



**EL48/2003 MT BLOCK, TASMANIA**

**ANNUAL REPORT**

**11<sup>th</sup> January 2023 to 10<sup>th</sup> January 2024**

**Prepared for: Pieman Resources Pty Ltd (ACN 631 444 089)**

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15 January 2024**

*Note: All figures and grids are according to the GDA94 datum and MGA94 grid system.*

## **EXECUTIVE SUMMARY**

Pieman Resources Pty Ltd (Pieman) is a fully owned subsidiary of Ivy Resources Pty Ltd (Ivy Resources). Pieman purchased EL48/2003 from Bass Metals Ltd (Bass) in January 2020. Before this the company had an option over the tenement, which commenced in 2018.

During the reporting period, diamond drillhole (DDH) HAZ001 was completed at the Amoeba Target. The hole targeted a strong IP and surface geochemical anomalism associated with mapped strong silica-sericite-pyrite alteration. HAZ001 was collared on 3<sup>rd</sup> Jan 2023 and terminated on the 19<sup>th</sup> Jan 2023 at a depth of 299.6m.

HAZ001 intersected dominantly dacitic lavas and breccias, with minor andesitic interbeds and lesser polymict juvenile clast breccias. Alteration was dominated by variable amounts of albite, sericite and chlorite. Weakly developed disseminated and stringer-style pyrite was intersected sporadically between 127-201m, with a stronger zone (10-20% by volume) between 169-173m. Trace sphalerite-galena was observed from 186-187m, associated with barite veins.

A downhole transient electromagnetic (DHTEM) survey was completed during March 2023. The DHTEM survey results showed resistive background, interpreted to be associated with albite-altered dacites, and clear interference from 50Hz powerlines nearby. No significant in-hole or off-hole conductors were identified.

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Digital files submitted with this report:

Filename	File format
EL482003_202401_01_Report.pdf	<i>PDF</i>
EL482003_202401_02_Collar.xls	<i>XLS</i>
EL482003_202401_03_Assay.xls	<i>XLS</i>
EL482003_202401_04_Surv.xls	<i>XLS</i>
EL482003_202401_05_Lith.xls	<i>XLS</i>
EL482003_202401_06_QAQC.xls	<i>XLS</i>
EL482003_202401_07_Appendix.pdf	<i>PDF</i>

## 1. INTRODUCTION

This report is a summary of exploration activities completed on the Mt Block exploration license EL48/2003 between 11<sup>th</sup> January 2023 and 10<sup>th</sup> January 2024.

EL48/2003 surrounds the Hellyer Mine Lease (103M/1987) and the Que River Mine Lease (68M/1984). The Hellyer and Que River Mines are examples of world class polymetallic volcanic-hosted massive sulphide (VHMS) deposits. The Que River and Hellyer deposits are particularly enriched in precious metals Au and Ag as well as base metal sulphides Cu, Pb, and Zn. As such the tenement package is regarded as highly prospective for this style of mineralisation.

### TENURE

EL48/2003 Mt Block is held by Pieman after acquisition from Bass in February 2020. During the tenure of the EL it has undergone several reductions in land area as well as a merger with the former adjacent EL24/2004, Bulgobac River. The current tenement comprises a total of 47km<sup>2</sup> after the last partial relinquishment in 2016.

EL48/2003 is a mature exploration license and as such requires ongoing term of extension applications to maintain tenure. This tenement has potential to provide future feed to the Hellyer Mill, which is owned by Ivy Resources' other subsidiary Hellyer Gold Mines Pty Ltd. The company is motivated to explore and develop the lease over the next few years.

