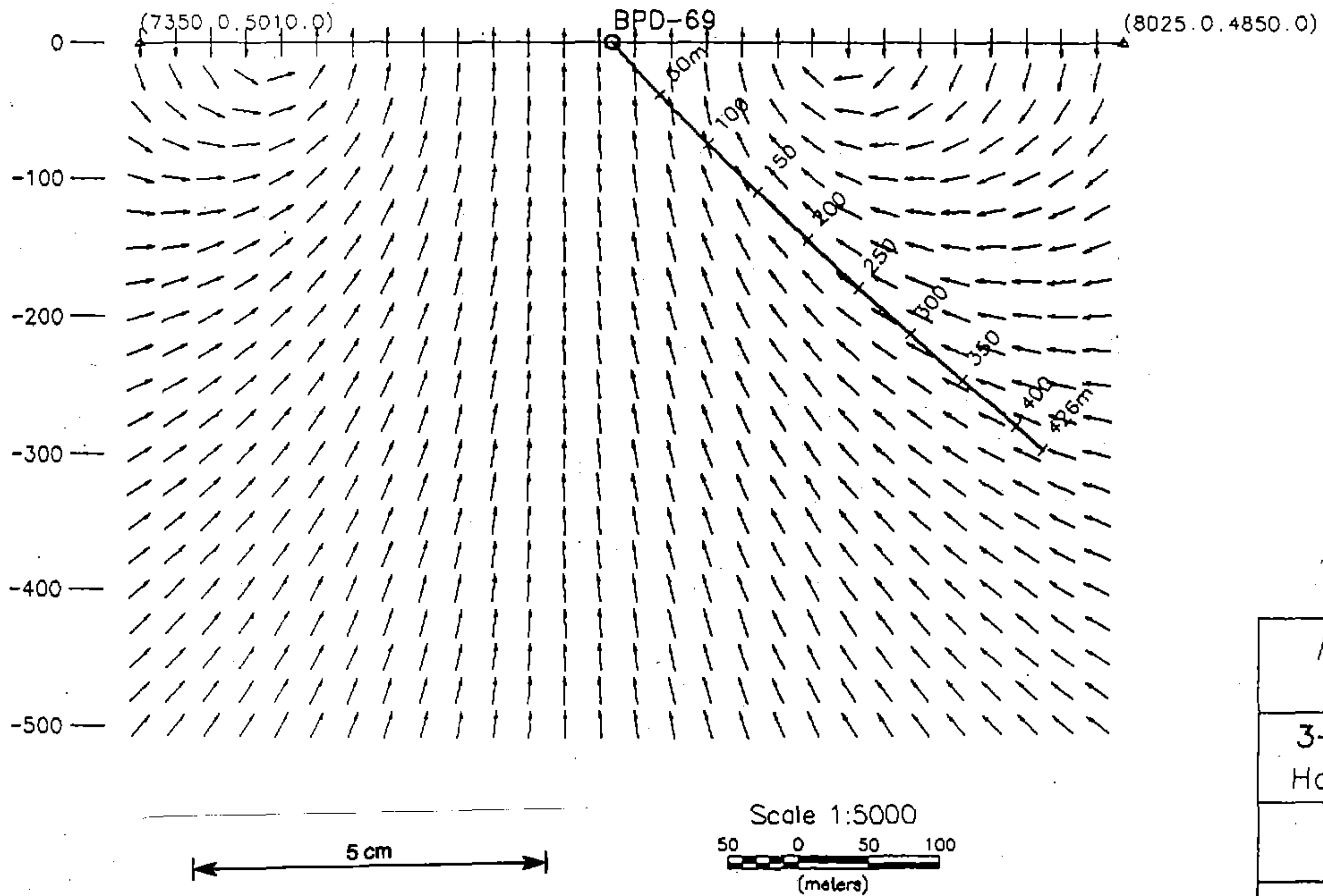


377 000mE
377 500mE
378 000mE
5800N
5700N
5600N
5500N
5400N
5300N
5200N
5100N
5000N
4600E
5000E
COLLAR LOOP
BPD76
BPD69
BPD79
BPD66
BPD78
BPD81
BPD62
BPD63
462.3
469.9
495.9
404.8
632.3
475
500
525
550
River
EAF11
EAF12
EAF13
EAF8
EAF6
EAF10
EAF9
EAF3
EAF4
EAF7
EAF14
EAF5
EAF1
EAF2
PP31
ESB1
EAF16
EAF15
PP59
PP50
CP7
CP14
5 cm
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED :
DATE :
DRAWN :
REF. :
REVISIONS :
E.L. 44/88 - BURNS PEAK JV
DHEM LOOP LAYOUT
BPD69
DRAWING No.
PAS1150
SCALE
1:5000
0
100
m
FIG. No.




PAS 1150a

741205




*Pasminco Exploration*
Burn's Peak

**3-D Borehole Pulse EM Survey**
Hole Section with Primary Field

Hole: BPD-69
Survey Date: Oct 22, 1994

***Outer-Rim Exploration Services***

PAS 1151

741206

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

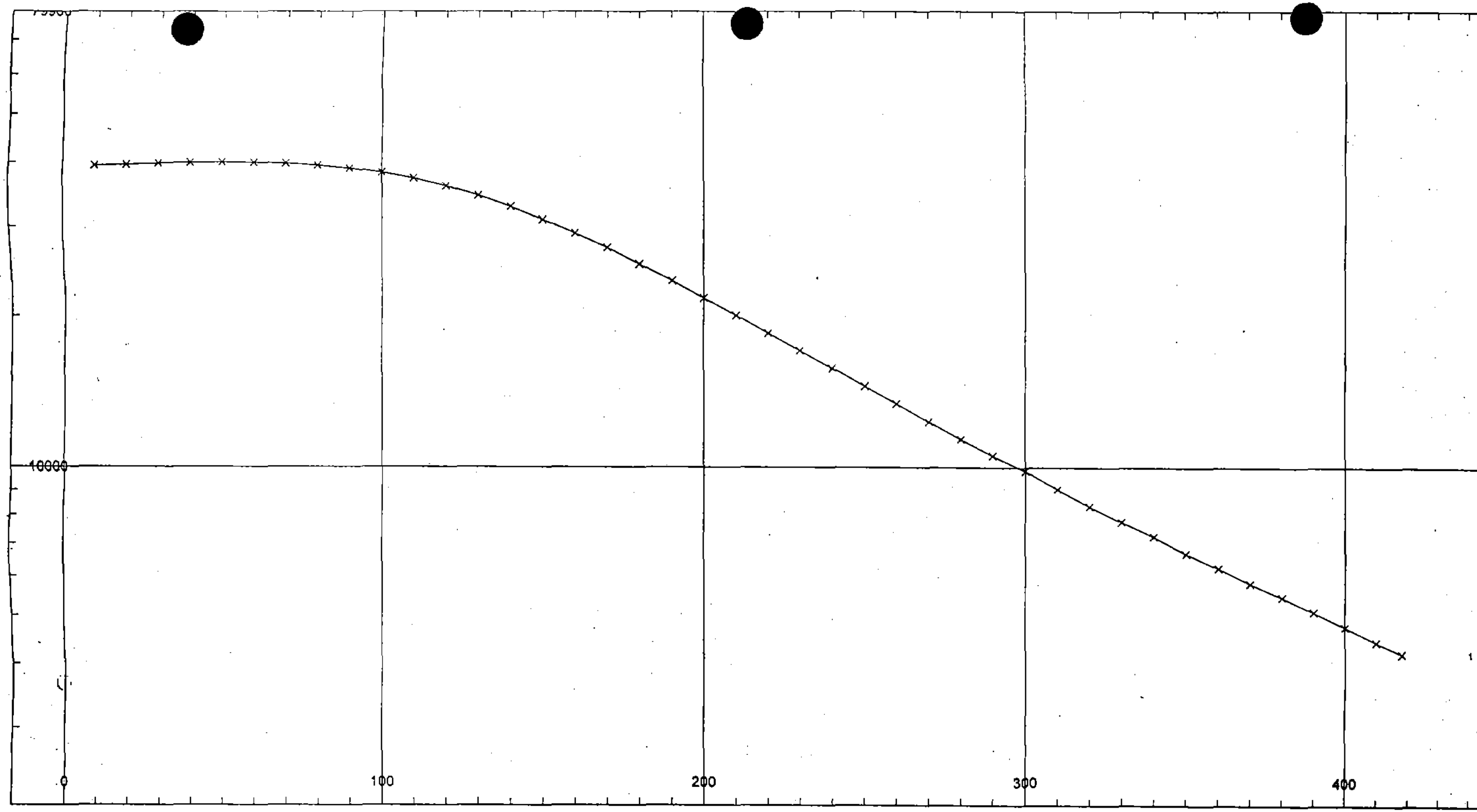
| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-69 |
| Grid | : Burn's Peak | Tx Loop | : #1 |
| Date | : Oct 22, 1994 | File name | : BPD69Z.PEM |
| Time Base | : 10.00 ms | # Readings | : 42 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 17 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 400m | Receiver | : Digital #106 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)
1. 7405m, 4800m, 0m
2. 7790m, 4715m, 0m
3. 7875m, 5100m, 0m
4. 7485m, 5190m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7676m, 4937m, 0m
2. 101deg, 50deg, 26m
3. 103deg, 48deg, 50m
4. 106deg, 46deg, 50m
5. 107deg, 45deg, 51m
6. 111deg, 44deg, 50m
7. 111deg, 43deg, 51m
8. 113deg, 42deg, 51m
9. 114deg, 41.5deg, 62m
10. 115deg, 41deg, 35m

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 |




Primary Pulse

BPD69

Tx Loop 1

741208

PAS 1152a

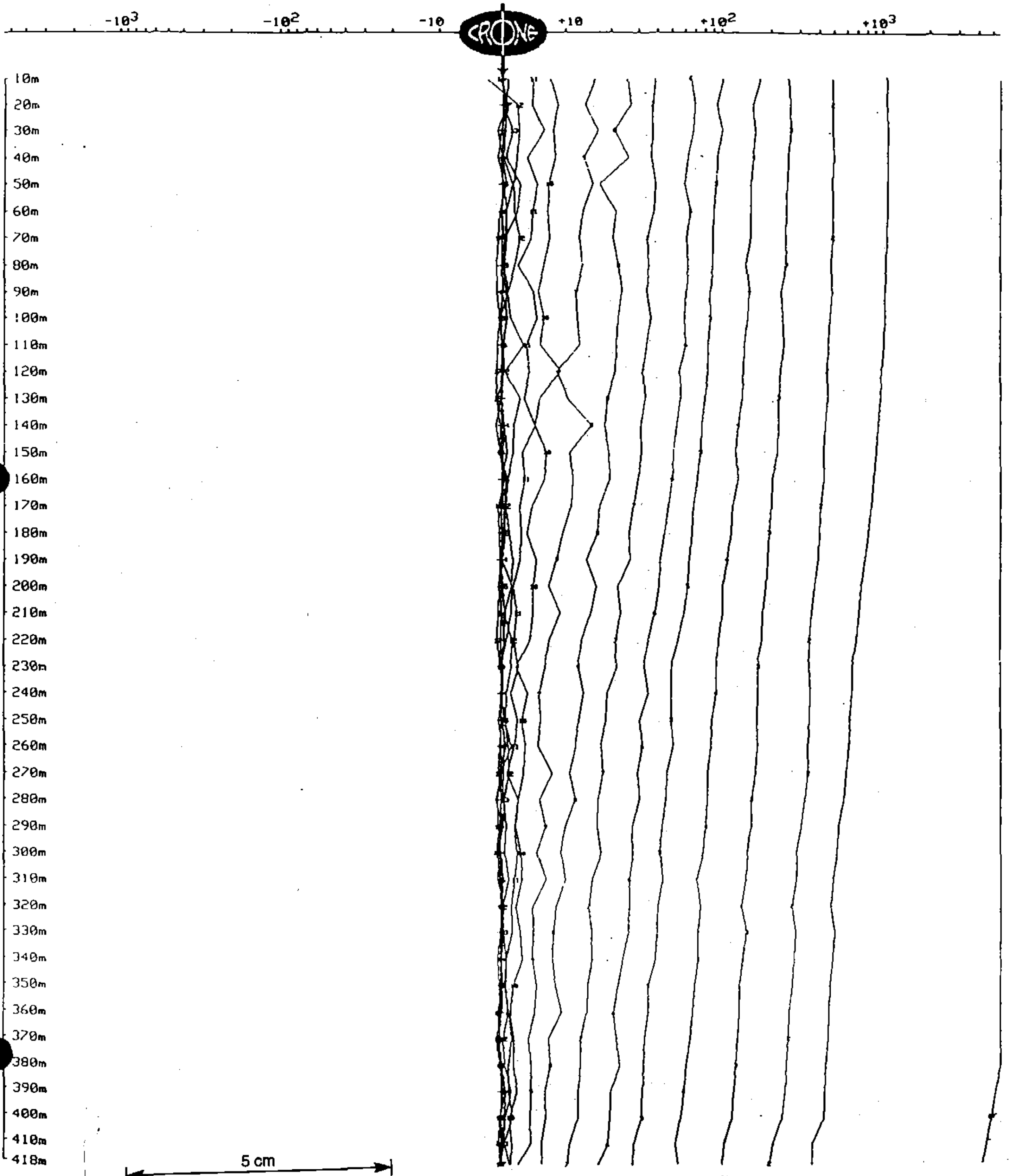
741209

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

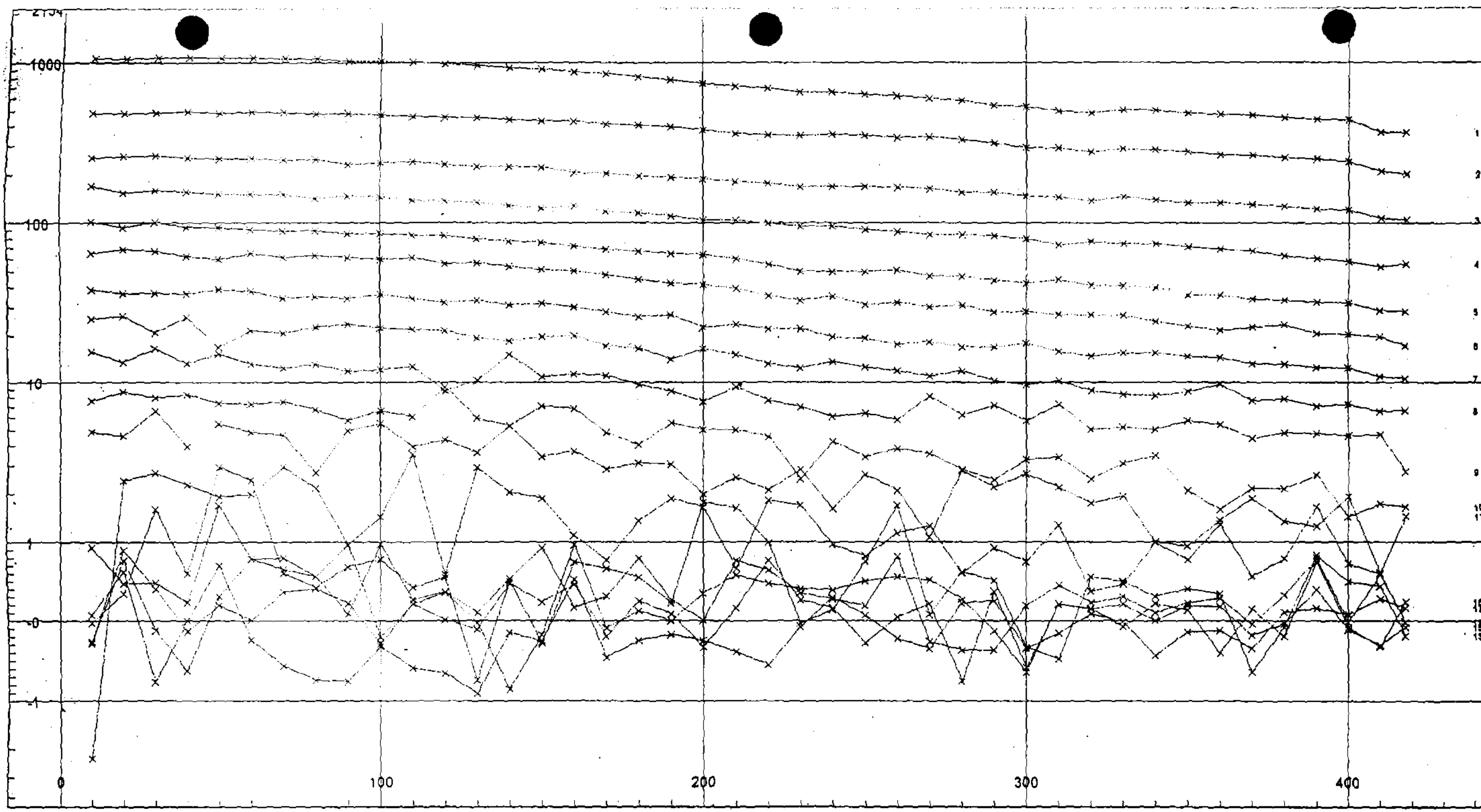
| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-69 |
| Grid | : Burn's Peak | Tx Loop | : #1 |
| Date | : Oct 22, 1994 | File name | : BPD69Z.PEM |

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

Scale: 1:2000




PAS 1152b



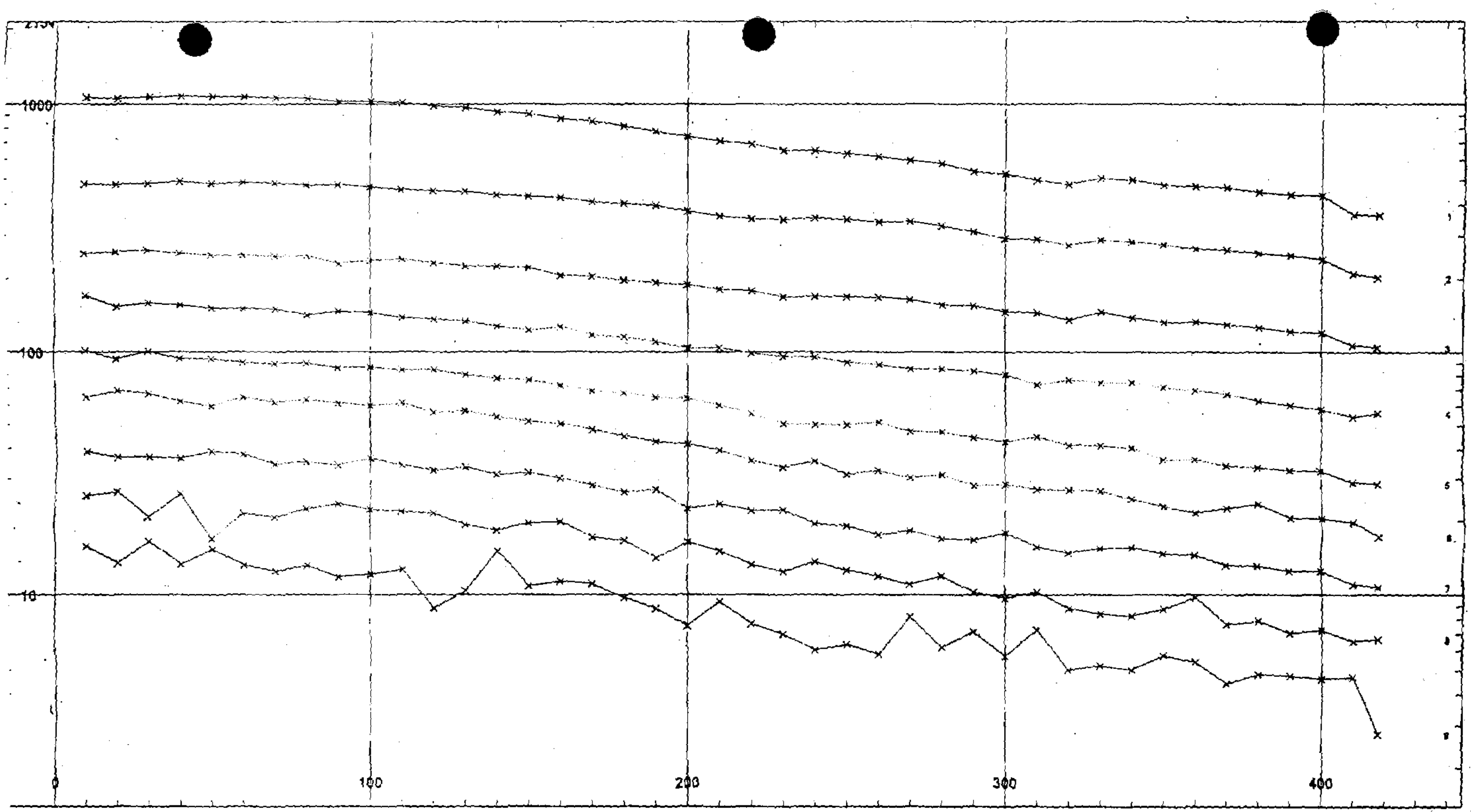

**Z Component Data**

**BPD69**

**Tx Loop 1**

PAS 1152c

741210



**Z Component Data**

BPD69

Tx Loop 1

PAS 1152d

741211

741212

PASMINCO
EXPLORATION

A Division of Pasminco Australia Limited,
A.C.N. 004 074 962

Old Burnie Railway Station
Burnie, Tasmania 7320
G.P.O. Box 886
Burnie, Tasmania 7320

# MEMORANDUM

**TO:** Mark Saxon

**FROM:** Paul Basford

**DATE:** 27 July, 1995

**SUBJECT:** **DHEM BPD82, BPD83, BPD84, BPD85 & EAF2:BURNS PEAK EL44/88**

**FILE:** EP/02/3006/8.4

Pwb:95024

From April 13 to 17, 1995, Outer Rim Exploration surveyed holes EAF2, BPD85 and BPD82 with the CRONE PEM system. BPD83 was surveyed from the 25th to the 28th of April (including two unproductive days), whilst BPD84 was surveyed on May 16. All surveys were recorded using a 20 msec time base and 0.5 msec ramp. Twenty channels of data were recorded from 0.07 to 14.5 msecs.

## EAF2, BPD82 & BPD85

Two loops were used for the surveying of EAF2, BPD82 and BPD85, both of which were 400m by 500m (PAS1187 for loop layout and primary field vector plots). Peak current in both loops for all three holes was 4 Amps.

Data for all three holes are similar. It appears that the ground is very resistive as the smoke ring disappears very quickly. This is highlighted by the west loop data of EAF2 (PAS1189) and east loop data for BPD82 and BPD85 (PAS1190 and PAS1192 respectively). The primary field is negative at the top of the hole, positive at the bottom. Due to the resistive nature of the ground, the smoke ring has passed from one side of the hole to the other before recording has commenced (no cross over in the secondary field).

EAF2 data displays an apparent broad wavelength anomaly for both the east and west loop (PAS1188 and PAS1189 respectively). Hole BPD81 is located on the same section, drilled in the opposite direction from EAF2 but through the same geology. BPD81 data also indicates a broad wavelength anomaly, however, the amplitude is much less. Data for BPD81 was classified as confusing (Hughes, 1994), as is data for EAF2.

Modelling in FILAMENT suggests that there could be a conductive zone (cause of broad wavelength response) north of hole EAF2. Location of the conductor is proximal to and below hole BPD82. A small off-hole response is observed in early time near the bottom of the hole, however, this response is thought to be formational, as it is located west of the Rosebery fault (RFHW; defined by cross sectional geology for hole BPD82 - EAF line 5300N). The response detected in EAF2 may be related to that originally detected in EAF9 and EAF14, both of which have not been fully explained. An attempt to re-log these holes in October 1994 was abandoned due to the loss of the collars or inability to get the probe down the hole.

BPD78 was drilled on the same section as BPD82. An off-hole response is thought to exist at mid times for the collar loop, however, it was not thought to be consistent with other data collected down the hole.

The confusing response inferred in the secondary field recorded in EAF2 (and earlier in BPD81) can not be conclusively defined. It appears the off-hole response may be north of these two holes. No similar response was observed in BPD85, which is south of EAF2. BPD82 and BPD78, located north of EAF2, do not conclusively confirm or refute the possibility of a conductor south of their drilled position. Earlier surveys down EAF9 and EAF14 suggested the presence of an off-hole anomaly, which may be related to the EAF2 response. Relating all the data sets together has not enabled a conclusive interpretation to be made. It is assumed that if the response is real, the source is possibly from within the Browns tunnel host rock. The significance of the conductor is not classified as great as the area has been extensively drilled and is currently under assessment to tender for a small scale miner. Also, the collective responses do not infer significant amounts or deeper mineralisation.

The response at the bottom of hole EAF2; west loop (PAS1189), indicates an increase in the secondary field, inferring a conductor at the bottom of the hole. This may be the result of the smoke ring 'caught up' in the Rosebery fault located below the hole (footwall). No such response is observed in the west loops of BPD82 and BPD85 (PAS1191 and PAS1193 respectively) as the holes are located distal to the Rosebery footwall structure. Coupling to the Rosebery hangingwall fault for the west loop is minimal or nulled.

Secondary field response for the east loop of all three holes may indicate that the smoke ring has been 'hung up' at depth after initial rapid dissipation. This is due to the very slow decay observed, implying very resistive upper geology along with a conductive lower unit. This is similar to data from BPD81, where it is has been assumed that the smoke ring was 'hung up' in the Rosebery fault (Hughes, 1994). A similar cause is assumed for the current data.

The interpreted location of the Rosebery fault chopping off the Browns tunnel mineralisation and the small off hole conductor observed in BPD82 must be questioned for down dip extension of known mineralisation. However, the size of the response is not encouraging for significant extension if the fault has been misinterpreted.

**BPD83**

Loops for BPD83 consisted of a 400m by 500m west (collar) loop, and a 400m by 400m east loop (PAS1194). Peak current circulating through both loops was 5 Amps.

All three components were recorded using the east loop (PAS1195), whilst only the axial data was recorded using the west loop (PAS1196). An apparent anomaly in the axial data prompted the contractor to survey the cross components of the east loop. After analysis from Neil Hughes it was recommended that only the axial data be read for the west loop.

Primary field plots indicate that the 'anomalous' response is due to the secondary field tracking the primary field (ie self response). This holds true for the axial and cross component data. The reason for the strange primary field is due to the configuration of the loop and drill hole. No other anomalous responses were detected.

**BPD84**

Both loops proposed for BPD84 were of dimension 400m by 400m (PAS1197), although the back edge of the southern loop followed a road, slightly changing the loop dimensions. However, it was apparent from surveying that the common loop edge was mislaid, located north of the drill collar instead of south, thus approximately 100m out, the consequence of which generated one large loop (400m by 500m and 400m) and one small loop (400m by 200m and 300m; PAS1198). A peak current of 5 Amps was generated in both loops. Coupling to geology for the two loops was either null or very poor for the target horizon.

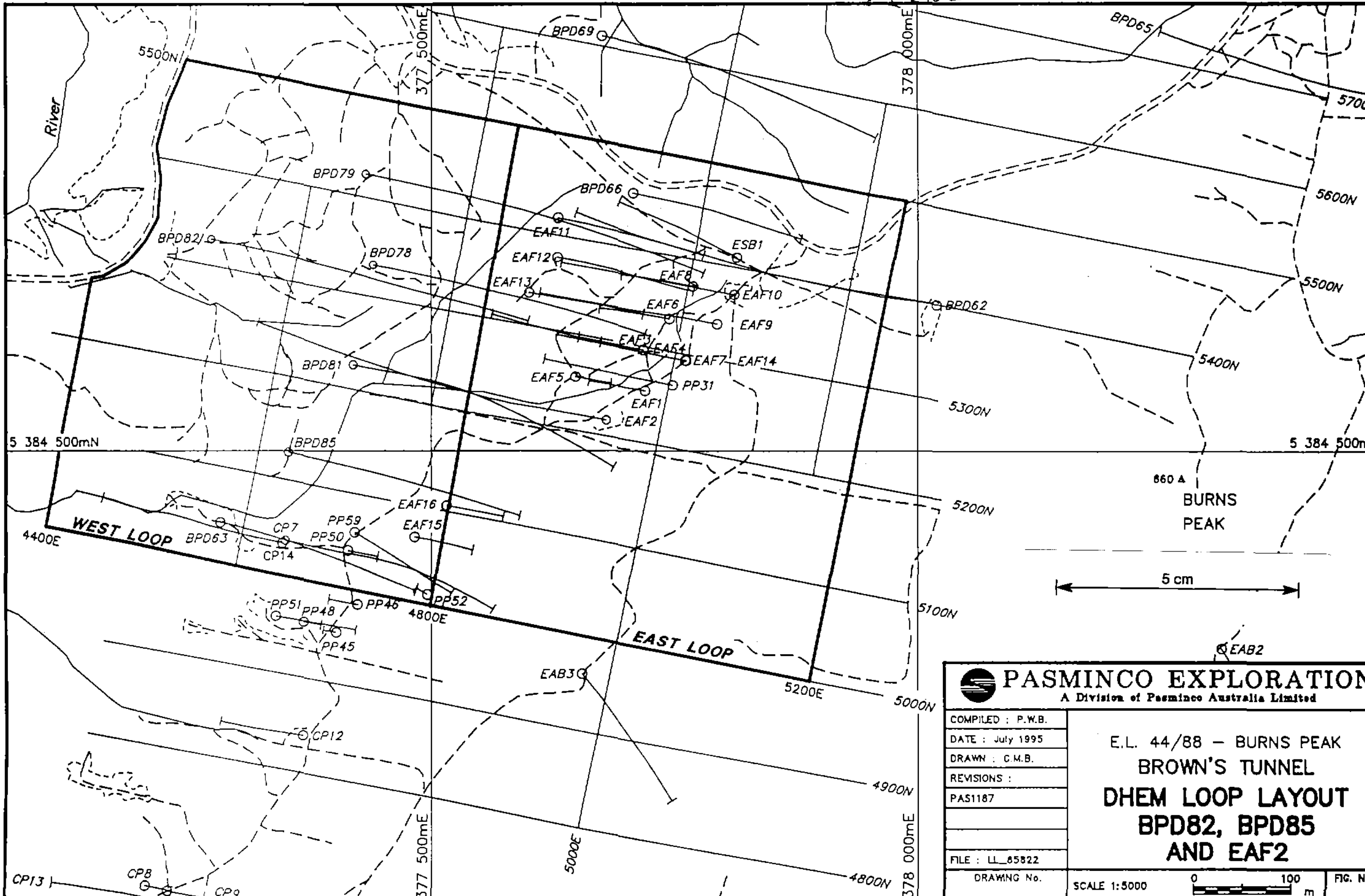
Only axial data was recorded for both loops (PAS1199 and PAS1200 for profiles), with no anomalous responses recorded. Early channel data is very confusing, however, no conductors exist in mid to late times.

It was initially recommended that the hole be resurveyed using the original loop design, however, after discussions with both Peter Smith and Tom Eadie, it is now recommended that the hole **not** be resurveyed.

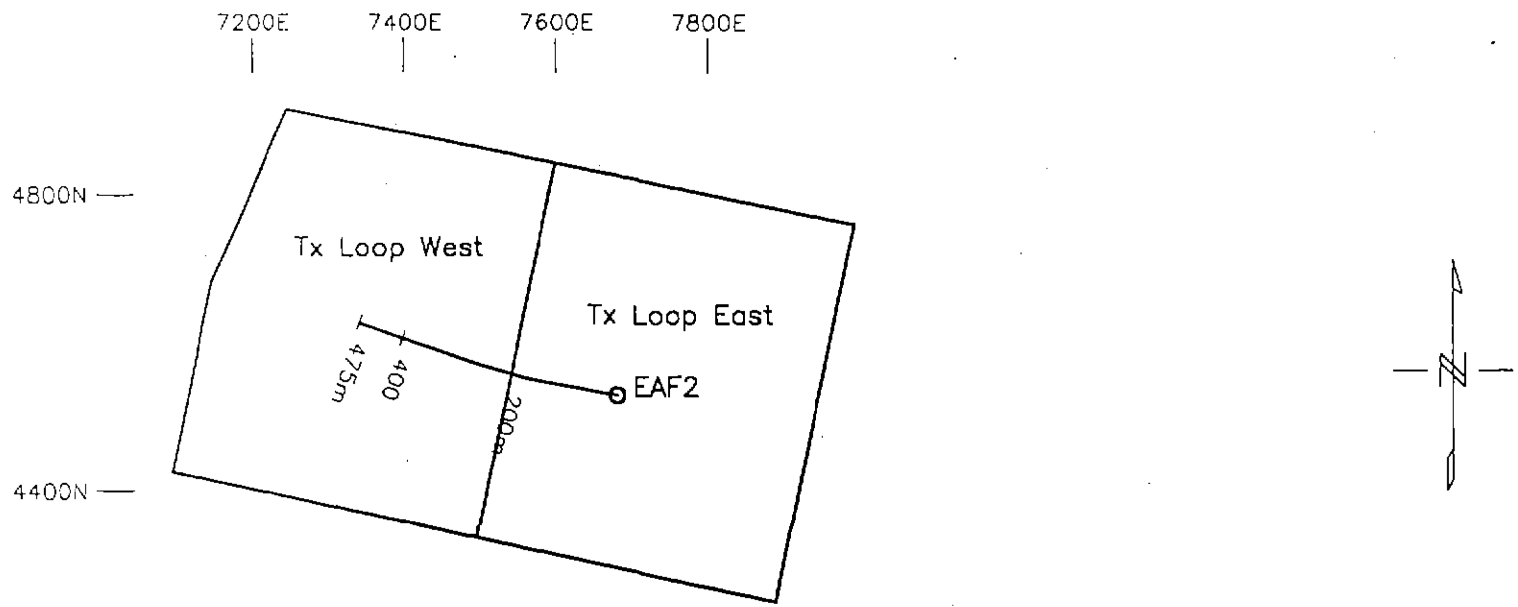
Paul Basford

Hughes NA, 1994. Internal Pasminco Memorandum to RA Poltock, 15 August 1994. DHEM surveys in BPD81, Browns Tunnel.

741216



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : P.W.B.
DATE : July 1995
DRAWN : C.M.B.
REVISIONS :
PAS1187
FILE : LL_65822
DRAWING No.
E.L. 44/88 – BURNS PEAK
BROWN'S TUNNEL
DHEM LOOP LAYOUT
BPD82, BPD85
AND EAF2
SCALE 1:5000
FIG. No.
0
100
m
5 cm
WEST LOOP
EAST LOOP
BURNS
PEAK
660
River
377 500mE
378 000mE
5 384 500mN
5500N
5700N
5600N
5400N
5300N
5200N
5100N
5000N
4900N
4800N
4400E
4800E
5200E
5000E
BPD69
BPD65
BPD79
BPD66
BPD82
BPD78
BPD62
BPD81
BPD85
BPD63
EAF11
EAF12
EAF13
EAF8
EAF10
EAF6
EAF9
EAF3
EAF4
EAF7
EAF14
EAF5
EAF1
EAF2
EAF16
EAF15
ESB1
PP31
PP59
PP50
PP52
PP46
PP51
PP48
PP45
CP7
CP14
CP12
CP8
CP9
CP13
EAB3
EAB2




5 cm

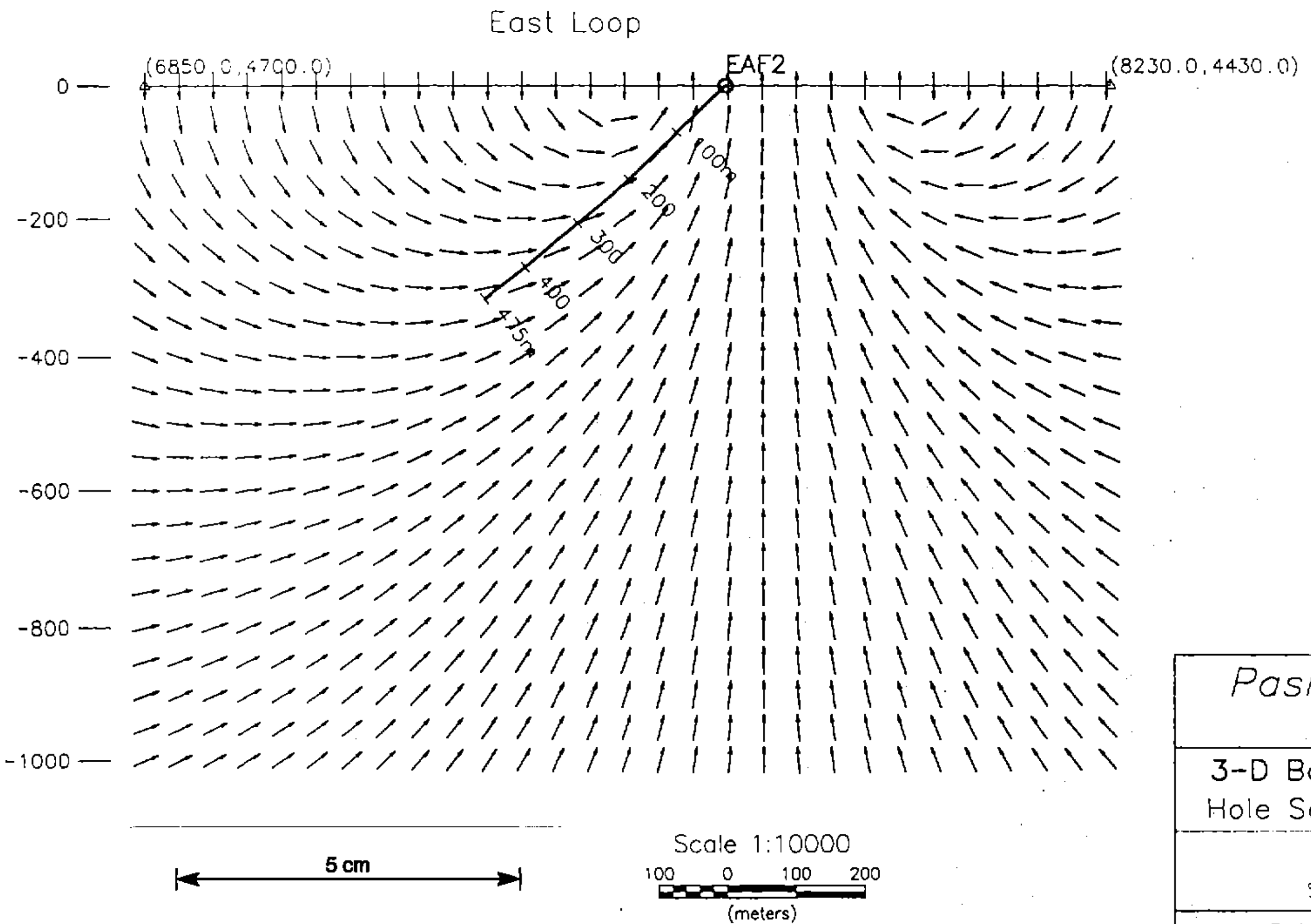
Scale 1:10000
100 0 100 200
(meters)

*Pasminco Exploration*
Burn's Peak

3-D Borehole Pulse EM Survey
Borehole & Loop Location Map

Hole: EAF-2
Survey Date: Apr 13/14, 1995

***Outer-Rim Exploration Services***




*Pasminco Exploration*

Burn's Peak

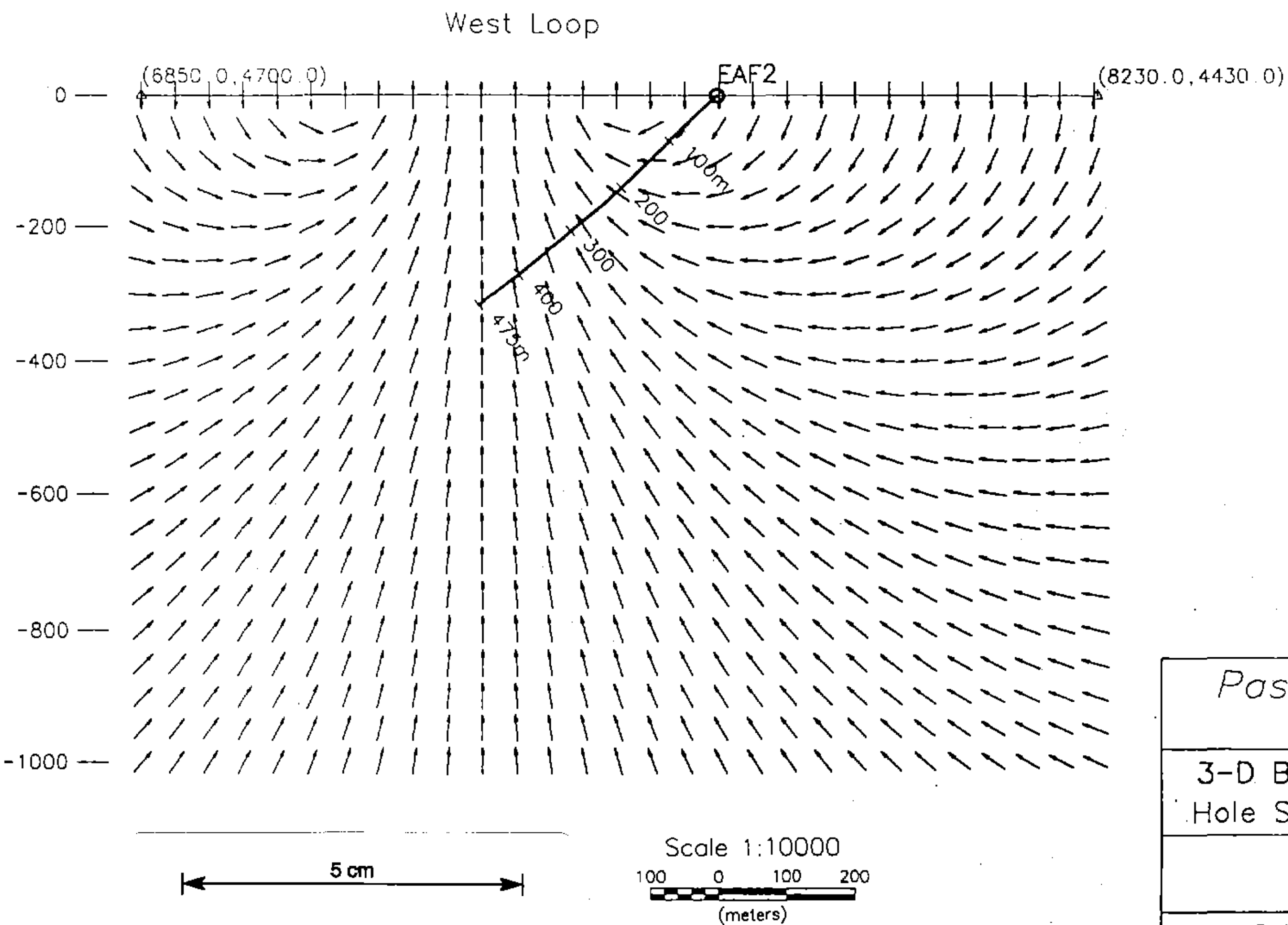
**3-D Borehole Pulse EM Survey**

Hole Section with Primary Field

Hole: EAF-2

Survey Date: Apr 13, 1995

***Outer-Rim Exploration Services***




*Pasminco Exploration*
Burn's Peak

3-D Borehole Pulse EM Survey
Hole Section with Primary Field

Hole: EAF-2
Survey Date: Apr 14, 1995

***Outer-Rim Exploration Services***

PAS1187c

741219

741220

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : EAF2 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 13, 1995 | File name | : EAF2EZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 47 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 500m | Receiver | : Digital #108 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)

