Pangean Resources Pty Ltd

Mt Owen, EL39/2005

Annual Report June 2008

Submitted by ______________________________ ______________________________

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Executive Summary

EL39/2005 is a 19km^2 tenement area 3km SW of the Mt Lyell group of deposits near Queenstown in Western Tasmania. The tenement area features a muscovite-pyrophyllite anomaly (Mt Owen MP anomaly) that is similar to that observed associated with the Mt Lyell group of occurrences. However, in contrast to the Mt Lyell system - which is hosted in the Upper-middle Cambrian Mt Read volcanics- the Mt Owen MP anomaly is hosted in the Upper Cambrian Owen Conglomerate.

Pangean Resources is conducting an exploration program in EL39/2005 to determine if the Mt Owen MP anomaly represents hydrothermal alteration related to a concealed Cu/Au system.

During the 2007-08 reporting period, Pangean Resources commissioned its consultant, *Global Ore Discovery* to:

- conduct additional re-processing and interpretation of the openfile Hymap Hyperspectral data over EL39/2005, to confirm the original ASTER anomaly and focus exploration; and
- correlate the results of PIMA field sampling with Hymap Hyperspectral data, to confirm and refine mineral alteration vectors to mineralization.

The additional re-processing further confirmed the ASTER pyrophyllite anomaly over Mt Owen, with the sericite anomaly noted to be far more restricted in the Hymap data.

The dominant mineral identified in the PIMA samples was muscovite, with phengite and pyrophyllite common and minor paragonite and brucite. PIMA field samples confirmed the presence of pyrophyllite in the Owen Conglomerate. Hymap white mica mapping and PIMA analysis of surface alteration samples from the Mt Owen MP Anomaly shows a strong vector from distal phengite to proximal paragonite towards the Owen Splay fault system.

The Mt Owen MP anomaly shows a strong similarity to the detailed alteration patterns mapped around the Western Tharsis Cu / Au orebody in the Mt Lyell District. This orebody has a pyrophyllite cap and an alteration zoning from distal phengite to proximal paragonite around the mineralization.

Structural interpretation of the Mt Owen area suggests faulting has brought the Mt Read Volcanics closer to surface in EL39/2005. The Mt Owen MP Anomaly, in the Mt Owen conglomerate, may represent a hanging wall alteration halo to concealed Mt Lyell style Cu-Au mineralisation in the underlying Mt Read Volcanics. This concept has not been drill tested, and represents an attractive underground mining target in close proximity to infrastructure in an existing mining district.

The future program for the tenement aims to test this concept with deep penetrating geophysics, to evaluate whether buried mineralization is located beneath the Mt Owen MP anomaly. Drill testing of prospective targets would follow.

In addition it is proposed to conduct a field program of geological mapping and geochemical sampling, to evaluate the 2km long, N-S orientated zone of sericite alteration identified in the south-eastern portion of the tenement in the 2007 Hymap data reprocessing.

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1.1 Exploration Rationale

The Mt Lyell District in western Tasmania has been mined since 1883 and has produced 1.2 million tonnes of copper and approximately 1.5 MOz of gold from twenty different orebodies (Corbett, 2001). In recent years new genetic models have been presented for the origin of mineralization in the Mt Lyell district. This coupled with new open file information (Hymap and magnetics) has prompted Pangean Resources to evaluate ASTER alteration imagery to the southeast of Mt Lyell to determine if it maybe related to concealed Cu/Au mineralization.

On a regional scale the Mt Lyell Cu-Au (Pb-Zn) district is localized at the intersection of the regional scale, N-S oriented, Great Lyell Fault Zone with a well defined WNW trending - origin oblique - structural corridor that includes the North Lyell and Glen Lyell fault zones. These structures are interpreted to be Cambrian age extensional structures reactivated as reverse faults during Middle Devonian shortening (Noll & Hall 2005).

Hymap hyperspectral mineral mapping (by CSIRO and Pangean) of the Mt Lyell Cu-Au district (MLD) has defined a large zoned hydrothermal alteration system primarily hosted within the Middle to Upper Cambrian (Noll & Hall 2005) Mt Read Volcanics. The mineral mapping is characterized by a strong coherent, district scale, muscovite zone that encompasses the majority of mineralization in the MLD. More localized centers of strong pyrophyllite within the muscovite zone show a spatial association with mineralization at North Mt Lyell, Western Tharsis, Tharsis Consol, Glen Lyell and Glen Lyell South - on the edge of the pit to the main Mt Lyell deposit. This association suggests a genetic link between Cu-Au mineralization and pyrophyllite alteration in the MLD.

