



ANNUAL REPORT 1995/96

TASMANIAN BASE METALS

ELS 102/87, 55/89 AND 12/92

*"Queenstown", "Mt Darwin" &
"Queenstown South"*

**Vol 1 of 2
Text and Appendices**

HELD BY: BHP Minerals

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PROSPECTS: Garfield, Slate Spur, Jukes Proprietary, Mountain Maid

MAP SHEETS: 1:100,000: Franklin, Sophia

GEOGRAPHIC COORDS	Min East: 3750000mE	Max East: 3870000mE
	Min North: 5320000mN	Max North: 5368000mN

COMMODITY(s): Cu, Pb, Zn, Au, Ag

KEY WORDS: Cu-Au Mineralization, Western Tasmania

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SUMMARY

Exploration Licences 102/87 Queenstown, 55/89 Mt Darwin and 12/92 South Queenstown cover a 30km N-S trending exposure of Cambrian Mt Read Volcanics from Lake Margaret to Slate Spur. E.L.'s 102/87 and 55/89 are held by BHP Minerals Ltd and explored by RGC Exploration under a joint venture agreement entered into on 29th November, 1991. RGC acquired an adjoining area as E.L. 12/92 on 12th October 1992, and this was also included in the joint venture. The total area covered by these licences is 130 sq kms.

Six diamond drill holes were completed at the Garfield Prospect. They intersected low grade Cu-Au mineralisation with average Cu grades ranging from 700 to 2000ppm. Four drill holes were tested with down hole EM surveys, but no conductors were detected. A small gradient array IP survey extended the coverage from a previous survey and also tested another lithological (andesite) target and a magnetic target. This traced the host andesite as a chargeability anomaly for almost 1km to the north of the Cu prospect, but the response is weak and does not warrant drilling. The Garfield Prospect has now been fully tested and no further work will be undertaken here.

A hole was drilled at the Penghana Prospect to test a magnetic anomaly in an andesite unit that has affinities with the Garfield andesite. No mineralisation other than a 45cm base metal vein was intersected. This hole was also tested with down hole EM.

Detailed mapping and infill soil sampling is underway at Slate Spur where the target is the possible seafloor position equivalent to the top of the Garfield Cu-system. Details of the mapping are presented in this report, but the soil sampling has not yet been completed.

A mapping and IP program was completed at the Mountain Maid Prospect on the northern slopes of Mount Huxley. This has defined a conformable alteration zone in a package of sediments between dacitic lava units. The zone is limited to a strike length of about 250m and a decision is yet to be made about whether it will be drilled.

A review of the Jukes Proprietary Prospect indicated that the centre of the magnetic and IP anomalies related to the mineralisation has not been drilled. However, the adjacent drill holes, adit sampling, road-side sampling and the location of the King River Tunnel constrain the size of the untested target. It is not considered worthwhile proceeding with further drilling at this prospect.

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1. INTRODUCTION

Exploration Licences 102/87 - Queenstown and 55/89 Mt Darwin are held by BHP Minerals Ltd. (BHPM) and an adjoining licence, E.L. 12/92 is held by RGC. These licences are explored by RGC Exploration Ltd under the terms and conditions of a joint venture agreement. Approval was granted allowing the joint reporting of the exploration work because the tenements form a single coherent geological block.

The tenements currently occupy a total area of 130 sq kms surrounding Queenstown extending to the north, in part, some 30 kms to Moxon Saddle and to the south some 20 kms to Slate Spur (Figure 1). They cover a significant portion of the Cambrian Mount Read Volcanics. These rocks host a variety of significant mineral occurrences.

Much of the previous work in this area targeted copper-gold mineralisation of the Mt Lyell style. More recently BHPM covered selected areas with blanket UTEM looking for VMS mineralisation. This was supported by some geological mapping and rock chip/stream sediment geochemistry.

RGC is also exploring this area for Rosebery-style VMS mineralisation. The exploration approach which has been applied involves detailed geological mapping in an attempt to identify possible mineralised horizons and alteration zones. This mapping is supported by multi-element soil and rock geochemistry. Any alteration zones thus identified can be tested by deep drilling and down-hole geophysics.