1. 7495m, 4340m, 0m
2. 7889m, 4257m, 0m
3. 7993m, 4763m, 0m
4. 7598m, 4842m, 0m

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

1. 7680m, 4532m, 0m
2. 281deg, 45deg, 33m
3. 280.5deg, 45deg, 66m
4. 279.5deg, 46deg, 48m
5. 283.5deg, 44.5deg, 28m
6. 285.5deg, 43.5deg, 50m
7. 286.5deg, 41deg, 50m
8. 289.5deg, 40deg, 50m
9. 288.5deg, 39.5deg, 75m
10. 290.5deg, 36.5deg, 75m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

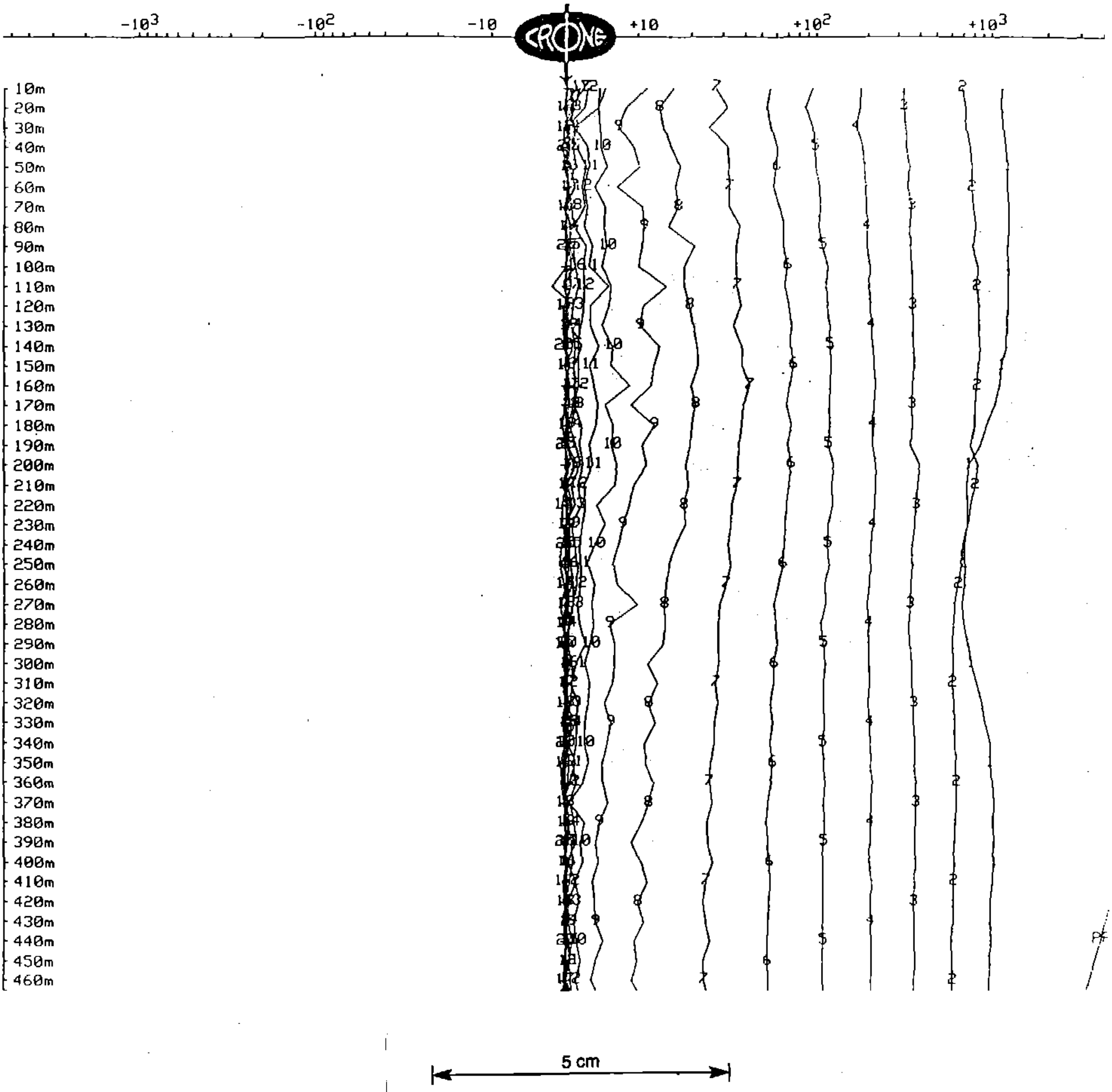
741221

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : EAF2 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 13, 1995 | File name | : EAF2EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:3000




PAS1188

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : EAF2 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 14, 1995 | File name | : EAF2WZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 47 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 500m | Receiver | : Digital #108 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)
1. 7145m, 4683m, 0m
2. 7093m, 4427m, 0m
3. 7495m, 4340m, 0m
4. 7598m, 4842m, 0m
5. 7245m, 4913m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7680m, 4532m, 0m
2. 281deg, 45deg, 33m
3. 280.5deg, 45deg, 66m
4. 279.5deg, 46deg, 48m
5. 283.5deg, 44.5deg, 28m
6. 285.5deg, 43.5deg, 50m
7. 286.5deg, 41deg, 50m
8. 289.5deg, 40deg, 50m
9. 288.5deg, 39.5deg, 75m
10. 290.5deg, 36.5deg, 75m

Channel Times (usec)

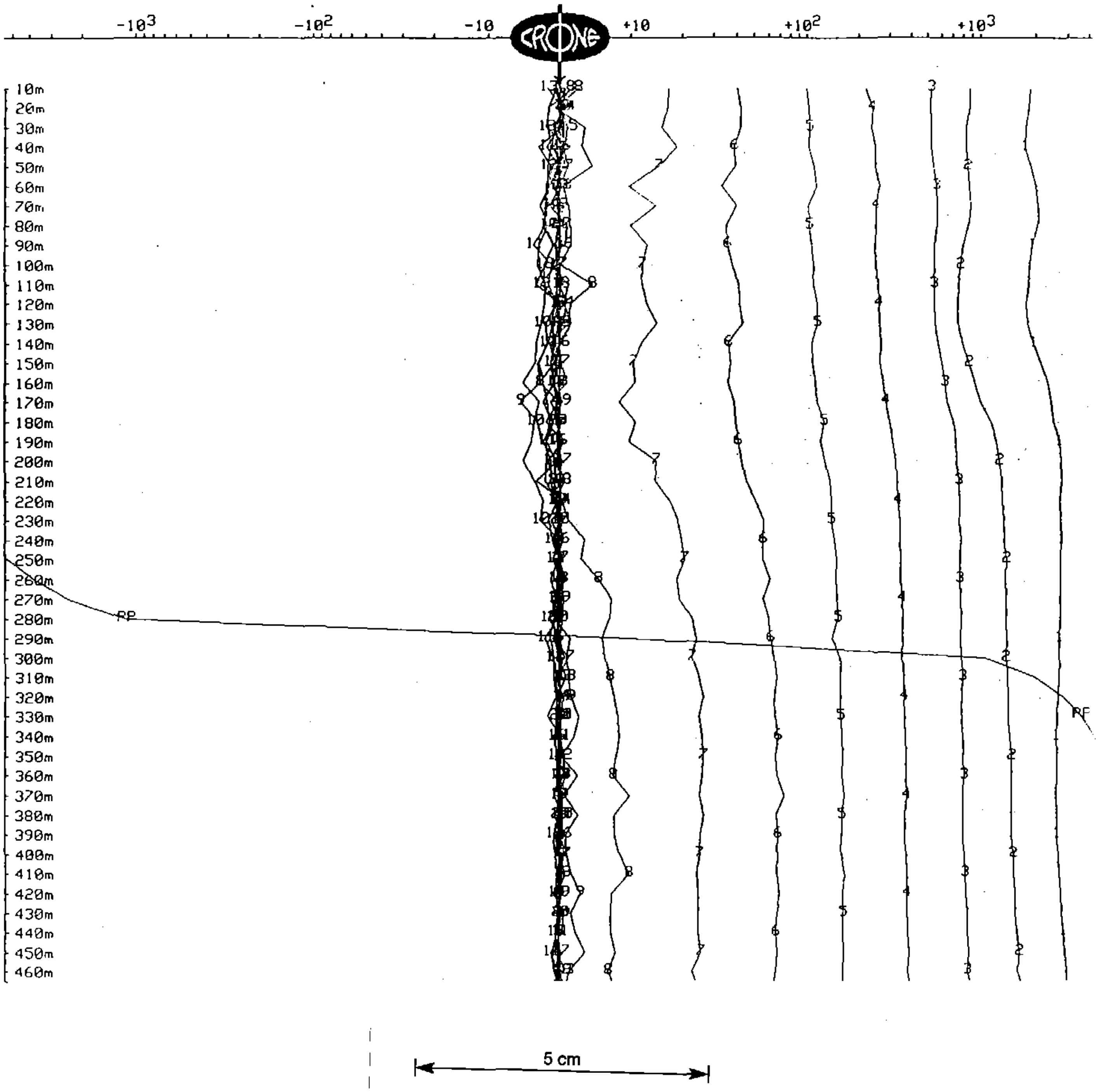
| Ch | Start | End | Center | Ch | Start | End | Center | Ch | Start | End | Center |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PP | -198 | -99 | -149 | 1 | 76 | 104 | 90 | 2 | 104 | 131 | 117 |
| 3 | 131 | 171 | 151 | 4 | 171 | 225 | 198 | 5 | 225 | 292 | 259 |
| 6 | 292 | 378 | 335 | 7 | 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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

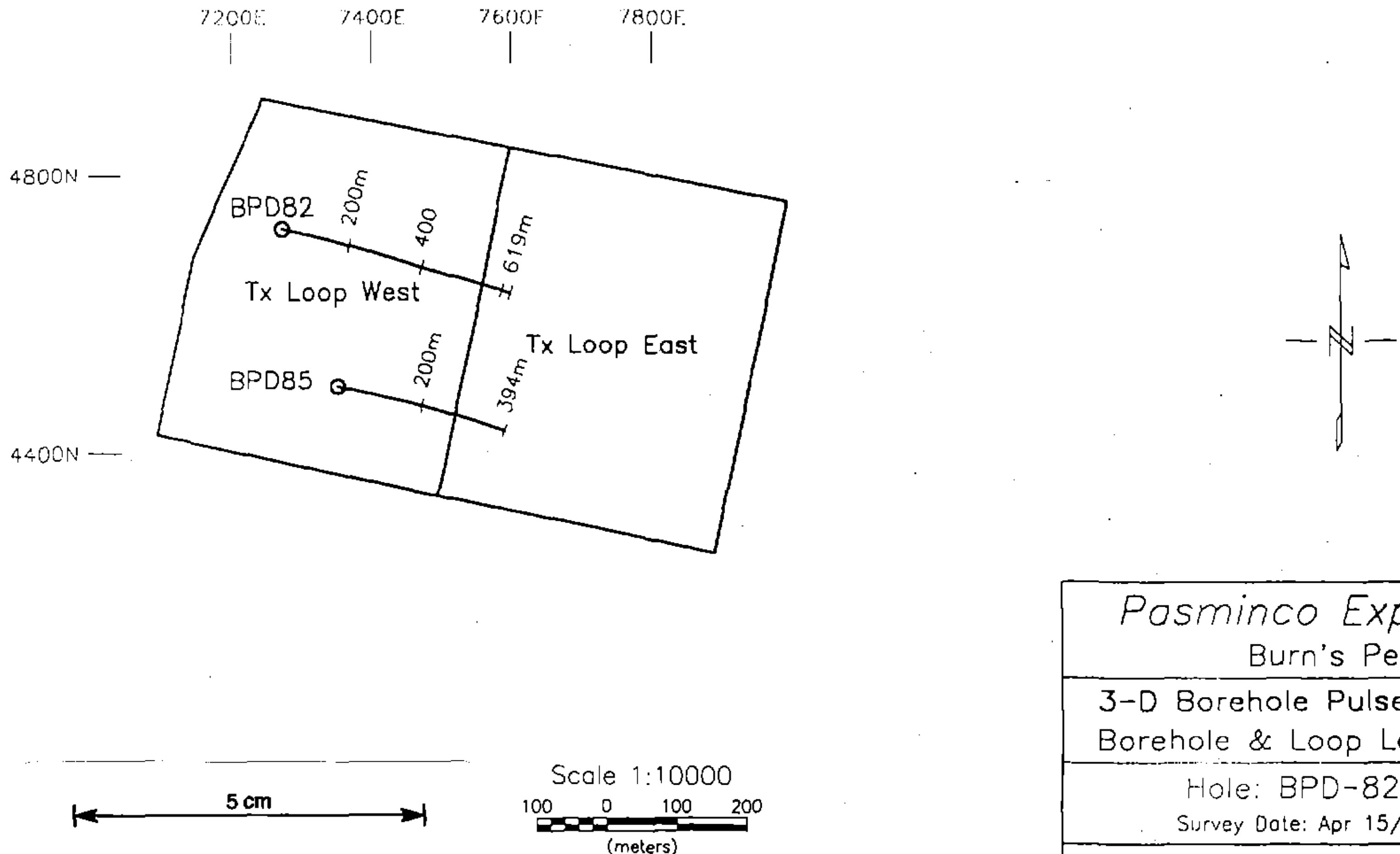
# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : EAF2 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 14, 1995 | File name | : EAF2WZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:3000






*Pasminco Exploration*
Burn's Peak

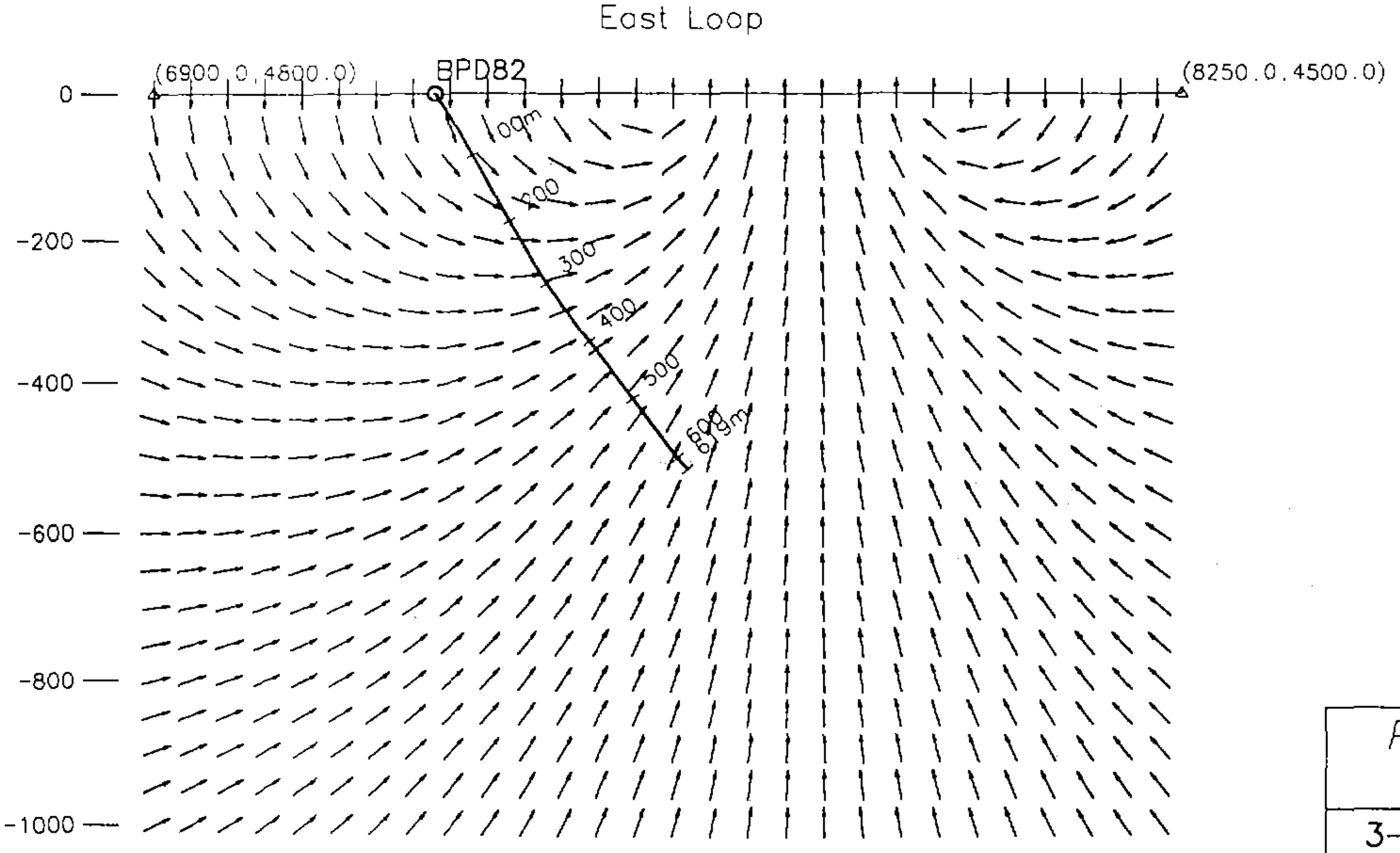
3-D Borehole Pulse EM Survey
Borehole & Loop Location Map

Hole: BPD-82 & 85
Survey Date: Apr 15/17, 1995

*Outer-Rim Exploration Services*

PAS1187d

741224




5 cm

Scale 1:10000

250 0

(meters)

*Pasminco Exploration*

Burn's Peak

3-D Borehole Pulse EM Survey

Hole Section with Primary Field

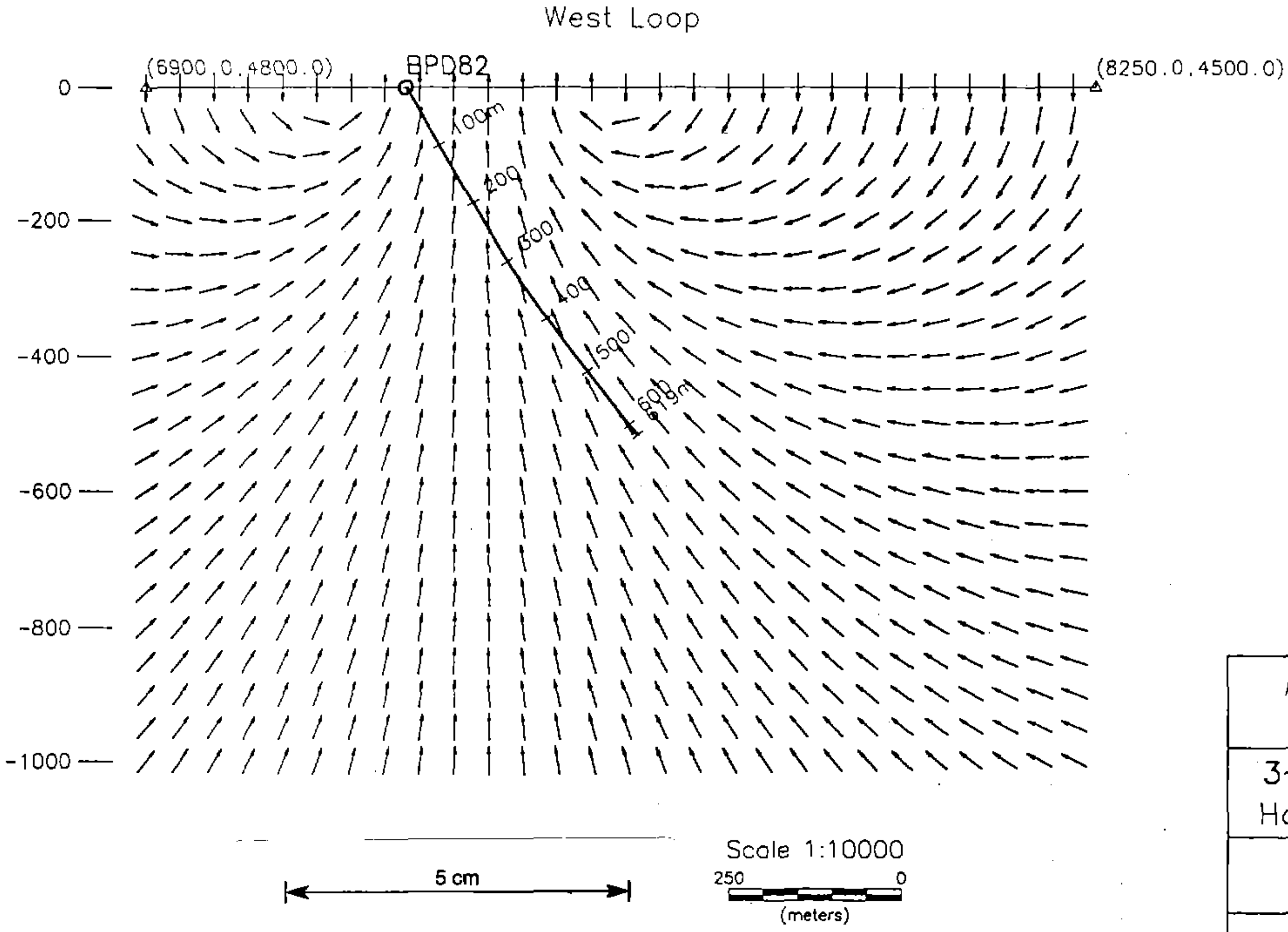
Hole: BPD-82

Survey Date: Apr 15, 1995

***Outer-Rim Exploration Services***

PAS1187e

741225




*Pasminco Exploration*
Burn's Peak

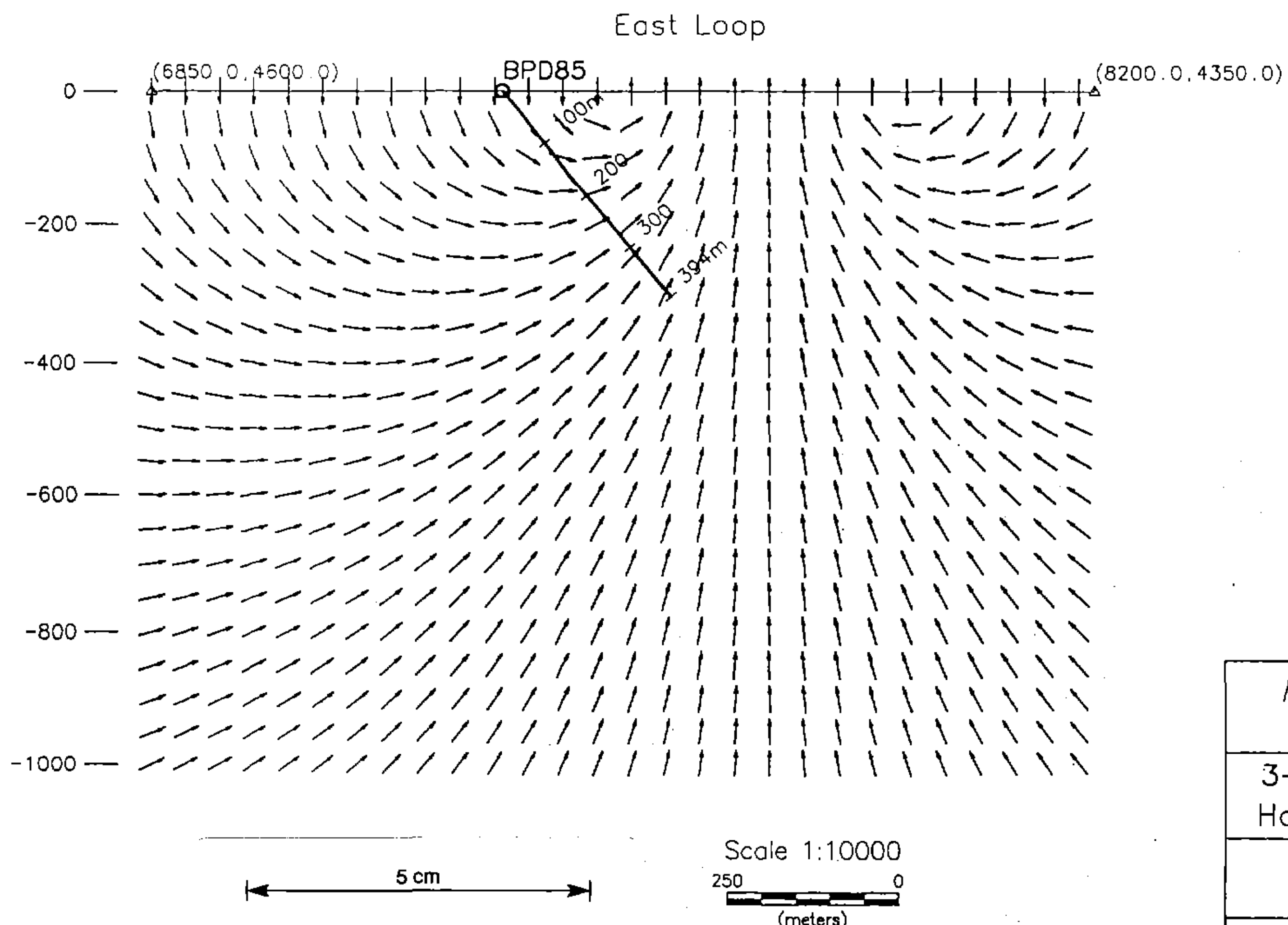
**3-D Borehole Pulse EM Survey**
Hole Section with Primary Field

Hole: BPD-82
Survey Date: Apr 17, 1995

***Outer-Rim Exploration Services***

PAS1187f

741226




PAS1187g

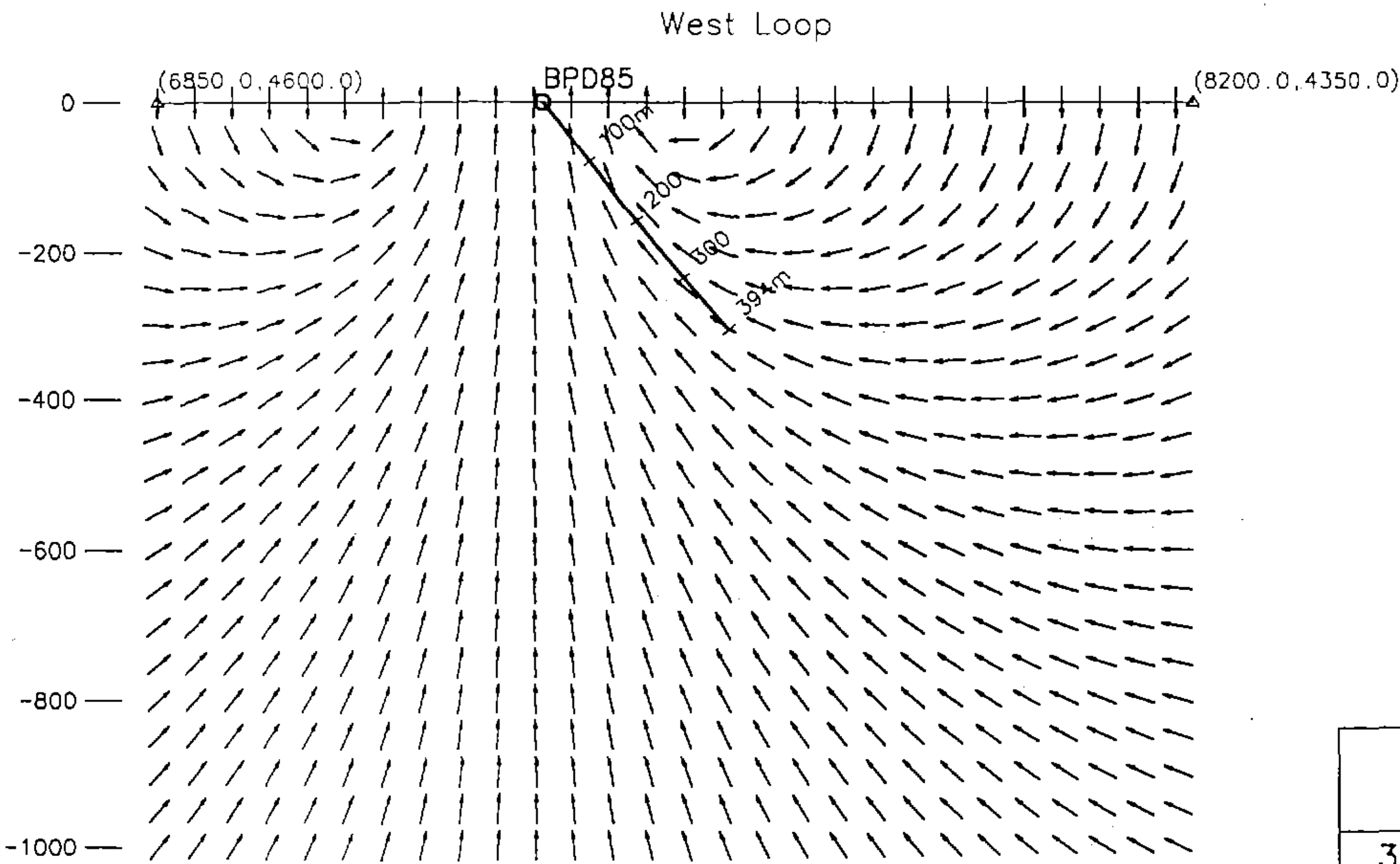
**Pasminco Exploration**
Burn's Peak

**3-D Borehole Pulse EM Survey**
**Hole Section with Primary Field**

Hole: BPD-85
Survey Date: Apr 15, 1995

***Outer-Rim Exploration Services***

241227




PAS1187h

5 cm

Scale 1:10000

250 0

(meters)

*Pasminco Exploration*

Burn's Peak

3-D Borehole Pulse EM Survey

Hole Section with Primary Field

Hole: BPD-85

Survey Date: Apr 15, 1995

***Outer-Rim Exploration Services***

41228

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD82 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 15, 1995 | File name | : BPD82EZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 61 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 500m | Receiver | : Digital #108 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)
1. 7495m, 4340m, 0m
2. 7889m, 4257m, 0m
3. 7993m, 4763m, 0m
4. 7598m, 4842m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7272m, 4724m, 0m
2. 102deg, 58deg, 26m
3. 102deg, 61deg, 35m
4. 103deg, 61deg, 24m
5. 103deg, 61deg, 41m
6. 104.5deg, 61deg, 49m
7. 105deg, 60deg, 49m
8. 105.5deg, 60deg, 44m
9. 106deg, 58.5deg, 25m
10. 105deg, 57.5deg, 16m
11. 106deg, 56.5deg, 14m
12. 108deg, 56deg, 16m
13. 106deg, 55.5deg, 14m
14. 106deg, 55deg, 28m
15. 106deg, 54.5deg, 37m
16. 105deg, 54.5deg, 43m
17. 105deg, 53deg, 41m
18. 105deg, 53deg, 30m
19. 106deg, 52deg, 51m
20. 107deg, 50deg, 36m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

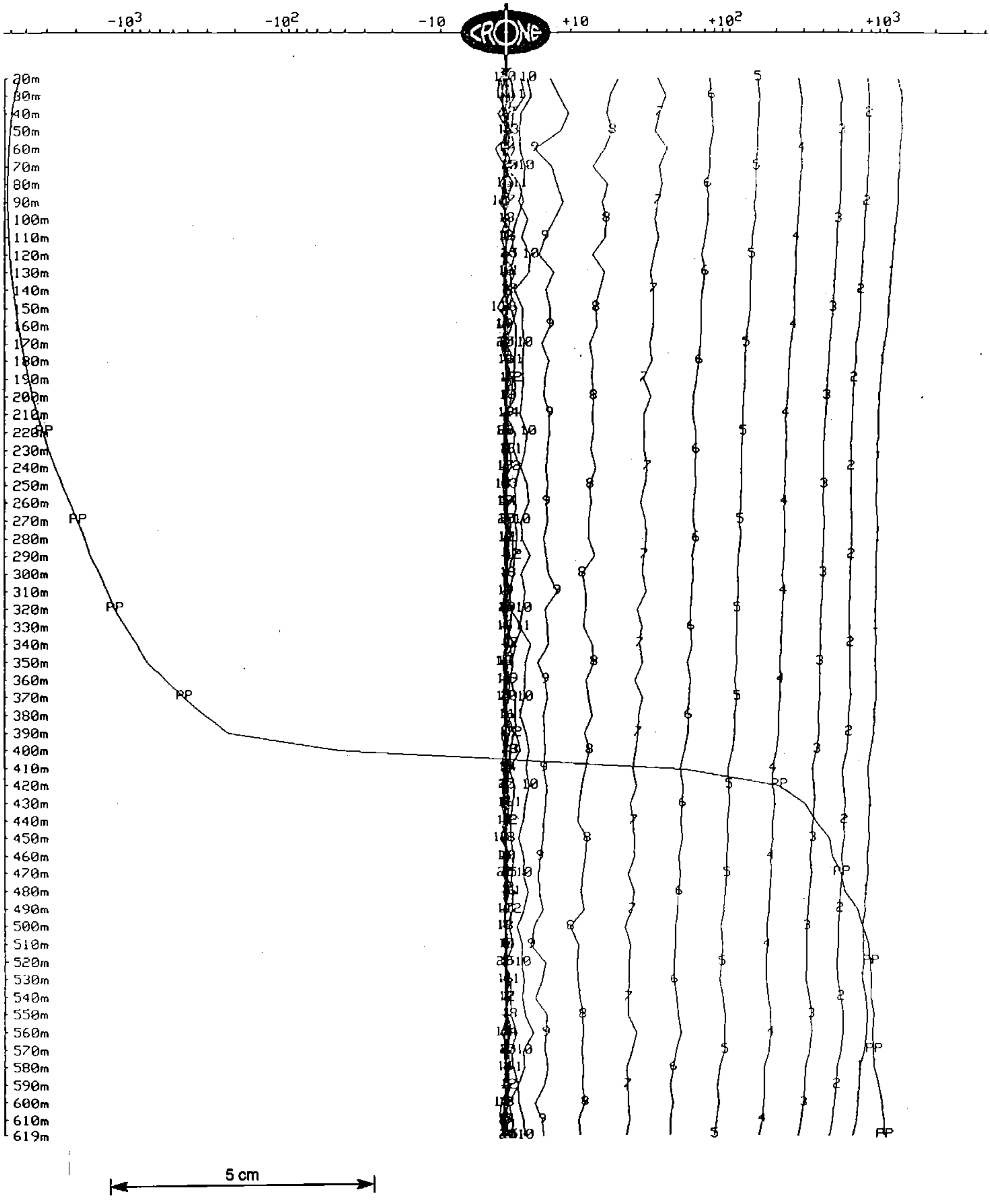
741230

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD82 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 15, 1995 | File name | : BPD82EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:3000




PAS1190

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD82 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 17, 1995 | File name | : BPD82WZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 62 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 500m | Receiver | : Digital #108 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)
1. 7145m, 4683m, 0m
2. 7093m, 4427m, 0m
3. 7495m, 4340m, 0m
4. 7598m, 4842m, 0m
5. 7245m, 4913m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7272m, 4724m, 0m
2. 102deg, 58deg, 26m
3. 102deg, 61deg, 35m
4. 103deg, 61deg, 24m
5. 103deg, 61deg, 41m
6. 104.5deg, 61deg, 49m
7. 105deg, 60deg, 49m
8. 105.5deg, 60deg, 44m
9. 106deg, 58.5deg, 25m
10. 105deg, 57.5deg, 16m
11. 106deg, 56.5deg, 14m
12. 108deg, 56deg, 16m
13. 106deg, 55.5deg, 14m
14. 106deg, 55deg, 28m
15. 106deg, 54.5deg, 37m
16. 105deg, 54.5deg, 43m
17. 105deg, 53deg, 41m
18. 105deg, 53deg, 30m
19. 106deg, 52deg, 51m
20. 107deg, 50deg, 36m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

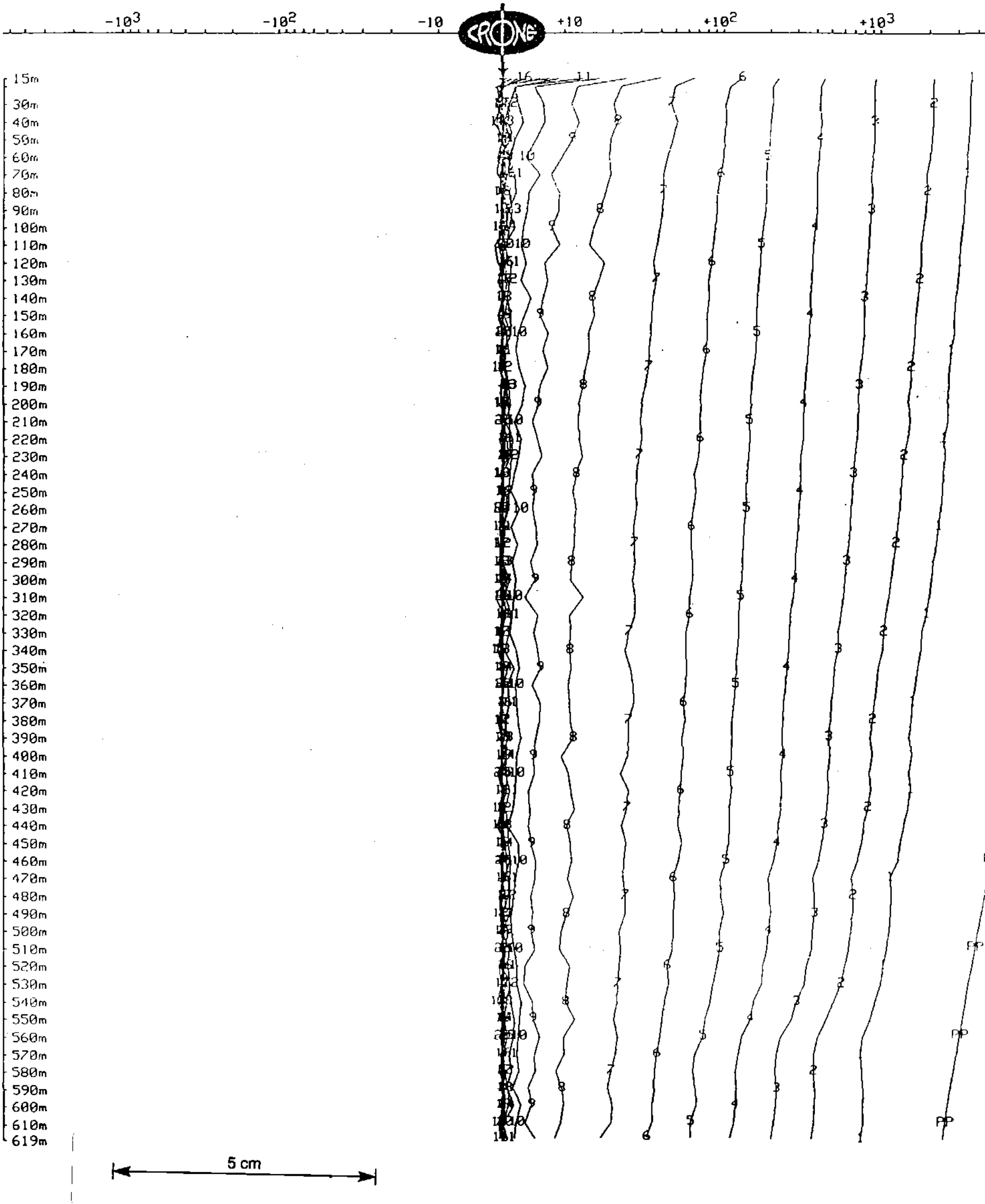
741232

# OUTER-RIM EXPLORATION SERVICES
# Operating Crone PEM System
# BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD82 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 17, 1995 | File name | : BPD82WZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:3000




PAS1191

741233

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

Client : Pasminco Exploration
Grid : Burn's Peak
Date : Apr 15, 1995
Time Base : 20.00 ms
Ramp Time : 0.50 ms
# Channels: 20
Sync Type : Cable
Loop Size : 400m X 500m
Current : 4 Amps

Hole : BPD85
Tx Loop : East
File name : BPD85EZ.PEM
# Readings: 40
Stn Units : Metric
Coil Area : 6500 sq m
Polarity : +
Receiver : Digital #108
Operator : Kent Honner

Loop Coordinates (X,Y,Z)
1. 7495m, 4340m, 0m
2. 7889m, 4257m, 0m
3. 7993m, 4763m, 0m
4. 7598m, 4842m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7352m, 4499m, 0m
2. 102deg, 50deg, 29m
3. 103deg, 53deg, 44m
4. 103deg, 52.5deg, 39m
5. 103deg, 52.5deg, 32m
6. 104deg, 52deg, 31m
7. 105deg, 51deg, 30m
8. 106deg, 51deg, 31m
9. 107deg, 51deg, 42m
10. 108deg, 50.5deg, 48m
11. 108.5deg, 50deg, 47m
12. 108.5deg, 49deg, 21m