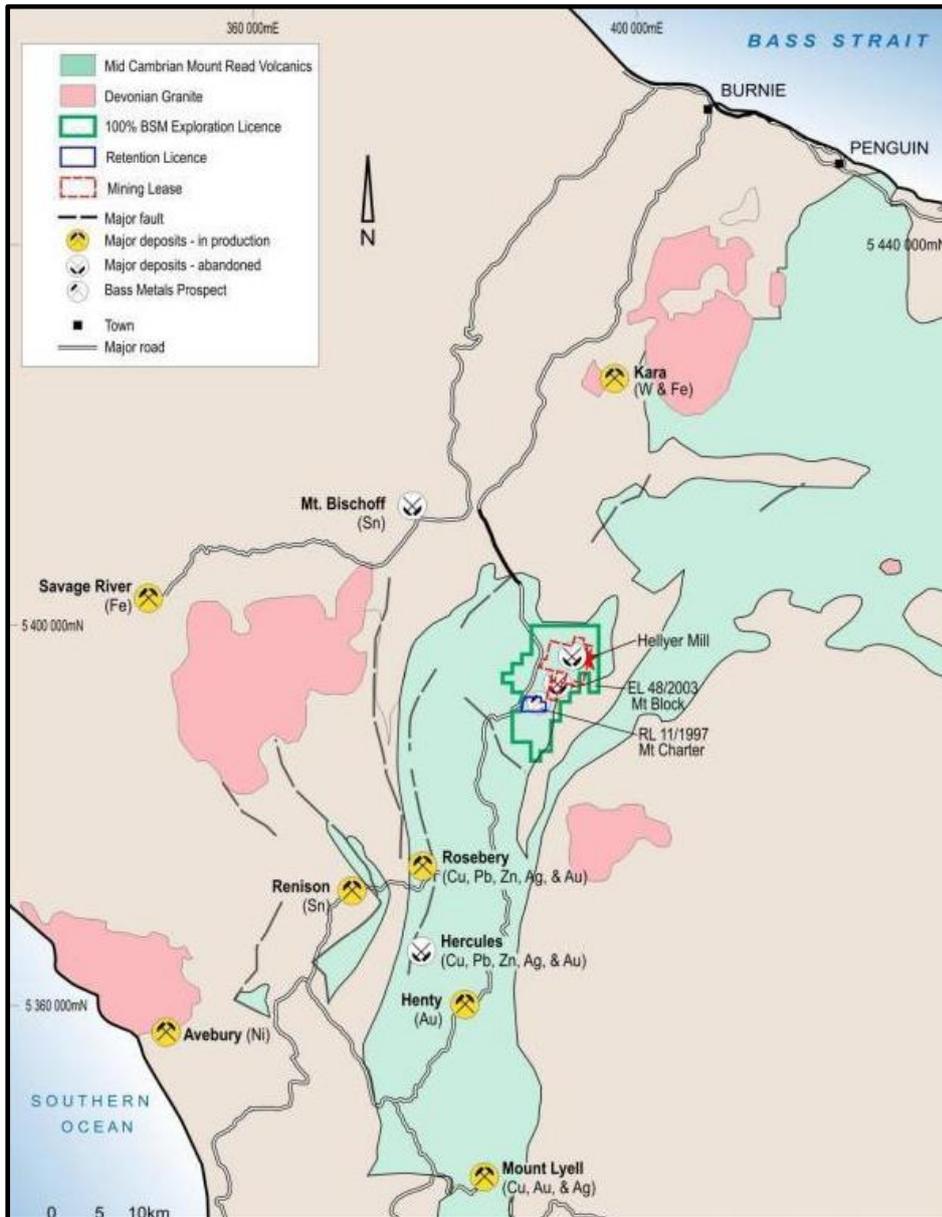
### LOCATION AND ACCESS

The tenement is located approximately 15 km's north-northeast of the township of Tullah, on the west coast of Tasmania (Figure 1 below). Access to the area is via the Murchison Highway and tracks which access via the 220kv power line which traverses the area. Access within the tenement is via a limited number of 4WD tracks and ATV-only tracks. The license area lies on the Sophia (#8014) 1:100,000 map sheet and Charter (#3839) and Block (#3838) 1:25,000 topographic map sheets.

## 2. REVIEW OF PREVIOUS WORK AND GEOLOGICAL SETTING

The Que River, Hellyer and Fossey polymetallic base metal sulphide and Mt Charter barite-precious metal deposits are hosted in the Que-Hellyer Volcanic (QHV) sequence within the Mt Charter Group of the Cambrian Mt Read Volcanics.

The QHV is a sequence of calc-alkaline mafic to felsic volcanics filling a northeast trending Cambrian submarine extensional basin. The basin depth varies dramatically from up to 1000m thickness near Que River and Hellyer but thins to 50m northwest of the Hellyer mine.



**Figure 1 Location of EL48/2003**

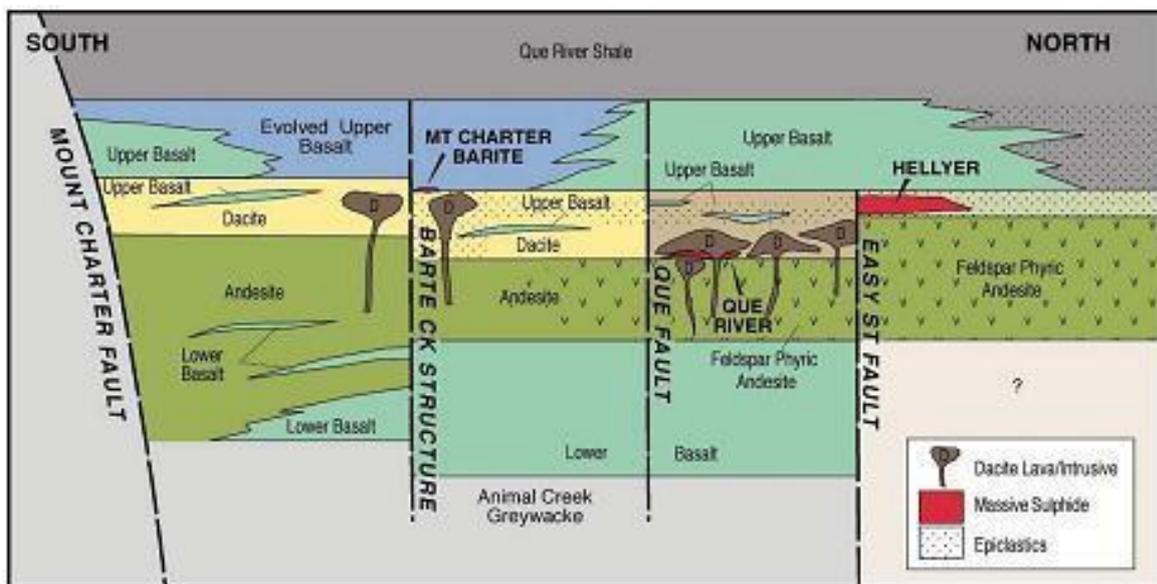
The QHV has been subdivided into several stratigraphic elements summarized below, with their arrangement and local faulting noted in Figure 2 below:

- Hellyer Basalt (Upper Basalt) - consisting of massive to pillowed amygdaloidal basalt lava and associated volcanoclastic rocks. An associated andesite is located in the Mt Charter region to the south.
- Mixed Sequence - host to the Que River, Hellyer and Mt Charter deposit is comprised of epiclastics, dacitic lavas and breccias.
- The Feldspar Phyrlic Andesite consisting of a porphyritic andesite lava in the footwall of the Hellyer and Que River deposits.
- The Lower Basalt, a sequence of basaltic pillow lavas and volcanoclastics, which form the immediate footwall at Que River and Hellyer.
- The QHV are overlain by the Que River Shale which is in turn overlain by the Southwell Subgroup consisting of felsic volcanoclastics, greywacke and shale. The Southwell subgroup is overlain by the Mt Cripps subgroup (a correlate of the Tyndall beds at the

Henty mine) which is a sequence of volcanoclastics, siltstones and conglomerates only outcropping along the eastern boundary of the Hellyer area tenements.

The Cambrian deposits have been subjected to the Mid Devonian regional deformation event resulting in folding, faulting, development of a regional foliation and prehnite- pumpellyite to lower greenschist metamorphism. Open, early NW trending folds and associated foliation has been overprinted by a later shallow NE-SW folding event. Cambrian syn-depositional faults have been reactivated and later brittle faulting is associated with rheology contrasts between earlier alteration facies. Cambrian basin architecture has been a control on volcanism, mineralisation and subsequent deformation.

In the south of the area covered by EL48/2003, the QHV are bound to the east by the northeast trending Henty Fault. The Geology east of the Henty Fault is dominated by Cambrian to Silurian siliciclastic and calcareous sediments of the Wurawina Supergroup.

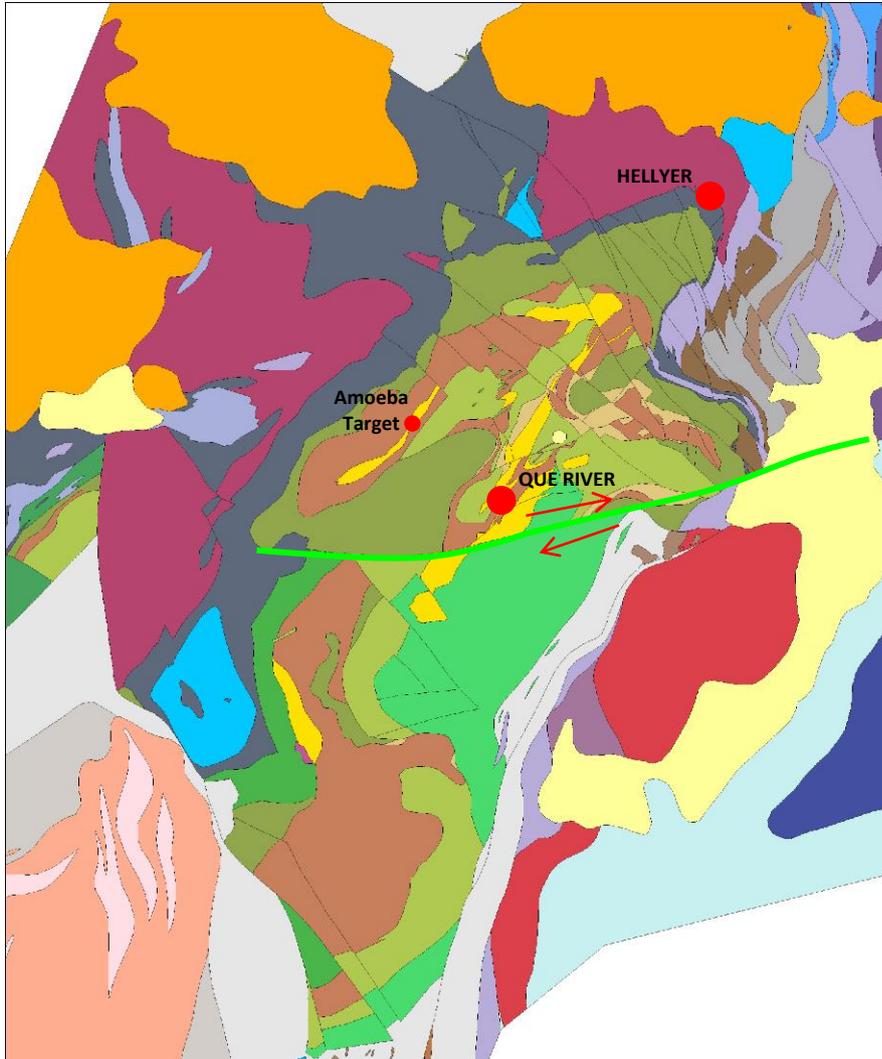


**Figure 2 Schematic cross section of Que-Hellyer Stratigraphic sequence.**

Work carried out in the Mt Block area prior to 2011 is summarised in the 2011 annual report (Denwer, 2011). The table below summarises more recent work:

2013-14: Work completed since 2011 included a geochemical review of prospective alteration zones within the QHV. The review was completed by external consultants and Bass Geological staff. Two zones of interest were identified on EL48/2003, the Amoeba Zone and the Barite Creek Fault.
2015: Compilation/digitization of petrographic reports and photographs (Richardson, 2015).
2016: Exploration on EL48/2003 during 2016-17 involved a review of historic data and target generation in the Que River area (Callaghan, 2017).
2018: Drilling one diamond Drillhole HED28 for 309.3m. The drillhole intersected unmineralised and unaltered mixed volcanics below the hangingwall basalt.
2019: Exploration on EL48/2003 during 2019 involved a review of historic data and target generation in the Que River area by the Company and independent parties.
2020: Pieman reran historic DTH electromagnetic Data. The company also undertook a rerun of the 1995 Seismic Data.
2021-23 Pieman reassessed DHEM from historical surveys where the modelled plates are not well constrained in 3-D spatial co-ordinates. New drilling targets were designed.

The reassessment during 2022-23 led to a renewed focus on the Amoeba Target, which is shown in relation to the regional geology in the figure below and subsequently drilled in the current reporting period.



**Figure 3 Regional Geology of the Que-Hellyer Volcanics and Amoeba Target**

### 3. EXPLORATION COMPLETED DURING THE REPORTING PERIOD

#### ***Drilling***

During the reporting period, 1 diamond drillhole (DDH) HAZ001 was completed at the Amoeba Target. The hole targeted a strong IP and surface geochemical anomalism associated with mapped strong silica-sericite-pyrite alteration. HAZ001 was collared on 3<sup>rd</sup> Jan 2023 and terminated on the 19<sup>th</sup> Jan 2023 at a depth of 299.6m. The drillhole intersected variably albite-sericite-chlorite altered dacite volcanics and volcanoclastics.

#### ***DHTEM***

Contractors completed a high power downhole transient electromagnetic (DHTEM) survey for Pieman Resources during March 2023. The aim of the survey was to identify nearby, off-hole conductors in the target area. Initial processing has been undertaken, with a formal report expected from consultants Southern Geoscience after the end of the reporting period.

#### 4. DISCUSSION OF RESULTS AND CONCLUSIONS

HAZ001 intersected dominantly dacitic lavas and breccias, with minor andesitic interbeds and lesser polymict juvenile clast breccias (Figure 4 A-D). Alteration was dominated by variable amounts of albite, sericite and chlorite. Weakly developed disseminated and stringer-style pyrite was intersected sporadically between 127-201m, with a stronger zone (10-20% by volume) between 169-173m. Trace sphalerite-galena was observed between 186-187m, which was associated with barite veins (Figure 4 E).