This report documents the work completed by RGC during the period March 1995 to February 1996.

2. LAND TENURE

E.L. 102/87 - **Queenstown** was granted to BHPM on 22nd April, 1988. The tenement initially covered 95 sq kms in three separate parts (Figure 1)

Part (i)	-	Queenstown of 74 sq kms
Part (ii)	-	Garfield of 19 sq kms
Part (iii)	-	Moxon Saddle of 2 sq kms

Part (i) totally enclosed the Mt Lyell Mine Lease, 30M/80. In 1988 Mining Lease Application areas (MLA's) were cancelled by Mt Lyell increasing the area of Part (i) to 79 sq kms. Again in early 1992 additional MLA's were relinquished further increasing Part (i) to 84 sq kms. This tenement currently covers 105 sq kms and was due for 50% reduction on or before 22nd April, 1993. A meeting with representatives of the Department of Mines Tasmania (DMT) was held on 15th April, 1992 where RGCE expressed its interest in postponing the reduction date by 12 months due to its recent entry into the Agreement with BHPM.

E.L. 55/89 - **Mt Darwin** was granted to BHPM on 5th May, 1990. This tenement covers

78 sq kms and links Parts (i) and (ii) of E.L. 102/87 (Figure 1) resulting in a continuous exposure of Mt Read Volcanics over a strike length of 14 sq kms which is explored as a single coherent block. Because of this BHPM was successful in gaining approval from the DMT to jointly report on exploration activities (15th March, 1991).

E.L. 12/92 - **South Queenstown** was granted to RGC on 12th October 1992. This tenement formed a narrow strip partly enclosing the other E.L.'s. It was divided into 3 parts:

- Part (i) - 49 sq kms on the eastern side of the West Coast Range
- Part (ii) - 15 sq kms over Mt Sorell and Mt Strahan
- Part (iii) - 2 sq kms south of Lake Margaret.

A significant portion of E.L.'s 102/87 and 55/89 was within the South-West Conservation Area (SWCA) and considered to be environmentally sensitive. Despite the revocation of Conservation Area status in areas north of Macquarie Harbour exploration activities in the Garfield/Clark Valley are still subject to approval from the Mineral Exploration Working Group.

Following the partial relinquishment in 1995 the total area covered by the three E.L.'s was reduced to 130 sq kms. This is made up of:

- | | |
|-------------|---------------------------------------|
| E.L. 102/87 | Part (i) Queenstown - 56 sq kms |
| | Part (ii) Garfield - 18 sq kms |
| | Part (iii) Moxon Saddle - 2 sq kms |
| E.L. 55/89 | Part (i) Mt Darwin - 28 sq kms |
| E.L. 12/92 | Part (i) West Coast Range - 16 sq kms |
| | Part (ii) Mount Sorell - 8 sq kms |
| | Part (iii) Lake Margaret - 2 sq kms |

3. WORK COMPLETED

3.1 Previous Work

Previous exploration work completed by BHP is summarised by Cameron and Read (1991). The work completed by RGC since entering the joint venture is documented by Halley (1992), Halley (1993), Halley (1994) and Halley, Vicary and Boyd (1995). The most significant outcome of this work was the discovery of the Garfield Prospect, a Prince Lyell style of disseminated and veinlet Cu-Au mineralisation. The geochemistry and genesis of the Garfield Prospect is described in Appendix 14.

3.2 Helimag Survey

During February 1995 a detailed Helimag survey was flown over all of RGC's tenements south of Henty. This survey employed a stinger-mounted sensor, rather than a towed bird, and with real-time corrected differential GPS navigation accurate to +/- 2m, this survey will most likely be the best magnetic data available for the next ten to twenty years. The survey was flown by UTS Geophysics Pty Ltd in a Helicopter Resources Squirrel helicopter. The survey was flown with a flight line spacing of 100m and a nominal ground clearance of 30m. The data was processed by Tesla 10.