Deposit scale alteration modeling at Western Tharsis (Hudson & Kamprad 2001) shows an outer shell of quartz-sericite-pyrophyllite-topaz capping the upper part of the Cu (Au) ore body. This suggests that the pyrophyllite bearing alteration may indicate proximity to mineralization and could be used as a vector to guide mineral exploration in the MLD.

The mixed phyllic and high temperature advanced argillic assemblages outlined at Western Tharsis are characteristically seen in environments such as deep high sulphidation epithermals or in the transition to magmatic hydrothermal deposits. The alteration assemblage is hence considered indicative of a strong magmatic influence in the Mt Lyell hydrothermal system (Large et. Al., 1996). These data, coupled with improved stratigraphic and structural models for the MLD have lead to new models for deposit formation, including a:

1. Cambrian aged, hybrid epigenetic – syngenetic model (Corbett 2001); and
2. A Cambrian syngenetic origin for the Pb - Zn mineralization, with an Ordovician age magmatic-related epigenetic origin for the Cu – Au mineralization (Huston & Kamprad 2001).

Pangean Resources' Mt Owen EL covers a coherent Hymap muscovite - pyrophyllite anomaly located 3 km SE of the Mt Lyell Mine. This anomaly lies within splays of the Great Lyell Fault Zone, and is hosted by the Upper Cambrian Owen Conglomerate sequence. This anomaly is not associated with any known Cu-Au mineralization.

The Pangean Resources exploration program is designed to test

- if the Mt Owen muscovite – pyrophyllite anomaly represents in-situ hydrothermal alteration
- whether the anomaly represents a zone of hydrothermal up flow, channeled along splays of the Great Lyell Fault Zone into the Upper Cambrian stratigraphy
- for evidence of geochemical leakage that may indicate significant Cu-Au mineralization concealed at depth beneath the alteration zone.

1.2 Tenure and Exploration Access

EL39/2005 was granted by the Mineral Resources Tasmania (MRTAS) in June 2006. The tenement covers an area of 19km^2 and is situated 5.2km WSW of Queenstown (Figure 1). Access to most of the tenement is via the Lyell Highway and within the tenement via the Telstra Communication Tower Road that ascends Mt Owen. Once off road, access by foot is difficult, due to low re-growth, creating in some cases an impenetrable wall of vegetation. The tenement covers a parcel of Crown Land.

Figure 1. Location of EL39/2005 Mt Owen in Western Tasmania, Australia

2. Setting of the Mt Lyell District

2.1 Geology

The Mt Lyell deposits are hosted in the Middle to Upper Cambrian Mt Read Volcanics in a structurally complex zone around the Great Lyell, North Lyell and Glen Lyell faults (Figure 2). The Mt Read Volcanics (Central Volcanic Complex) are interpreted to be overlain by the Tyndall Group sediments, the Owen Group and the Gordon Group (Figure 3). In the EL39/2005 tenement area, Lower Owen Conglomerate, Tyndall Group and Mount Read Volcanics are exposed, with Middle and Upper Owen Group exposed in the north of the tenement (Figure 4).

The Mt Read Volcanics have generally been considered to pre-date the Owen Conglomerate, with deposition of the volcanics as a complex sequence of rhyolite and dacite lavas, tuffs and intrusives in a submarine setting. The volcanics are interpreted as a discrete extensional event with deposition in a narrow rift system of half grabens (Crawford and Berry, 1992).

The Owen Conglomerate is a regionally extensive unit that was sourced from a Proterozoic basement high exposed to the east of Mt Lyell. The Conglomerate is believed to young to the west in the Mt Lyell area and generally overlies the Tyndall group. However, mapping in the Mt Owen area shows the conglomerate directly overlying the Mt Read volcanics, suggesting that in this area either the Tyndall group was eroded prior to deposition of the conglomerate or that the conglomerate is locally and temporally equivalent to the Tyndall group.

2.2 Structure

Recent evaluation of the Owen Conglomerate by Noll and Paul (2005) suggests that the distribution in the Mt Lyell area is controlled by a series of Mid to Late Cambrian growth faults represented by the North, Great and Glen Lyell fault systems. These faults were reactivated as reverse faults during Devonian orogenesis and in the case of the Great Lyell Fault have juxtaposed the Mt Lyell mineralization against the Owen Conglomerate (Figure 4).