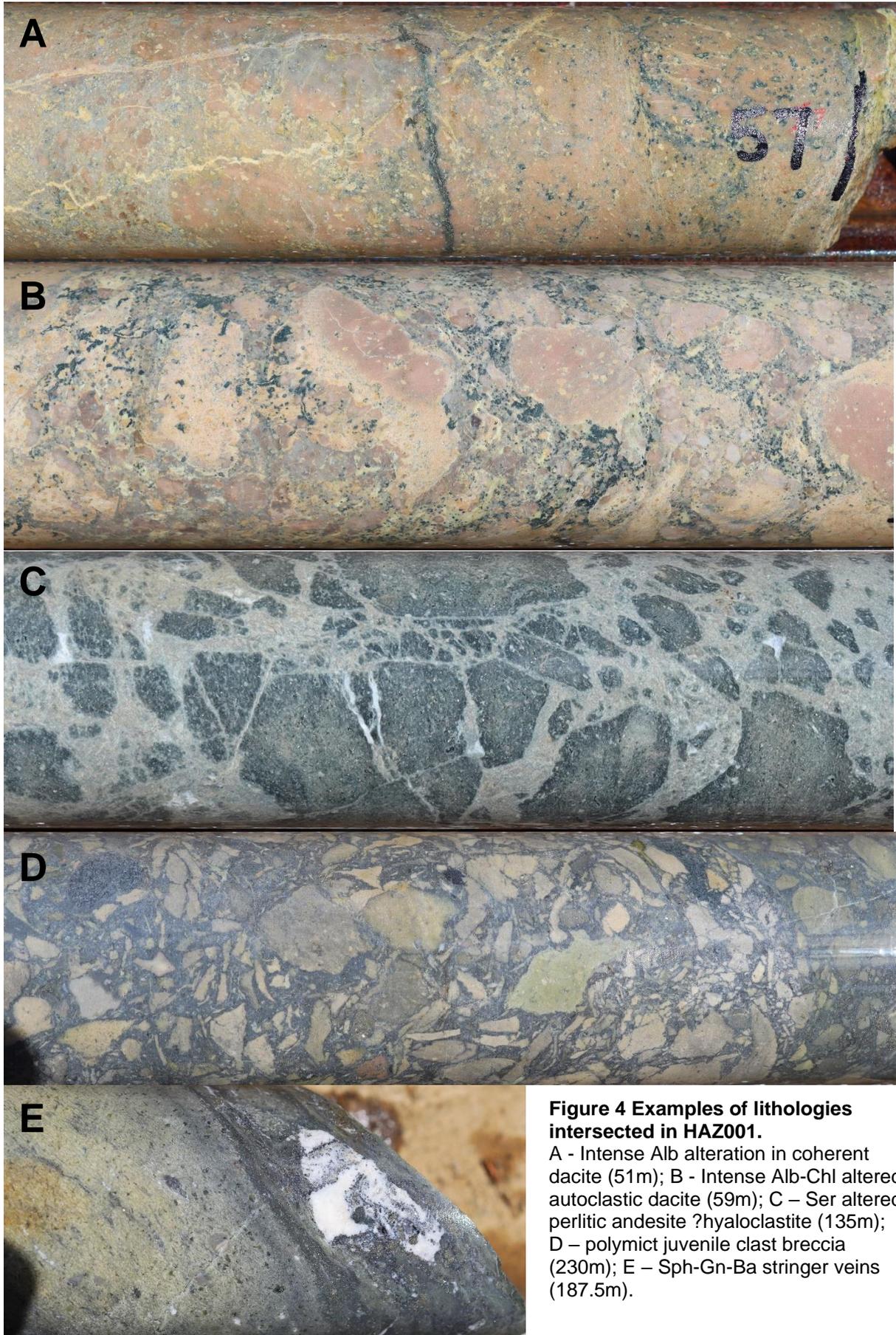
##### **Geochemistry**

Assay results from HAZ001 were assessed on three criteria. Firstly, to better understand stratigraphy, with particular emphasis on developing a chemo-stratigraphy for the target area. Secondly to clarify the style and intensity of alteration, and thirdly to map the distribution of base metal anomalism. The initial analysis of results can be summarised as follows and are included in the Appendix Amoeba Geochemistry Summary (Phillips, 2024).

*Lithochemistry* - There appear to be four compositional groups in the data: (A) A small number of samples with significantly higher Cr concentrations; (B) a broadly andesitic group demonstrated by higher Sc values and two dacitic compositions – (C) one dacitic group with a slightly higher Ti/Sc ratio than (D) the other lower Ti/Sc ratio dacitic group. Dacite C occurs in the upper part of the drillhole, down to approximately 212m, where there is a relatively sharp transition to dacite D. Andesite from group B occurs as interbeds either side of the dacite contact, but is more common within dacite group C. The group A high Cr samples tend to occur near the base of these andesitic interbeds, but may also be feeder dykes to the Hellyer Basalt, stratigraphically higher in the package.

*Alteration geochemistry* - Interrogation of the alteration geochemistry shows that albite is much less widespread than indicated from geological logging. Using the Na/Al vs K/Al (Molar) diagram, the data show a well-developed trend toward strong sericite alteration, though with relatively minor chlorite. Zones of strong sericite alteration occur sporadically from 127.5m to 239m, with a smaller continuous zone from 159m – 198m, hosted dominantly by andesitic rocks. Alteration appears to diminish markedly after 245m. A small group of strongly leached samples are interpreted as representing the strongly weathered part of the sequence.

*Pathfinder distribution* - As expected, pathfinder anomalism is concentrated within zones of stronger alteration, the strongly altered zones themselves generally being better developed within more reactive andesitic host rocks. Zn, Pb, Cu, Au and Ag were all well below ore grade with maximum values 0.5%, 0.1%, 87ppm, 0.2g/t and 2.4 g/t respectively. S, As and Sb show the most useful halo, being elevated from approx. 130m – 245m, 40-50m either side of the main Zn-Cu anomaly at 187.3m.