3.3 Garfield

Five short diamond drill holes were completed to test the near surface Cu values, to try to understand the low tenor of the surface geochemistry. The holes were drilled by Nick Poltock with his portable drilling equipment. Details of the holes are given in the following table.

Drill hole GAR012 was designed to test the mineralised zone at depth between holes GAR001 and 003. It was a helicopter supported hole drilled by Diamond Drilling Tasmania with a Longyear 38 rig. All of the equipment was flown in and out from the surge pond site next to the Mount Jukes road.

HOLE	GAR007	GAR008	GAR009	GAR010	GAR011	GAR012
DRILLED BY	NICK POLTOCK	NICK POLTOCK	NICK POLTOCK	NICK POLTOCK	NICK POLTOCK	DIAMOND DRILLING TAS.
START	APRIL 1995	APRIL 1995	APRIL 1995	APRIL 1995	APRIL 1995	3/10/95
FINISH	APRIL 1995	APRIL 1995	APRIL 1995	APRIL 1995	APRIL 1995	14/10/92
SIZE	TT46	TT46	TT346	TT46	TT46	NQ
DEPTH	40.15	39.8	40.9	41.0	40.0	482.0
INTERVAL SAMPLED	1 - 40.15	1 - 39.8	3 - 40.9	1 - 41.0	0 - 40.0	410 - 455
ELEMENTS ASSAYED	Au, Ag, Cu, Pb, Zn	Au, Ag, Cu, Pb, Zn	Au, Ag, Cu, Pb, Zn	Au, Ag, Cu, Pb, Zn	Au, Ag, Cu, Pb, Zn	Au, Ag, Cu, Pb, Zn

Four of the Garfield drill holes, GAR004, 005, 006 and 012 were surveyed with downhole transient electromagnetics. The surveys were conducted by Outer-rim Exploration Services using a Crone Pulse EM system. The loop layouts were designed to utilise as far as possible existing cut grid lines to minimise the environmental impact. Although it was recognised that the mineralisation identified at Garfield would not respond to EM, it is still considered that there is high potential for the discovery of exhalite massive sulphide mineralisation at a higher level in the stratigraphy. The down hole EM survey was designed and conducted with this model in mind.

The previous IP survey conducted at Garfield (Halley, 1995) did not close off the chargeability anomaly to the north. An extension to the IP coverage was proposed to test three targets, (1) the continuation of the known chargeability anomaly, (2) a second parallel lens of andesite to the north that is also strongly altered and (3) a small andesite body near the Thomas Curry rivulet with a strong magnetic signature identified in the Helimag survey. The IP survey was conducted by Quadrant Geophysics using a Scintrex IPR12 receiver and Zonge GGT-2.5kw two second time domain transmitter. The gradient array survey used a 50 metre receiver dipole and data was recorded at half the receiver dipole length, 25 metres. Two lines were resurveyed with a dipole-dipole array.

3.4 Slate Spur

Another target considered at Garfield is the position of the seafloor at the time the Cu mineralisation was forming. Isotope studies show that Garfield is a seawater dominated alteration system, and the seafloor position above the Cu-Au mineralisation should have potential for Rosebery style Pb-Zn mineralisation. This horizon might be in the siltstone unit that runs along the Garfield River, or it might be at the base of the Tyndall Group which is a mineralised horizon in other parts of the Mount Read Volcanics. The only anomalism of any kind noted so far is a Pb-Zn soil geochemical response near the top of the Yolande River Sequence on the northern slopes of Slate Spur. This area was remapped in more detail by Bill Wyman, paying particular note to any alteration that may be present, and subdividing the stratigraphy as far as possible. The original soil sampling program sampled 400m spaced lines, with samples collected at 50m intervals. Work is in progress in this area to close the sample spacing to 200m by 25m so that the base metal anomaly can be properly evaluated.