Channel Times (usec)

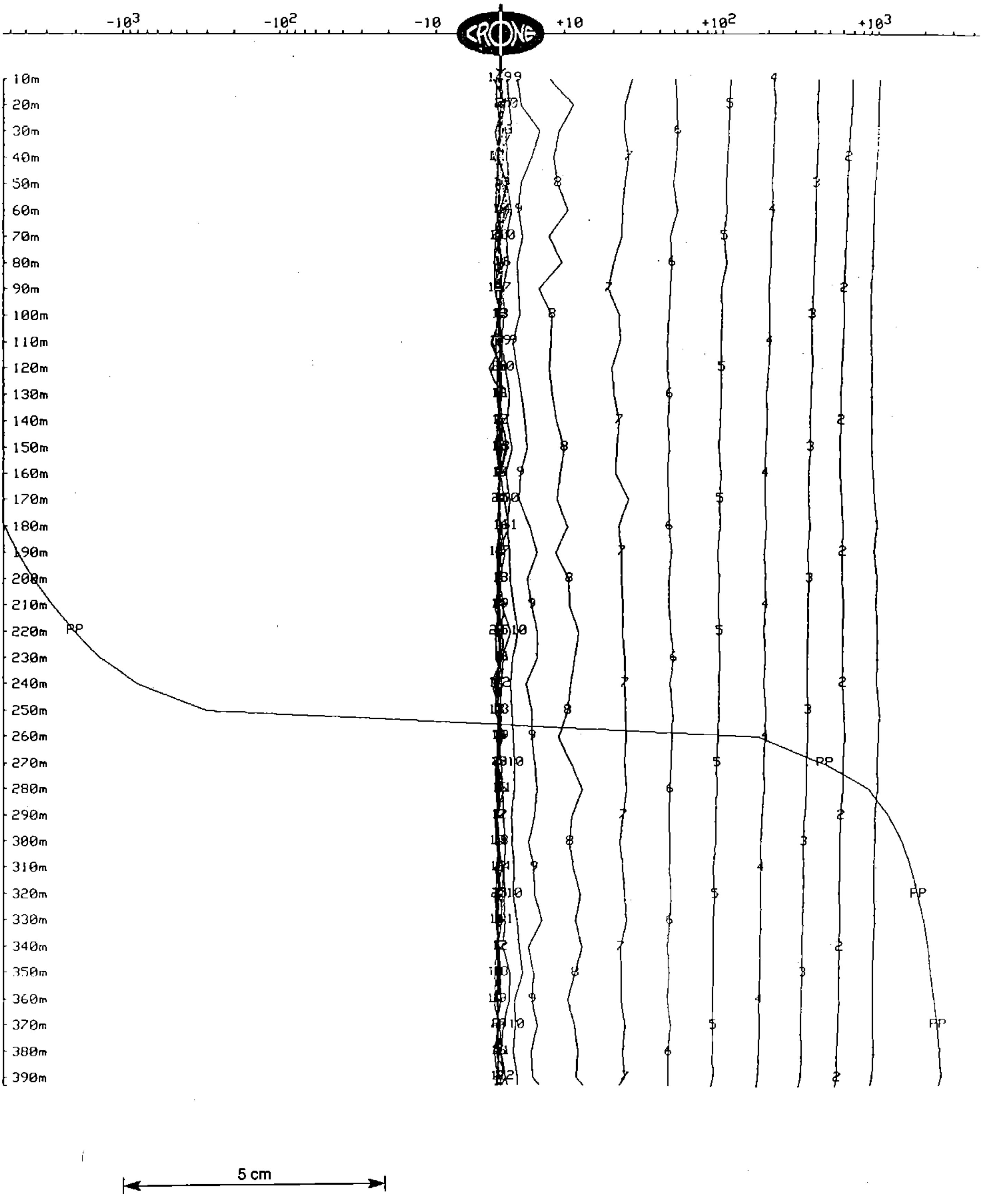
| Ch | Start | End | Center | Ch | Start | End | Center | Ch | Start | End | Center |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PP | -198 | -99 | -149 | 1 | 76 | 104 | 90 | 2 | 104 | 131 | 117 |
| 3 | 131 | 171 | 151 | 4 | 171 | 225 | 198 | 5 | 225 | 292 | 259 |
| 6 | 292 | 378 | 335 | 7 | 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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD85 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 15, 1995 | File name | : BPD85EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000



741235

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD85 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 15, 1995 | File name | : BPD85WZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 40 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 500m | Receiver | : Digital #108 |
| Current | : 4 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)

1. 7145m, 4683m, 0m
2. 7093m, 4427m, 0m
3. 7495m, 4340m, 0m
4. 7598m, 4842m, 0m
5. 7245m, 4913m, 0m

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

1. 7352m, 4499m, 0m
2. 102deg, 50deg, 29m
3. 103deg, 53deg, 44m
4. 103deg, 52.5deg, 39m
5. 103deg, 52.5deg, 32m
6. 104deg, 52deg, 31m
7. 105deg, 51deg, 30m
8. 106deg, 51deg, 31m
9. 107deg, 51deg, 42m
10. 108deg, 50.5deg, 48m
11. 108.5deg, 50deg, 47m
12. 108.5deg, 49deg, 21m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

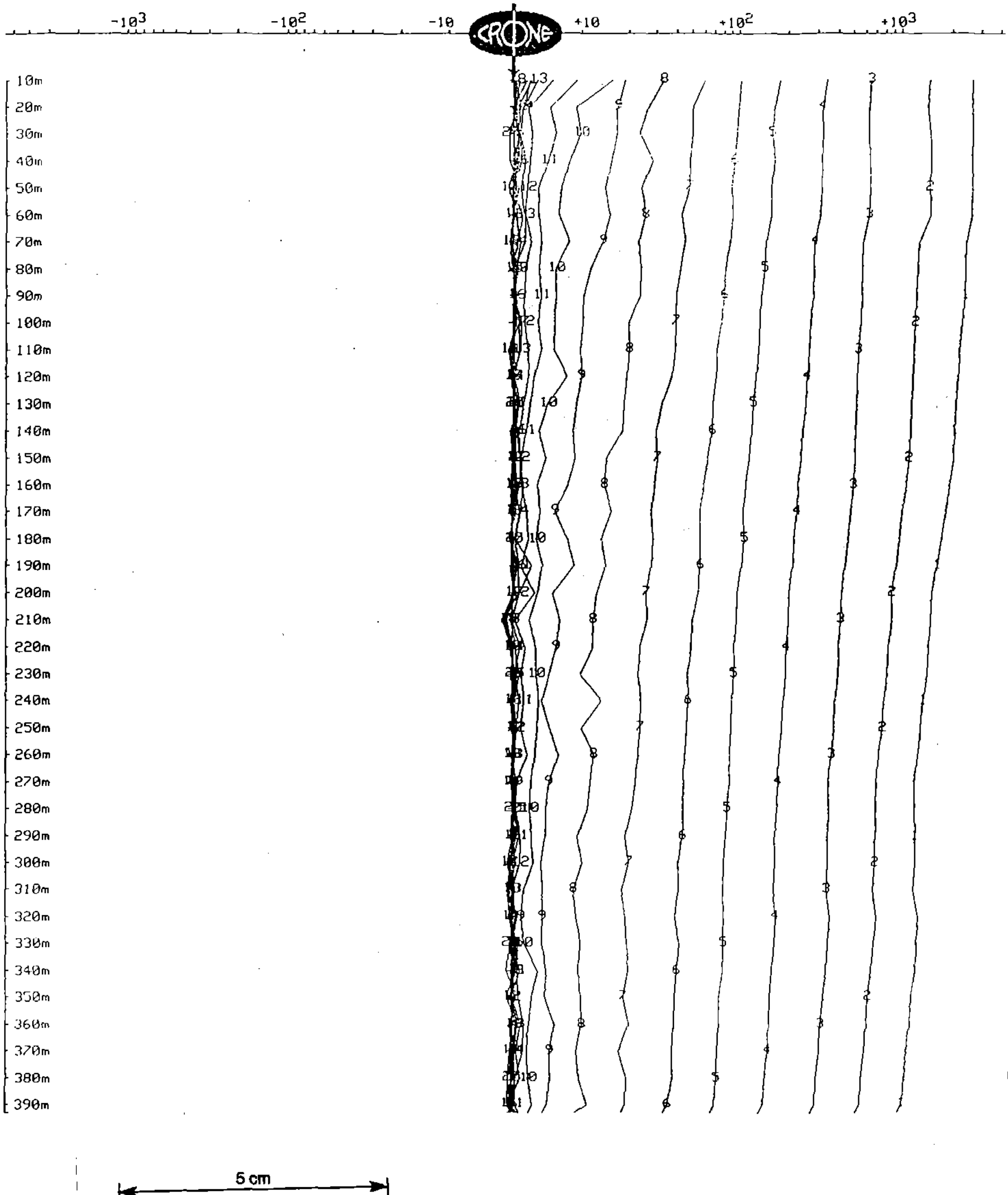
741236

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD85 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 15, 1995 | File name | : BPD85WZ.PEM |

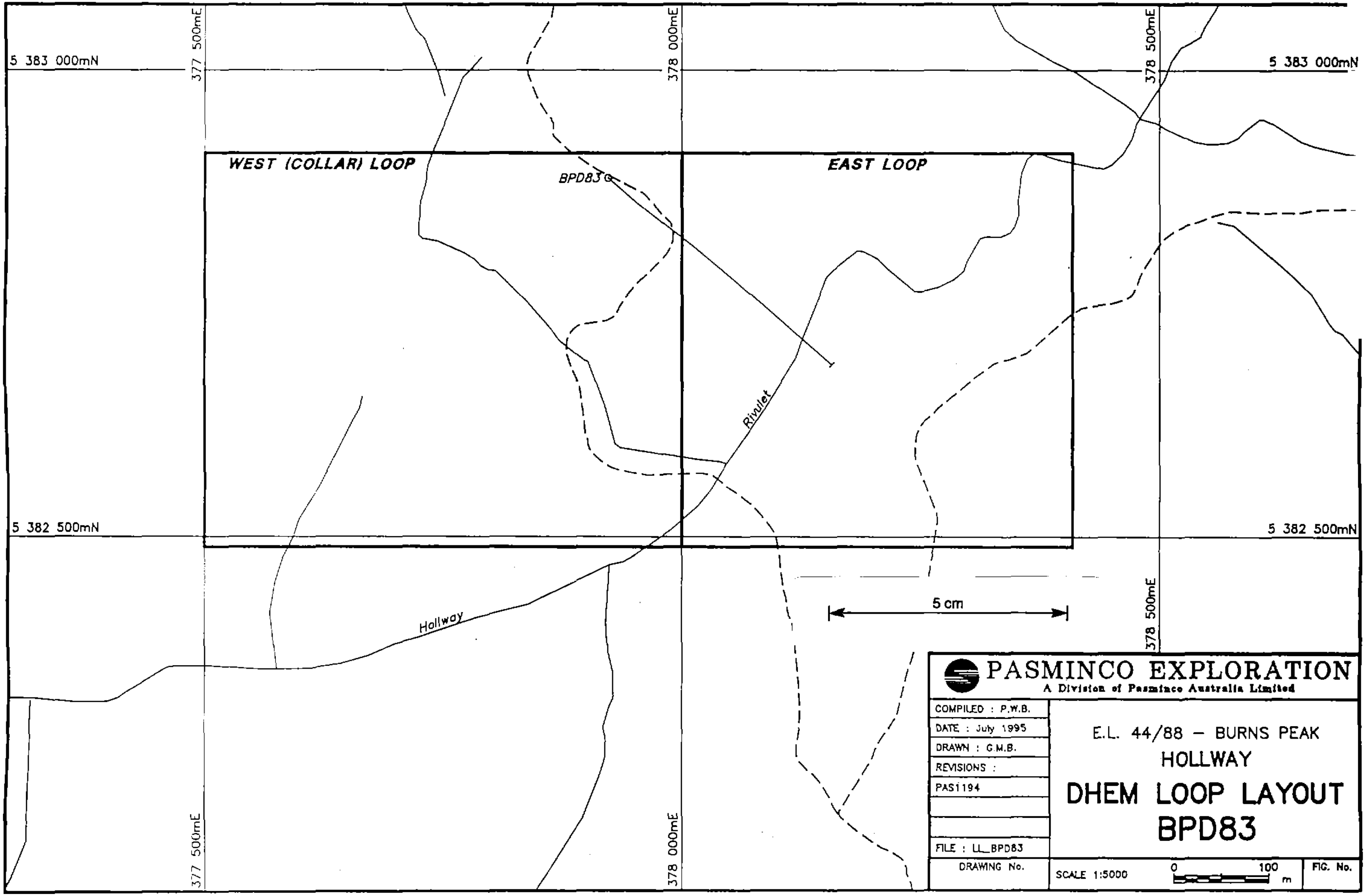
Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

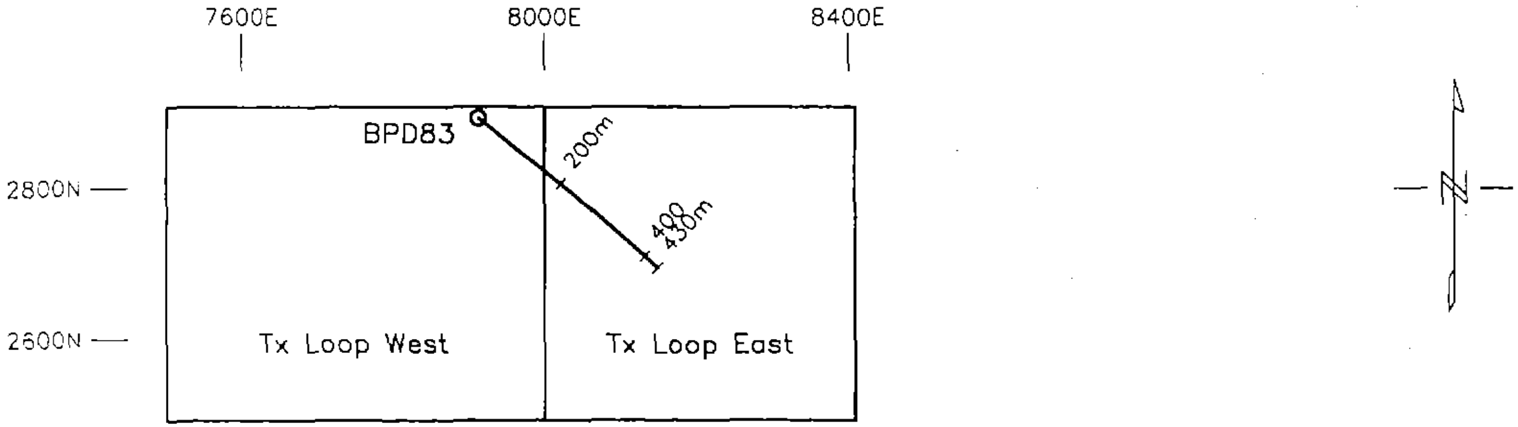
Scale: 1:2000




PAS1193

741237


5 383 000mN
377 500mE
378 000mE
378 500mE
5 383 000mN
WEST (COLLAR) LOOP
BPD83
EAST LOOP
Rivulet
5 382 500mN
5 382 500mN
5 cm
Hollway
378 500mE
377 500mE
378 000mE
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : P.W.B.
DATE : July 1995
DRAWN : G.M.B.
REVISIONS :
PAS1194
FILE : LL_BPD83
DRAWING No.
E.L. 44/88 – BURNS PEAK
HOLLWAY
DHEM LOOP LAYOUT
BPD83
SCALE 1:5000
0
100
m
FIG. No.




Scale 1:10000

250 0

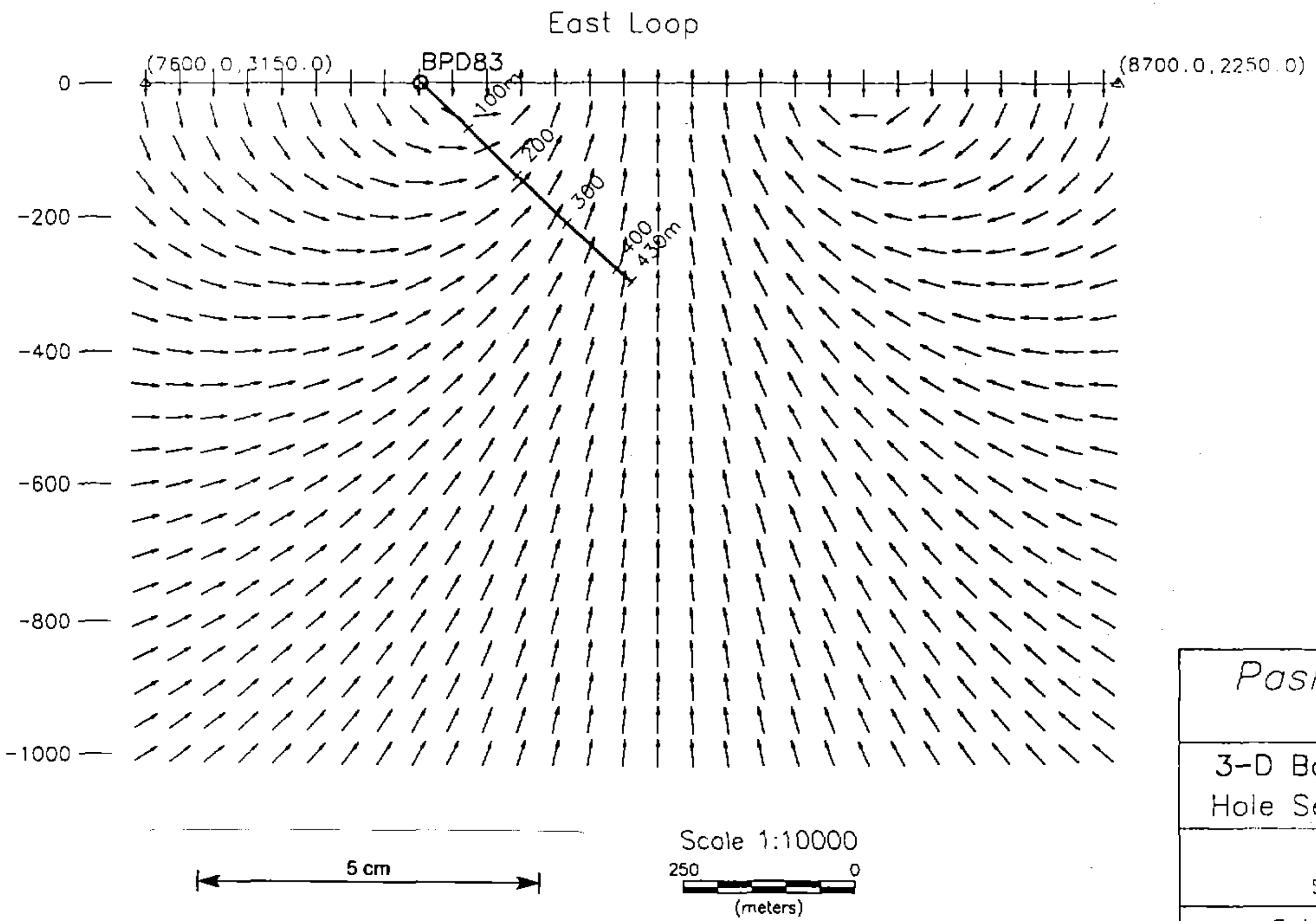
(meters)

5 cm

PAS1194a

| |
|---|
| *Pasminco Exploration*<br>Burn's Peak |
| **3-D Borehole Pulse EM Survey**<br>Borehole & Loop Location Map |
| Hole: BPD-83<br>Survey Date: Apr 25/26, 1995 |
| ***Outer-Rim Exploration Services*** |

741238




*Pasminco Exploration*
Burn's Peak

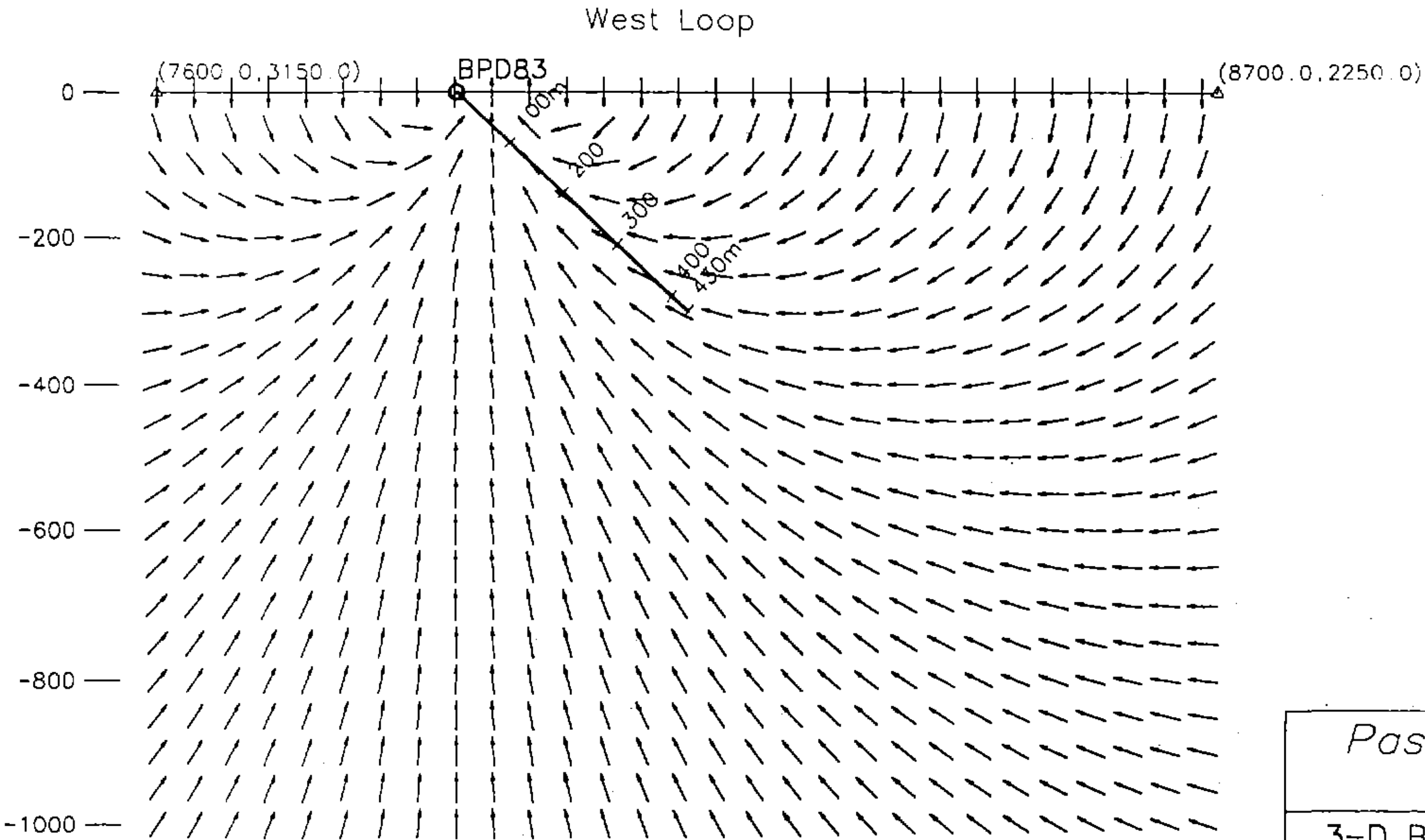
3-D Borehole Pulse EM Survey
Hole Section with Primary Field

Hole: BPD-83
Survey Date: Apr 26, 1995

***Outer-Rim Exploration Services***

PAS1194b

74123 9




5 cm

Scale 1:10000

250 0

(meters)

*Pasminco Exploration*

Burn's Peak

**3-D Borehole Pulse EM Survey**

Hole Section with Primary Field

Hole: BPD-83

Survey Date: Apr 25, 1995

***Outer-Rim Exploration Services***

**PAS1194c**

741240

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 43 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 400m | Receiver | : Digital #108 |
| Current | : 5 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)
1. 8000m, 2490m, 0m
2. 8408m, 2490m, 0m
3. 8408m, 2911m, 0m
4. 8000m, 2911m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)
1. 7912m, 2896m, 0m
2. 130deg, 45deg, 15m
3. 130deg, 44.5deg, 33m
4. 130deg, 45.5deg, 33m
5. 129deg, 45.5deg, 39m
6. 129deg, 44deg, 39m
7. 130deg, 44deg, 30m
8. 130deg, 44deg, 46m
9. 131deg, 43.5deg, 47m
10. 131deg, 43.5deg, 30m
11. 131.5deg, 43deg, 38m
12. 131.5deg, 43deg, 50m
13. 132.5deg, 41deg, 30m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

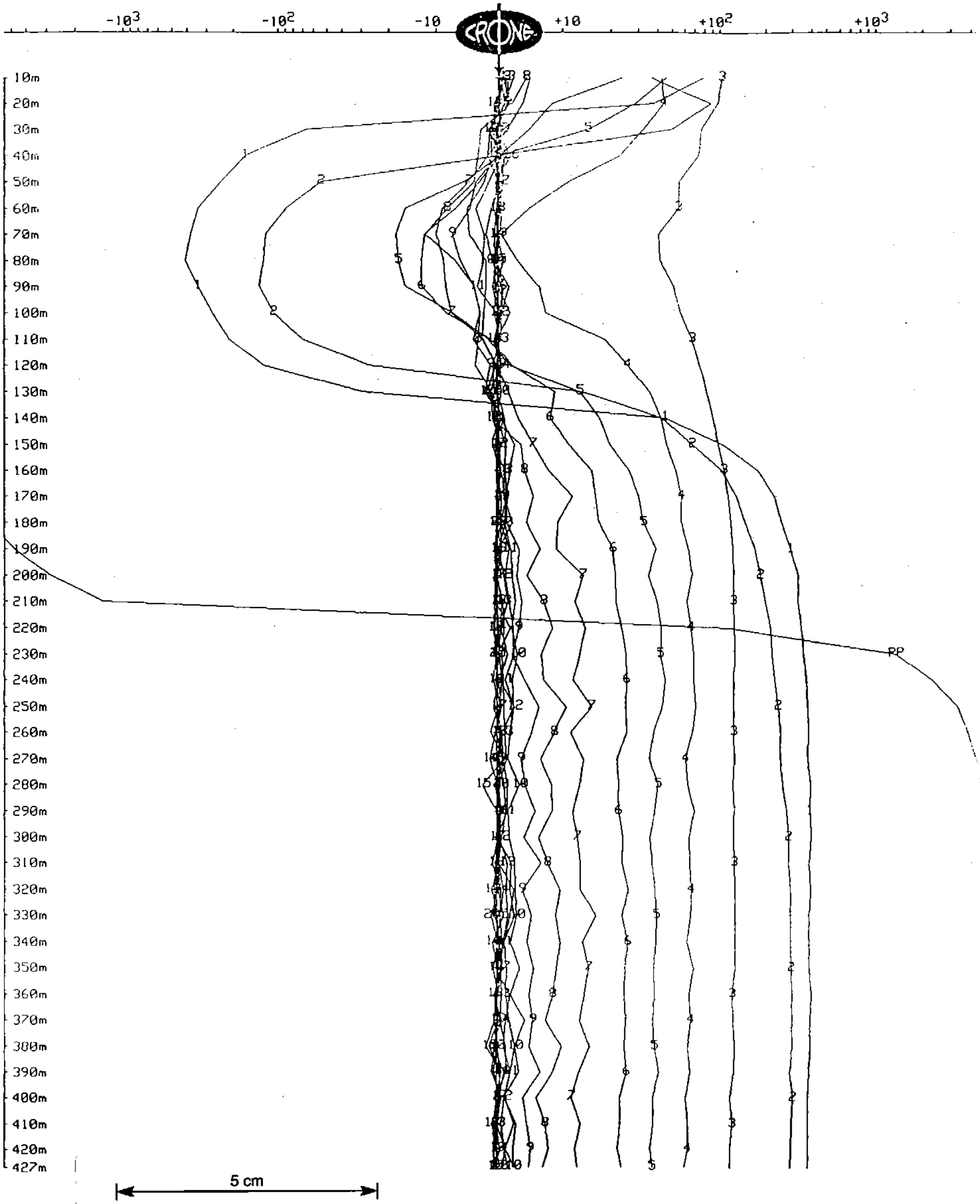
General Comments
Client's wire, 22 Ohm resistance.
Wet and sloppy ground conditions.

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000

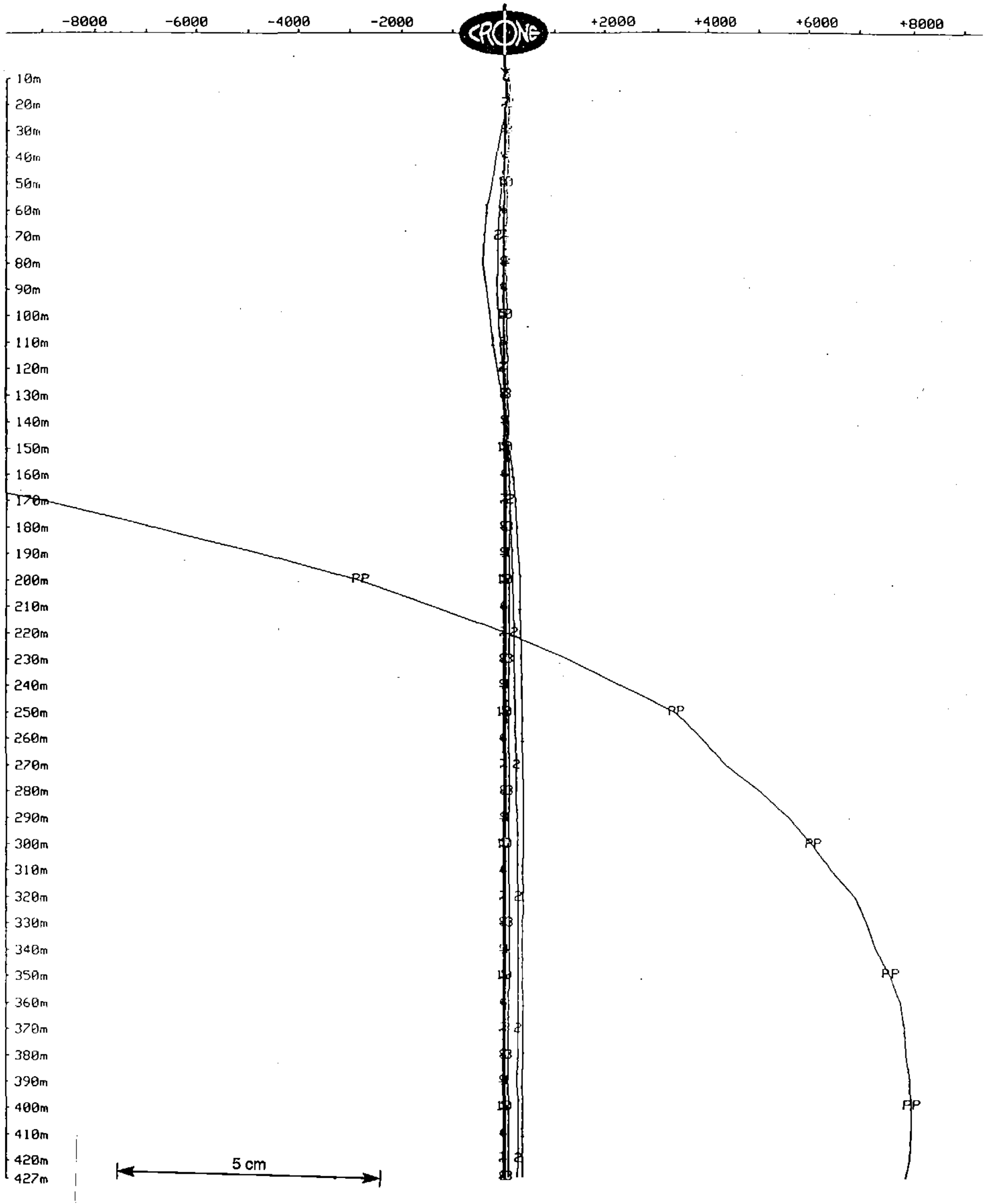


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000 Unit Scale: 1cm = 1000 nT/



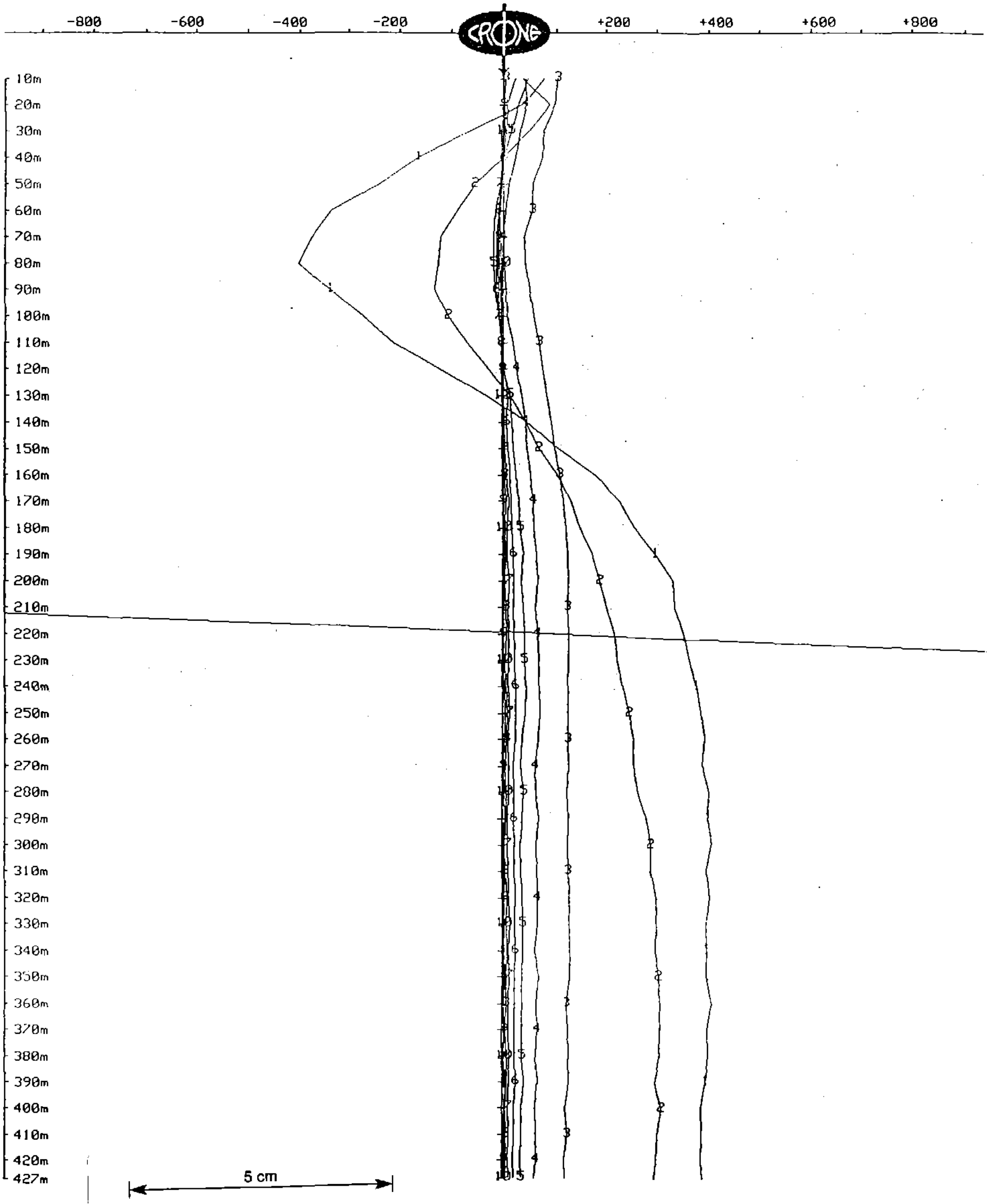
741244

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000 Unit Scale: 1cm = 100 nT/

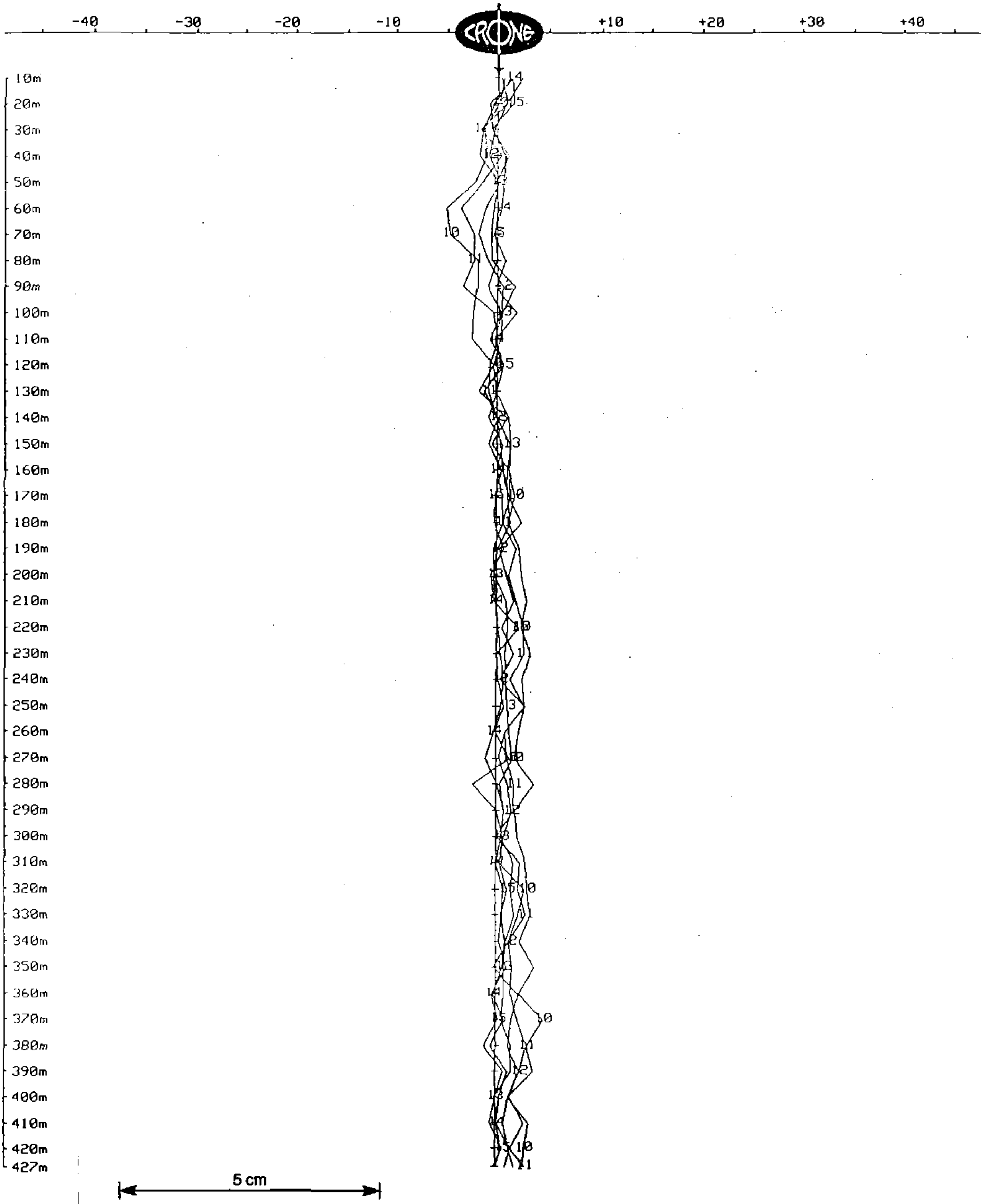


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 5 nT/

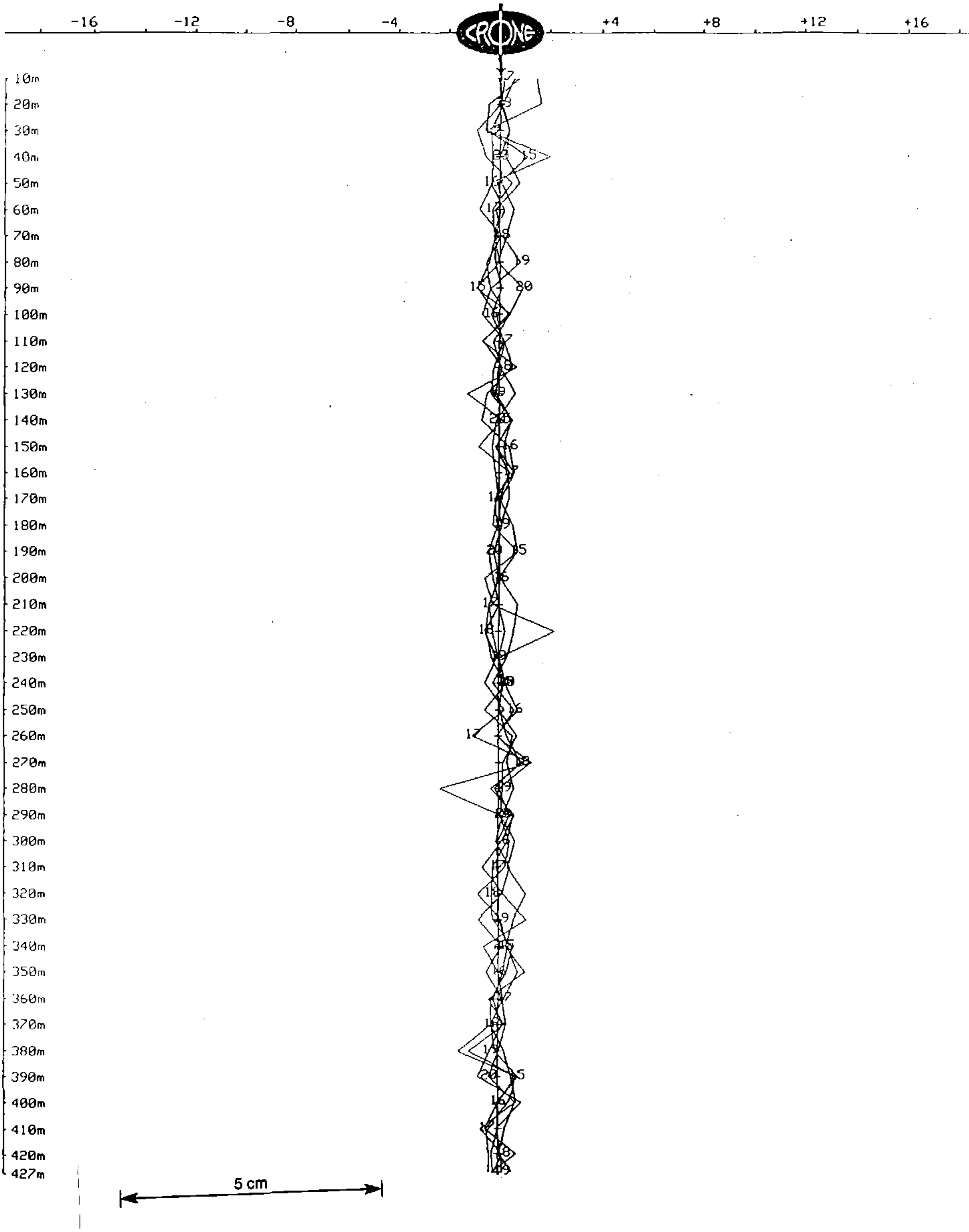


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 26, 1995 | File name | : BPD83EZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 2 nT,