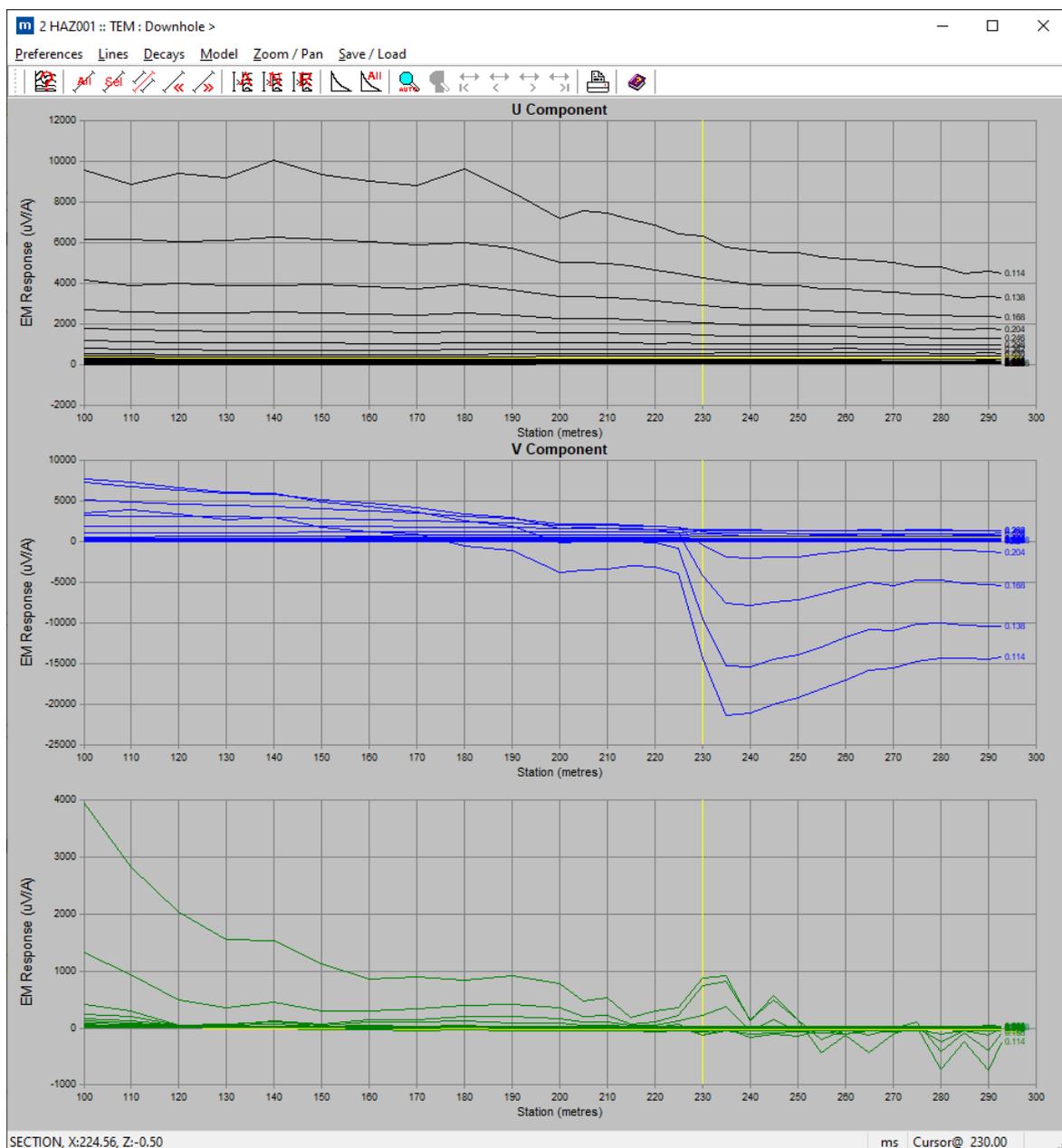


### Geophysics

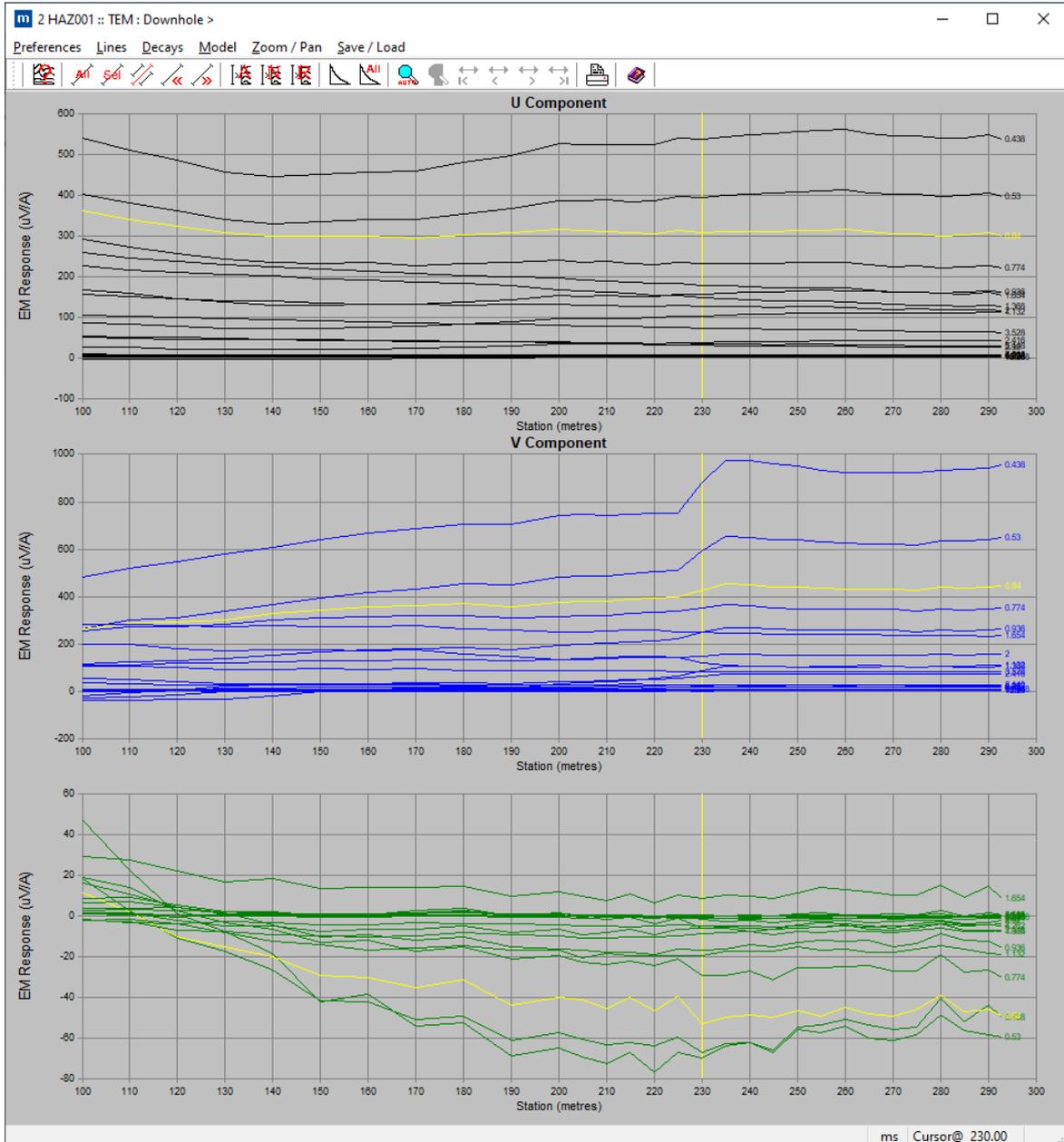
The DHTEM survey results were processed and interpreted by Southern Geoscience Consultants (SGC). The DHTEM data showed high levels of resistivity in the background, interpreted to reflect the large volumes of dacites in the target area. There was also clear interference from 50Hz powerline corridor that run through the project area.