3.5 Mountain Maid Prospect.

Previous work by BHP around the Mountain Maid Prospect included reconnaissance rock chip sampling and a trial line of dipole-dipole IP. This work noted a strong chargeability response over the old workings and a channel sample of 5m @ 2.15ppm Au was recorded. To follow up on this result, RGC mapped the area at 1:1,000 and collected rock chip samples throughout the alteration zone. A small gradient array IP survey was designed to test the extent of the exposed alteration system. The IP survey was conducted by Quadrant Geophysics using a Scintrex IPR12 receiver and Zonge GGT-2.5kw two second time domain transmitter. The gradient array survey used a 50 metre receiver dipole and data was recorded at half the receiver dipole length, 25 metres. Two lines were resurveyed with a dipole-dipole array.

3.6 Jukes Proprietary Prospect.

The Helimag survey indicated that the centre of the magnetite alteration zone at Jukes Pty does not coincide with the centre of the known mineralisation. When this was compared with the open file IP data from this prospect, it was discovered that the chargeability anomaly was adjacent and parallel to the magnetic anomaly, but both were north of the historic Jukes Pty workings. In light of this the prospect was remapped, in particular looking at possible zonations in the alteration mineralogy. Previous exploration data was reviewed to see if the magnetic - IP target warranted drill testing. An extensive whole rock and trace element database was made available by Bill Wyman from his Ph.D. research work. As part of this work he had systematically sampled and assayed the road cuttings through the Jukes Pty area. RGC added to this database by submitting his sample pulps for assay by NAA to add Au, REE's, etc to the data.

3.7 Penghana

In a comparison of all andesites in the Lyell-Darwin district, two units with chemistry and air-mag signatures similar to Garfield were noted. One of these is Little Owen, south of Mount Lyell, where an intersection of 10m @ 4ppmAu has been recorded. The other is on Penghana Hill, north of Queenstown. Mapping, ground magnetics and a soil geochemistry program have been completed on this grid (Halley et al., 1995). The andesite, like that at Garfield, is not uniformly magnetic, suggesting that the magnetite is an alteration mineral rather than a primary magmatic phase. A large barite vein, Madam Howards Barite, occurs a few hundred metres away in the hangingwall sequence. This vein is similar to barite veins on Philosophers Ridge adjacent to Prince Lyell. The soil geochemistry showed that the andesite at Penghana was anomalous in Pb and Zn, at levels similar to the margins of the Garfield system. A single drillhole was completed to test the Penghana prospect. This hole was surveyed with the Crone 3-component pulse EM system.

4. RESULTS AND DISCUSSION

4.1 Helimag Survey

The specifications and details of the Helimag survey are presented in Appendix 13. The results are presented as plans of contoured total magnetic intensity (Plans 1 to 4).

4.2 Garfield Area

4.2.1 Diamond Drilling

4.2.1.1 Holes GAR007,008,009,010 and 011

The levels of copper recorded in drill holes GAR001, 002 and 006 were an order of magnitude higher than the rock chip or soil values sampled at surface above the holes.

The median value for surface samples within the alteration zone was around 35ppm Cu compared to an average of 2000 to 3000 ppm in the drill holes. This may be due to leaching of copper in the weathering profile or it may represent a primary copper distribution, analogous to Western Tharsis, where ore grade copper was not intersected until 300m below surface.

To test this, a series of short diamond drill holes were completed. The holes will be drilled with Nick Poltock's portable drilling equipment to minimise the environmental impact. The holes were drilled into the top of the chargeability anomalies on lines 2000N to 2400N to a depth of about 40m. Each of the holes intersected a zone of disseminated and veinlet pyrite. No supergene copper minerals were noted. Fresh pyrite was present from surface, but the abundant calcite normally found with the Garfield mineralisation was leached out from these holes.

Assay results from the short DDH's were higher than expected, but still a factor of 2 or 3 lower than the previous deeper holes. The results supported the suggestion that copper values increase with depth. This is displayed in Figure 8 where histograms of copper assays down the drill holes are plotted on a projected longitudinal section. Drill logs and complete assays for these holes are presented in Appendix 2 and 5.