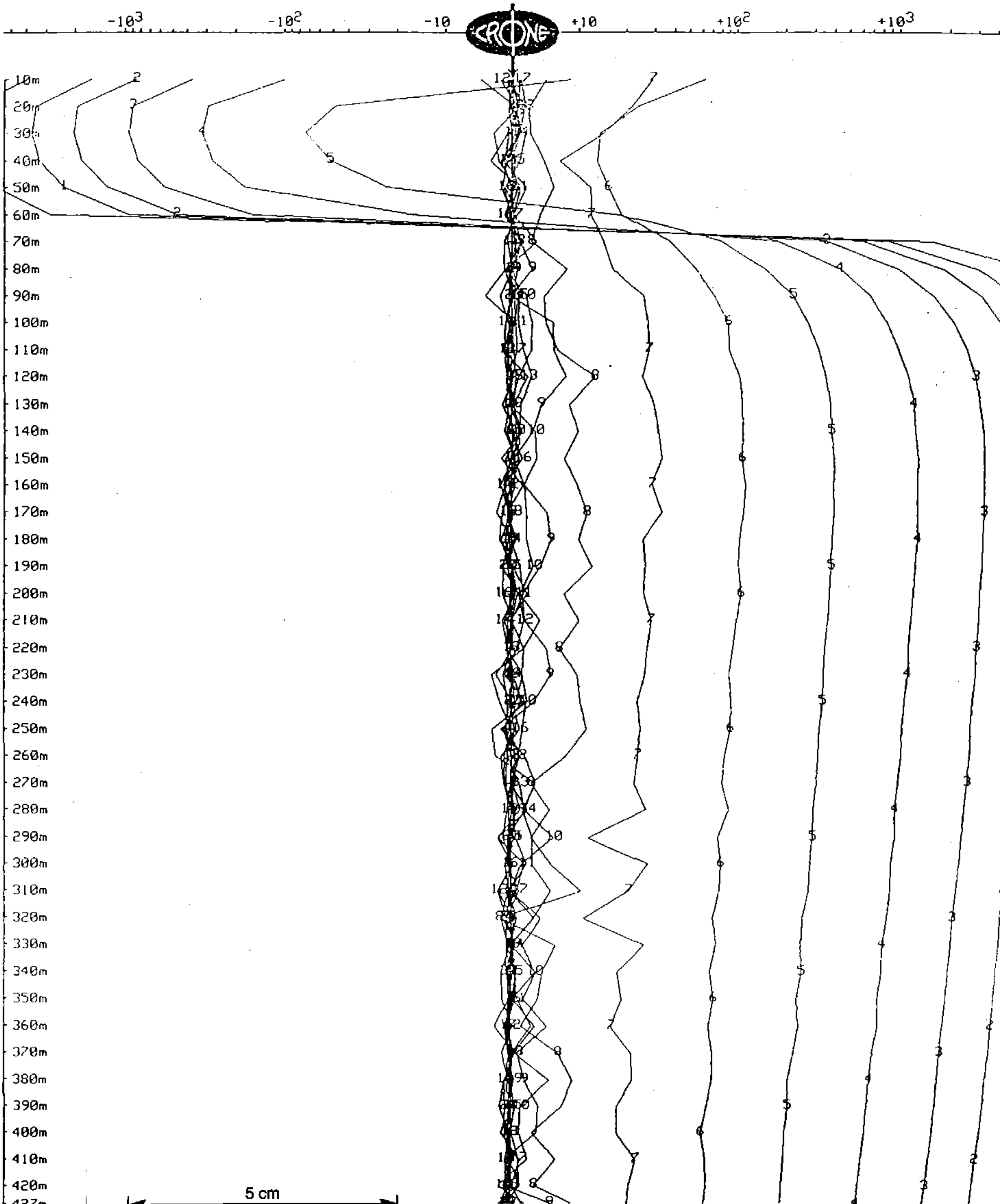
741247

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
X COMPONENT dBx/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000




PAS1195b

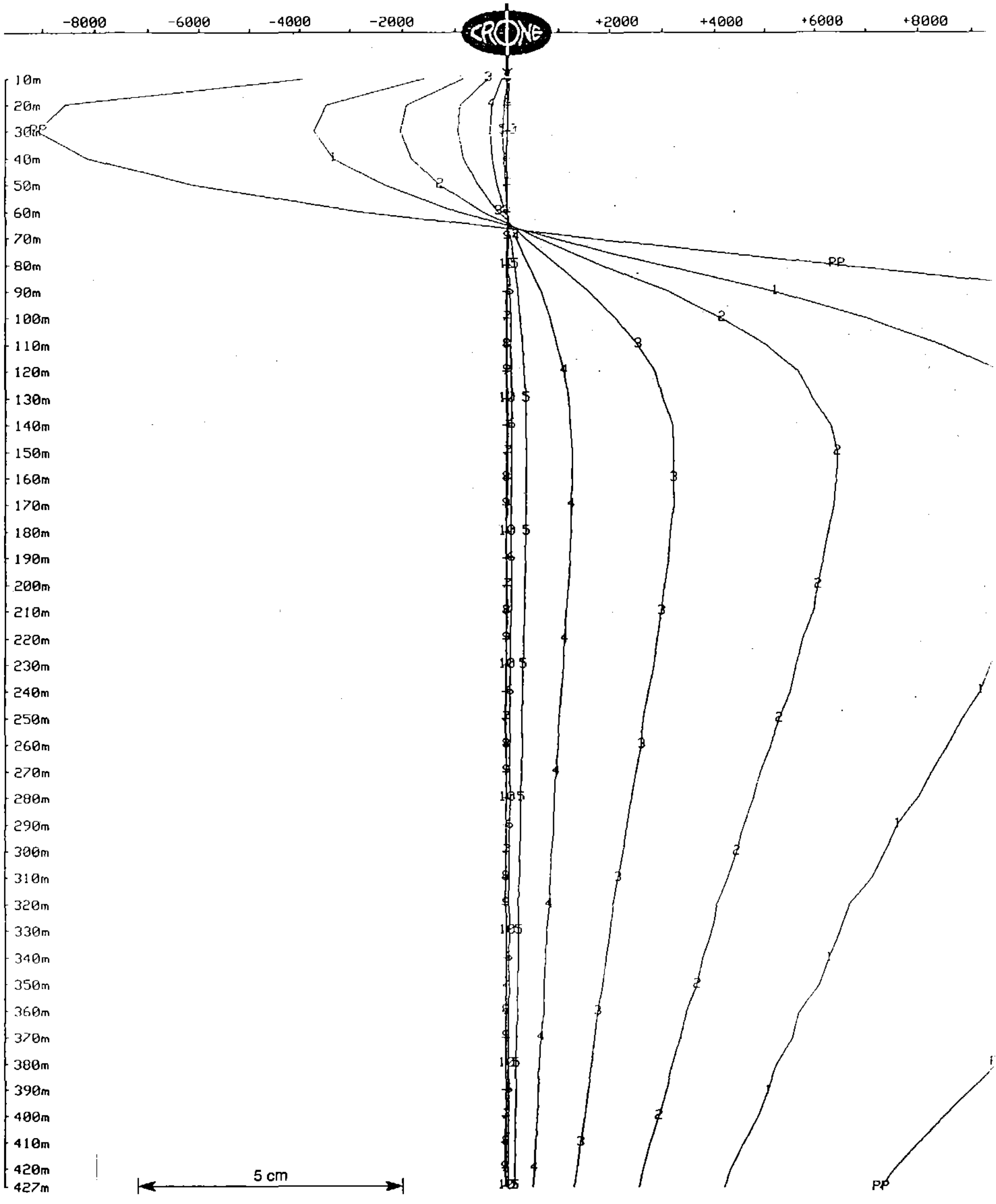
741248

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
X COMPONENT dBx/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000 Unit Scale: 1cm = 1000 nT,



741249

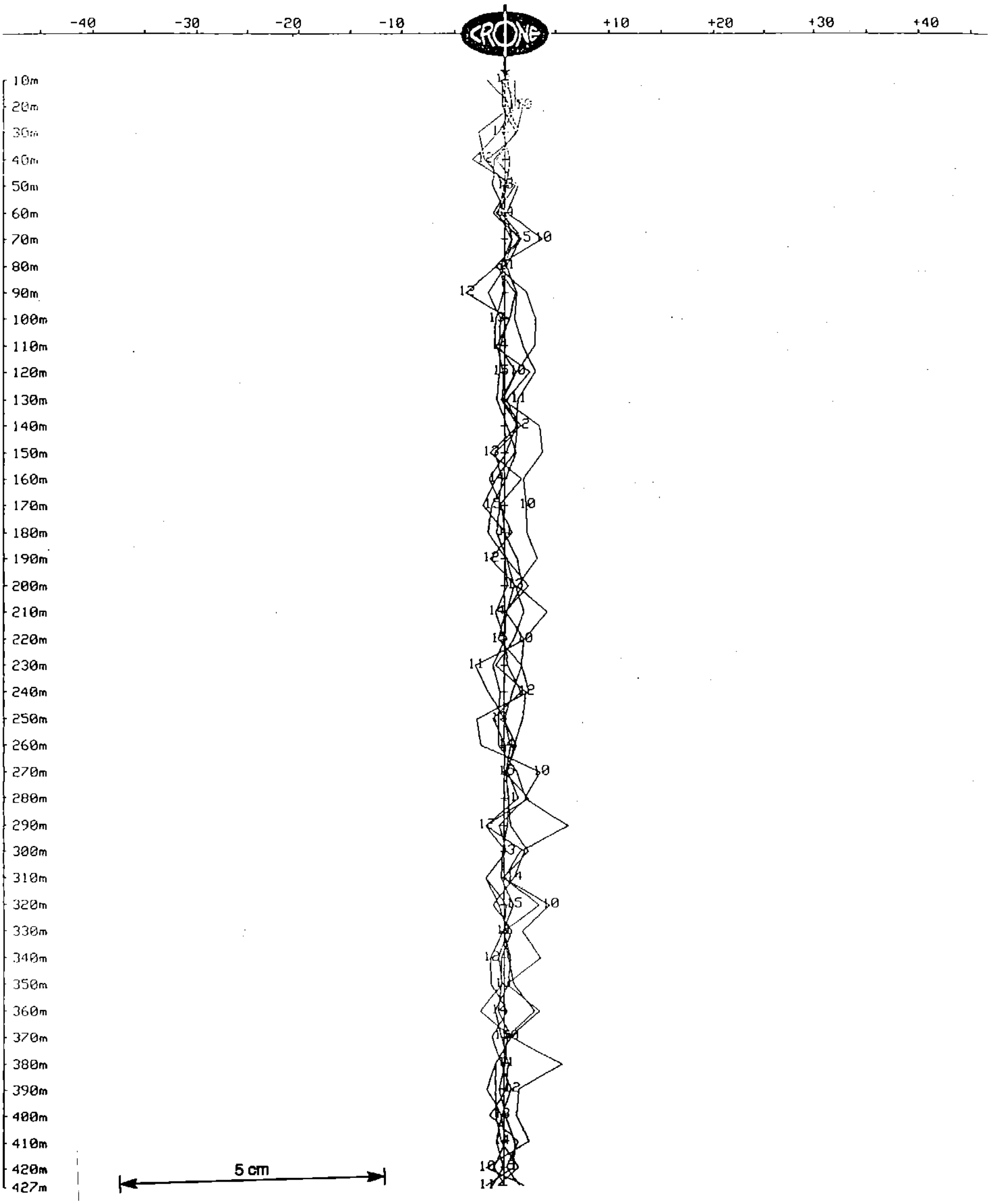
# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

Client : Pasminco Exploration
Grid : Burn's Peak
Date : Apr 28, 1995

Hole : BPD83
Tx Loop : East
File name : BPD83EXY.PEM

Data Corrected for Probe Rotation using Orientation Tool #2
X COMPONENT dBx/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 5 nT/

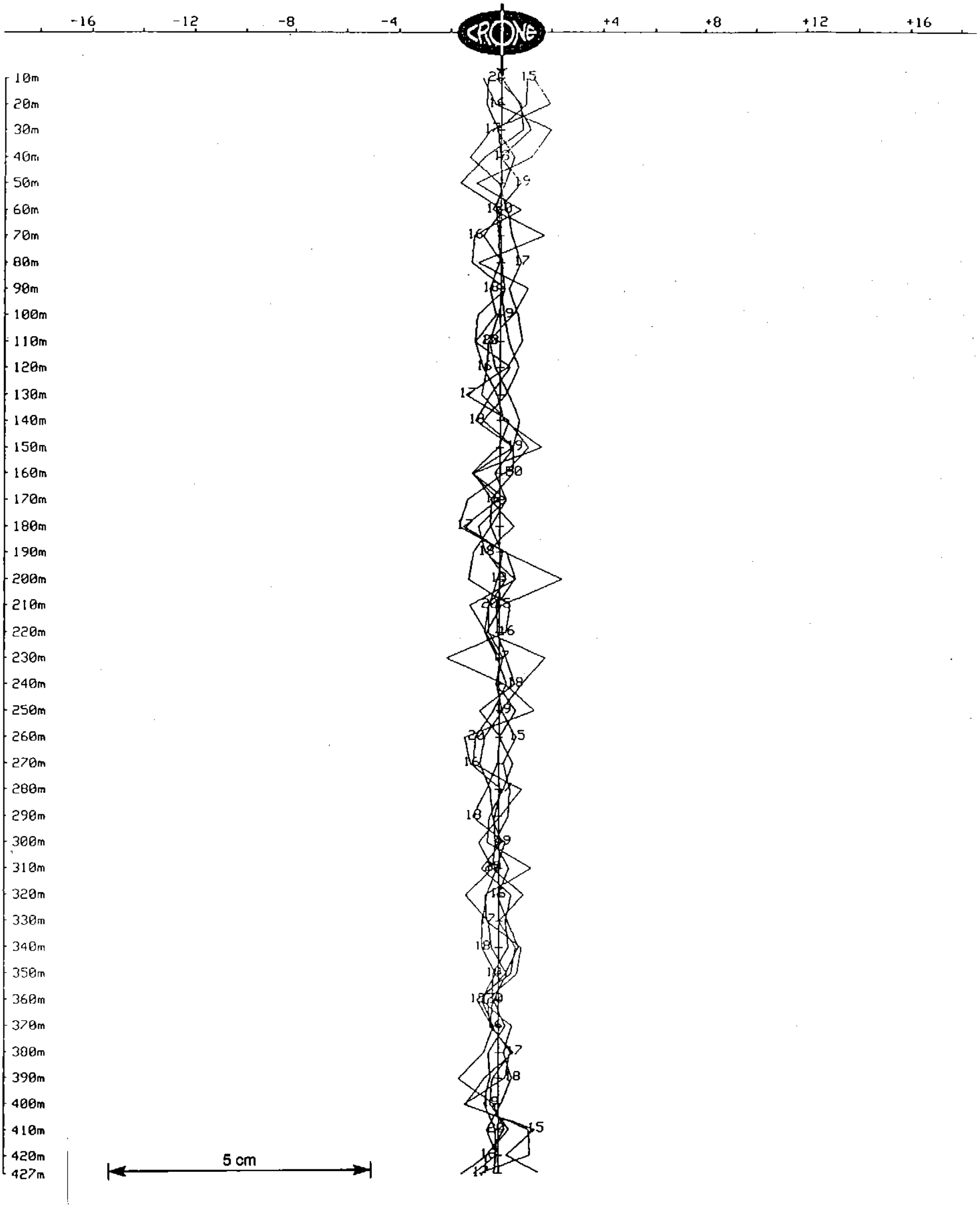


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
X COMPONENT dBx/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 2 nT/

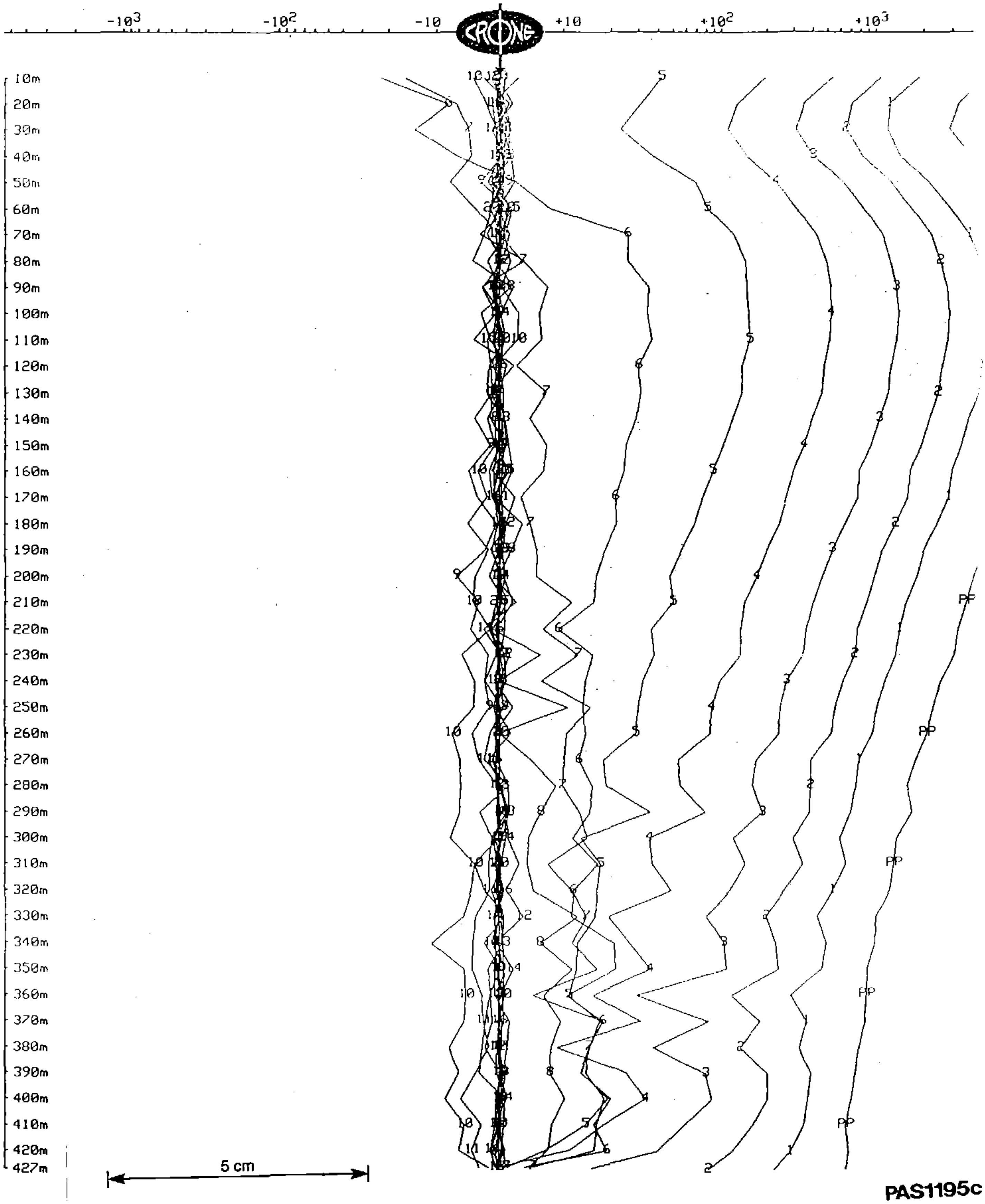


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
Y COMPONENT dBy/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000




PAS1195c

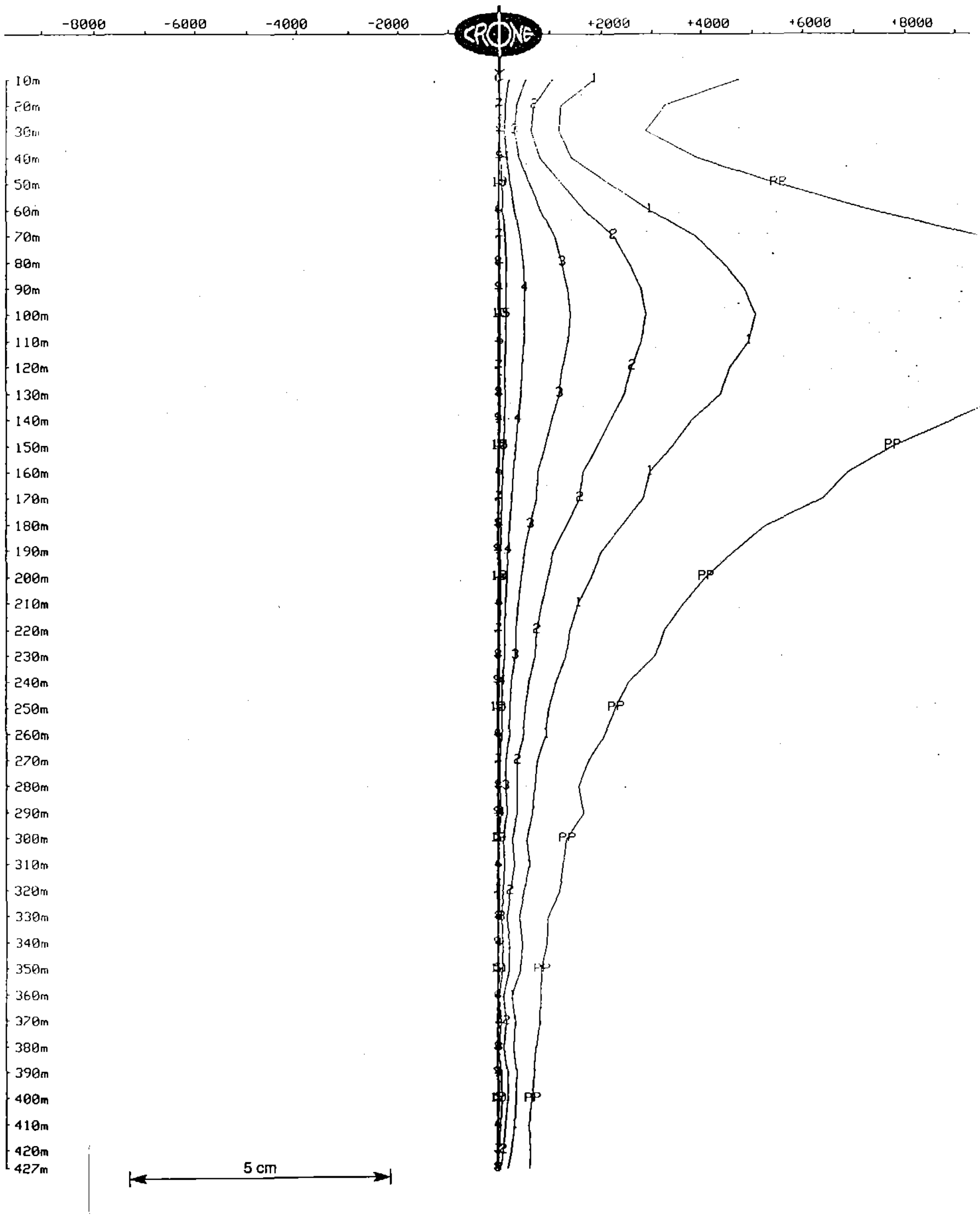
741252

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
Y COMPONENT dBy/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000 Unit Scale: 1cm = 1000 nT/



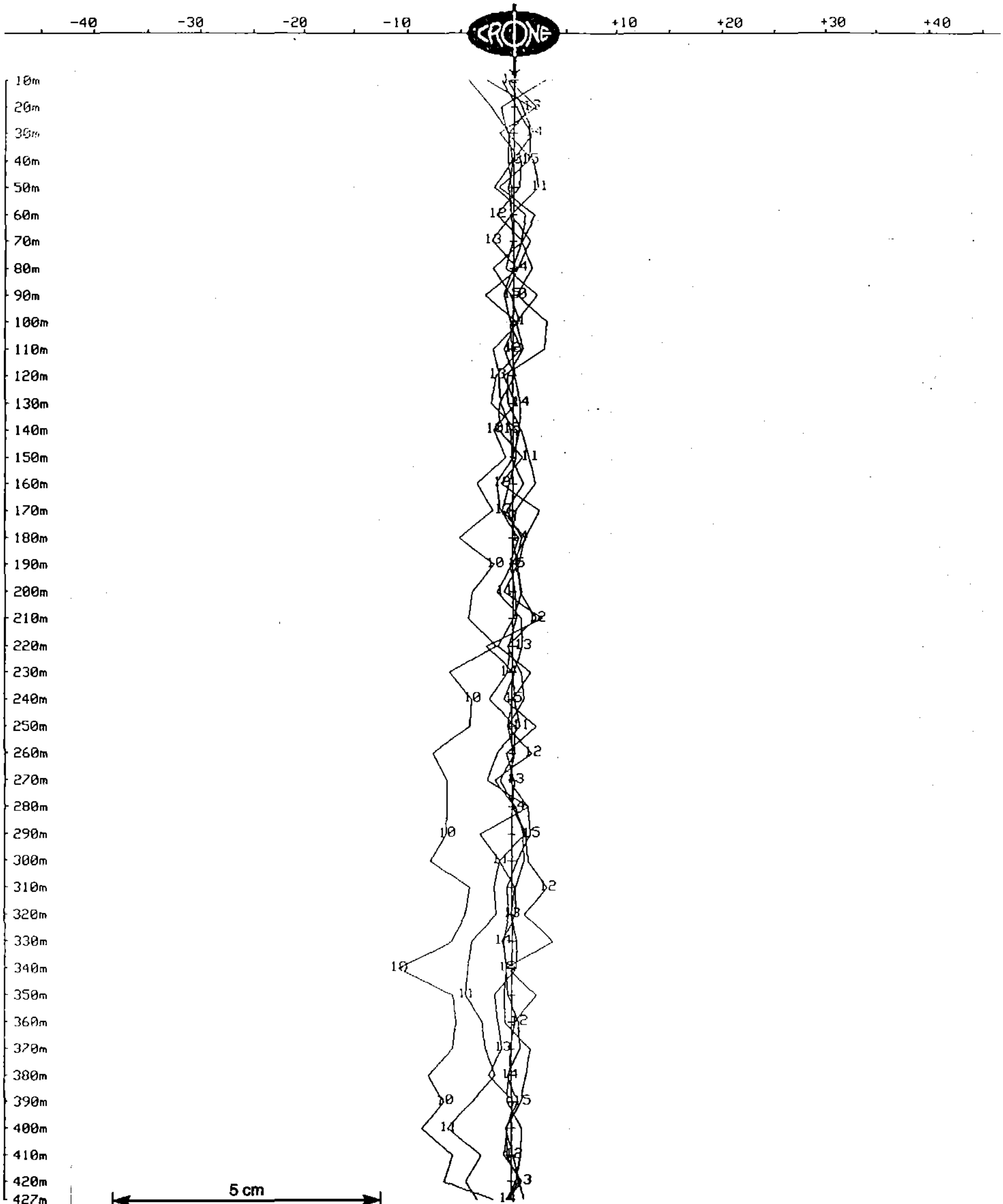
741253

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
Y COMPONENT dBy/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 5 nT/



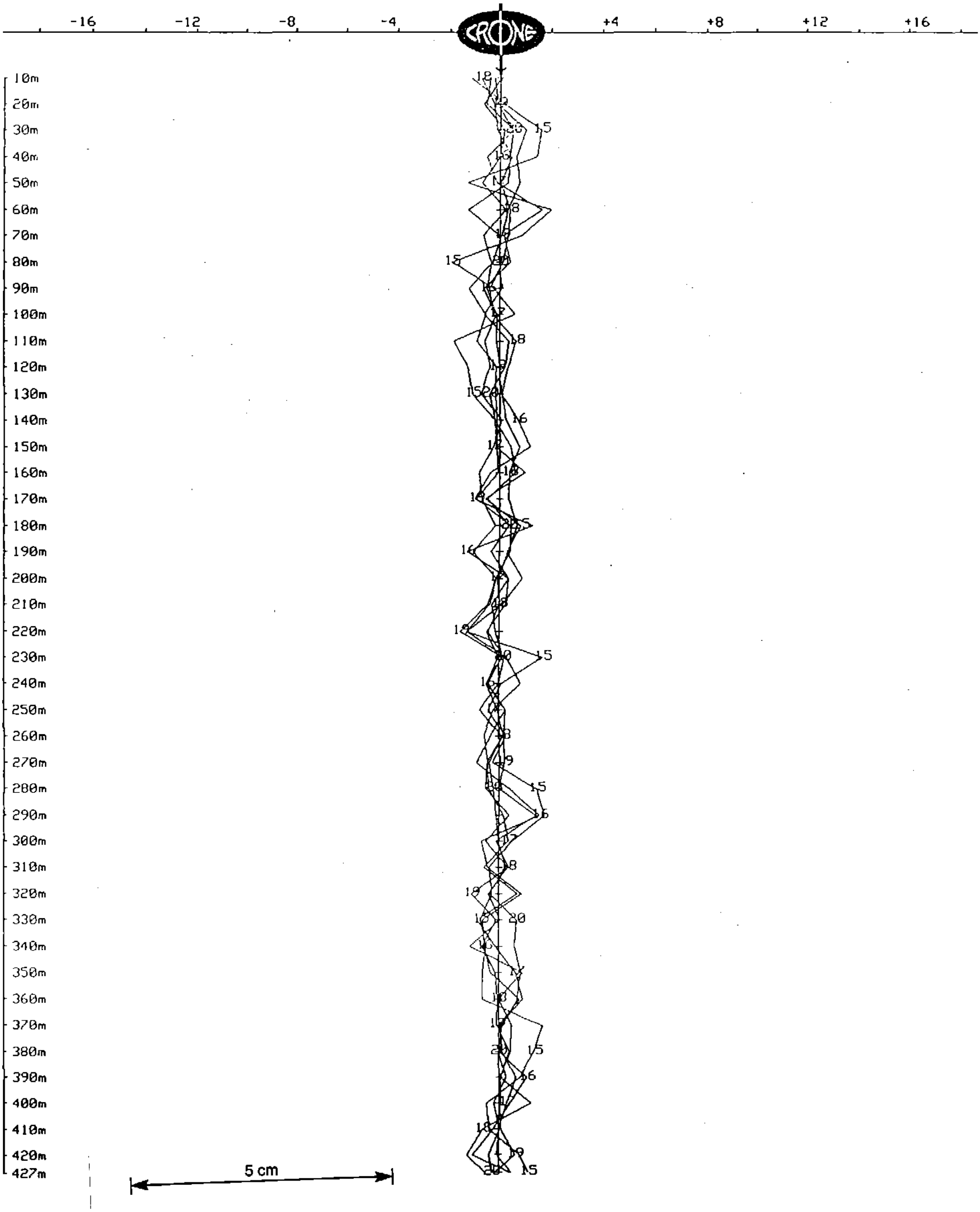
741254

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BPD83EXY.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
Y COMPONENT dBy/dt nanoTesla/sec - 20 channels

Scale: 1:2000 Unit Scale: 1cm = 2 nT/

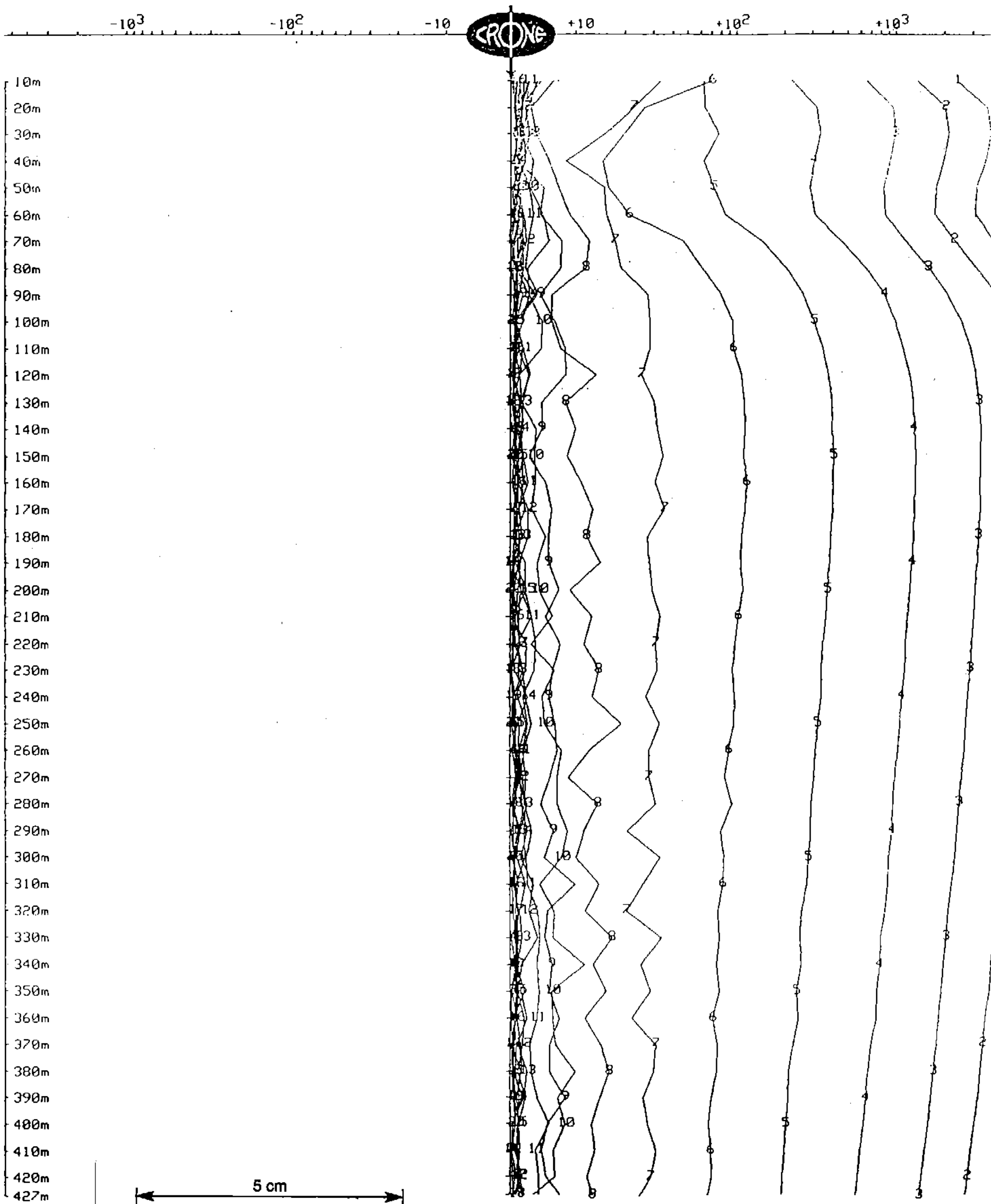


# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : East |
| Date | : Apr 28, 1995 | File name | : BP83EXYZ.PEM |

Data Corrected for Probe Rotation using Orientation Tool #2
TOTAL FIELD dBxyz/dt nanoTesla/sec - 20 channels

Scale: 1:2000



# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 25, 1995 | File name | : BPD83WZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 43 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 500m X 400m | Receiver | : Digital #108 |
| Current | : 5 Amps | Operator | : Kent Honner |

Loop Coordinates (X,Y,Z)

1. 7500m, 2490m, 0m
2. 8000m, 2490m, 0m
3. 8000m, 2911m, 0m
4. 7500m, 2911m, 0m

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

1. 7912m, 2896m, 0m
2. 130deg, 45deg, 15m
3. 130deg, 44.5deg, 33m
4. 130deg, 45.5deg, 33m
5. 129deg, 45.5deg, 39m
6. 129deg, 44deg, 39m
7. 130deg, 44deg, 30m
8. 130deg, 44deg, 46m
9. 131deg, 43.5deg, 47m
10. 131deg, 43.5deg, 30m
11. 131.5deg, 43deg, 38m
12. 131.5deg, 43deg, 50m
13. 132.5deg, 41deg, 30m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

General Comments

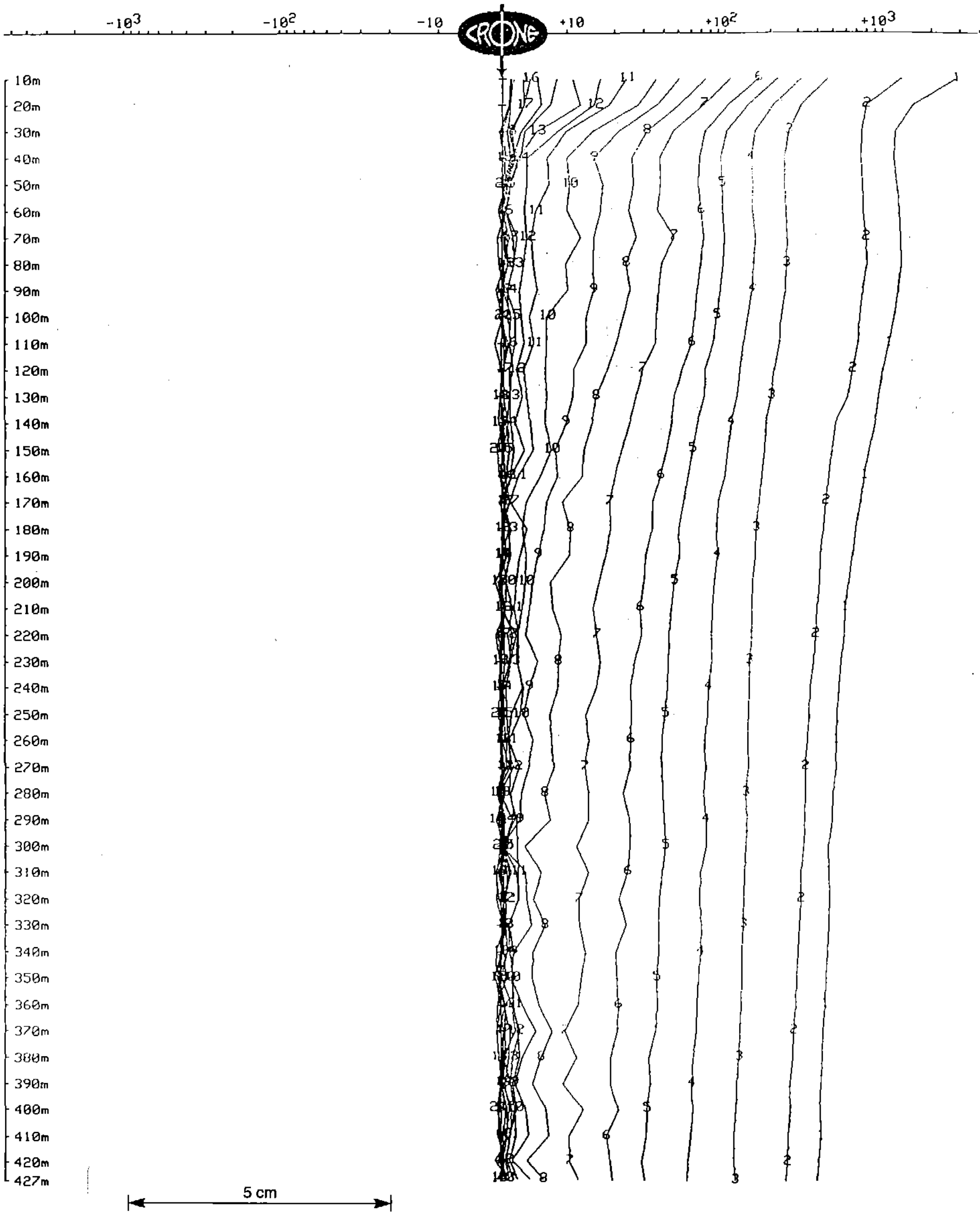
Client's wire, 22 Ohm resistance.
Wet and sloppy ground conditions.