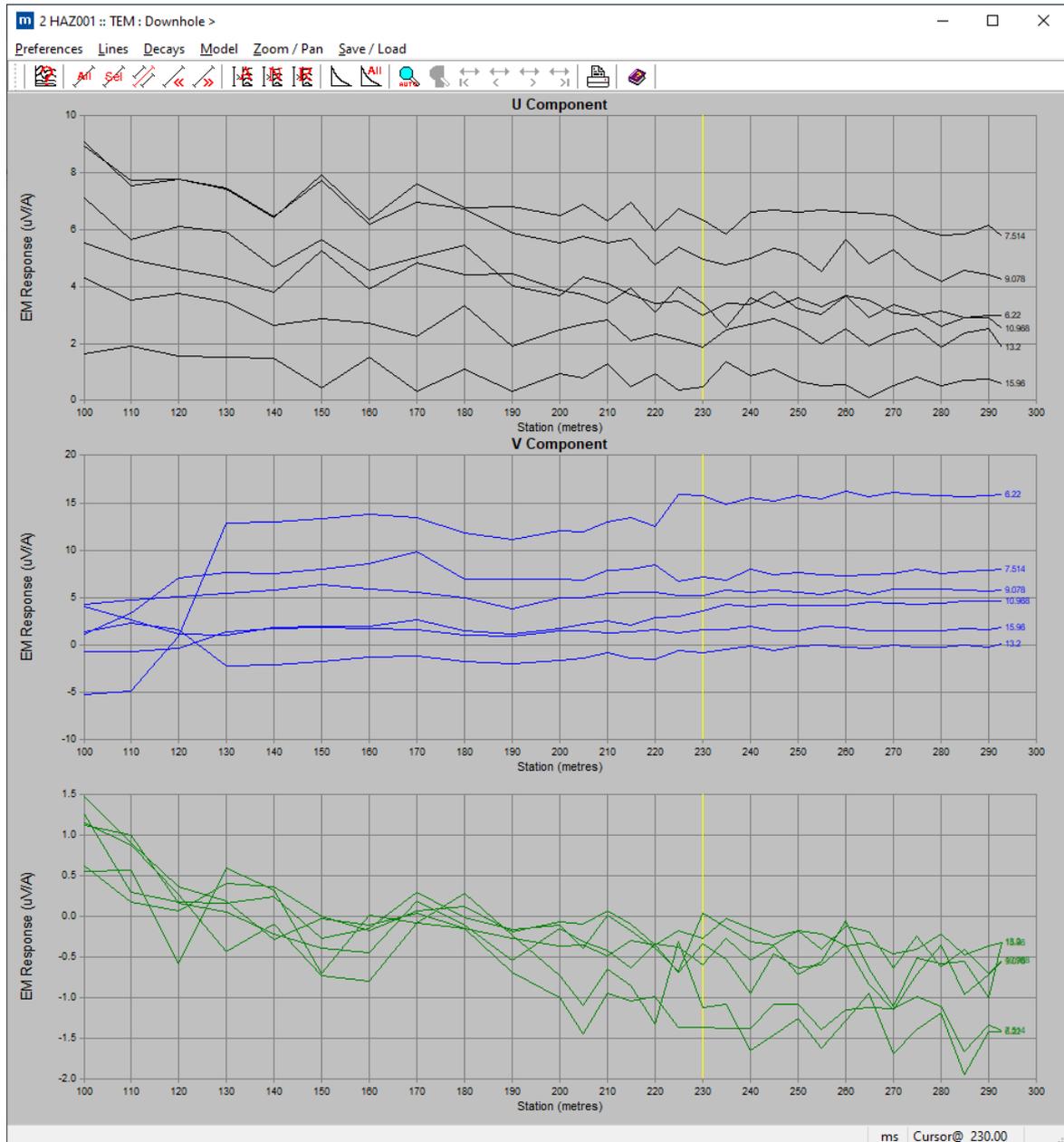
Very subtle anomalies can be discerned between approximately 225-235m in HAZ001. These subtle anomalies are primarily in the X component in the early channels (Figures 5 – 7). However, these anomalies are partially obscured by the high levels of interference in the Z component. This depth is not well supported by logging or geochemistry, with only a minor pathfinder anomaly at 230.5m and a narrow alteration zone 233m-239m.