Hole No.	Assay interval	Cu ppm (average)
GAR007	39.2m	337ppm
GAR008	39.8m	2030ppm
GAR009	38.9m	667ppm
GAR010	40m	1683ppm
GAR011	39m	1458ppm

4.2.1.2 Drill Hole GAR012

The reason for drilling GAR012 can be seen in Figure 8. For the Garfield Prospect to become an economic proposition, a minimum resource of around 50 million tonnes at Prince Lyell grades (1.6% Cu, 0.5ppm Au) would be required. The vertical zonation in copper grades displayed in Figure 8 suggested that grades of that magnitude could be encountered beneath holes GAR001, 002 and 003. Given the thickness of the mineralised zone encountered in these holes, a significant tonnage potential is also present within a realistic depth range. GAR012 was designed to intersect the mineralised zone between GAR001 and 003 at a depth 100 to 150m below the previous intersections.

GAR012 produced a disappointing result. The host andesite unit was intersected where expected, but was much narrower than in the holes up-dip. The mineralisation was only weakly developed in this hole, and consisted of disseminated pyrite with poorly developed sulphide veining. A 45m interval from 410 to 455m was assayed. This interval averaged 730 ppm Cu, with a maximum value of 4400 ppm. Full details of the hole are presented in Appendices 3 and 5, and the geological interpretation is presented as a cross section in Plan 5.

4.2.2 DHEM Survey

The results of the DHEM surveys are presented in Appendix 7. No anomalies of any interest were noted in any of the drillholes.

4.2.3 IP Survey

The IP survey extended the chargeability anomaly detected in the previous survey for an additional 600m to the north to at least 3200N, corresponding reasonably well with the mapped position of the host andesite. It is still open to the north. However, the strongest chargeability response detected to date is still in the zone from 2000N to 2300N where it has been demonstrated by the drilling results that a well developed mineralised zone is present. The extension of the chargeability zone is similar to the response recorded on line 2500N where drillhole GAR006 intersected only very weak mineralisation. It is therefore considered that the chargeable zone extending out to 3200N does not warrant testing by drilling. The chargeability response near the Thomas Currie River is further east than the magnetic anomaly and is clearly unrelated. Its position coincides with the contact the CVC and the ridge of Pioneer Beds that forms Snake Spur. This contact has been tested in this vicinity by two holes drilled by Goldfields in the mid 80's (Snake Spur Prospect). No further work is warranted here. The chargeability response detected in the western part of the survey area is most likely related to a sediment unit in the Yolande River Sequence. A more detailed discussion of the survey results is presented in Appendix 9.

4.3 Slate Spur Area

4.3.1 Mapping

The results of the Slate Spur mapping are presented on plans 6 and 7. The following notes about the mapping were prepared by Bill Wyman.

Lithological Descriptions:

Yolande River Sequence **Cyt**

Cytq Fine to medium grained white lava, intrusives (subvolcanic) and juvenile volcanoclastics. Generally very well developed cleavage parallel or at least subparallel to bedding and flow banding. Quartz phenocrysts well developed, euhedral and vary from 0.5 to 2 mm in diameter. This unit always has well developed light green sericite on cleavage surfaces causing a lot of shearing and a well developed grain parallel to cleavage and "bedding". This is the dominant lithology in the mapped area.

c.g. Cytq Coarse grained massive quartz phyric lava. quartz phenocrysts average 3 mm but many are larger. The groundmass is often medium grained and equigranular. Foliation and cleavage are poorly developed, but where cleavage is seen there is sericite developed on it. This unit dominates the western part of the Yolande River Sequence as the primary lava type and is intimately interbedded with siltstones, mudstone and other minor quartz phyric lavas.

Cytq(vc) Volcanoclastic. Dominated by lithic clasts about 5 - 10 cm in size, some are up to 70 cm. Most lithics are at least partially rounded to subrounded although the larger ones tend to be very angular. The lithics appear to be monomictic and are composed of flow banded quartz phyric lava. The groundmass is usually quartz phyric to aphyric rhyolite. These units may be hyaloclastitic and are usually not mappable along strike for any distance.