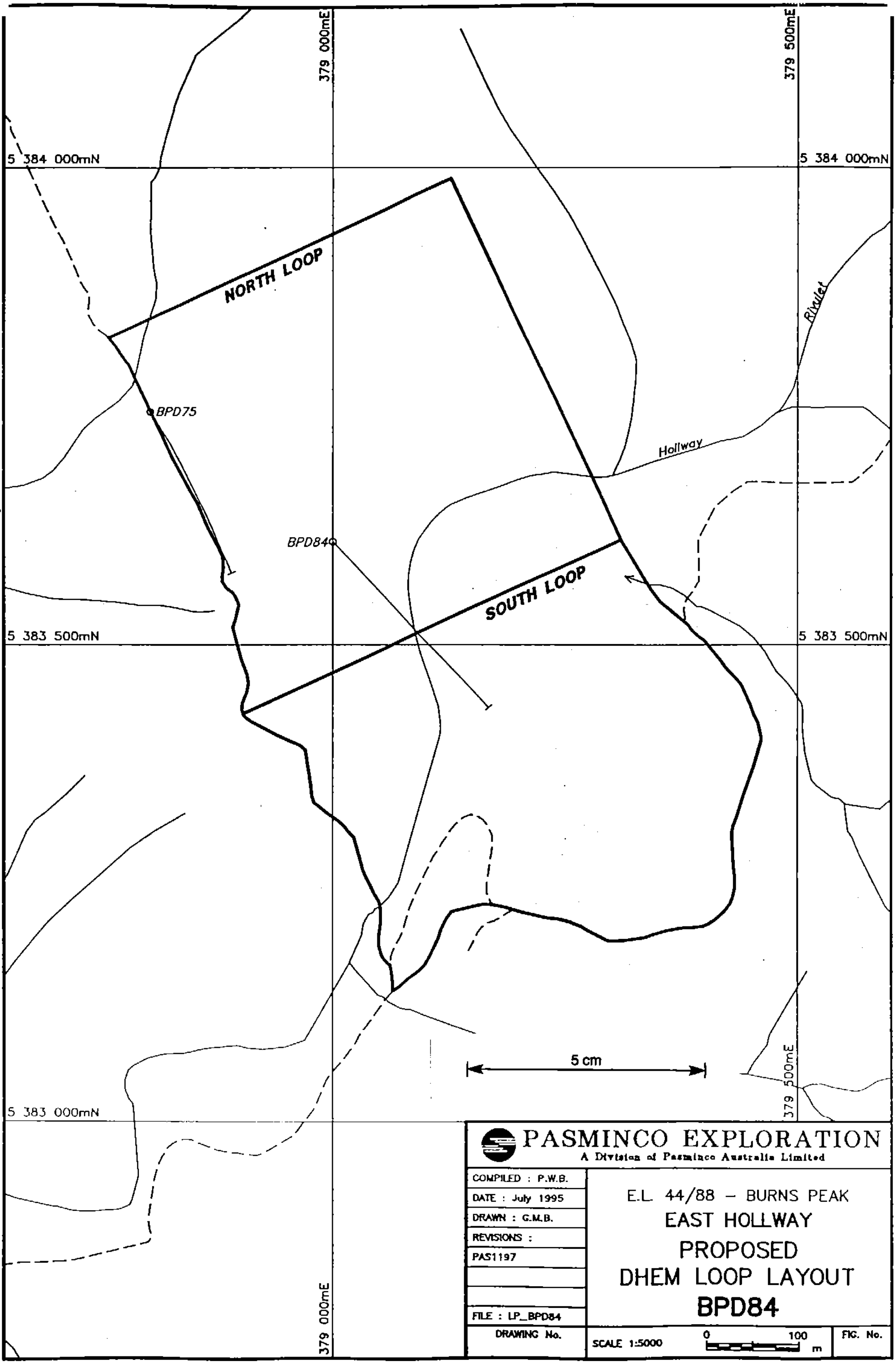
# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD83 |
| Grid | : Burn's Peak | Tx Loop | : West |
| Date | : Apr 25, 1995 | File name | : BPD83WZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

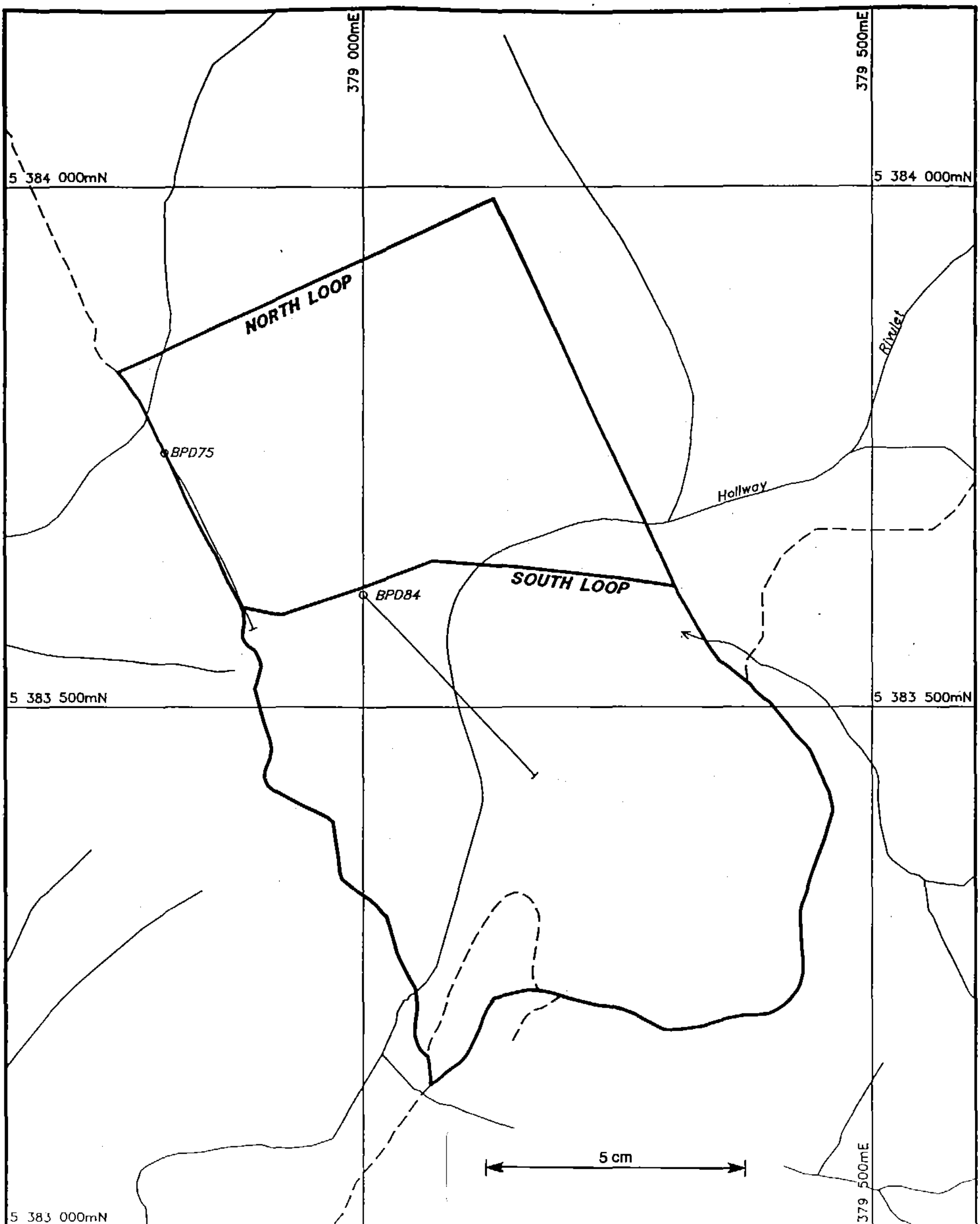
Scale: 1:2000






**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

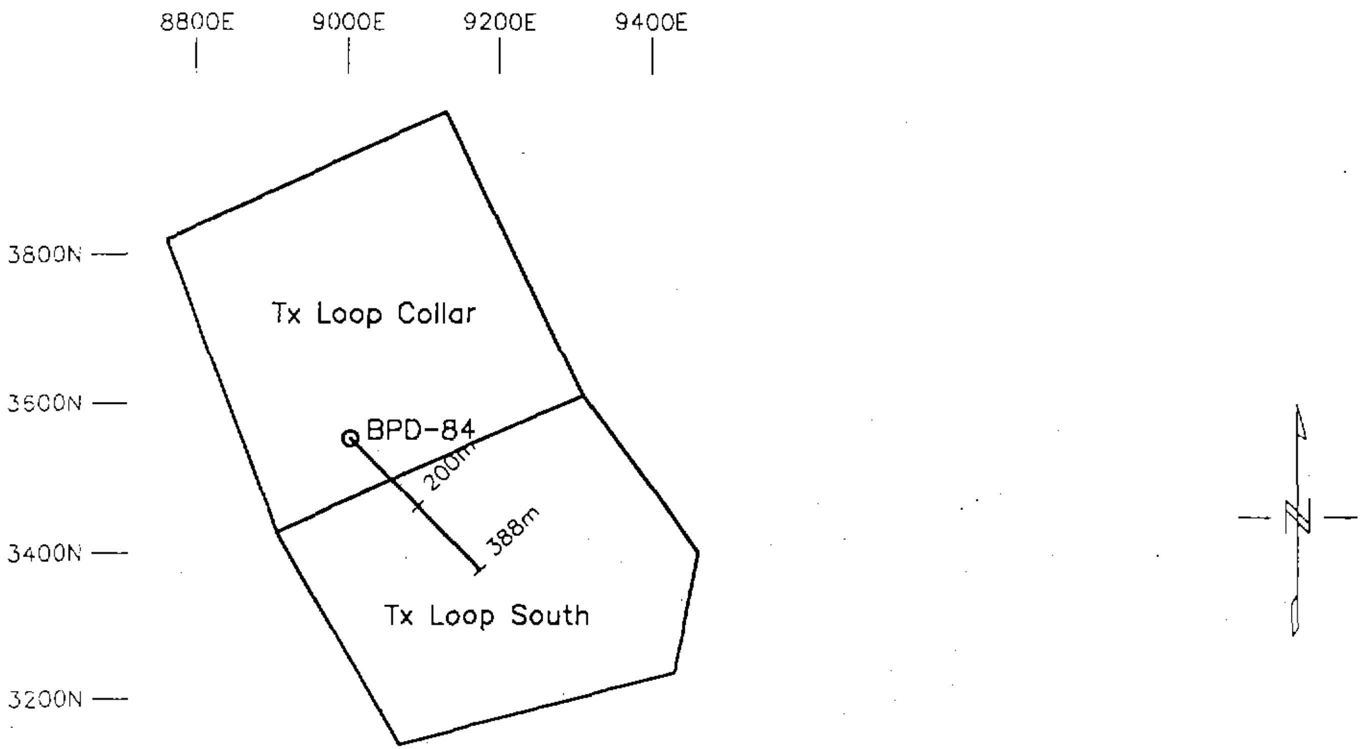
| | |
|---|---|
| COMPILED : P.W.B. | E.L. 44/88 – BURNS PEAK |
| DATE : July 1995 | EAST HOLLWAY |
| DRAWN : G.M.B. | PROPOSED |
| REVISIONS : | DHEM LOOP LAYOUT |
| PAS1197 | **BPD84** |
| FILE : LP_BPD84 | |
| DRAWING No. | SCALE 1:5000 0 100 m |
| | FIG. No. |




741259

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : P.W.B. | E.L. 44/88 – BURNS PEAK |
| DATE : July 1995 | EAST HOLLWAY |
| DRAWN : G.M.B. | **DHEM LOOP LAYOUT** |
| REVISIONS : | **BPD84** |
| PAS1198 | |
| FILE : LL_BPD84 | |
| DRAWING No. | SCALE 1:5000   0 – 100 m   FIG. No. |




INTENDED LOOP POSITIONS

5 cm

Scale 1:10000

100 0 100 200

(meters)

*Pasminco Exploration*

Burn's Peak

**3-D Borehole Pulse EM Survey**

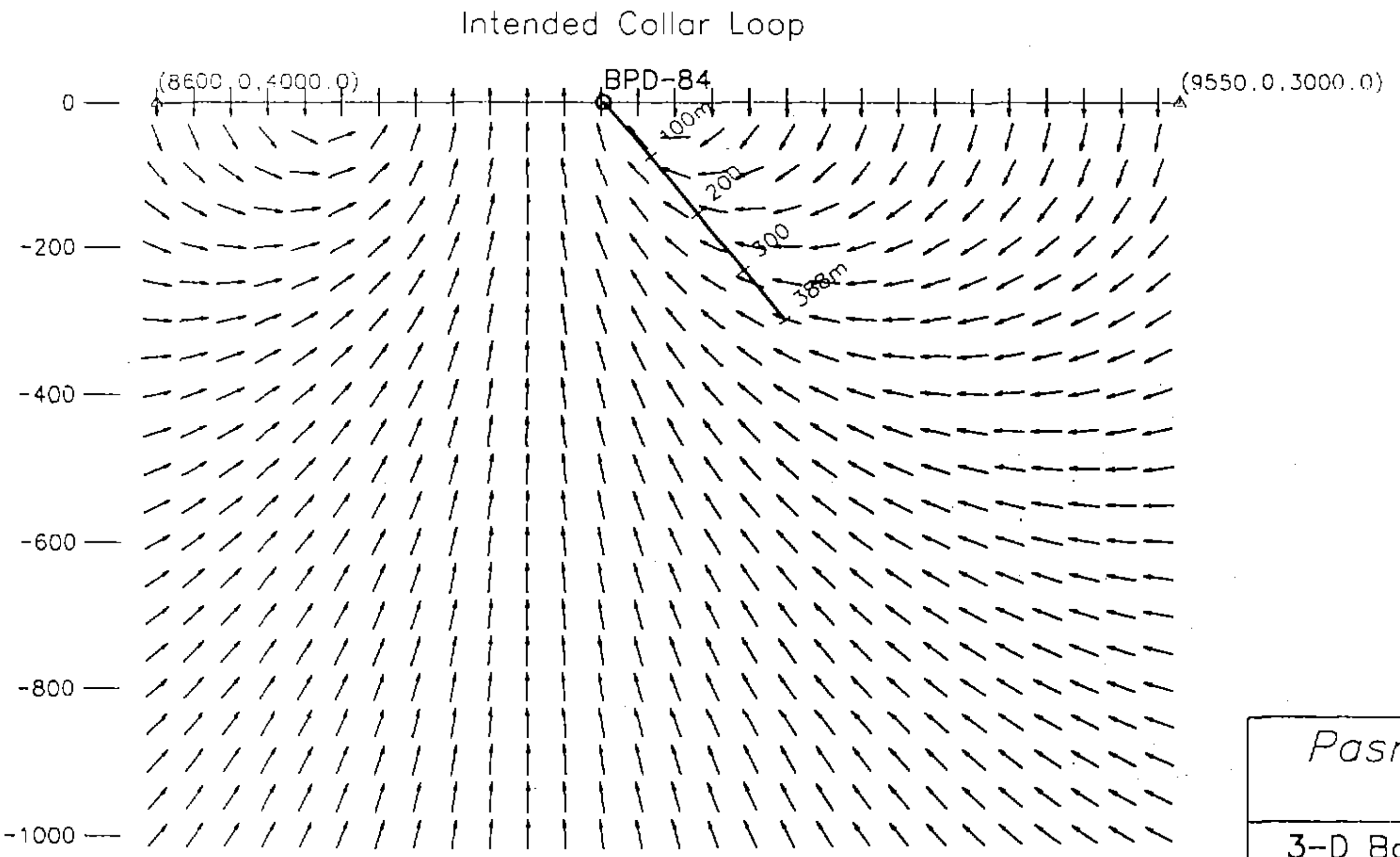
Borehole & Loop Location Map

Hole: BPD-84

Survey Date: May 16, 1995

***Outer-Rim Exploration Services***

**PAS197a**




5 cm

Scale 1:10000

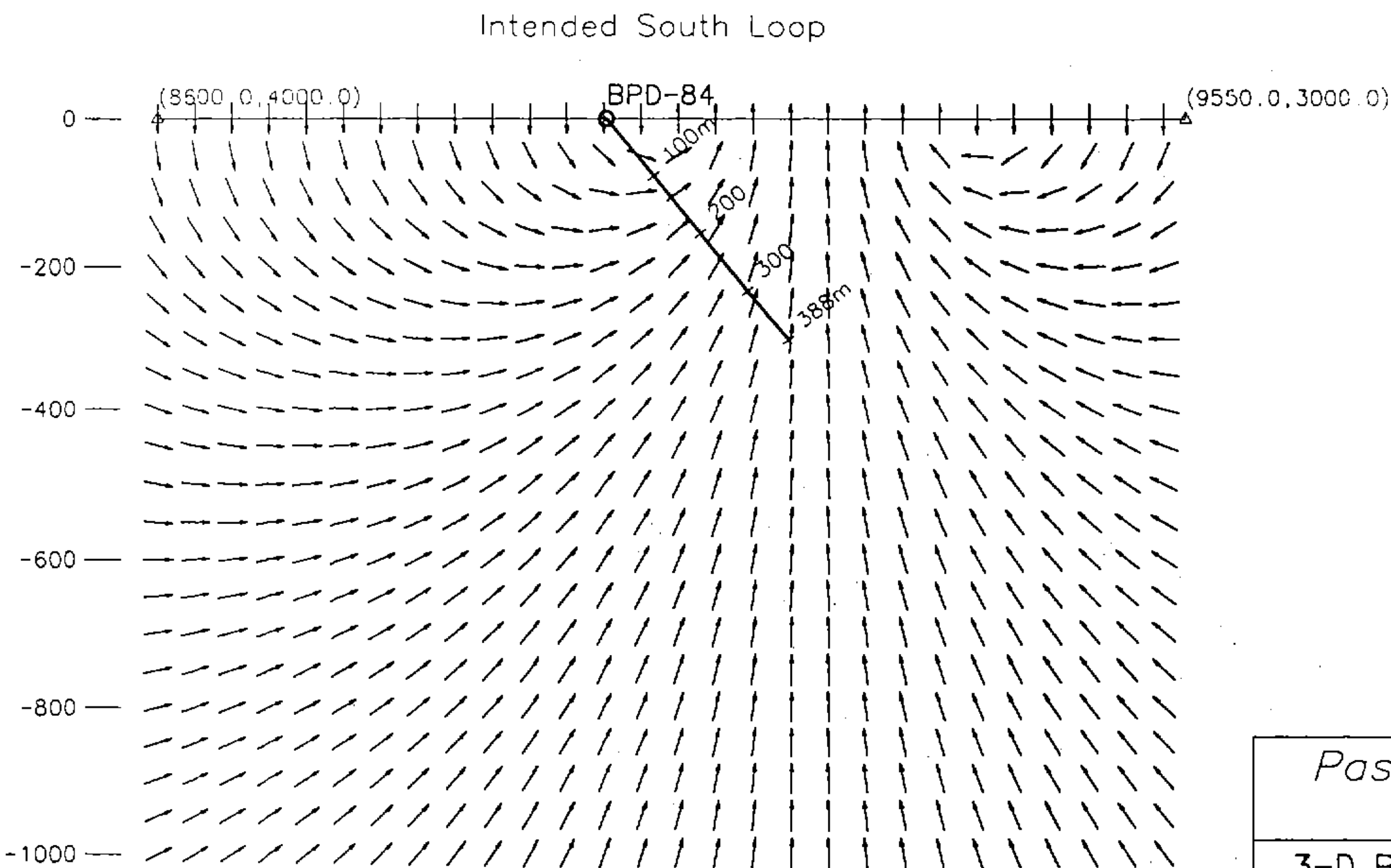
100 0 100 200

(meters)

PAS1197b

| |
|---|
| *Pasminco Exploration*<br>Burn's Peak |
| **3-D Borehole Pulse EM Survey**<br>Hole Section with Primary Field |
| Hole: BPD-84<br>Survey Date: May 16, 1995 |
| ***Outer-Rim Exploration Services*** |

741261




5 cm

Scale 1:10000

100 0 100 200

(meters)

*Pasminco Exploration*

Burn's Peak

3-D Borehole Pulse EM Survey

Hole Section with Primary Field

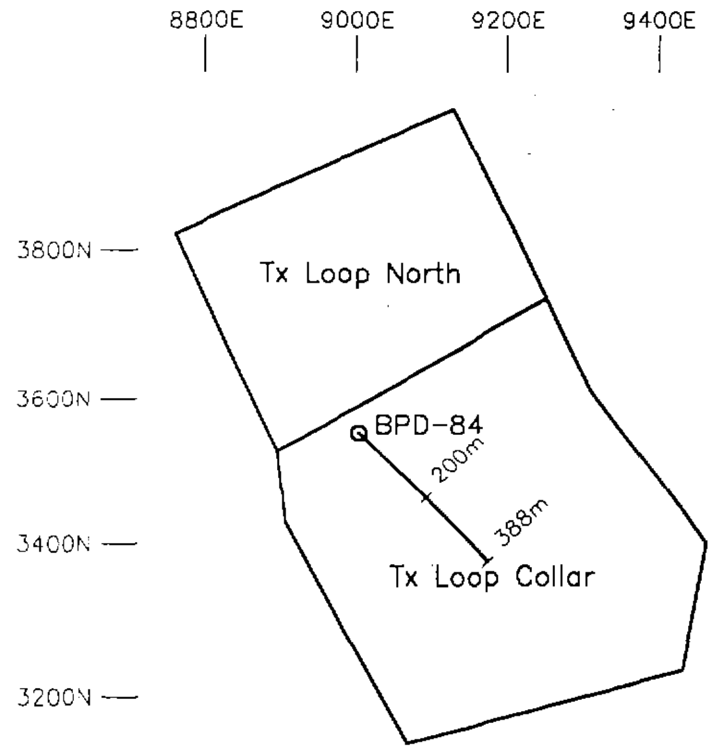
Hole: BPD-84

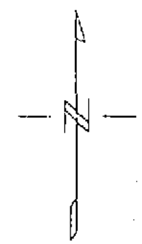
Survey Date: May 16, 1995

***Outer-Rim Exploration Services***

PAS197c

741262




"ACTUAL" LOOP POSITIONS

5 cm

Scale 1:10000

100 0 100 200

(meters)

*Pasminco Exploration*

Burn's Peak

**3-D Borehole Pulse EM Survey**

Borehole & Loop Location Map

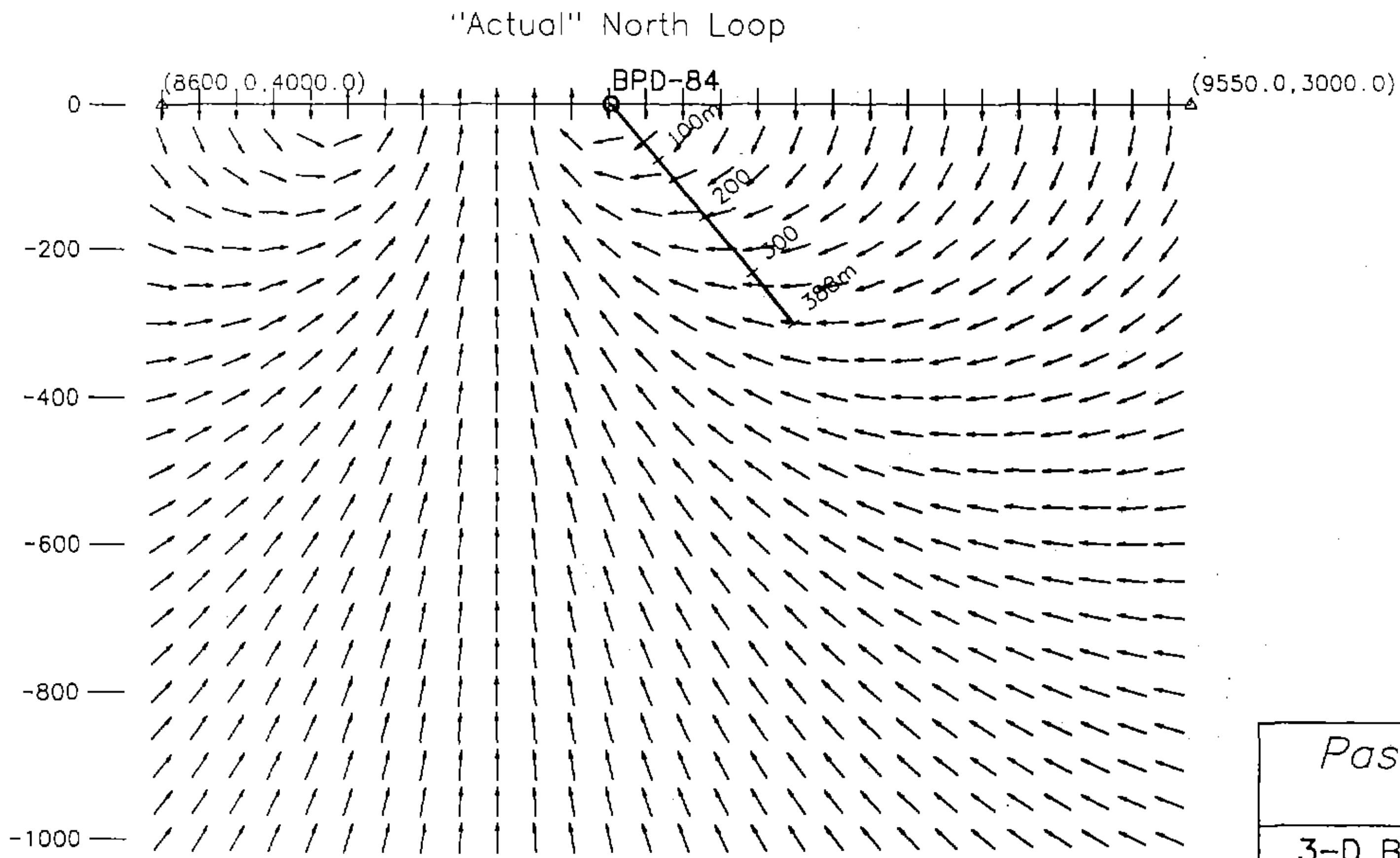
Hole: BPD-84

Survey Date: May 16, 1995

***Outer-Rim Exploration Services***

PAS198a

741263




5 cm

Scale 1:10000

100 0 100 200

(meters)

PAS198b

*Pasminco Exploration*

Burn's Peak

3-D Borehole Pulse EM Survey

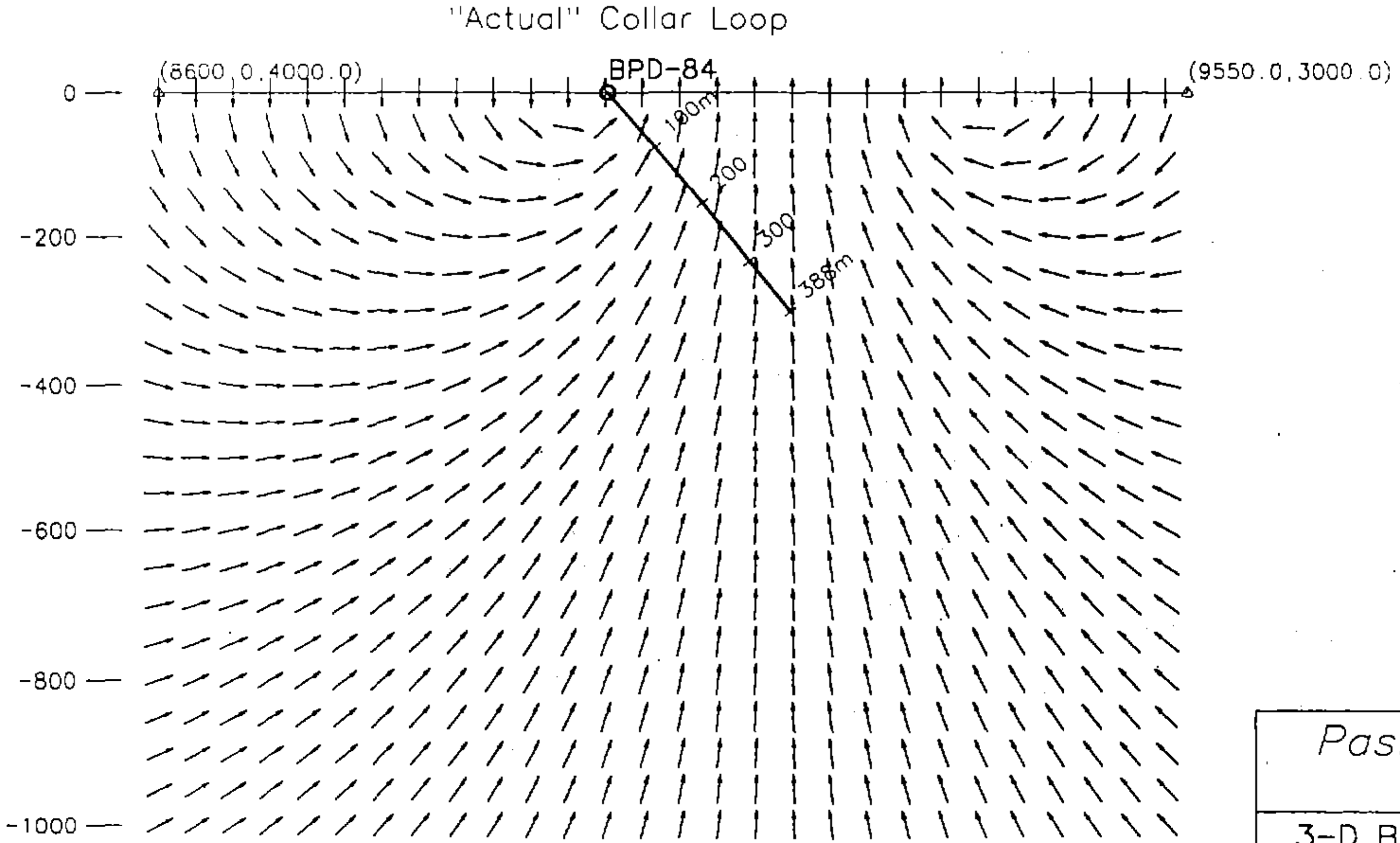
Hole Section with Primary Field

Hole: BPD-84

Survey Date: May 16, 1995

***Outer-Rim Exploration Services***

741264




PAS1198c

5 cm

Scale 1:10000

100 0 100 200

(meters)

| |
|---|
| *Pasminco Exploration*<br>Burn's Peak |
| 3-D Borehole Pulse EM **Survey**<br>Hole Section with Primary Field |
| Hole: BPD-84<br>Survey Date: May 16, 1995 |
| ***Outer-Rim Exploration Services*** |

741265

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-84 |
| Grid | : Burn's Peak | Tx Loop | : North |
| Date | : May 16, 1995 | File name | : BPD84NZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 39 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 400m | Receiver | : Digital #108 |
| Current | : 5 Amps | Operator | : Kent Honner |

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

1. 9003m, 3551m, 0m
2. 136deg, 50deg, 17m
3. 136deg, 51deg, 34m
4. 136deg, 51deg, 31m
5. 135.5deg, 51deg, 31m
6. 135deg, 51.3deg, 34m
7. 135deg, 51deg, 30m
8. 136deg, 51deg, 45m
9. 135deg, 51deg, 60m
10. 136deg, 51deg, 51m
11. 137deg, 51deg, 55m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

General Comments

Client's wire, 26 Ohm. Three-way junction opposite generator site

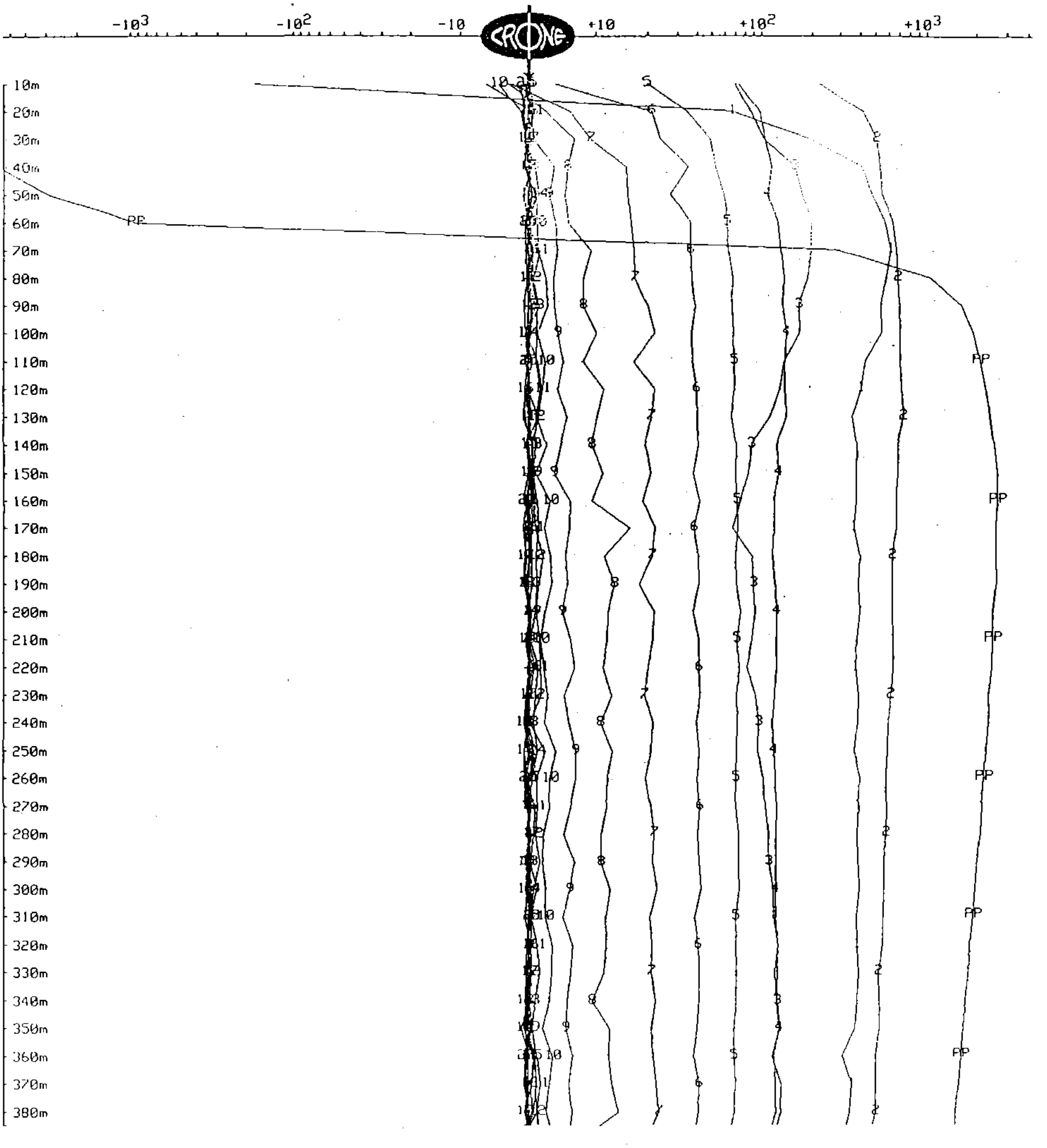
741267

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-84 |
| Grid | : Burn's Peak | Tx Loop | : North |
| Date | : May 16, 1995 | File name | : BPD84NZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000




5 cm

PAS1199

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-84 |
| Grid | : Burn's Peak | Tx Loop | : Collar |
| Date | : May 16, 1995 | File name | : BPD84CZ.PEM |
| Time Base | : 20.00 ms | # Readings | : 39 |
| Ramp Time | : 0.50 ms | Stn Units | : Metric |
| # Channels | : 20 | Coil Area | : 6500 sq m |
| Sync Type | : Cable | Polarity | : + |
| Loop Size | : 400m X 400m | Receiver | : Digital #108 |
| Current | : 5 Amps | Operator | : Kent Honner |

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

1. 9003m, 3551m, 0m
2. 136deg, 50deg, 17m
3. 136deg, 51deg, 34m
4. 136deg, 51deg, 31m
5. 135.5deg, 51deg, 31m
6. 135deg, 51.3deg, 34m
7. 135deg, 51deg, 30m
8. 136deg, 51deg, 45m
9. 135deg, 51deg, 60m
10. 136deg, 51deg, 51m
11. 137deg, 51deg, 55m

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 |
| 18 | 6646 | 8617 | 7632 | 19 | 8617 | 11170 | 9894 | 20 | 11170 | 14490 | 12830 |

General Comments

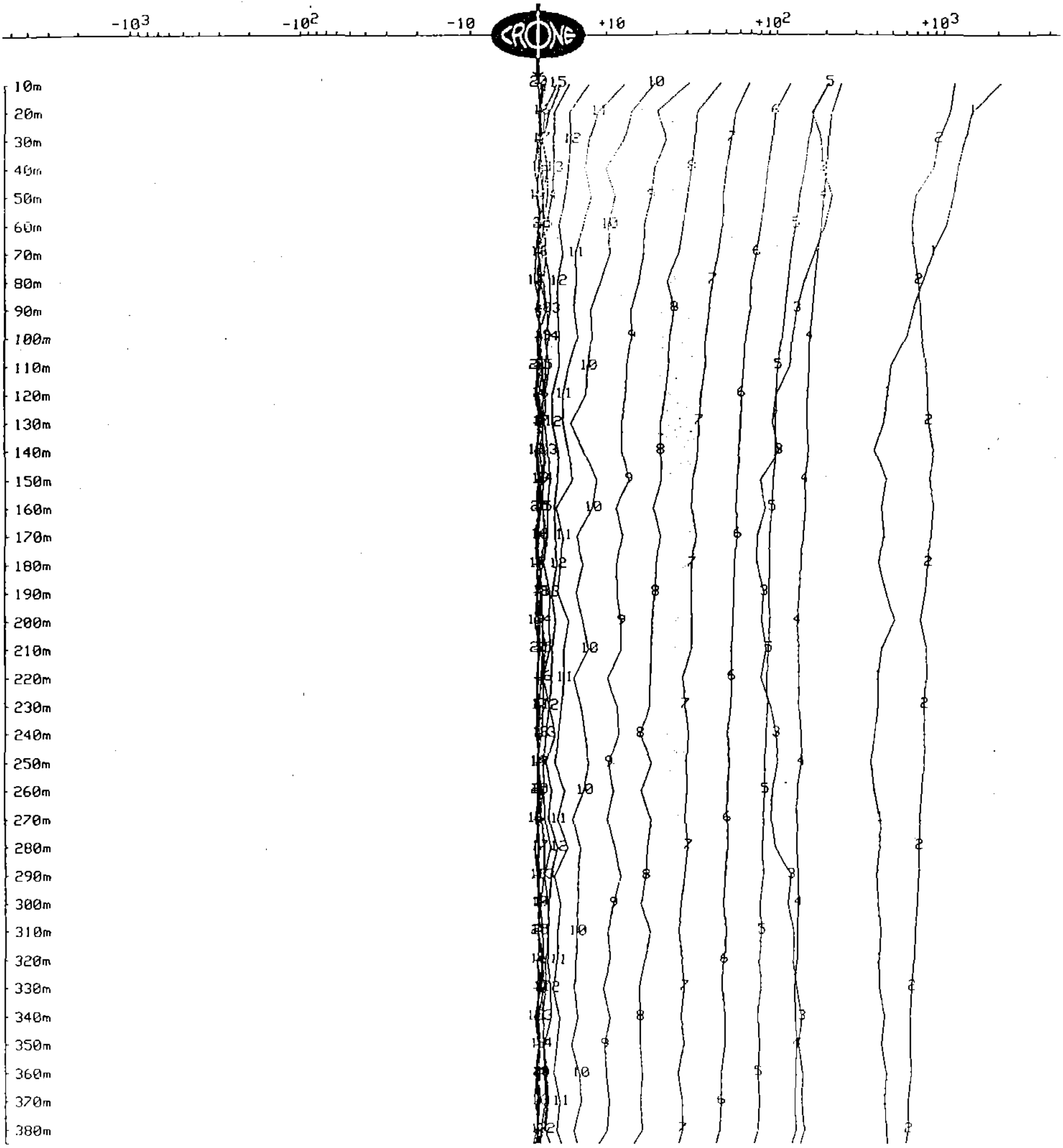
Client's wire, 26 Ohm. Three-way junction opposite generator site

# OUTER-RIM EXPLORATION SERVICES
## Operating Crone PEM System
## BOREHOLE PEM

| | | | |
|---|---|---|---|
| Client | : Pasminco Exploration | Hole | : BPD-84 |
| Grid | : Burn's Peak | Tx Loop | : Collar |
| Date | : May 16, 1995 | File name | : BPD84CZ.PEM |

Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1:2000




5 cm

# APPENDIX 7

## Thin Section Descriptions

ROGER POLTOCK
GEOLOGICAL

C/- P.O., WILMOT, TAS. 7310
Telephone: (004) 92 1343
92 1367
Facsimile: (004) 92 1131

# Mineral Exploration Contractor

741271

14/1/1995

Dr Tony Crawford
Geology Dept
University of Tasmania
PO Box 252C
Sandy Bay

Dear Tony

Please find enclosed 6 drill core samples (No 37776-37781) for petrological description from *Pasminco Exploration's EL44/88 Burns Peak.*

Samples are from stratigraphic equivalents of the White Spur Formation/ Southwell Subgroup in the Rosebery Fault Zone in drill holes BPD82 and EAF2 see plan, drill section and graphic log.

37776 Greywacke that may be a useful marker horizon. Are there any distinctive components ie clasts and accessory minerals?

37777 Mafic peperite?, the rock type is a very minor part of the sequence and the sample is representative of thickness. *Is it a basalt, what affinities might it have regionally and what is the* relationship with the enclosing rock.

37778 Andesite peperite or hyaloclastite? Is it an andesite and what regional affinities may it have. Does the sericitic material represent an altered glassy chilled contact.

37779 Pumiceous sandstone? what are the black spots.

37780 What is it? Why is it black? What is the alteration style? Is it similar to 37781?

37781 Same queries as for 37780.

I have called the last two samples pumice breccias but I really didn't have much evidence to support this with.

Monthp.wri



SAMPLE NUMBER: EL44/88 BPD82 167.9m 37776

SUMMARY DESCRIPTION:

This is a weakly foliated, hydrothermally-altered volcaniclastic sandstone that is poorly sorted, and matrix-supported. Major clasts include, in order of most- to least-abundant, lithic clasts, detrital quartz phenocrysts and detrital plagioclase phenocrysts. The detrital quartz and plagioclase phenocrysts are rarely larger than 1.5mm across. Quartz grains are always broken phenocryst fragments more typical of tuffs than of lavas. Plagioclase phenocrysts are totally replaced by sericite and most are blocky prisms typical of felsic volcanics. Lithic clasts are up to at least 5mm long, and most appear to have been very fine-grained tuff(?) or chert fragments. These are now typically composed of fine-grained silica and less abundant sericite. The matrix is a messy intergrowth of sericite and fine-grained silica, with common coarser-grained patches of secondary silica, and abundant overprinting brownish carbonate. Irregular patches and trails of reddish sphalerite are common, and disseminated fairly fine-grained pyrite is present, though probably less abundant than sphalerite.