No other significant in-hole or off-hole conductors were identified by SGC. A final report and source data is expected to be received in the upcoming reporting period.



**Figure 5 Data from CH5 of the DHTEM survey (courtesy of Russell Mortimer, Southern Geoscience Consultants, report pending)**





**Figure 7 Data from CH26 of the DTEM survey (courtesy of Russell Mortimer, Southern Geoscience Consultants, report pending).**

**Conclusions**

Results from HAZ001 have shown that the mineralised system persists in this area and therefore recent drilling results continue to provide support for the Amoeba Target. Drilling clearly intersected the mixed sequence (the main ore horizon in the district). However, the lack of clear conductors and low-level geochemical anomalism suggest we are distal with respect to a potential mineralisation or orebody. A more thorough structural interpretation is required to understand the fold geometry at the Amoeba Target area. It remains possible that the mineralised horizon has been eroded off the top of the fold hinge in the present location.

## 5. PROPOSED EXPLORATION

As part of the ongoing exploration effort in the district, the Amoeba drilling results will be integrated into the existing database to aim identification of further drill targets, both within the immediate Amoeba Target area, and within the broader Mt Block EL. This will include final processed DHEM data. Ground EM is also to be considered, although recent Switchback results on the adjacent license suggest airborne EM (AEM) could also be considered. At Amoeba, targeting will focus on pursuing the alteration zone down plunge to the SW, where the host lithology is fully preserved under Hellyer Basalt.

Recent drilling success within the 103M1987 Mine Lease at the Switchback prospect, may provide support for additional fertile structures in the district east of Que River that may also be supported by subtle anomalies in the regional AEM. Re-investigation of these features in light of the Switchback mineralisation in now warranted. Further exploration on EL48/2003 will include re-examination of surface geochemistry and AEM data to identify additional targets on the broader Mt Block EL.

## 6. ENVIRONMENTAL MANAGEMENT

HAZ001 was capped and the drill site received initial rehabilitation to a maintained condition and is currently awaiting full rehabilitation following completion of the follow-up analyses.

## 7. EXPENDITURE

Expenditure from 11<sup>th</sup> January 2023 to 10<sup>th</sup> January 2024 is summarised below for the Mt Block EL48/2003.

**TABLE 1 EXPENDITURE 11 JANUARY 2023 TO 10 JANUARY 2024.**

1. Geoscience	\$36,509.74
2. Drilling and Gridding	\$199,465.97
3. Land Access	\$27,744.05
4. Rehabilitation	\$5,958.34
5. Feasibility Studies	
6. Other	\$18,990.00
7. Administration	\$20,000.00
<b>TOTAL - ELIGIBLE</b>	<b>\$308,668.10</b>

**REFERENCES**

Callaghan, T. 2017 Mt Block, Tasmania, EL48/2003, Annual Progress Report for period Ended 10th January 2017. Unpublished Report for Bass Metals Ltd.

Denwer, K. 2011 Mt Block, Tasmania, EL48/2003, Annual Progress Report for period Ended 10th January 2011. Unpublished Report for Bass Metals Ltd.

Phillips, J. 2024 Appendix: Amoeba Geochemistry Summary for period Ended 10th January 2024. Unpublished Report for Pieman Resources Pty Ltd.

Richardson, S. 2015. Mt Block, Tasmania, EL48/2003, Annual Progress Report for period Ended 10th January 2015. Unpublished Report for Bass Metals Ltd.