Cys(ss) or Cys(gw) Sandstone or greywacke. Medium grained light beige coloured sandstone. Occurs as lenses in the Cytq or as ,or extensive thin units in the sedimentary package. This unit may grade along strike into greywacke associated with Cytq.

Cys(st) or Cys(ms) Siltstone or mudstone. Often these are difficult to tell apart because they are probably interbedded and related. Thinly bedded friable with light coloured sericite on bedding surfaces. Cleavage is parallel to bedding

Cys(sh) Shale. Occasionally black shale as a few thin lenses. Probably grades along strike or vertically into siltstones. Often contains very finely disseminated pyrite.

Cys Undifferentiated sediments. Usually mudstone or siltstones in very thinly alternating units. Very hard to accurately locate as it weathers rapidly.

Cytqfb and Cytqb Quartz feldspar biotite porphyry. Medium to dark green massive coherent porphyry. Quartz phenocrysts to 1.5 mm, feldspar to 1.5 mm and biotite to 1mm in euhedral books. Biotite alters to hematite in weathered specimens but the

larger biotites may alter to chlorite(?). The groundmass is sericitically altered. The well developed regional north west cleavage is only weakly developed in this unit but is visible. This unit appears to be intrusive in the southern portion of the study area but it becomes more conformable to the northwest where it begins to look like a lava and often loses its feldspar phenocrysts and is just quartz-biotite (or muscovite) phyric. The unit may represent a cryptodome and associated sills. In the northwest of the mapped area the unit is muscovite phyric (cf. previous mapping).

Cytqf(Cytfq) Medium grained quartz feldspar (or feldspar quartz) phyric lava. Feldspars rarely preserved and are usually replaced by a medium grained green sericite (?). This created a spotted or blotchy appearance to the rock. Quartz phenocrysts are 1 - 2 mm in diameter and are euhedral. In weathered specimens the feldspars are often replaced by minor hematite. The rock shows well developed cleavage in the southern portion of the area but to the north and east becomes massive and coherent with very poorly developed cleavage.

Observations

Quartz feldspar phyric rocks dominate the lower Yolande River Sequence in the mapped area. This is shown by the abundance in the northeast and southern parts of the area.

The Central Volcanics Sequence (Ccf) clearly interfingers with the quartz and quartz feldspar phyric rocks of the Yolande River Sequence in the north east portion of the map area.

The coarse grained Cytq in the west part of the map area is clearly different from the Cytq to the east. The rock is massive and poorly foliated and may represent a sill. The c.g. Cytq is intimately associated only with the sedimentary rocks of the Yolande River Sequence. This unit intruding into the Yolande River sequence sediments may have created enough concentrations of metals from the black shales and surrounding volcanics to account for the soil anomalies.

4.3.1 Soil Geochemistry

The soil sampling program at Slate Spur has yet to be completed. Assays for the first part of the survey are presented in Appendix 6. The second part of the survey will be conducted in late January - February 1996.

4.4 Mountain Maid Prospect

4.4.1 Mapping & Rock Chip Geochemistry

The Mountain Maid prospect is a stratigraphically controlled zone of intense quartz, pyrite, sheet silicate alteration. It occurs in a package of fine grained cherty siltstones lying between autobrecciated dacite lava flows. The alteration zone is of limited strike extent and has been mapped for about 300m. The intense alteration is confined to a 50m zone in which there is low level anomalous gold. This zone, however contains no associated base metal anomalism. The results of the mapping and rock chip sampling are described in Appendix 11.

4.4.2 IP Survey

The IP survey specifications are detailed in Appendix 10. The chargeability anomaly matched closely the position and extent of the mapped alteration zone.