This volcaniclastic sandstone is clearly derived from felsic tuffs and a distinctive fine-grained chert or tuff unit. It has suffered significant hydrothermal alteration and minor disseminated mineralization.

SAMPLE NUMBER: EL44/88 BPD82 240.9m 37777 741273

SUMMARY DESCRIPTION:

This sample is of a contact between an aphyric mafic to intermediate dyke or sill, and a crystal-rich volcaniclastic sandstone. The latter is dominated by 1-2mm-sized detrital albitized plagioclase phenocrysts, rare small quartz phenocrysts that are rounded and reacted, and occasional lithic clasts of formerly glassy felsic lava that are replaced almost totally by silica and minor sericite. The matrix was probably dominated by vitric ash, and has altered to a heterogeneous-textured quartz±sericite±chlorite mixture with occasional patches of notably coarser-grained secondary silica. Calcite is common overprinting both matrix and framework grains in this sandstone.

The dyke or sill is chilled for 0.5-5mm width along a very irregular contact with the sandstone. It is essentially aphyric, and is holocrystalline, with the grainsize increasing strikingly away from the chilled margin. The rock consists of albitized plagioclase prisms, chlorite after augite and probably filling interstices, and tiny altered FeTi oxides. Calcite overprints the dyke rock, and brownish-red sphalerite is disseminated through both the dyke and the sandstone. Minor disseminated pyrite also occurs in the sandstone.

This is almost certainly a 'Henty Dyke Swarm' type evolved basaltic dyke; it clearly intrudes the host sandstone, and is not a lava.

SAMPLE NUMBER: EL44/88 BPD82 258.3m 37778 741274

SUMMARY DESCRIPTION:

This is a striking and distinctive highly vesicular mafic to andesitic lava with fuchsitic alteration in places in the hand specimen. Vesicles to 4mm long are common, and filled by polycrystalline quartz. Abundant former mafic phenocrysts sites, some with shapes suggestive of olivine, others clearly former augite crystals, are also filled with fine-grained silica. Albitized plagioclase microphenocrysts are quite common, and are set in a strong- but patchily-altered groundmass of plagioclase microlites in altered glass; alteration is mainly sericite-silica, and quite coarse-grained secondary sphene is relatively common. A few ragged quartz veinlets cut the rock, and fine-grained pyrite is disseminated through the sample, and occurs along stylolite-like zones of pressure solution. A single coarse lithic fragment consists of large detrital quartz and albite phenocrysts with interstitial chlorite.

This rock really puzzles me. The nearest thing I have seen to it is the typical Hellyer hangingwall basalts. The abundance of mafic phenocrysts contrasts strongly with the Henty Dyke Swarm basalts. An analysis of this rock (at least for Cr, $P_2O_5$, $TiO_2$ and Zr) would be informative.

SAMPLE NUMBER: EL44/88 BPD82 463.4m 37779
SUMMARY DESCRIPTION:

This strongly sericite-silica-altered sample was probably a crystal vitric tuff, or a very proximal fine-grained sediment dominated by vitric ash and occasional detrital quartz phenocrysts. The latter make up about 1 modal% of this rock, are usually <<1mm across, and are typically broken or slightly rounded and resorbed. A few detrital(?) plagioclase crystals are totally sercitized, and the few dark spots visible in the hand specimen are dark shaley clasts or fragments with common wispy black graphite(?) spots. An intense mesh of sericite pervades the matrix of this rock, which consists of recrystallized quartz-dominated areas separated by zones of intense sericite alteration. This has produced almost a microscopic 'false brecciation'. Disseminated pyrite is not uncommon.

SAMPLE NUMBER: EL44/88 BPD82 468.7m 37780
SUMMARY DESCRIPTION:

This sample is clearly a very recrystallized and hydrothermally altered pumice breccia. Fragments to almost 1cm long sometimes retain tube pumice textures, and one or two more vesicular fragments are also present. Sparse quartz and plagioclase (albite) phenocrysts are present, the former showing marginal reaction with the strongly silica-altered glassy matrix, which has recrystallized almost entirely to medium- to fine-grained polycrystalline silica with abundant spots and wisps of amorphous blackish brown material (that gives the rock its dark colour). Without detailed work, it is not possible to identify this black stuff. It could be graphitic material, or an extraordinarily dark messy carbonate, or messy secondary Fe oxides, although I don't favour the latter possibility. Secondary calcite overprints the sample as small spots and a single 2mm-wide veinlet.

SAMPLE NUMBER: EL44/88 EAF2 493m 37781
SUMMARY DESCRIPTION:

Although somewhat coarser-grained than 37780, this sample is basically similar to it in that it is a strongly altered felsic pumice breccia. Occasional tube pumice textures are preserved despite almost total recrystallization of all the glass in the sample to very fine-grained silica. A few quartz and albite phenocrysts are preserved also, but strong calcite alteration overprints the rock, and the same fine-grained amorphous black material present in 37780 is scattered through this sample, sometimes intergrown with calcite. A single large clast of the same dark shaley material noted in 37779, complete with wispy graphite spots, is also present in this rock.

18 July 1995

TONY CRAWFORD
UNIVERSITY OF TASMANIA
SANDY BAY

PASMINCO
EXPLORATION

A Division of Pasminco Australia Limited,
A.C.N. 004 074 962

Old Burnie Railway Station
Burnie, Tasmania 7320
G.P.O. Box 886
Burnie, Tasmania 7320

741276

Tony

I am about to begin taking a serious look at the Hollway Andesite. I have a swag of problems to solve and would appreciate your input in solving them.

I require the following questions answered:

1) are the sediments which occur below the Hollway Andesite Animal Creek Greywacke equivalents?

2) are the felsic volcanics which lie below the Andesite CVC?

3) is the H.A. Hellyer footwall/hangingwall/neither?

4) are the felsic volcanics above the H.A. Sock Creek dacite equivalent?

Could you suggest the best mechanism of solving the problems, and I will set about getting the data together.

I have included a few samples for description, plus a map of where they are from. They are the sediments immediately ~~map~~ below the H.A., and I map them as AC Greywacke equivalents. Is this the case?

Even if you dont get this work done by the end of the month, could you bill us for it, as I accrued money in last financial years budget to cover it, but the money will be lost if the account isn't ~~b~~ paid by end of July.

Thanks

Mark Saxon.

Telephone: (004) 317 477 Facsimile (004) 318 949

**SAMPLE NUMBER: Pasminco 36121**

741277

**SUMMARY DESCRIPTION:**

This sample is a basaltic lava with a regional prehnite-pumpellyite burial metamorphic overprint dominated by murky microcrystalline epidote. Phenocrysts of plagioclase, augite and olivine were all presence, although plagioclase and augite (~3-5 modal% each) were clearly more abundant than the former olivine phenocrysts. Plagioclase phenocrysts were up to 4mm long, and all were tabular to blocky crystals that are now albitized, and largely replaced by fine-grained epidote with occasional spots of more granular epidote, as well as chlorite and anhedral quartz. Former augite and olivine phenocrysts are mainly <1mm long, and are entirely replaced by pale green chlorite that in many crystals is strongly oxidized and replaced by reddish Fe-stained clayey material.

The texture of the groundmass of this sample is almost impossible to decipher because of the pervasive microcrystalline epidote replacement. However, common leucoxene-altered granular former FeTi oxides, and common chloritized equant augite laths suggest that the rock may have been either from the core of a thick flow, or from a shallow dyke or sill. Spots of secondary quartz are common, chlorite is less abundant, and coarser, granular epidote is not uncommon in the groundmass.

This is definitely a basaltic rock, although whether it is a lava or a shallow intrusive is difficult to determine on thin section evidence alone. The rock is far more mafic than any Central Volcanic Complex andesite that I am aware of, and also appears more mafic than typical Que Footwall Andesites. It should be correlated with the more evolved members of the Hellyer Basalt spectrum; obviously, this could be tested by a wholerock analysis.

**SAMPLE NUMBER: Pasminco 36123** 741278

**SUMMARY DESCRIPTION:**

This sample is a particularly distinctive volcaniclastic fine sandstone, unlike any that I have seen before in the Mount Read Volcanics. It is composed essentially of clasts of altered and devitrified pumice, most less than a few mm long, but several to 1cm long, set in a thoroughly recrystallized matrix presumably derived from vitric ash. Detrital grains in the rock include common quite large muscovite grains and some angular quartz grains with undulose, strained extinction, but by far the major detrital component is brownish, altered pumice clasts, *along with chips and shards in which bubble wall textures are preserved.* The vitric ash matrix has recrystallized to a fine-grained quartzose intergrowth from which abundant slightly coarser, ragged quartz grains are growing. Weathered, goethitic(?) reddish material replacing occasional small former pyrite crystal sites is not uncommon.

This sample has suffered strong alkali depletion, indicated by the apparent absence of feldspar. It was originally a proximal volcaniclastic fine sandstone containing occasional much coarser clasts of pumice. The composition of the latter is difficult to determine now, as they are totally replaced by silica. However, several of the larger clasts contain small former phenocryst sites that appear to have been mafic rather than plagioclase crystals. It can't be ruled out that the pumice was andesitic to basaltic in composition. The abundant detrital muscovite and strained quartz indicates an input from pelitic metamorphics.

**SAMPLE NUMBER: Pasminco 36124**
**SUMMARY DESCRIPTION:**

This sample is a well-bedded siltstone with interbedded finer and coarser bands on a scale of ~ 1cm. The rock is dominated by silt- to finer-grained detrital grains of angular quartz and muscovite, and is clearly matrix-supported. The matrix itself volumetrically dominated the rock, and is a murky intergrowth in which secondary sericite is abundant. Other notable features of this rock are:

1: the presence of small spheroidal to ovoid darker spots of 'even more murky' material that presumably represent sites of concretionary concentration of submicroscopic epidote and/or carbonate,
2: a pronounced bedding-parallel stylolitic parting defined by wavy concentrations of black insoluble material (and possibly also carbonaceous graphitic? material) produced by volume loss associated with pressure solution,
3: coarser-grained, notably ragged-edged aggregates of black very fine-grained opaque material that does not appear to be fine-grained pyrite. A polished section would be required to identify this opaque, although it may be a secondary Fe oxide-hydroxide after diagenetic pyrite.

Despite its greenish colour, this sample appears to contain no volcanic-derived detritus, and may have been sourced entirely from pelitic metamorphics.

**SAMPLE NUMBER: Pasminco 41446**
**SUMMARY DESCRIPTION:**

This sample is a slightly graded matrix-supported and poorly sorted fine sandstone derived dominant from a source supplying angular quartz and relatively coarsely crystalline muscovite (flakes to 0.4mm long). Detrital quartz and muscovite probably make up around 30-40 modal% of this sample. Quartz is particularly angular, often polycrystalline, and has undulose extinction in most grains. However, a small population of grains with sharp extinction is present, and may be derived from broken quartz phenocrysts; they show no relic crystal faces to support this possibility. Small detrital grains of pale green tourmaline, zircon and brownish sphene are present, and a few lithic clasts composed of fine-grained microcrystalline cherty silica are also obvious. The matrix of this sample is an extremely fine-grained quartzose intergrowth with common tiny granular spots and crystallites of sericite. Although some detrital component from a volcanic source cannot be ruled out, this rock was sourced dominantly from pelitic metamorphics.

**SAMPLE NUMBER: Pasminco 41449**

**SUMMARY DESCRIPTION:**

This sample is petrographically almost identical to the preceding sample. The only possible difference is that it is slightly coarser-grained on average, and it may contain a slightly higher proportion of cherty lithic clasts compared with 41446. In places, the sericite in the matrix of this rock is rather Fe-stained and orange-brown. Three or four 1-3mm-sized concretionary concentrations of pyrite are now composed of tiny granules of an opaque phase; concretion sites overprint bedding, contain both detrital quartz and muscovite, and are clearly a diagenetic feature. This rock could be from the same bed as 41446, and is strikingly similar to that rock.

**SAMPLE NUMBER: Pasminco 41450**

**SUMMARY DESCRIPTION:**

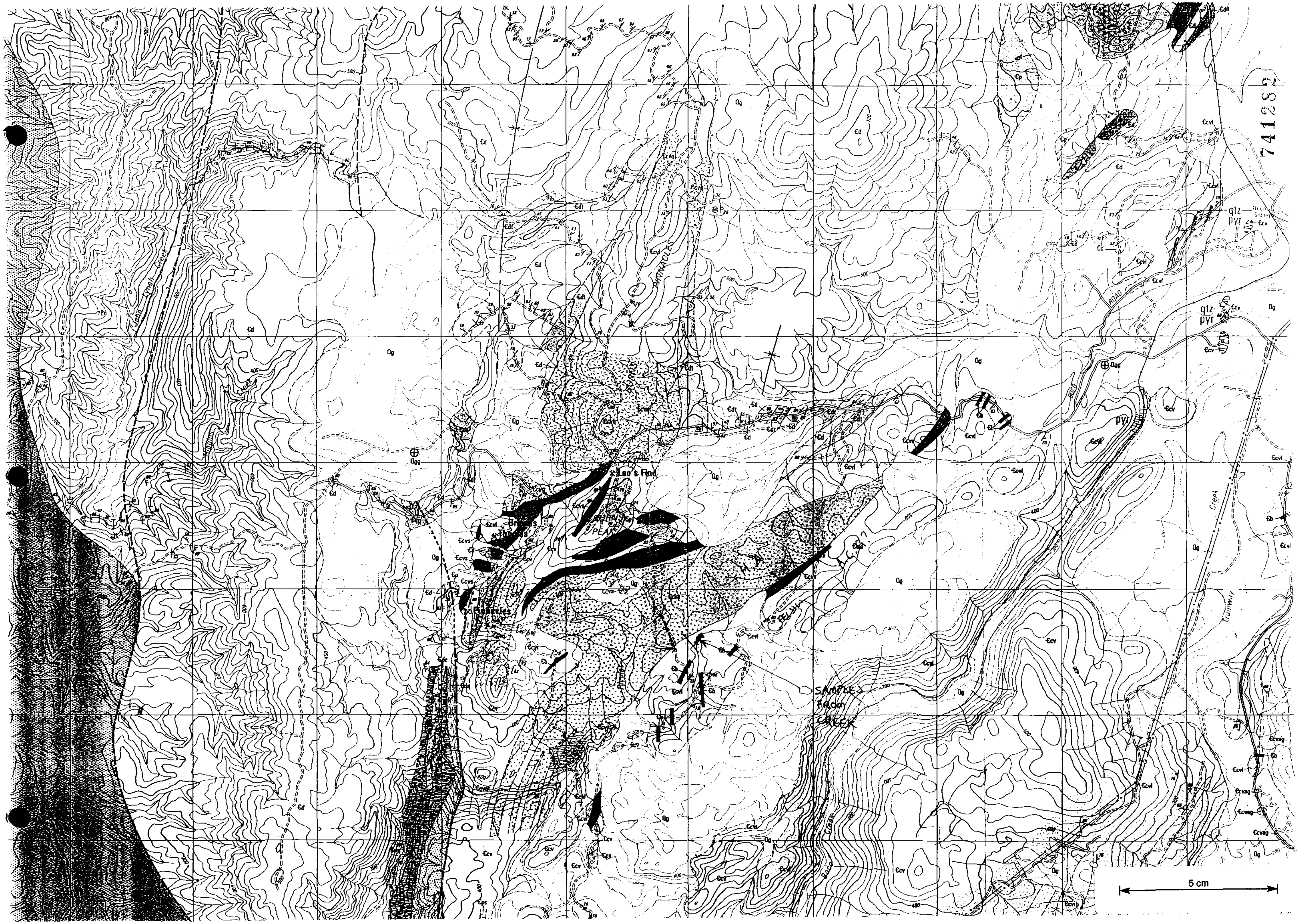
This sample is a siltstone to fine sandstone, and is petrographically intermediate between the bedded siltstone (36124) and the slightly coarser-grained sandstones 41446 and 41449. It contains much less framework grains than the preceding sandstones, probably only 5-10% of the rock consists of angular detrital quartz and some muscovite. The matrix is fine-grained, and pervaded by recrystallized sericite and quartz, and contains quite abundant very fine-grained and randomly distributed opaque material that may be partly carbonaceous and partly altered Fe oxides or altered pyrite. Brittle fractures through the rock have strongly focussed oxidation and are marked by orange-yellow Fe-sained sericite. Again, I can't convince myself that there was a significant volcanic input into this sedimentary rock, which presumably belongs to the same sequence as 36124, and 41446 and 41449.

**SAMPLE NUMBER: Pasminco 41455**

**SUMMARY DESCRIPTION:**

This sample was a coarsely plagioclase-phyric glassy felsic lava. Large (to 4mm long) albitized plagioclase prisms are abundant (~30 modal%), and are unusually free of sericite or other alteration. They often occur in multi-crystal clots of several crystals. There appear to have been no former mafic silicate phenocrysts in this rock, and not uncommon small former FeTi oxides are replaced by leucoxenitic material. Occasional aggregates of spindle-shaped secondary sphene crystals have grown during alteration of this sample. The groundmass of this sample was probably originally glassy. It has devitrified to a very fine-grained quartzo-feldspathic intergrowth, and where it has been intersected by microshears and zones of localized high strain, the groundmass has recrystallized to a coarser-grained usually ragged-textured intergrowth of quartz and feldspar. In places, pale green chlorite is intergrown with quartz, along with tiny hexagonal prisms of some phase that has been replaced by goethite, or plucked from the slide in most cases. Narrow quartz veinlets are common cutting this slide.

This unusual coarsely plagioclase-phyric dacitic to rhyolitic lava is atypical of Tyndall/Southwell Subgroup lavas, in which quartz is almost always present as a phenocryst phase. It is more typical of the dacites in the Central Volcanic Complex, and those occasional dacites interbedded within the Hellyer Basalt and Que Footwall Andesites.



74128
Leo's Find
PINNACLE
SAMPLES FROM CREEK
qtz pyr
5 cm

741283

**APPENDIX 8**

**Rock Chip Locations, Descriptions and Assay Results**

## LOCATION AND ASSAY DATA FOR ROCK CHIP, THIN SECTION AND LITHOGEOCHEMISTRY SAMPLES

| SAMP NO | EASTING | NORTHING | HOLE | FROM | TO | Zn | Pb | Cu | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36155 | 379060 | 5383237 | | - | - | 77 | 53 | 8 | <1 | 0.01 | 1.29 | 102 |
| 36156 | 379065 | 5383241 | | - | - | 146 | 98 | 10 | <1 | <0.008 | 1.55 | 58 |
| 36157 | 379085 | 5383295 | | - | - | 26 | 38 | 12 | 1 | 0.02 | 3.40 | 209 |
| 36158 | 379075 | 5383263 | | - | - | 50 | 66 | 15 | 1 | 0.03 | 4.69 | 356 |
| 41403 | 379044 | 5383509 | BPD84 | 94.80 | 95.10 | | | | | | | |
| 41404 | 379050 | 5383503 | BPD84 | 107.40 | 107.70 | | | | | | | |
| 41405 | 379055 | 5383497 | BPD84 | 119.90 | 120.10 | | | | | | | |
| 41406 | 379087 | 5383466 | BPD84 | 190.10 | 190.30 | | | | | | | |
| 41407 | 379094 | 5383458 | BPD84 | 207.60 | 207.80 | | | | | | | |
| 41408 | 379117 | 5383435 | BPD84 | 260.10 | 260.30 | | | | | | | |
| 41409 | 379128 | 5383424 | BPD84 | 283.95 | 284.15 | | | | | | | |
| 41414 | 377946 | 5382869 | BPD83 | 59.80 | 60.30 | | | | | | | |
| 41415 | 377969 | 5382850 | BPD83 | 103.40 | 103.70 | | | | | | | |
| 41417 | 378013 | 5382814 | BPD83 | 182.60 | 182.90 | | | | | | | |
| 41418 | 378036 | 5382794 | BPD83 | 224.90 | 225.20 | | | | | | | |
| 41419 | 378058 | 5382776 | BPD83 | 264.60 | 264.90 | | | | | | | |
| 41422 | 378086 | 5382751 | BPD83 | 315.70 | 315.90 | | | | | | | |
| 41423 | 378108 | 5382732 | BPD83 | 356.10 | 356.40 | | | | | | | |
| 41435 | 379076 | 5383477 | BPD84 | 166.10 | 167.10 | 93 | 7 | 9 | <1 | <0.008 | 3.22 | 1952 |
| 41436 | 379077 | 5383476 | BPD84 | 167.10 | 168.10 | 596 | 103 | 10 | <1 | 0.01 | 2.64 | 1422 |
| 41437 | 379075 | 5383260 | | | | 50 | 66 | 19 | 1 | 0.04 | 3.09 | 709 |
| 41438 | 379077 | 5383261 | | | | 398 | 890 | 34 | 2 | 0.01 | 2.59 | 1384 |
| 41439 | 379077 | 5383262 | | | | 2106 | 2410 | 115 | 3 | 0.04 | 4.08 | 443 |
| 41440 | 379075 | 5383264 | | | | 62 | 87 | 23 | 3 | 0.24 | 1.75 | 161 |
| 41441 | 379093 | 5383324 | | | | 62 | 32 | 18 | <1 | <0.008 | 1.84 | 688 |
| 41442 | 379100 | 5383340 | | | | 71 | 29 | 18 | 1 | 0.01 | 1.61 | 853 |
| 41443 | 379110 | 5383383 | | | | 62 | 51 | 18 | 5 | 0.7 | 1.26 | 127 |
| 41444 | 379110 | 5383383 | | | | 127 | 103 | 15 | 2 | 0.03 | 1.01 | 94 |
| 41445 | 379120 | 5383413 | | | | 76 | 78 | 16 | 24 | 0.96 | 1.04 | 85 |

482147

| SAMP NO | EASTING | NORTHING | HOLE | FROM | TO | Zn | Pb | Cu | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41446 | 379115 | 5383440 | | | | 3124 | 70 | 55 | 1 | 0.01 | 2.55 | 497 |
| 41447 | 379110 | 5383448 | | | | 92 | 44 | 9 | 1 | <0.008 | 1.90 | 321 |
| 41448 | 379105 | 5383475 | | | | 291 | 463 | 40 | 1 | <0.008 | 5.00 | 1339 |
| 41449 | 379105 | 5383470 | | | | 100 | 38 | 16 | 1 | <0.008 | 4.30 | 551 |
| 41450 | 379110 | 5383468 | | | | 93 | 44 | 12 | <1 | <0.008 | 4.00 | 3215 |
| 41451 | 375110 | 5383465 | | | | 179 | 53 | 26 | 1 | <0.008 | 5.00 | 1404 |
| 41452 | 375113 | 5383460 | | | | 199 | 221 | 17 | 7 | 0.01 | 3.07 | 1382 |
| 41453 | 375115 | 5383466 | | | | 212 | 77 | 17 | 1 | <0.008 | 3.34 | 2367 |
| 41454 | 379095 | 5383505 | | | | 936 | 263 | 65 | 1 | 0.01 | 8.20 | 2249 |
| 41455 | 379100 | 5383348 | | | | 46 | 64 | 7 | 1 | 0.01 | 1.45 | 811 |
| 41460 | 379029 | 5383192 | | | | 49 | 17 | 3 | | 0.01 | 1.16 | 432 |
| 41461 | 379030 | 5383195 | | | | 89 | 22 | 3 | | <0.008 | 1.47 | 635 |
| 41462 | 379010 | 5383150 | | | | 36 | 12 | 3 | | <0.008 | 1.00 | 282 |
| 41463 | 378750 | 5383090 | | | | 96 | 20 | 2 | | <0.008 | 1.96 | 1356 |
| 41464 | 378950 | 5383077 | | | | 124 | 23 | 8 | | 0.01 | 2.25 | 1511 |
| 41465 | 378887 | 5383078 | | | | 169 | 5 | <2 | | <0.008 | 5.45 | 1265 |
| 41466 | 379100 | 5383472 | | | | 1372 | 167 | 51 | | <0.008 | 9.20 | 1994 |
| 41467 | 379090 | 5383510 | | | | 366 | 84 | 35 | | <0.008 | 8.30 | 1856 |
| 41468 | 379085 | 5383520 | | | | 238 | 255 | 42 | | <0.008 | 8.69 | 2235 |
| 41469 | 379085 | 5383533 | | | | 279 | 202 | 19 | | <0.008 | 8.03 | 3567 |
| 41470 | 379085 | 5383592 | | | | 272 | 744 | 33 | | 0.01 | 4.85 | 1007 |
| 41471 | 379123 | 5383644 | | | | 503 | 1080 | 35 | | 0.01 | 6.11 | 1074 |
| 41472 | 379140 | 5383654 | | | | 236 | 251 | 15 | | <0.008 | 7.42 | 2720 |
| 41473 | 379145 | 5383654 | | | | 507 | 316 | 10 | | <0.008 | 6.58 | 2951 |
| 41474 | 379146 | 5383654 | | | | 315 | 253 | 6 | | <0.008 | 7.48 | 2445 |
| 41475 | 379155 | 5383660 | | | | 161 | 43 | 10 | | <0.008 | 6.43 | 1966 |
| 41476 | 379180 | 5383666 | | | | 159 | 10 | 54 | | <0.008 | 7.66 | 380 |
| 41477 | 379200 | 5383675 | | | | 100 | 15 | 8 | | <0.008 | 6.17 | 1562 |
| 41478 | 379261 | 5383678 | | | | 352 | 252 | 21 | | <0.008 | 5.08 | 7000 |
| 41479 | 379305 | 5383680 | | | | 64 | 220 | 7 | | 0.02 | 0.99 | 1490 |
| 41480 | 379381 | 5383704 | | | | 301 | 167 | 3 | | <0.008 | 6.24 | 2090 |
| 41481 | 379384 | 5383520 | | | | 74 | 4 | <2 | | <0.008 | 1.35 | 170 |
| 41482 | 379400 | 5383503 | | | | 47 | <3 | <2 | | 0.01 | 0.72 | 145 |
| 41483 | 379413 | 5383490 | | | | 87 | 102 | <2 | | <0.008 | 1.36 | 300 |

| SAMP NO | EASTING | NORTHING | HOLE | FROM | TO | Zn | Pb | Cu | Ag | Au | Fe% | Mn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41484 | 379425 | 5383476 | | | | 203 | 85 | 15 | | <0.008 | 8.12 | 2139 |
| 41485 | 379445 | 5383450 | | | | 43 | 21 | 3 | | <0.008 | 0.83 | 147 |
| 41486 | 379755 | 5384025 | | | | 126 | 140 | 25 | | 0.01 | 4.24 | 538 |
| 41487 | 380455 | 5385450 | | | | 76 | 24 | 27 | | <0.008 | 4.94 | 417 |
| 41488 | 379642 | 5383980 | | | | 278 | 25 | 10 | | <0.008 | 8.29 | 2092 |
| 41489 | 379625 | 5383970 | | | | 346 | 41 | 8 | | <0.008 | 9.37 | 3498 |
| 41490 | 379685 | 5383785 | | | | 35 | 8 | 4 | | <0.008 | 0.81 | 158 |
| 41491 | 379695 | 5383800 | | | | 612 | 785 | 142 | | <0.008 | 11.60 | 1485 |
| 41492 | 379880 | 5383990 | | | | 178 | 74 | 37 | | <0.008 | 11.40 | 2766 |
| 75310 | 377380 | 5383415 | | | | 36 | 4 | 3 | <1 | <0.008 | 0.86 | 182 |
| 75311 | 377390 | 5383415 | | | | 26 | 7 | 5 | <1 | <0.008 | 0.65 | 112 |
| 75312 | 377425 | 5383409 | | | | 29 | 6 | 11 | <1 | <0.008 | 1.00 | 234 |
| 75313 | 377430 | 5383409 | | | | 37 | 15 | 57 | <1 | <0.008 | 1.04 | 250 |
| 75314 | 377460 | 5383290 | | | | 19 | 23 | 5 | <1 | <0.008 | 0.68 | 200 |
| 75315 | 377460 | 5383290 | | | | 22 | 41 | 7 | <1 | <0.008 | 0.72 | 184 |
| 75316 | 377440 | 5383290 | | | | 28 | 8 | 6 | <1 | <0.008 | 0.71 | 211 |
| 75317 | 377422 | 5383290 | | | | 19 | 15 | 7 | <1 | <0.008 | 0.73 | 200 |
| 75318 | 377505 | 5383240 | | | | 12 | 4 | 6 | <1 | 0.01 | 3.25 | 104 |
| 75319 | 377505 | 5383240 | | | | 15 | <3 | 8 | <1 | 0.03 | 6.34 | 88 |
| 75320 | 377495 | 5383240 | | | | 19 | 11 | 16 | <1 | <0.008 | 1.95 | 105 |
| 75321 | 377440 | 5383100 | | | | 28 | 18 | 5 | <1 | 0.01 | 0.75 | 349 |
| 75322 | 377420 | 5383100 | | | | 20 | 38 | 6 | <1 | 0.01 | 0.81 | 201 |
| 75323 | 377410 | 5383100 | | | | 15 | 28 | 6 | <1 | <0.008 | 0.62 | 152 |
| 75324 | 377580 | 5384240 | | | | 319 | 156 | 53 | <1 | <0.008 | 0.69 | 100 |
| 75325 | 377580 | 5384240 | | | | 56 | 88 | 24 | <1 | <0.008 | 1.08 | 82 |

| SAMP-NO | COMMENTS |
|---|---|
| 36155 | Slightly sil-pyrite altered felsic lava. |
| 36156 | Slightly sil-pyrite altered felsic lava; trace galena. |
| 36157 | Felsic volcanic float with 15% pyrite as fill to felsic breccia; pyrite stockwork. |
| 36158 | Msv felsic lava with 5% pyrite as fill to breccia; minor Zn/Pb veining; |
| 41401 | Moderately sericitised weakly flow banded lava breccia. WR |
| 41402 | |
| 41403 | Rhyolitic lava breccia, slightly sericitic, mixed pink and green. WR, TS |
| 41404 | Pale grey bleached and silicified rhyolite lava. WR, TS |
| 41405 | Pale grey intensely altered/bleached rhyolite lava. Minor diss. minz. WR, TS. |
| 41406 | Mid green moderately altered flow banded rhyolite lava breccia. WR, TS. |
| 41407 | Dark green basaltic dyke, chilled margins, contact effect. WR, TS. |
| 41408 | Strongly altered pale grey lava breccia. WR, TS |
| 41409 | Bleached, strongly altered rhyolite lava. WR, TS |
| 41410 | |
| 41411 | Wavy laminated pumice breccia, layered sericite silica. TS |
| 41412 | Very fine grained silica rock associated with pumice breccia. TS |
| 41413 | |
| 41414 | Aphyric, mid green andesite lava. WR, TS. |
| 41415 | Feldspar phyric mid green andesite lava. WR |
| 41416 | |
| 41417 | Silica-pyrite altered lava, original lithology unclear. WR |
| 41418 | Strongly silica-pyrite altered lava. WR, TS. |
| 41419 | Strongly altered rhyolite lava. WR, TS. |
| 41420 | |
| 41421 | |
| 41422 | Strongly altered lava. WR |
| 41423 | Dark green basaltic dyke. WR |
| 41424 | |
| 41425 | Probable andesite lava with chlorite clots. TS |
| 41426 | Probable andesite lava with chlorite clots. TS |
| 41427 | Lava with fragmental appearance. TS |
| 41428 | |
| 41429 | |
| 41430 | |
| 41431 | |
| 41432 | |
| 41433 | Massive feldspar phyric dacite lava. Rae's Reward. |
| 41434 | Massive feldspar phyric dacite lava. Rae's Reward. |
| 41435 | |
| 41436 | |
| 41437 | Slightly perlitic felsic lava, strong silica plus dissem and veinlet pyrite. |
| 41438 | Silica-sericite-pyrite altered felsic, grey cloudy appearance, pyrite on fractures. |
| 41439 | Intensely silica-pyrite altered felsic, grey cloudy appearance, common sphalerite spotting |
| 41440 | Intensely silicifed felsic, pyrite in veinlets, no sericite or sphalerite visible. |
| 41441 | Flow banded lava breccia, moderately silica-sericite-pyrite altered. |
| 41442 | Green-grey sericite-silica-pyrite lava breccia, weakly perlitic, trace pyrite. |
| 41443 | Fractured, brecciated shale, with minor quartz sandstone, no visible pyrite. |
| 41444 | Lithic-quartz sandstone, slightly pumiceous, 5% pyrite in matrix. |
| 41445 | Silicified lava, pale grey, very hard, trace pyrite. |
| 41446 | Pale grey medium grained sandstone, quartz lithic, minor pyrite. |
| 41447 | Mid brown siltstone, massive, Animal Creek Greywacke. |
| 41448 | Siltstone/sandstone, Animal Creek Greywacke. |
| 41449 | Pyrite spotted quartz sandstone, coarse pyrite nodules. |

41450 Grey bedded micaceous siltstone, slightly fractured.
41451 Mid to dark grey bedded siltstone, probably micaceous.
41452 Grey siltstone, no visible pyrite.
41453 Bedded quartzose sandstone and siltstone, pale grey.
41454 Very slightly vesicular mid green andesite from adjacent to ACG.
41455 Feldspar crystal rich, wispy bedded texture, possibly pumiceous, euhedral feldspars.
41456
41457
41458
41459
41460 Granular textured perlitic dacite lava, feldspar phyric, pink-green matrix.
41461 Felsic lava or crystal rich volcaniclastic, minor banding, trace pyrite.
41462 Felsic lava with small lenses of silica, granular texture.
41463 Felsic lava, feldspar phyric; weak cleavage, slightly sericitic about clvg.
41464 Felsic lava with fine chloritic clvg zone.
41465 Intermediate lava, carbonate filled vesicles, feldspar phyric.
41466 Brn-gry slightly weathered Hollway Andesite.
41467 Grn-brn, feld phyric Hollway Andesite, msv, feld phyric.
41468 Grn-gry massive Hollway Andesite, feldspar poor.
41469 Grn-gry massive Hollway Andesite, feldspar poor.
41470 Grn-gry clvd shale-silt, slightly cleaved.
41471 Gry-brn fine grained sediment, slightly laminated.
41472 Dark grn silica-pyrite altered andesite breccia; silica/qtz matrix, mnr sphal in matrix.
41473 Dark grn silica-pyrite altered andesite breccia; silica/qtz matrix, mnr sphal in matrix.
41474 Silicified andesite with vuggy silica, feldspar phyric, minor breccia texture.
41475 Silica-pyrite altered andesite, dark grn, 2% pyrite, feldspar phyric.
41476 Shaley sediment, bedded, cleaved, minor sandstone.
41477 Silica-pyrite altered andesite, dark grn, 2% pyrite, feldspar phyric.
41478 Pale green, moderately weathered feldspar phyric andesite, Hollway Andesite
41479 Weakly bedded and laminatedsilty shale, brown grey, moderate cleavage. ACG?.
41480 Mid green feldspar phyric andesite, slightly sliceous, Hollway Andesite.
41481 Felsic volcanic, crm-green, richly feld phyric, slight flow banding.
41482 Siliceous felsic volcanic, slightly cleaved, aphyric.
41483 Slightly sericitic, weakly cleaved rhyolite, slight breccia texture.
41484 Basalt dyke, dark green, carbonate filled vesicles, magnetic. Henty Dyke Swarm.
41485 Flow banded rhyolitic lava breccia, silica-sericite matrix
41486 Mid-dark grey quartz-mica sandstone, bedded, weak cleavage in part. ACG.
41487 Brn-gry qtz-mica sst, minor siltstone, weakly bedded. ACG
41488 Mid green feld phyric andesite, richly feldspathic.
41489 Mid green andesite lava, feldspar phyric, chloritic matrix. Hollway Andesite.
41490 Qtz-feld phyric, evenly porphyritic, rounded qtz xls 0.5mm; ple pink
41491 Intermediate lava/intrusive, slightly feldspar phyric; probable Hollway Andesite.
41492 Mid green vesicular intermediate lava, feldspar phyric; probable Hollway Andesite.
41493 Weathered, slightly granular, qtz lithic sst, fractured shale clasts.
41494 Dacite, with chloritic matrix; abundant feldspar phenocrysts
41495 Dacite, pink, feldspar phyric, mid green siliceous groundmass.
41496 Dacite, feldspar phyric; chlorite-qtz vesicles; probable qtz phyric
41497 Quartz-muscovite sandtone, ACG.
41498 Green feldspar phyric andesite from very base of Hollway Andesite. WR
41499 Bleached felsic lava with sphalerite and pyrite mineralisation. TS
41500 Mineralised zone in BPD84. Intense silicification with pyrite veining. TS
75301 Sericte-silica altered zone with minor galena and sphalerite mineralisation. TS
75302 Pale grey intense silicification with disseminated chalcopyrite and sphalerite. TS
75310 Boudins of quartz feldspar porphyry in sericite cleavage zone.
75311 Quartz feldspar boudin.

| | |
|---|---|
| 75312 | Float sample of silica-sericte-pyrite altered felsic lava; cream-green, slight breccia txt. |
| 75313 | Float sample of silica-sericte-pyrite altered felsic lava; cream-green, slight breccia txt. |
| 75314 | Moderately siliceous gry-pink flesic lava, quartz-feld phyric, weak cleavage. |
| 75315 | Weak silica-sericte altered slightly brecciated felsic lava, wk flow banding, siliceous matrix. |
| 75316 | Strongly clvd, slightly brecciated rhyolite lava, crm-grn, slight sil-ser alt'n, trace pyrite. |
| 75317 | Sil-ser-pyrite altered rock, slightly cleaved; trace pyrite boxworks; quartz phyric. |
| 75318 | Unusual ferrug-silica rock; coarse boxwork, late/abundant qtz vning and bx; not post-pyrite. |
| 75319 | Unusual ferrug-silica rock; coarse boxwork, late/abundant qtz vning and bx; not post-pyrite. |
| 75320 | Silica-ferruginous rock with pyrite boxworks; 10% pyrite; slightly flow banded and bx. |
| 75321 | Ser-silica rock, msv, silica clots; qtz-feld phyric; wispy texture in part. |
| 75322 | Qtz-feld phyric, mnr flow band; brick red where fresh; mnrr bleached zones; mnr qtz vng; |
| 75323 | Silicified felsic lava, mnr open space qtz vng, mnr limonite staining; qtz-feld phyric; |
| 75324 | Mod pyritic sil-pyrite-sericite alteration, diss and vein pyrite; quartz veining; |
| 75325 | Mod pyritic sil-pyrite-sericite alteration, diss and vein pyrite; quartz veining; |

741290

# APPENDIX 9

## Interpretation of South Kershaw and Cone Hill IP

PASMINCO
EXPLORATION

A Division of Pasminco Australia Limited,
A.C.N. 004 074 962

Old Burnie Railway Station
Burnie, Tasmania 7320
G.P.O. Box 886
Burnie, Tasmania 7320

741291

# MEMORANDUM

**TO:** MS Saxon

**FROM:** PW Basford

**DATE:** 27 January, 1995

**SUBJECT:** **GEOPHYSICAL DRILL TARGET OVER THE CHESTER PYRITE ALTERATION ZONE**

**FILE:** EP/02/3006/8.4

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Induced polarisation data collected at Kershaw, Burns Peak EL 44/88, in 1993 indicated a shallow anomalous chargeability zone coincident with the Chester pyrite alteration zone. The anomaly occurs on two lines, 79500N and 79700N, and possibly on line 79900N

It should be recognised that dips are difficult to determine from induced polarisation data, therefore it is difficult to provide a direction for drilling. Because of this and the nature of Tasmanian geology, it is advised that holes be angled at around 60 degrees.

Drill target 1: Line 79700N targeting the best response 75m vertical depth (n=3), centred at 7875E. The reason for this target is that it is down plunge and along strike from the near surface response on line 79500N and is of equivalent magnitude.

Telephone: (004) 317 477 Facsimile (004) 318 949

Alternative shallow drill test 2a: Line 79500N targeting the greatest chargeability response at 7800E. Vertical depth to target around 50m. It is expected that the source is located at a shallower depth but should extend to 50m.

Alternative drill target 2b: Line 79900N has increasing chargeability at pseudo-depth n=5 (125m) at 8000E. This is along strike and down plunge of the anomaly on the previous two lines, increasing the size and prospectivity of the anomaly.

AJS:PWB:95004

Mark,

Optimumally, the best hole is half way between Target 1 and 2a. → 79600N ~~&~~ 7840E at 60m.

PASMINCO
EXPLORATION

# MEMORANDUM

741293

**TO:** Mark Saxon

**FROM:** Paul Basford

**DATE:** 31 October, 1995

**REF:** pwb:95048

**SUBJECT:** **CONE HILL IP ANOMALY**

---

The 1993 Induced Polarization survey conducted over the Cone Hill region indicated a shallow chargeability anomaly that runs along the western edge of Cone Hill. Two drill holes are located in the region, CP1 and CP2. Both collars are located west of the anomaly, and although CP1 drilled to the east, it did not reach the collar of CP2. The top of CP2 may have information that relates to the anomalous source, however, it was drilled to the west.

Neil Hughes interpreted the data and recommended the anomaly be followed up. Although the chargeability feature is wide spread, encompassing the geomorphological feature of Cone Hill, it is centred along the western side and trends north along at least three lines, whilst the hill trends slightly eastward. The resistivity data indicates the anomalous high chargeability is coincident with a high resistivity zone, probably related to intense silicification, which is consistent with the geomorphology of the area of the anomaly. The anomaly is most prominent on lines 83100N (at 7450E), 83300N (7375E) and 83400N (at 7400E).

The data may be indicative of an intensely silicified-pyrite alteration zone, similar to that observed at Chester. Ground truthing of the area is recommended, along with soil sampling and reinvestigation of the top of hole CP2.


Hughes NA 1993. Interpretation of Induced Polarisation and Resistivity data collected on Burns Peak EL 44/88, 1993. In Burns Peak EL 44/88 November 92 - October 93 Annual Report.



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741294

# APPENDIX 10

## MMI Data

Table 1; MMI Response Ratios Pasminco; Rosebery Mine Area

741295

CHESTER AREA - EAD GRID

| Sample No | GRID NORTH | GRID EAST | Cu | Pb | Zn | Ni | Cd | Au | Ag | Pt | Pd |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 38310 | 80500 | 378683 | 1.00 | 4.69 | 8.54 | 1.00 | 2.17 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38311 | 80500 | 378650 | 6.40 | 3.92 | 10.19 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38312 | 80500 | 378625 | 1.00 | 1.86 | 15.57 | 1.00 | 2.83 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38313 | 80500 | 378600 | 3.35 | 3.23 | 14.04 | 1.00 | 2.30 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38314 | 80500 | 378575 | 6.46 | 4.13 | 3.21 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38315 | 80500 | 378550 | 5.77 | 1.87 | 4.37 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38316 | 80500 | 378525 | 12.03 | 1.79 | 0.84 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38317 | 80500 | 378500 | 13.12 | 2.99 | 4.87 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38318 | 80500 | 378475 | 9.08 | 2.17 | 5.83 | 1.00 | 1.88 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38319 | 80500 | 378450 | 7.74 | 5.90 | 21.33 | 1.00 | 2.64 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38320 | 80500 | 378433 | 6.04 | 3.07 | 5.45 | 1.00 | 1.00 | 1.00 | 4.29 | 1.00 | 1.00 |
| 38321 | 80500 | 378400 | 1.54 | 4.28 | 15.84 | 1.00 | 4.16 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38322 | 80500 | 378375 | 6.91 | 2.23 | 8.36 | 1.00 | 1.00 | 1.00 | 4.29 | 1.00 | 1.00 |
| 38323 | 80500 | 378350 | 3.11 | 2.83 | 1.62 | 1.00 | 1.00 | 1.00 | 7.14 | 1.00 | 1.00 |
| 38324 | 80500 | 378315 | 9.21 | 4.28 | 6.53 | 1.00 | 4.44 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38325 | 80500 | 378550 | 2.56 | 1.03 | 1.33 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.43 |
| 38326 | 80500 | 378300 | 5.41 | 3.17 | 6.57 | 1.00 | 1.85 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38327 | 80500 | 378275 | 2.74 | 1.44 | 17.73 | 1.00 | 5.44 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38328 | 80500 | 378250 | 2.03 | 1.01 | 3.62 | 1.00 | 1.98 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38329 | 80500 | 378225 | 1.71 | 0.93 | 4.72 | 1.00 | 2.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38330 | 80500 | 378200 | 8.03 | 1.25 | 3.36 | 1.00 | 1.70 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38331 | 80500 | 378175 | 3.17 | 2.18 | 2.09 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38332 | 80500 | 378150 | 1.00 | 3.79 | 15.26 | 1.00 | 3.32 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38333 | 80500 | 378125 | 1.00 | 1.79 | 4.70 | 1.00 | 2.44 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38334 | 80500 | 378100 | 4.46 | 0.68 | 0.84 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38335 | 80500 | 378061 | 4.21 | 2.78 | 0.84 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38336 | 80500 | 378050 | 1.00 | 2.12 | 3.67 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38337 | 80500 | 378025 | 1.00 | 4.06 | 19.55 | 1.00 | 13.74 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38338 | 80500 | 378200 | 8.55 | 2.69 | 4.99 | 1.00 | 2.39 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38339 | 80500 | 378005 | 1.00 | 1.31 | 7.36 | 1.00 | 2.21 | 1.00 | 4.29 | 1.00 | 1.00 |
| ~~[illegible]~~ | ~~0~~ | | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~38348~~ | ~~0~~ | ~~0~~ | ~~6.55~~ | ~~5.12~~ | ~~5.12~~ | ~~1.00~~ | ~~2.82~~ | ~~1.00~~ | ~~1.00~~ | ~~1.00~~ | ~~1.00~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
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| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |
| ~~[illegible]~~ | ~~0~~ | ~~0~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~[illegible]~~ |

Table 1; MMI Response Ratios    Pasminco; Rosebery Mine Area

741296

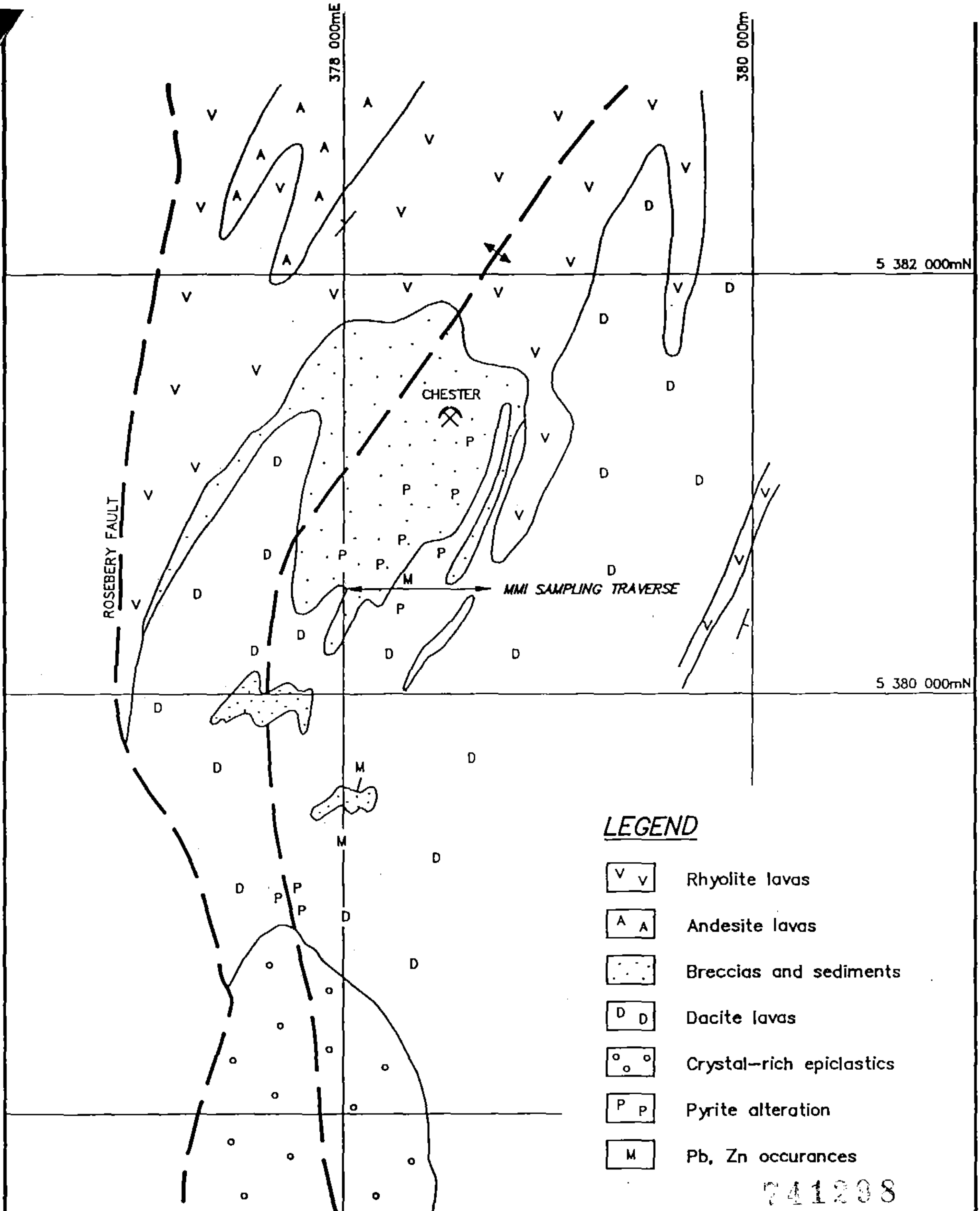
SHALE BASIN - EAF GRID

| Sample No | GRID NORTH | GRID EAST | Cu | Pb | Zn | Ni | Cd | Au | Ag | Pt | Pd |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [redacted] | | | | | | | | | | | |
| 38387 | 5800 | 5500 | 53.01 | 11.53 | 10.58 | 5.71 | 2.12 | 1.00 | 12.86 | 1.00 | 1.00 |
| 38388 | 5800 | 5460 | 2.05 | 2.04 | 3.58 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.43 |
| 38389 | 5800 | 5420 | 1.00 | 2.35 | 2.66 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38390 | 5800 | 5380 | 1.00 | 2.03 | 2.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38391 | 5800 | 5340 | 1.00 | 1.13 | 3.33 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38392 | 5800 | 5300 | 1.59 | 2.20 | 4.87 | 1.00 | 1.59 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38393 | 5800 | 5260 | 4.45 | 1.10 | 6.43 | 1.00 | 1.58 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38394 | 5800 | 5220 | 1.00 | 0.98 | 3.29 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.86 |
| 38395 | 5800 | 5180 | 2.03 | 2.61 | 4.84 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.43 |
| 38396 | 5800 | 5140 | 4.07 | 3.09 | 3.74 | 1.00 | 1.53 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38397 | 5800 | 5100 | 1.45 | 0.97 | 5.86 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38398 | 5800 | 5060 | 1.00 | 1.19 | 2.46 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38399 | 5800 | 5020 | 1.00 | 0.96 | 1.73 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38400 | 5800 | 4980 | 1.70 | 1.56 | 7.59 | 1.00 | 1.00 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38632 | 5800 | 4940 | 1.00 | 0.95 | 1.41 | 1.00 | 2.03 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38633 | 5800 | 4900 | 1.00 | 0.76 | 1.62 | 1.00 | 1.76 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38634 | 5800 | 4860 | 1.00 | 1.23 | 1.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38635 | 5800 | 4820 | 1.48 | 1.97 | 0.84 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38636 | 5800 | 4780 | 2.42 | 1.72 | 0.84 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38637 | 5800 | 4740 | 1.64 | 2.29 | 13.40 | 1.00 | 1.58 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38638 | 5800 | 4700 | 1.00 | 1.51 | 2.46 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38639 | 5800 | 4660 | 1.00 | 1.30 | 2.43 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38640 | 5800 | 4620 | 1.00 | 1.03 | 2.29 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38641 | 5800 | 4580 | 3.09 | 0.59 | 2.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38642 | 5800 | 4540 | 1.00 | 1.47 | 14.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38644 | 6200 | 5400 | 11.39 | 2.25 | 18.82 | 1.00 | 1.60 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38645 | 6200 | 5360 | 1.00 | 2.95 | 29.26 | 1.00 | 2.12 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38646 | 6200 | 5320 | 2.32 | 3.24 | 57.38 | 1.00 | 2.47 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38647 | 6200 | 5280 | 1.00 | 1.70 | 51.81 | 1.00 | 1.68 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38648 | 6200 | 5240 | 4.24 | 1.75 | 28.04 | 1.00 | 1.56 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38649 | 6200 | 5200 | 2.20 | 4.14 | 33.92 | 1.00 | 2.46 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38650 | 6200 | 5160 | 15.91 | 3.15 | 7.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.43 |
| 38651 | 6200 | 5120 | 2.67 | 2.07 | 11.64 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38652 | 6200 | 5080 | 3.46 | 2.52 | 4.56 | 1.00 | 1.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38653 | 6200 | 5040 | 1.00 | 2.70 | 3.74 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38654 | 6200 | 5000 | 5.92 | 3.30 | 3.45 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.43 |

Table 1; MMI Response Ratios Pasminco; Rosebery Mine Area

741297

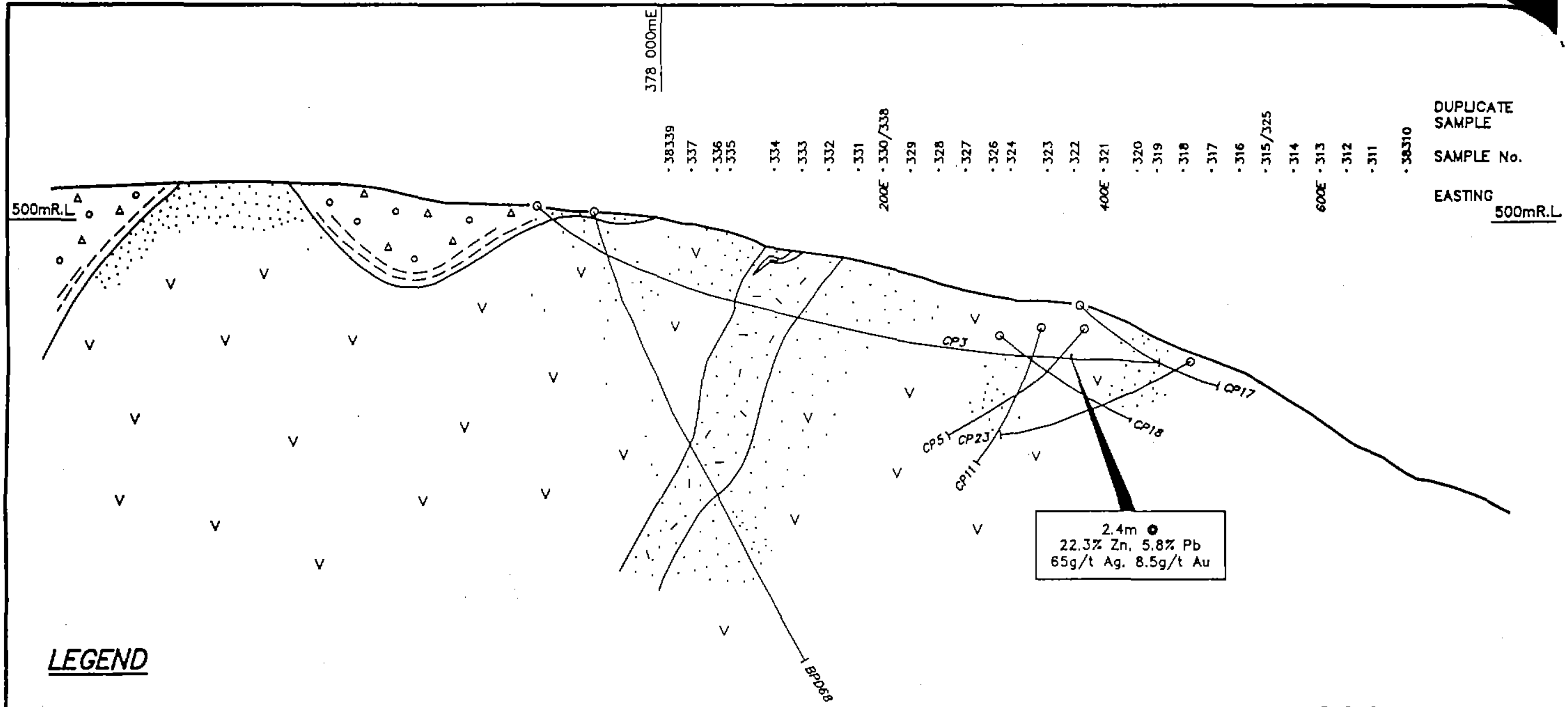
| Sample No | GRID NORTH | GRID EAST | Cu | Pb | Zn | Ni | Cd | Au | Ag | Pt | Pd |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 38655 | 6200 | 4960 | 7.63 | 2.50 | 4.22 | 1.00 | 1.79 | 1.00 | 1.43 | 1.00 | 1.00 |
| 38656 | 6200 | 4920 | 1.00 | 0.87 | 1.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38657 | 6200 | 4880 | 1.00 | 0.69 | 2.18 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38658 | 6200 | 4840 | 1.00 | 0.58 | 2.14 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38659 | 6200 | 4800 | 1.00 | 0.57 | 1.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38660 | 6200 | 4760 | 1.90 | 2.30 | 4.09 | 1.00 | 1.99 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38661 | 6200 | 4720 | 2.84 | 2.06 | 6.42 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38662 | 6200 | 4680 | 8.32 | 4.27 | 26.02 | 1.00 | 3.62 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38663 | 6200 | 4640 | 4.56 | 3.46 | 8.32 | 1.00 | 2.39 | 1.00 | 1.00 | 1.00 | 1.00 |
| 38664 | 6200 | 4600 | 24.87 | 2.48 | 0.84 | 1.00 | 1.00 | 1.00 | 2.86 | 1.00 | 1.00 |
| 38665 | 6200 | 4560 | 60.47 | 3.99 | 0.84 | 1.00 | 1.00 | 1.00 | 11.43 | 1.00 | 1.43 |
| 38666 | 6200 | 4520 | 47.43 | 4.57 | 0.84 | 1.00 | 1.00 | 1.00 | 5.71 | 1.00 | 2.86 |
| 38667 | 6200 | 4480 | 5.77 | 8.91 | 0.84 | 4.29 | 1.00 | 1.00 | 7.14 | 1.00 | 5.71 |
| 38668 | 6200 | 4440 | 5.63 | 3.79 | 0.84 | 1.43 | 1.00 | 1.00 | 10.00 | 1.00 | 1.00 |
| 38669 | 6200 | 4400 | 8.87 | 6.49 | 0.84 | 1.00 | 1.00 | 1.00 | 7.14 | 1.00 | 1.00 |
| B/GROUN | N/A | N/A | 7.00 | 418.79 | 83.65 | 14.00 | 7.00 | 0.70 | 0.70 | 0.70 | 0.70 |




741298

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : A.N.L. | E.L. 44/88 – BURNS PEAK |
| DATE : April 1990 | CHESTER PROSPECT |
| DRAWN : G.M.B. | MMI SAMPLING TRAVERSE |
| REVISIONS : | INTERPETED GEOLOGY |
| REF : Geopeko | |
| FILE : 25_CHMMI | |
| DRAWING No. | SCALE 1:25,000 0 500 m — FIG. No. |




## LEGEND

- Very intense alteration & pyrite mineralisation
- Disseminated pyrite mineralisation
- Epiclastics
- Cherty sediments
- Dacite lavas

5 cm

741299

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

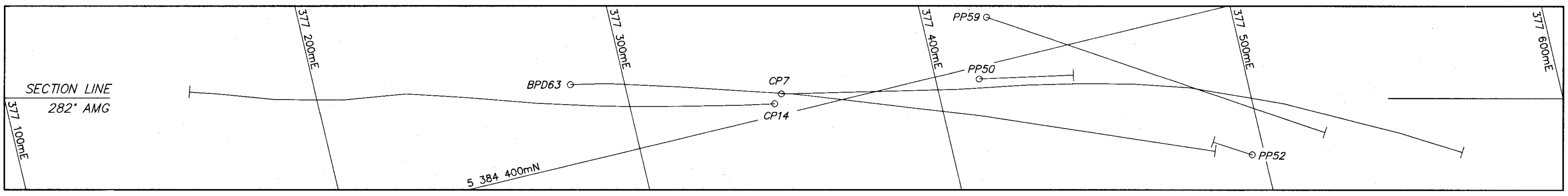
| | |
|---|---|
| COMPILED : A.N.L. | E.L. 44/88 – BURNS PEAK |
| DATE : Nov., 1990 | CHESTER PROSPECT |
| DRAWN : G.M.B. | MMI SAMPLING TRAVERSE |
| REVISIONS : | SECTION 80 500mN |
| FILE : 80500MMI | |
| DRAWING No. | SCALE 1:5000 0 100 m |
| | FIG. No. |

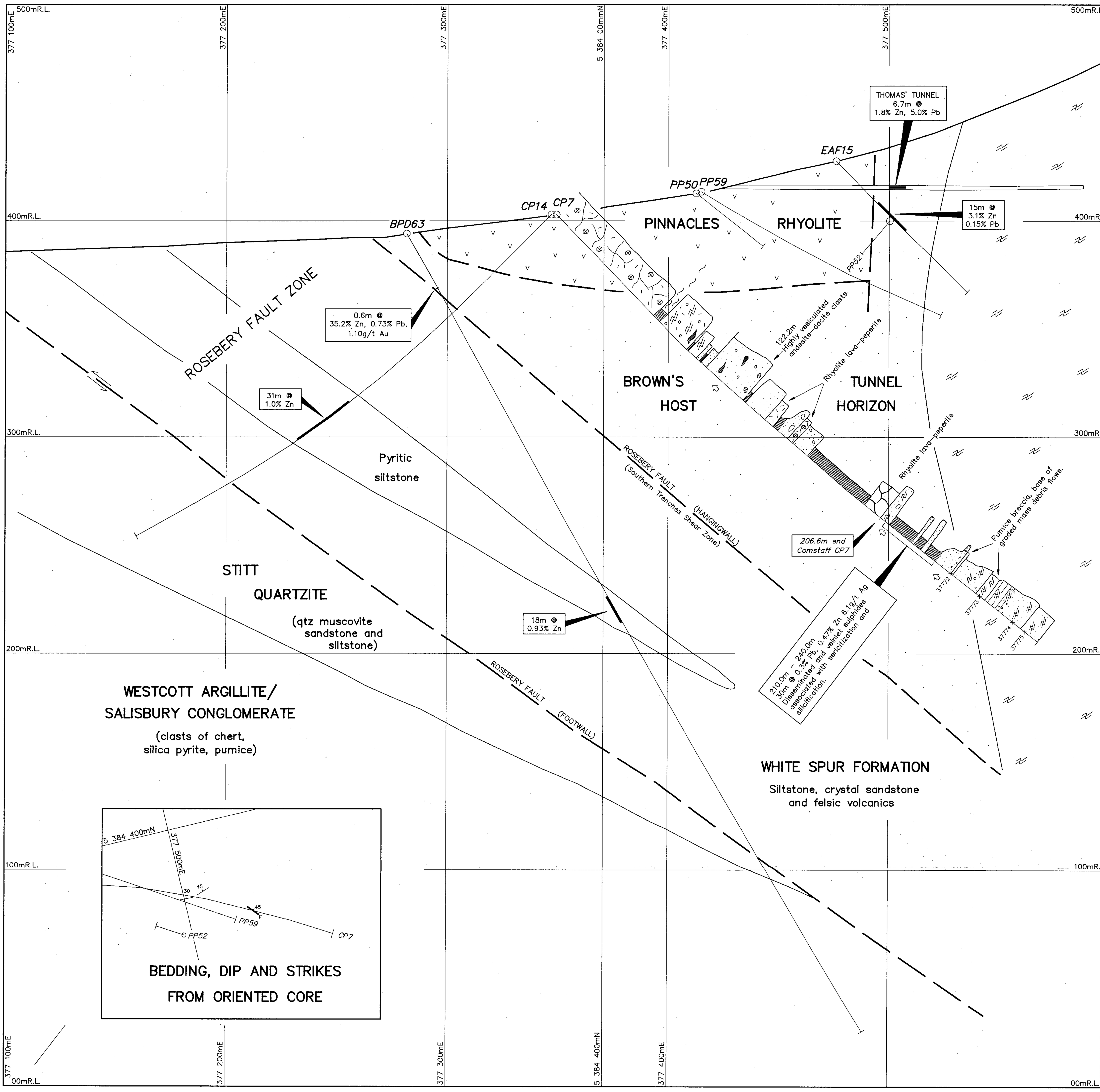



5 cm

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : R.A.P. | E.L. 44/88 – BURNS PEAK JV |
| DATE : Jan., 1995 | PINNACLES |
| DRAWN : G.M.B. | **EAF2** |
| REVISIONS: | INTERPRETED DRILL SECTION |
| | AMG 282° |
| FILE : EAF2_A0 | EAF GRID LINE 5200N |
| DRAWING No. | SCALE 1:1000 |
| | FIG. No. 12 |

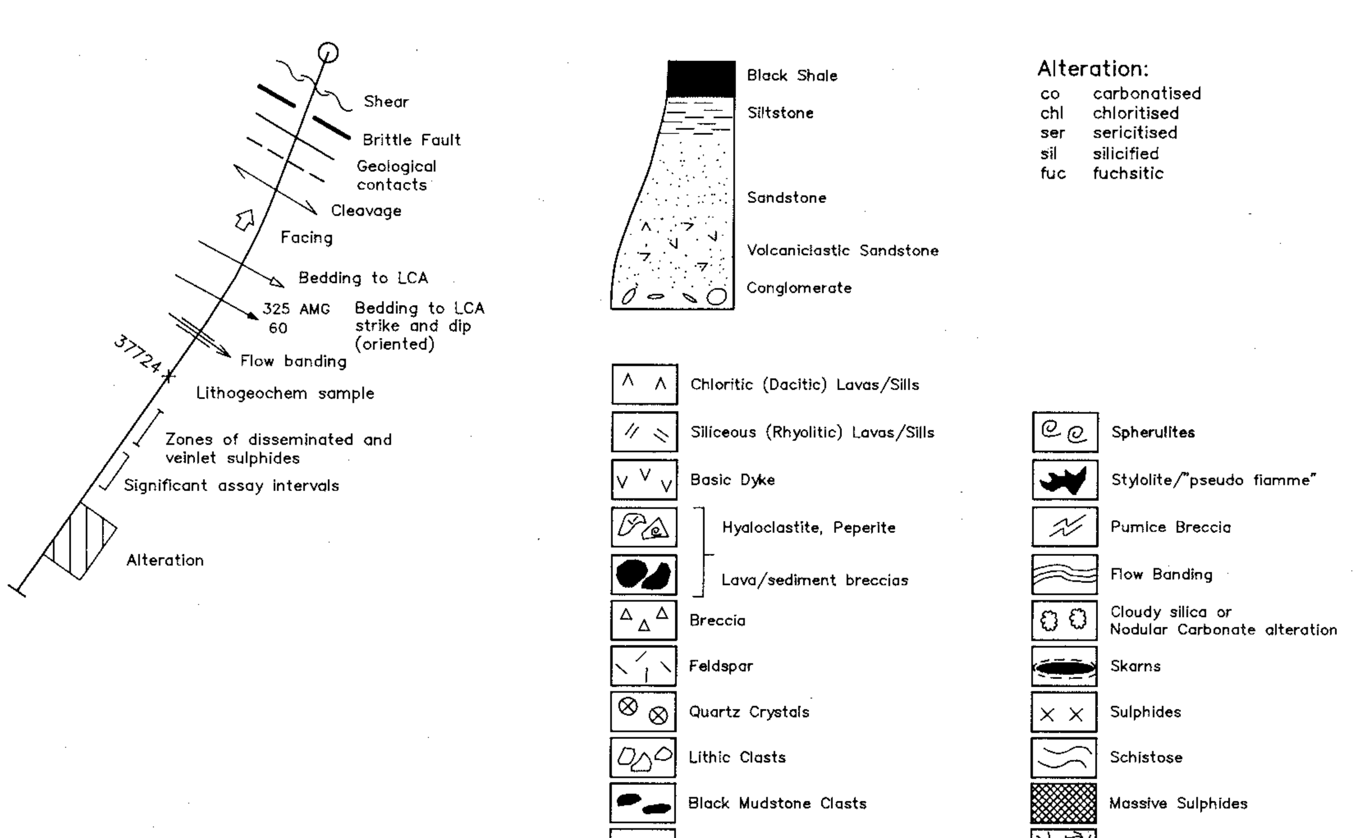



95-3803

BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 2 OF 2

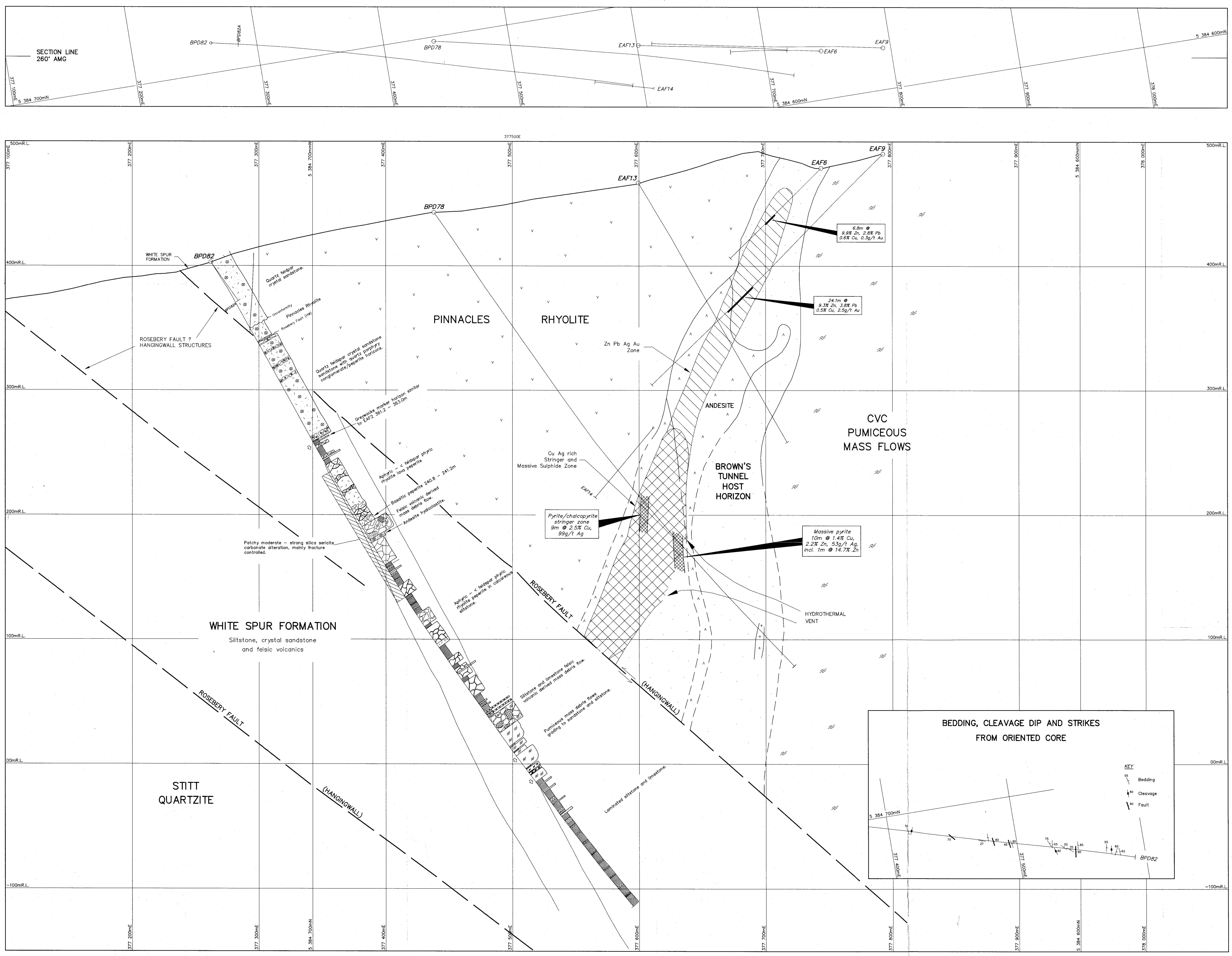
LEGEND

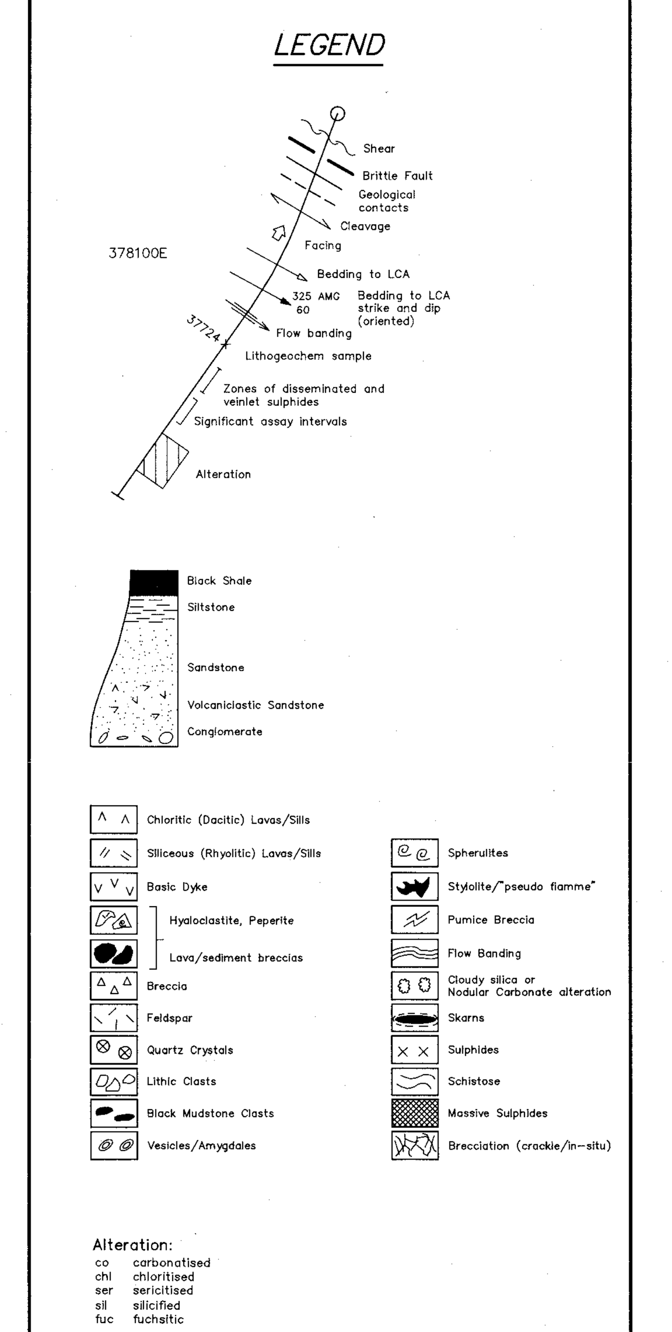



741301

5 cm

| PASMINCO EXPLORATION<br>A Division of Pasminco Australia Limited | |
|---|---|
| COMPILED : R.A.P.<br>DATE : Dec., 1994<br>DRAWN : G.M.B.<br>REVISIONS :<br>FILE : CP7_A0 | E.L. 44/88 – BURNS PEAK JV<br>PINNACLES<br>INTERPRETED DRILL SECTION<br>**CP7**<br>AMG 282°<br>EAF GRID LINE 5000N |
| DRAWING No. | SCALE 1:1000 0 40 m — FIG. No. 13 |



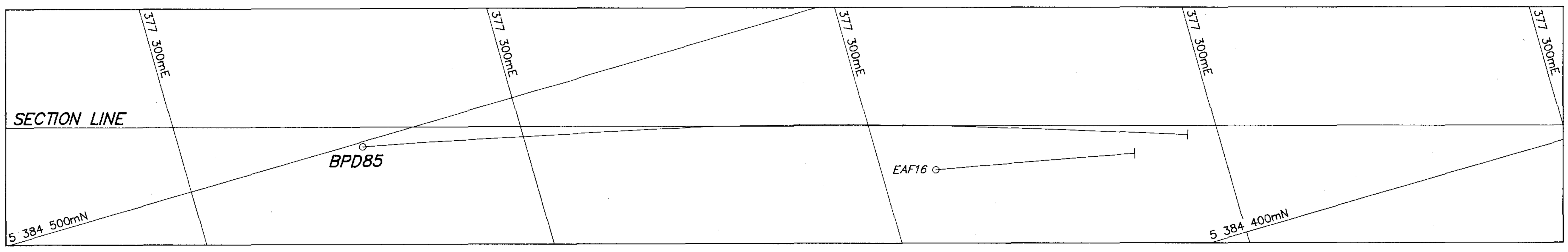

95-3803
BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 2 OF 2

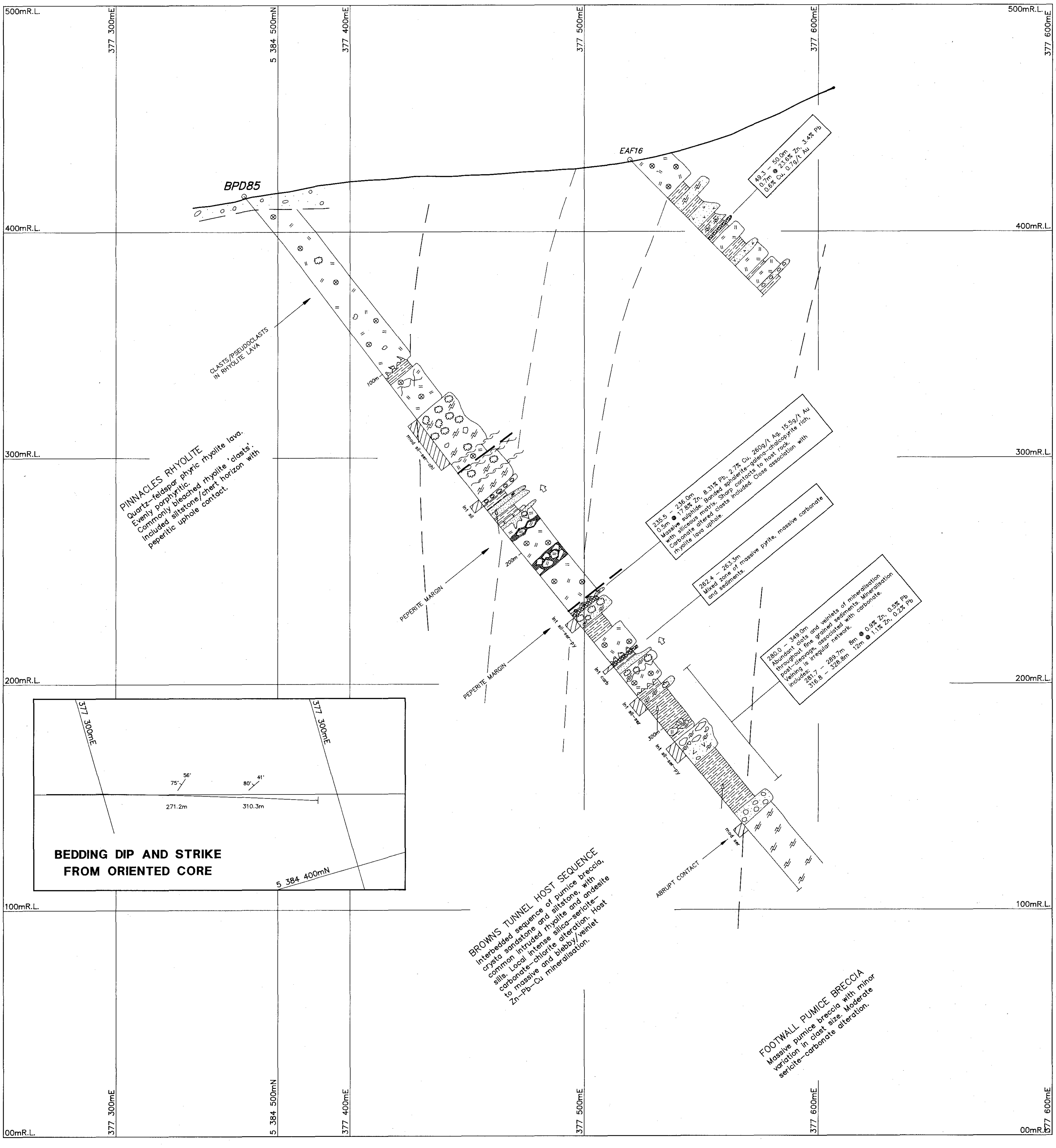
741302

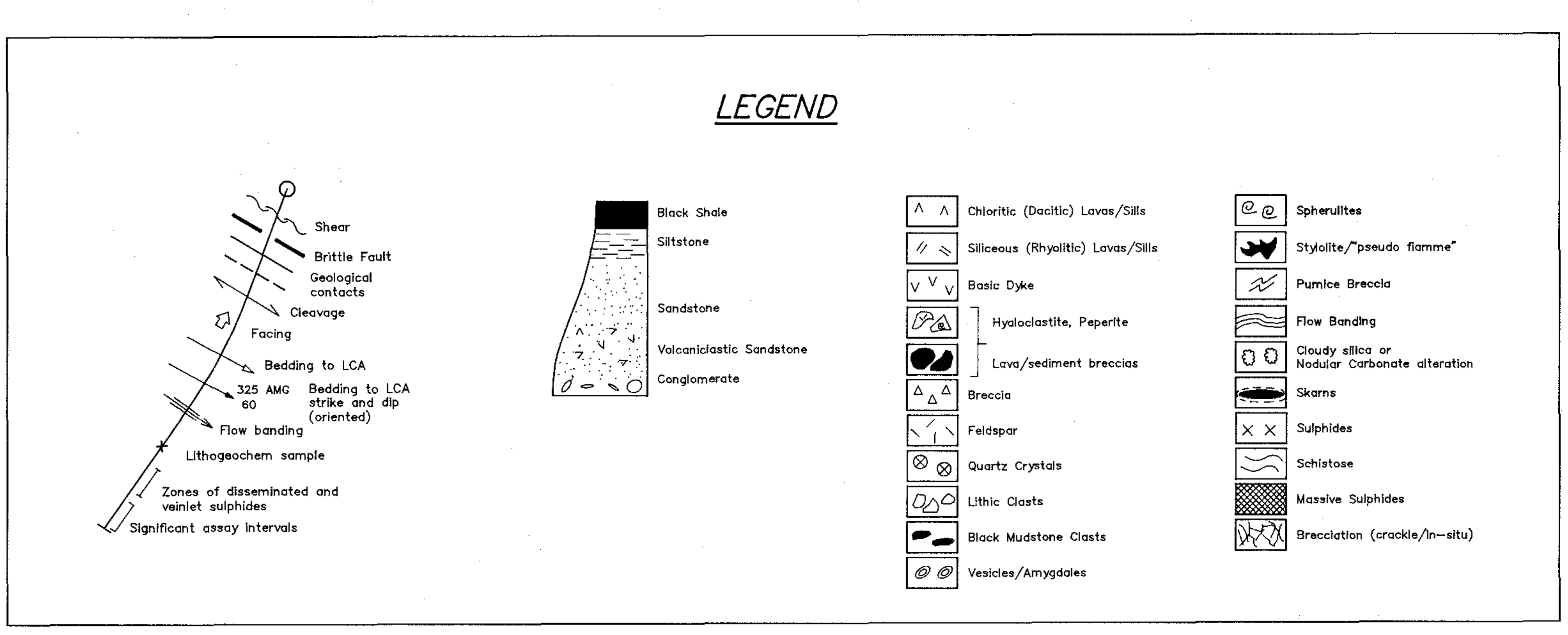
5 cm

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : R.A.P. | E.L. 44/88 – BURNS PEAK JV |
| DATE : Feb., 1995 | PINNACLES |
| DRAWN : G.M.B. | **BPD82** |
| REVISIONS: | INTERPRETED DRILL SECTION |
| | AMG 260° |
| FILE : BPD82_A0 | EAF GRID LINE 5200N |
| DRAWING No. | SCALE 1:1000 0 20 40 m — FIG. No. 14 |




# 95-3803

BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 2 OF 2

741303

5 cm

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | E.L. 44/88 – BURNS PEAK JV |
| DATE : April 1995 | PINNACLES |
| DRAWN : G.M.B. | INTERPRETED DRILL SECTION |
| REVISIONS : | **BPD85** |
| FILE : BPD85_A1 | AMG 286° EAF GRID LINE 5100N |
| DRAWING No. | SCALE 1:1000 0 20 40 m |
| | FIG. No. 15 |


NOTE :

Longitudinal displays intersections of mineralisation from BTHS regardless of distance of projection. Maximum projection distance approximately 150m.

and ⊕ both indicate drilled intersection.