4.5 Jukes Pty Prospect

4.5.1 Mapping

The 1:2,500 mapping and a discussion of the results is presented in Appendix 12. The best results from previous exploration at Jukes Pty came from the channel sampling in the lower adit (16m @ 1.68% Cu, 1.4ppm Au) and from a nearby drillhole (JP2, 9m @ 1.55% Cu, 1.56ppm Au). A row of holes 200m below the level of the adit (JP3, JP4, Z142003, JP1) all intersected thin low grade zones, and have effectively tested depth extensions of the Jukes Pty mineralisation. The anomalous IP and magnetic zone down slope from Jukes Pty remains untested near the surface, however the King Tunnel passed through barren rock 300m below this zone. The King Tunnel is also protected by a 200m exclusion zone. Both of these factors severely reduce the tonnage potential and accordingly it has been decided not to proceed with the drill hole proposed in Appendix 12.

4.6 Penghana Area

4.6.1 Diamond Drilling

Diamond drill hole PEN001 (Plan 8) was designed to test for "Garfield style" mineralisation within the strongly magnetic andesites at Penghana. The hole was targeted at the main magnetic anomaly (63275 nT) and an associated soil anomaly of 214 ppm Cu, 122 ppm Pb and 290 ppm Zn. A drill log of PEN001 is presented in Appendix 4 and assay results given in Appendix 5.

The hole was collared within Yolande River Sequence volcanoclastic siltstones and sandstones and the andesite was intersected from 40.5 to 229.5 m. The upper part of the andesite body from 40.5 to 119.0 m is a weakly altered equigranular andesite. It contained a thin quartz - carbonate - chlorite - epidote vein (approximately 0.45m wide) with 5% chalcopyrite, galena and pyrite. This is underlain by approximately 30 m of pink albite alteration with 1 % pyrite. Apart from the vein which assayed 1 m at 1.7% Cu and 0.62% Pb this alteration zone contained no significant basemetal abundances. Underlying the equigranular andesite is a weakly altered feldspar hornblende phyrlic porphyritic andesite. A zone of fine carbonate chlorite veinlets with traces of chalcopyrite and galena was intersected from 162 to 171 m. Assay values returned only low base metal values. There is local faulting at the contact between the two phases of andesite.

From 229.7 to 272.1 (EOH) m the hole intersected the Yolande River Sequence. The contact with the andesite was sharp and planar, and is most likely intrusive, suggesting that the andesite body is most likely a sill. From 229.7 to 242.5 m the Yolande River sequence consists of pale grey siltstones. These are underlain by crystal rich quartz

feldspar phyric volcanoclastic sandstones from 242.5 to 272.1 (EOH).

4.6.2 DHEM Survey

A DHEM Survey was performed on hole PEN001 in November 1995. A detailed report is presented in Appendix 8. The results of the survey suggested that there were no off hole conductors present.

Due to the lack of significant alteration in drill hole PEN001 and the poor response from the DHEM survey no further work is planned at Penghana.

5. PROPOSED WORK PROGRAM - 1996/97

Drillhole GAR012 has tested the down dip potential of the Garfield Cu Prospect, and GAR006 and the IP surveys have closed off the potential along strike to the north. No further work is planned for this prospect.

A program of infill soil sampling is in progress at Slate Spur. This program will increase the sampling density to 200m by 25m across a package of rocks that contains the inferred Garfield seafloor position. If this sampling confirms the base metal zone suggested by the earlier broad spaced sampling, then it should be tested by drilling.

A review of the Jukes Proprietary Prospect indicates that it has been tested by five drill holes, systematic channel sampling of the old adits and the road cuttings, and by systematic mapping and sampling through the King River Tunnel. There have been no intersections with sufficient grades to support either a large-tonnage, low-grade operation, or a selective high grade mine. There is little remaining space in the system that has not been tested. No further work is planned here.

Mountain Maid is a well defined target that is appealing simply because it has not previously been drilled. The discouraging features are its small size and low geochemical tenor, but Henty and Mount Julia were also quite unimpressive in terms of their surface expression. It is proposed to do some stable isotope work on Mountain Maid to find out more about the nature of the hydrothermal system, and this prospect should be tested by a diamond drill hole and a down hole EM survey.

It is still planned to test the Beatrice and Moxon Saddle Prospects as described by Halley et al. (1995). The Moxon Saddle hole will be included as part of a more extensive Henty Mine Lease exploration program, and Beatrice should be drilled during the 1995/96 field season.

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