Maximum drilled intervals noted in brackets and all other intersections are interpreted true width, projected onto a vertical plane.

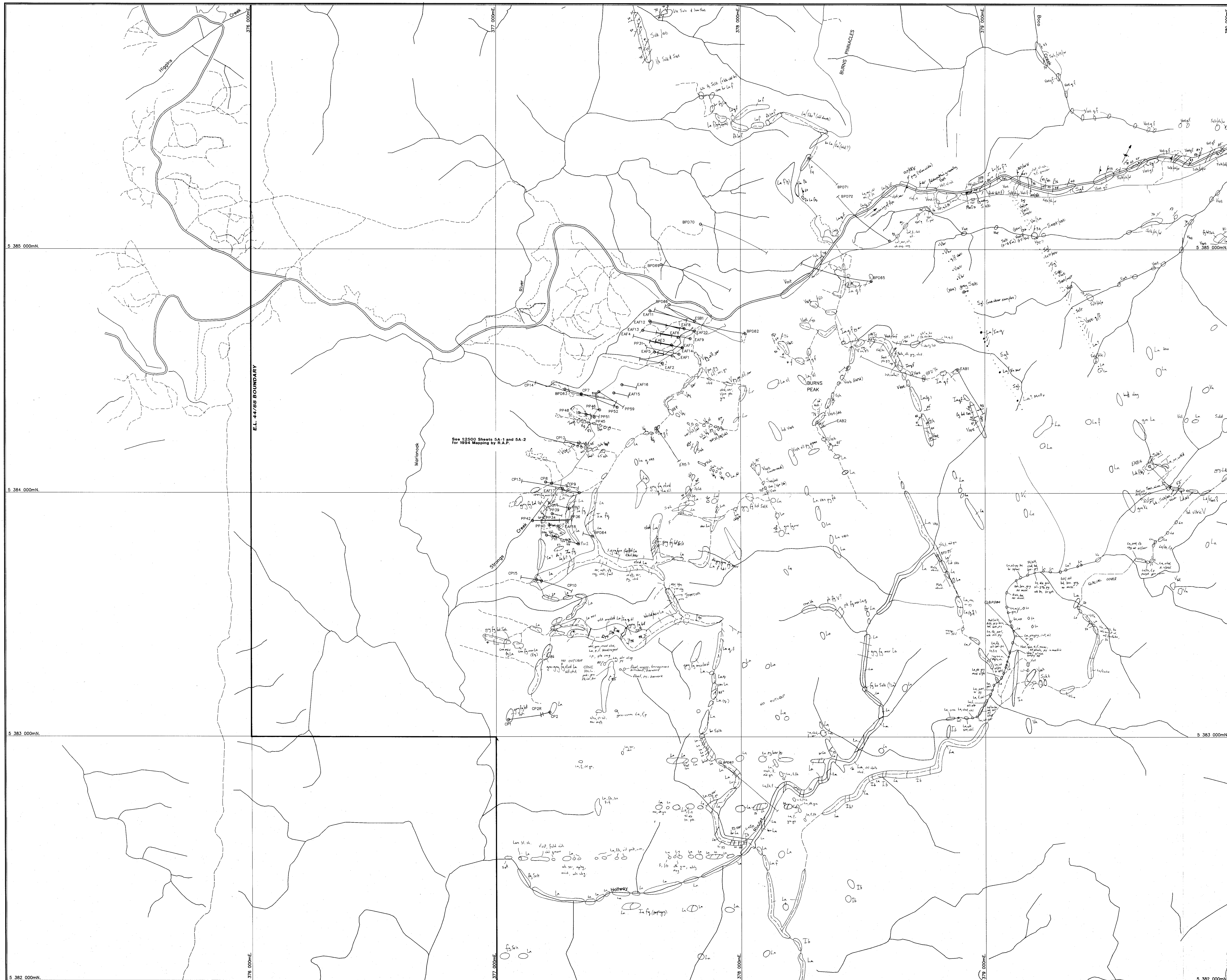
Cut off used :– 3% Zn, 2% Pb, 0.5% Cu, 5g/t Au.

PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : T. Lees
DATE : Jan., 1992
DRAWN : GEO/G.M.B.
REVISIONS :
L.W.K April 1993.
R.A.P. Nov. 1993, Oct. Dec. 1994.
M.S.S. Nov., 1995 Dec. 1994.
FILE : LBTTLS

E.L. 44/88 – BURNS PEAK JV
THOMAS' TUNNEL – BROWN'S TUNNEL
LONG SECTION THROUGH
5 384 203.0mN, 377 317.5mE &
5 384 713.5mN, 377 777.5mE
(AMG)
(After A. N. Rosenhain, 1989)

DRAWING No. SCALE 1:1000 0 20 40 m FIG. No. 16




# LEGEND

## 1. General Form

Colour, grain size, overall texture, Rock Type, constituents & textutres, alteration, mineralisation.

Descriptors and Rock Types to be separated by comma or slash. Derwent series 19 colours (in brackets) are intended for the Cambrian sequences.

## 2. Rock Types

**Lavas L**

| Code | Colour | Type |
|---|---|---|
| a | (9) | acid |
| i | (46) | intermediate |
| b | (49) | basaltic |
| r | (9) | rhyolitic |
| d | (11) | dacitic |
| n | (46) | andesitic |

**Intrusives I**

| Code | Colour | Type |
|---|---|---|
| a | (12) | acid |
| i | (46) | intermediate |
| b | (49) | basic |
| fel | | felsic |
| p | | porphyritic |
| g | (12) | granitic |
| peg | | pegmatitic |

**Volcaniclastics V**

| Code | Colour | Type |
|---|---|---|
| pm | (7) | pumiceous mass flow |
| q | (32) | quartz phyric mass flow |
| sst | (32) | sandstone |

**Sediments S**

| Code | Colour | Type |
|---|---|---|
| sh | (35) | shale |
| t | (36) | slate incl. black slate |
| slt | (35) | siltstone |
| sst | (39) | sandstone |
| tb | | turbidite |
| w | (39) | wacke |
| cong | (39) | conglomerate |
| Δ | | breccia |
| cht | (34) | chert |
| lst | (65) | limestone |
| dol | (65) | dolomite |
| q | (39) | quartzite |
| Fe | | iron formation |
| gl | (4) | glacial deposits |
| fgl | (4) | fluvioglacial deposits |
| alv | (4) | alluvial deposits |
| mst | (35) | mudstone |

**Metamorphic Rocks M**
Colours should be hatched

| Code | Colour | Type |
|---|---|---|
| sht | (38) | schist |
| sp | (35) | semi-pelite |
| ps | (39) | psammite |
| amph | (49) | amphibolite |
| gran | | granulite |
| sk | | skarn |
| mb | (65) | marble |
| m | | mylonite |

**Unassigned** ? Use alone or as a qualifier to other rock types where uncertain.

## 3. Descriptors

**Colour:**
ple pale; dk dark; clr clear; or orange; blk black; pk pink; rd red; brn brown; bl blue; wht white; yel yellow; ol olive; grn green; ppl purple; crm cream

**Grainsize:**
fg fine grained; mg medium grained; cg coarse grained; vcg very coarse grained

**Overall Texture:**
aug augen; p porphyritic; fol foliated; clvd cleaved; msv massive; blk blocky; bd bedded; lam laminated; xbd cross bedded; xlam cross laminated; br brecciated; fb flow banded; fΔ flow brecciated

**Constituents & Internal Textures:**
f feldspar; q quartz; l lithic; pm pumice; styl stylolites; wsp wisps; ves vesicles; sph spherulites; lph lithophysae

**Alteration:**
alb albitised; co carbonate alteration; chl chloritised; ser sericited; kao kaolinised; ep epidotised; sil silicified

**Mineralisation:**
diss disseminated; str stringer; msv massive; gos gossan; bx boxwork; py pyrite; po pyrrhotite; asp arsenopyrite; gn galena; sp sphalerite; mag magnetite; hm haematite

## 4. Mapping Symbols

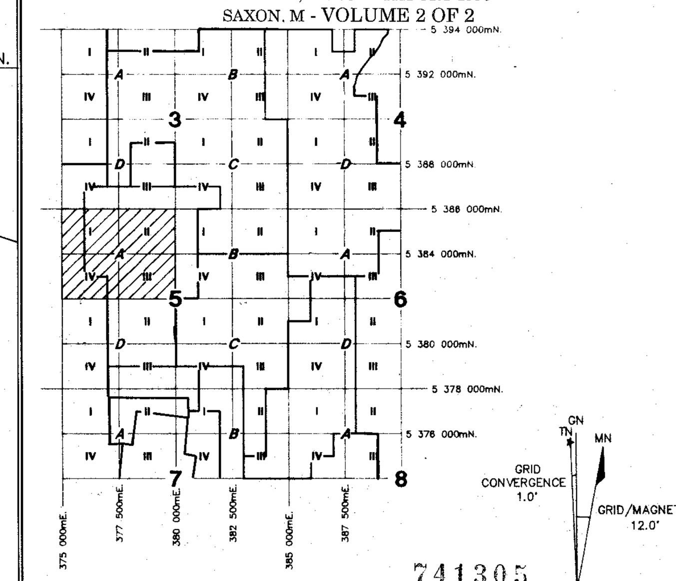
25° Strike and Dip of Strata
Strike and dip of inverted strata
60° Strike and dip of cleavage or foliation
50° Plunge of lineation
Geological boundary position accurate
Geological boundary position approximate
Unconformity
Fault
Thrust Fault
Plunging antiform
Plunging synform
Mine
Abandoned prospect or mine
Costean or trench
Diamond drill hole, including projection
Shear/mylonite
Intense regional cleavage
Disseminated pyrite
Tectonic breccia
Manganese oxide coating on outcrop
Mineralisation : massive, disseminated

5 cm

| ***NOTE*** SOURCE :- | | |
|---|---|---|
| Comstaff Mapping | 1984 | 10% |
| BHP Mapping | 1986 | 5% |
| Geopeko/Pasminco Mapping | 1988-1991 | 50% |
| R. Reid.(Tas. Uni.) | 1990 | 5% |
| B. Coutts (Tas. Uni.) | 1990 | 10% |

# 95-3803

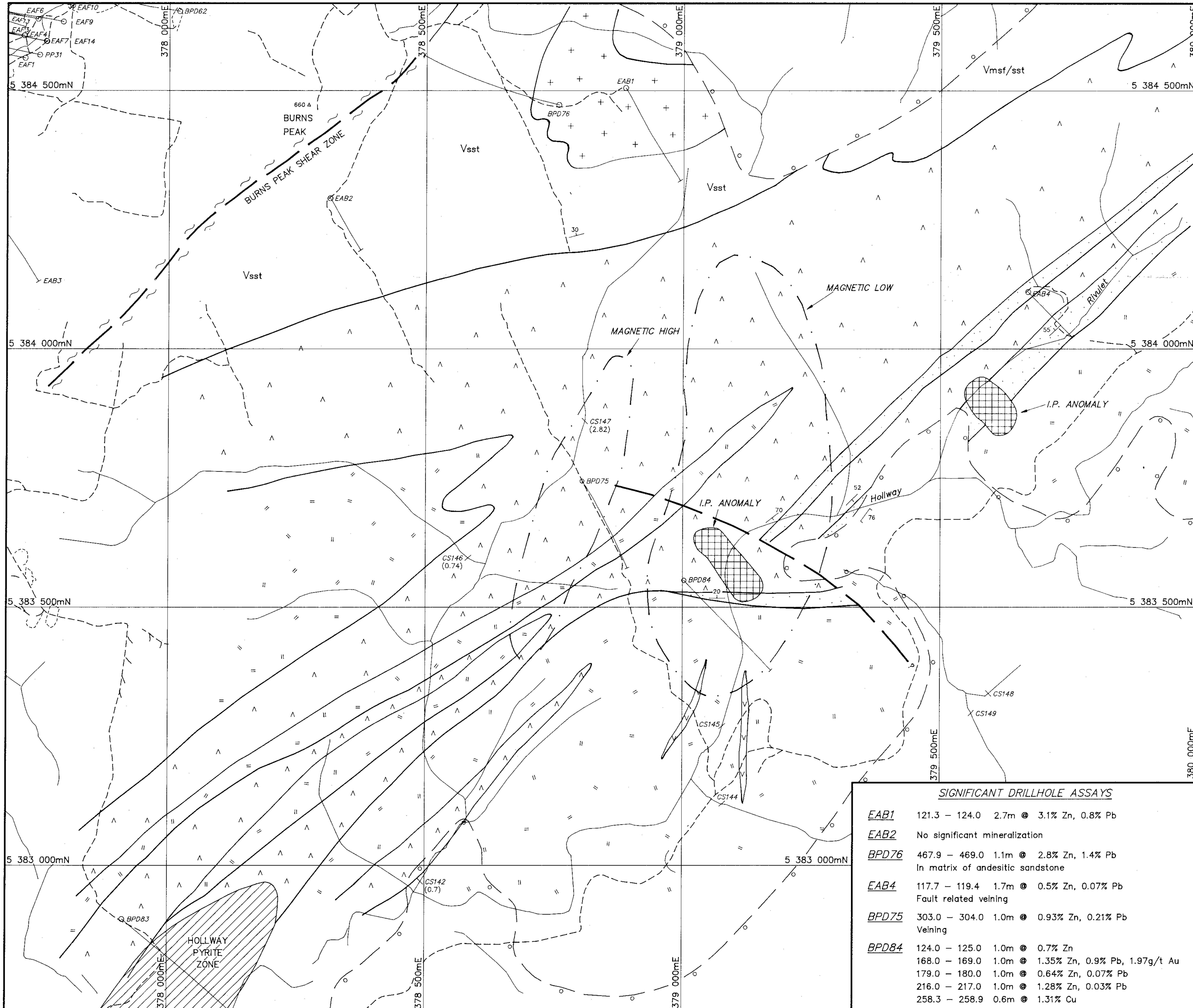
BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON. M - VOLUME 2 OF 2




741305

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : L.W.K. | E.L. 44/88 - BURNS PEAK JV |
| DATE : Oct., 1991 | |
| DRAWN : G.M.B. | **OUTCROP GEOLOGY** |
| REVISIONS : | |
| L.W.K. 1992 | |
| M.S.S. April 1994 | |
| April 1995 | |
| DRAWING No. SHEET 5A | SCALE 1:5000 (0 100 200 METRES) — FIG. No. 17 |




## LEGEND

| | |
|---|---|
| V | Volcaniclastic |
| sst | Sandstone |
| msf | Mass flow |
| + + | Quartz–feldspar porphyries |
| V V | Basic dyke |
| ^ ^ | Hollway Andesite |
| | Siltstone/sandstone (AGC equivalent) |
| | Felsic volcanic, lava/breccia |
| | Fluvioglacial cover |
| | Geological boundary |
| | Fault |
| | I.P. anomaly Anomalous Au (ppb) value shown |
| | Magnetic anomaly |
| CS147 (2.82) | BHP skg cyanide leach sample |

### SIGNIFICANT DRILLHOLE ASSAYS

| | |
|---|---|
| EAB1 | 121.3 – 124.0 2.7m @ 3.1% Zn, 0.8% Pb |
| EAB2 | No significant mineralization |
| BPD76 | 467.9 – 469.0 1.1m @ 2.8% Zn, 1.4% Pb<br>In matrix of andesitic sandstone |
| EAB4 | 117.7 – 119.4 1.7m @ 0.5% Zn, 0.07% Pb<br>Fault related veining |
| BPD75 | 303.0 – 304.0 1.0m @ 0.93% Zn, 0.21% Pb<br>Veining |
| BPD84 | 124.0 – 125.0 1.0m @ 0.7% Zn<br>168.0 – 169.0 1.0m @ 1.35% Zn, 0.9% Pb, 1.97g/t Au<br>179.0 – 180.0 1.0m @ 0.64% Zn, 0.07% Pb<br>216.0 – 217.0 1.0m @ 1.28% Zn, 0.03% Pb<br>258.3 – 258.9 0.6m @ 1.31% Cu |

# 95-3803

BURNS PEAK EL 44/88 PASMINCO, PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 2 OF 2

741306

5 cm

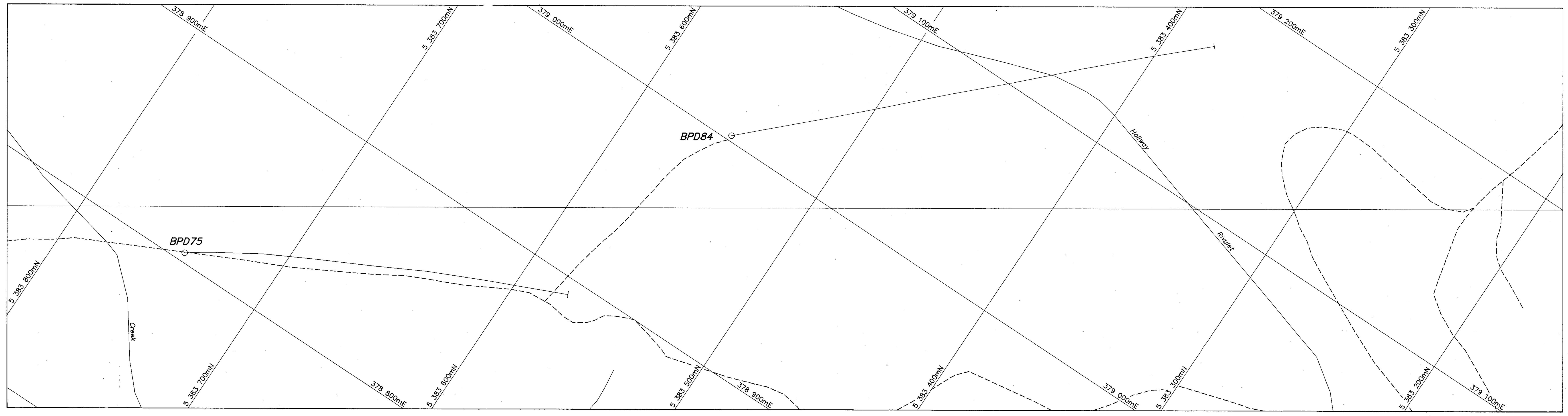
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

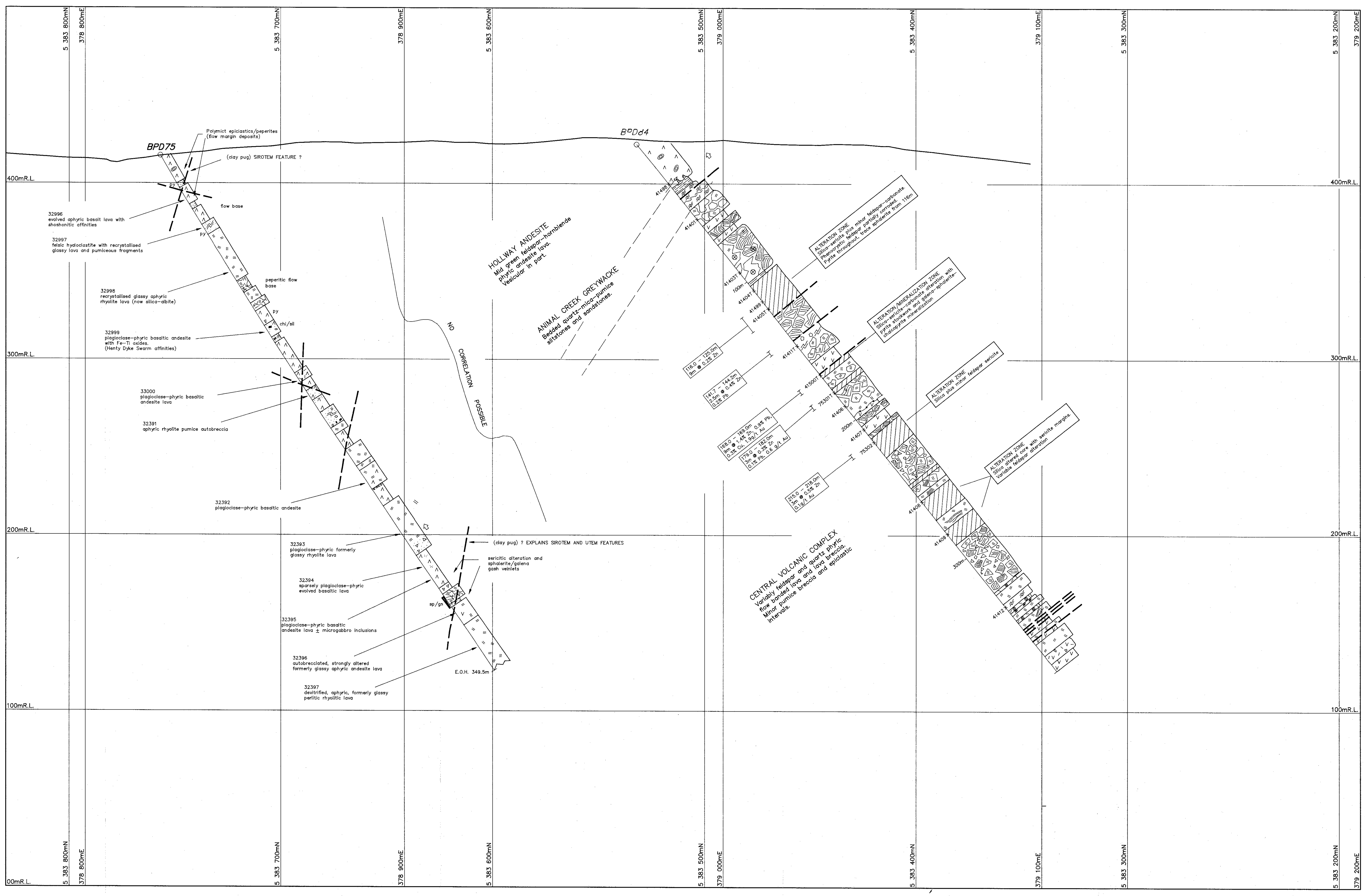
COMPILED : M.S.S.
DATE : April 1995
DRAWN : G.M.B.
REVISIONS :
FILE : 5_HOLGLY
DRAWING No.

E.L. 44/88 – BURNS PEAK JV
HOLLWAY
INTERPRETIVE GEOLOGY

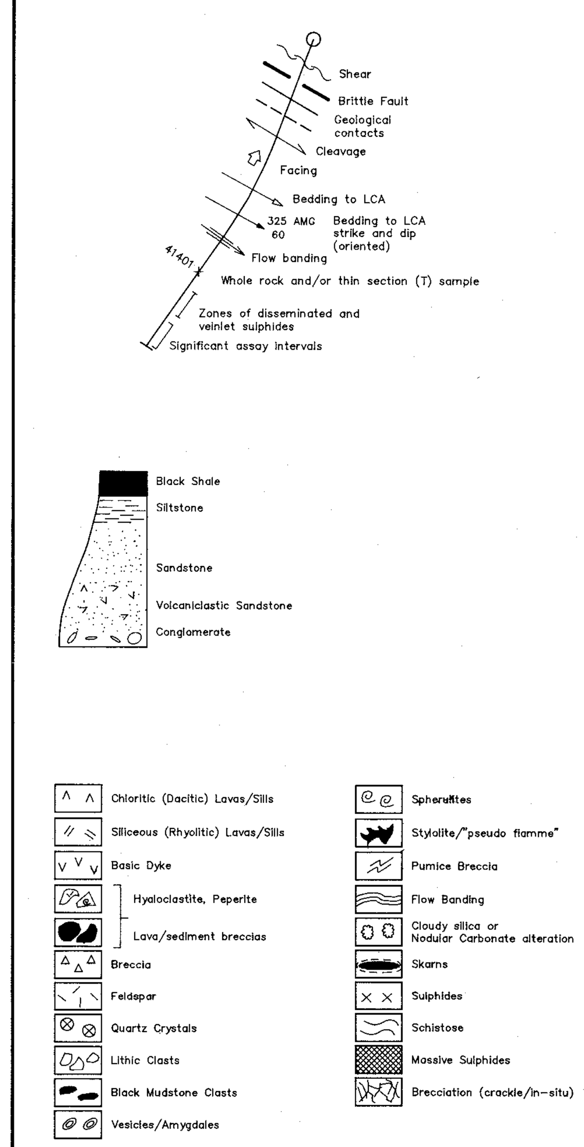
SCALE 1:5000 0 100 m

FIG. No. 18




## LEGEND




# 95-3803

BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON, M - VOLUME 2 OF 2

741307

5 cm

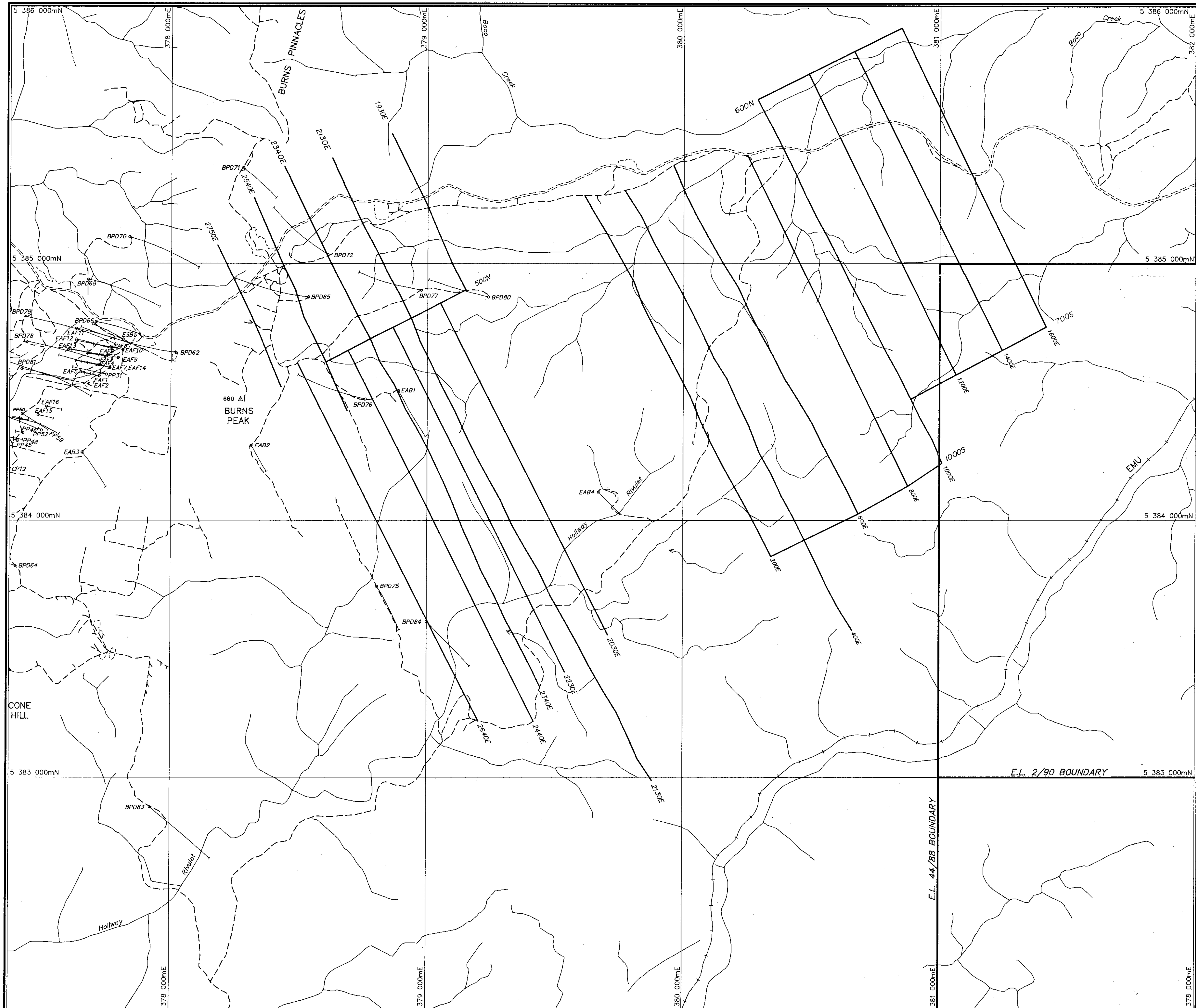
**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | E.L. 44/88 – BURNS PEAK JV |
| DATE : April 1995 | HOLLWAY |
| DRAWN : G.M.B. | INTERPRETED DRILL SECTION |
| REVISIONS : | **BPD75 and BPD84** |
| FILE : BPD84_A0 | BEARING 140° AMG |
| DRAWING No. | SCALE 1:1000 0 20 40 m — FIG. No. 20 |

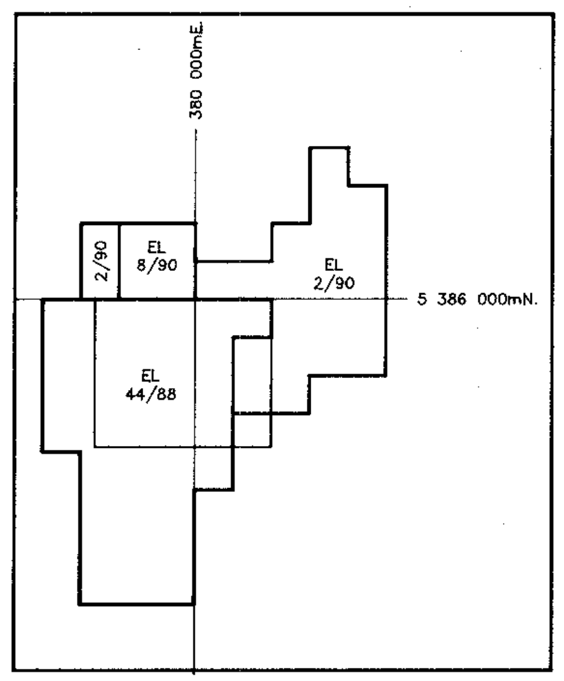
741308

# 95-3803

BURNS PEAK EL 44/88 PASMINCO,
PLUTONIC, ANNUAL REPORT 1995
SAXON. M - VOLUME 2 OF 2




5 cm



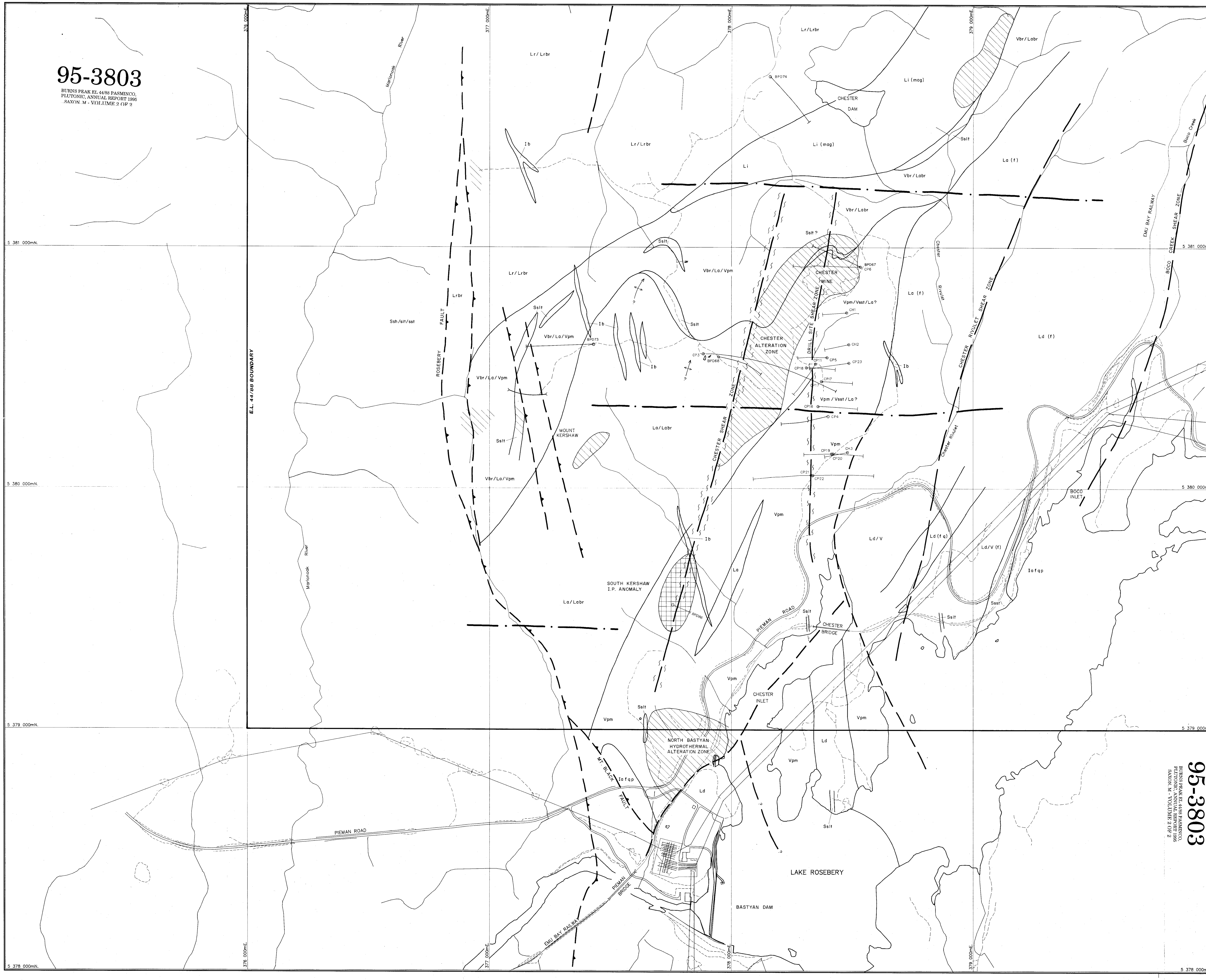

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

COMPILED : P.W.B.
DATE : July, 1995
DRAWN : G.M.B.
REVISIONS :

E.L. 44/88 – BURNS PEAK
E.L. 2/90 – BOCO

## I.P. COVERAGE

FILE : 10_IPCOV
DRAWING No.
SCALE 1:10,000 0 200 m
FIG. No. 22






## LEGEND

### 1. General Form

Colour, grain size, overall texture, Rock Type, constituents & textutres, alteration, mineralisation.

Descriptors and Rock Types to be separated by comma or slash. Derwent series 19 colours (in brackets) are intended for the Cambrian sequences.

### 2. Rock Types

**Lavas L**

| | | |
|---|---|---|
| a | (9) | acid |
| i | (46) | intermediate |
| b | (49) | basaltic |
| r | (9) | rhyolitic |
| d | (11) | dacitic |
| n | (46) | andesitic |

**Intrusives I**

| | | |
|---|---|---|
| a | (12) | acid |
| i | (46) | intermediate |
| b | (49) | basic |
| fel | | felsic |
| p | | porphyritic |
| g | (12) | granitic |
| peg | | pegmatitic |

**Volcaniclastics V**

| | | |
|---|---|---|
| pm | (7) | pumiceous mass flow |
| q | (32) | quartz phyric mass flow |
| sst | (32) | sandstone |
| mf | (32) | coarse lithic mass flows |

**Sediments S**

| | | |
|---|---|---|
| sh | (35) | shale |
| t | (36) | slate incl. black slate |
| slt | (35) | siltstone |
| sst | (39) | sandstone |
| tb | | turbidite |
| w | (39) | wacke |
| cong | (39) | conglomerate |
| Δ | | breccia |
| cht | (34) | chert |
| lst | (65) | limestone |
| dol | (65) | dolomite |
| q | (39) | quartzite |
| Fe | | iron formation |
| gl | (4) | glacial deposits |
| fgl | (4) | fluvioglacial deposits |
| alv | (4) | alluvial deposits |
| mst | (35) | mudstone |

**Metamorphic Rocks M**
Colours should be hatched

| | | |
|---|---|---|
| sht | (38) | schist |
| sp | (35) | semi-pelite |
| ps | (39) | psammite |
| amph | | amphibolite |
| gran | | granulite |
| sk | | skarn |
| mb | (65) | marble |
| m | | mylonite |

**Unassigned** ? Use alone or as a qualifier to other rock types where uncertain.

### 3. Descriptors

**Colour:**
ple pale; dk dark; clr clear; or orange; blk black; pk pink; rd red; brn brown; bl blue; wht white; yel yellow; ol olive; grn green; ppl purple; crm cream

**Grainsize:**
fg fine grained; mg medium grained; cg coarse grained; vcg very coarse grained

**Overall Texture:**
aug augen; p porphyritic; fol foliated; clvd cleaved; msv massive; blk blocky; bd bedded; lam laminated; xbd cross bedded; xlam cross laminated; br brecciated; fb flow banded; fΔ flow brecciated; ufs upwards fining sequence; hyl hyaloclastic; pill pillowed; pep peperitic

**Constituents & Internal Textures:**
f feldspar; q quartz; l lithic; pm pumice; styl stylolites; wsp wisps; ves vesicles; sph spherulites; lph lithophysae; mic micaceous

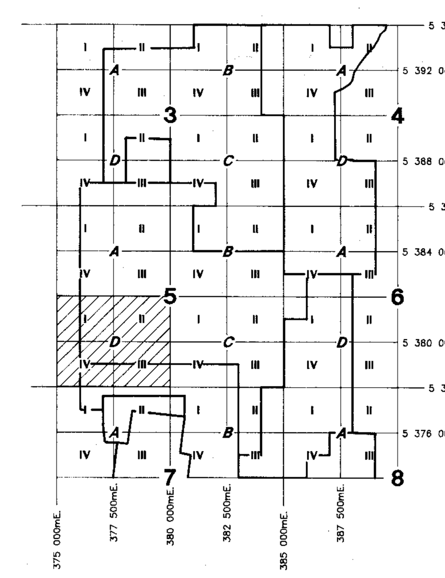
**Alteration:**
alb albitised; co carbonate alteration; chl chloritised; ser sericited; kao kaolinised; ep epidotised; sil silicified

**Mineralisation:**
diss disseminated; str stringer; msv massive; gos gossan; bx boxwork; py pyrite; po pyrrhotite; asp arsenopyrite; gn galena; sp sphalerite; mag magnetite; hm haematite

### 3. Mapping Symbols

Strike and Dip of Strata (25)
Strike and dip of inverted strata
Strike and dip of cleavage or foliation (60)
Plunge of lineation (50)
Geological boundary position accurate
Geological boundary position approximate
Mine
Abandoned prospect or mine
Costean or trench
Diamond drill hole, including projection
I.P. Anomaly
Unconformity
Fault
Thrust Fault
Plunging antiform
Plunging synform
Shear/strong cleavage
Sil + Ser + Py Alteration Zone
Magnetic/Gravity/TM Lineaments

Mapping and interp. by : M. S. Saxon, L. W. Kirsner, A. N. Lorrigan and J. G. Purvis




GRID CONVERGENCE 1.0°
GRID/MAGNETIC 12.0°
5 cm

741309

**PASMINCO EXPLORATION**
A Division of Pasminco Australia Limited

| | |
|---|---|
| COMPILED : M.S.S. | E.L. 44/88 - BURNS PEAK JV |
| DATE : March 1993 | **INTERPRETIVE GEOLOGY** |
| DRAWN : G.M.B. | SHEET 5D |
| REFERENCE : | |
| REVISIONS : | |
| DRAWING No. | SCALE 1:5000 (0 100 200 METRES) |

FIG. No. 23

741310

PASMINCO
EXPLORATION

7 December, 1995

REF: adm:95093

The Director of Mines
Tasmania Development & Resources
Industry Safety & Mines Division
30 Gordon's Hill Road
ROSNY PARK TAS 7018

Dear Sir,

**RE: ANNUAL REPORT - EL 44/88 BURNS PEAK**

Further to our renewal application dated 9 November 1995, I am submitting the Annual Report for EL 44/88, Burns Peak JV. This report was compiled by MS Saxon (Project Geologist) and describes exploration activities undertaken during the period November 1994 to October 1995.

Due to some unavoidable problems with our computer system, Appendix 5 and 8 will follow as soon as possible, I apologise for this delay.

appx 8 Supplied 5+
22/1/96 GD

Yours faithfully

Amanda J Sullivan (Mrs)
Administrator - Tenements

Enclosure

A Division of Pasminco Australia Limited
ACN 004 074 962
Old Burnie Railway Station, Burnie TAS 7320
GPO Box 886, Burnie TAS 7320
Telephone (004) 317 477
Facsimile (004) 318 949

741311

PASMINCO
EXPLORATION

18 January, 1996

ref: adm:96008

Director of Mines
Tasmania Development & Resources
Industry Safety & Mines Division
PO Box 56
ROSNY PARK TAS 7018

22 JAN 1996
ROSNY

Dear Sir,

**RE: BURNS PEAK EL 44/88 REPORT No.T95-19**
95-3803

Further to our correspondence accompanying report No.T95-19 (EL 44/88 Burns Peak), I am submitting the missing appendices 5 and 8. - Only appx 8 attached G.O.

Figures 2, 3 and 5 in this report have also been up-dated and replacement copies for the report are enclosed.

If you require further details, please contact me in the Burnie office.

EL 44/88
2? JAN 1996
GO

Yours faithfully

Amanda J Sullivan (Mrs)
Administrator - Tenements

Enclosure