At the project scale a large splay of the Glen Lyell fault system, the "Owen Splay" is manifested as a reverse fault that passes through the Pangean tenement. The Owen splay localises Cu-Au mineralization at the Copper Estates on the western edge of Pangean's tenement.

Preliminary modelling shows that the Owen Splay has post-mineralisation, south block-up, reverse movement within the order of 300-400m; juxtaposing the Lower Owen conglomerate and locally the Tyndall Group against the Gordon Group and the Upper Owen Conglomerate to the north.

This suggests the reverse movement on the Owen Splay has brought the Mt Read Volcanics closer to surface in the tenement. This interpretation is supported by Noll and Paul's sections which pass through the tenement and by localized outcrops of Mt Read Volcanics mapped along parallel reverse faults within the Mt Owen EL.

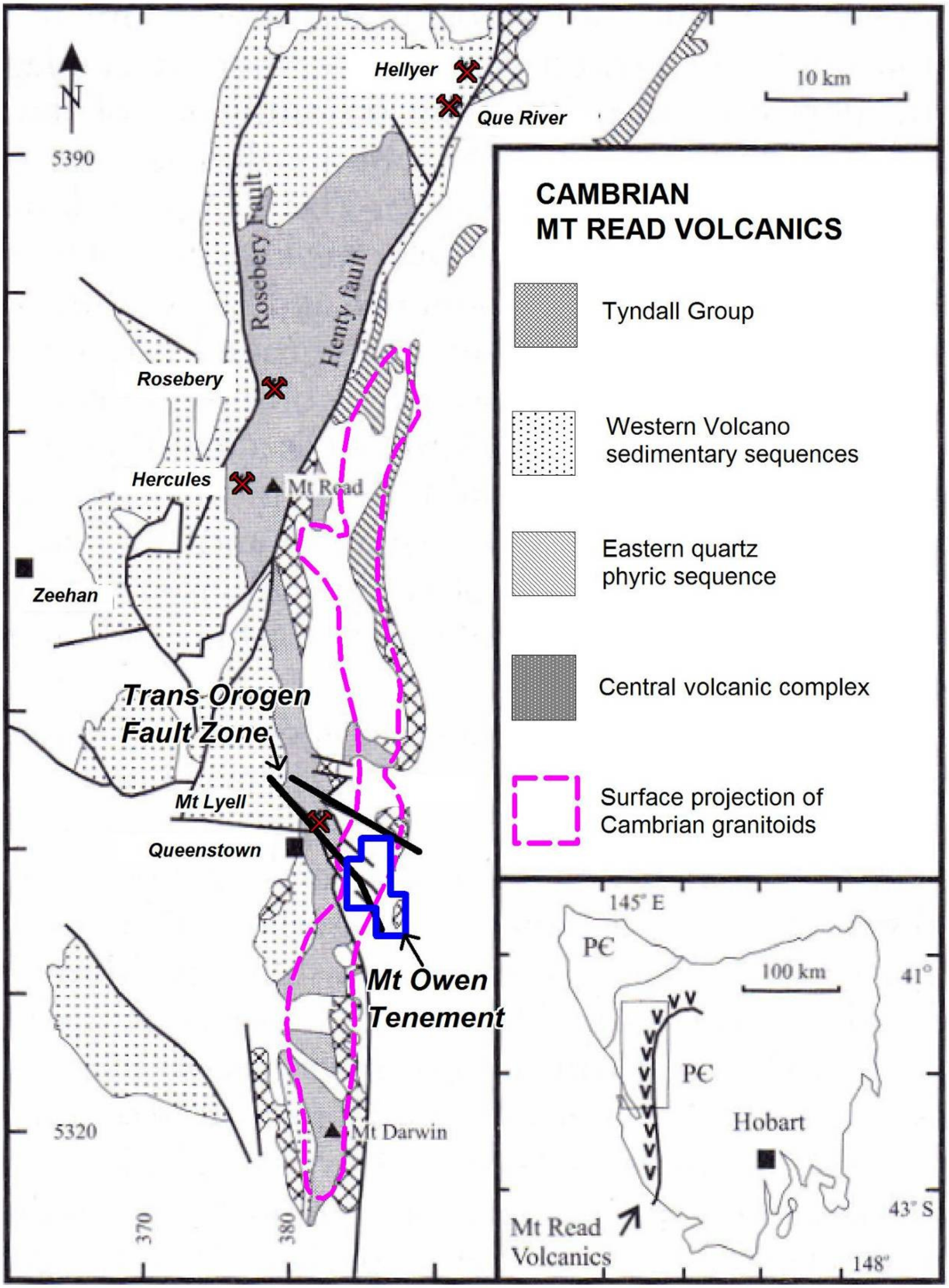


Figure 2. Mt Lyell District Regional Geology

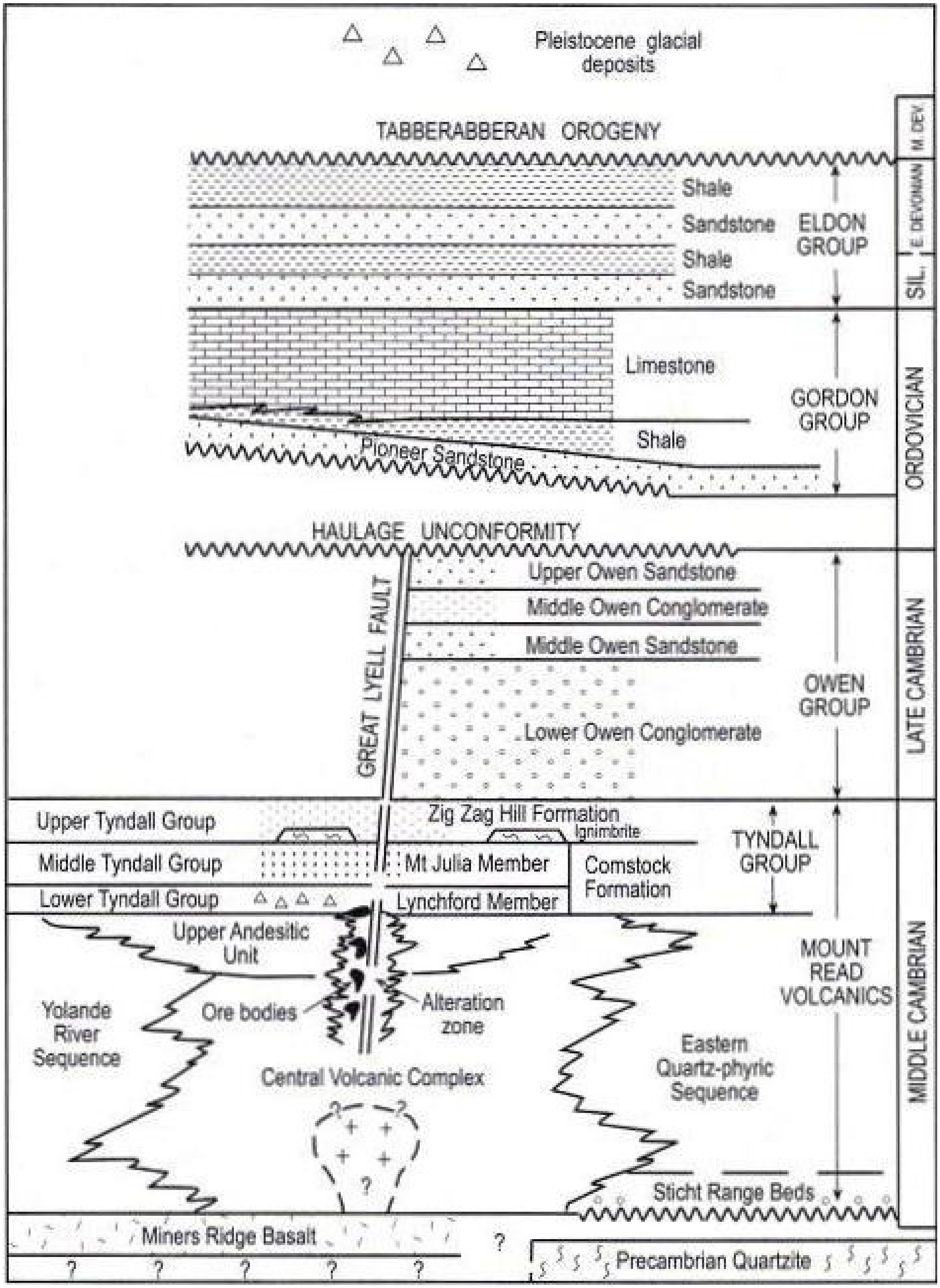


Figure 3. Mt Lyell District Stratigraphy

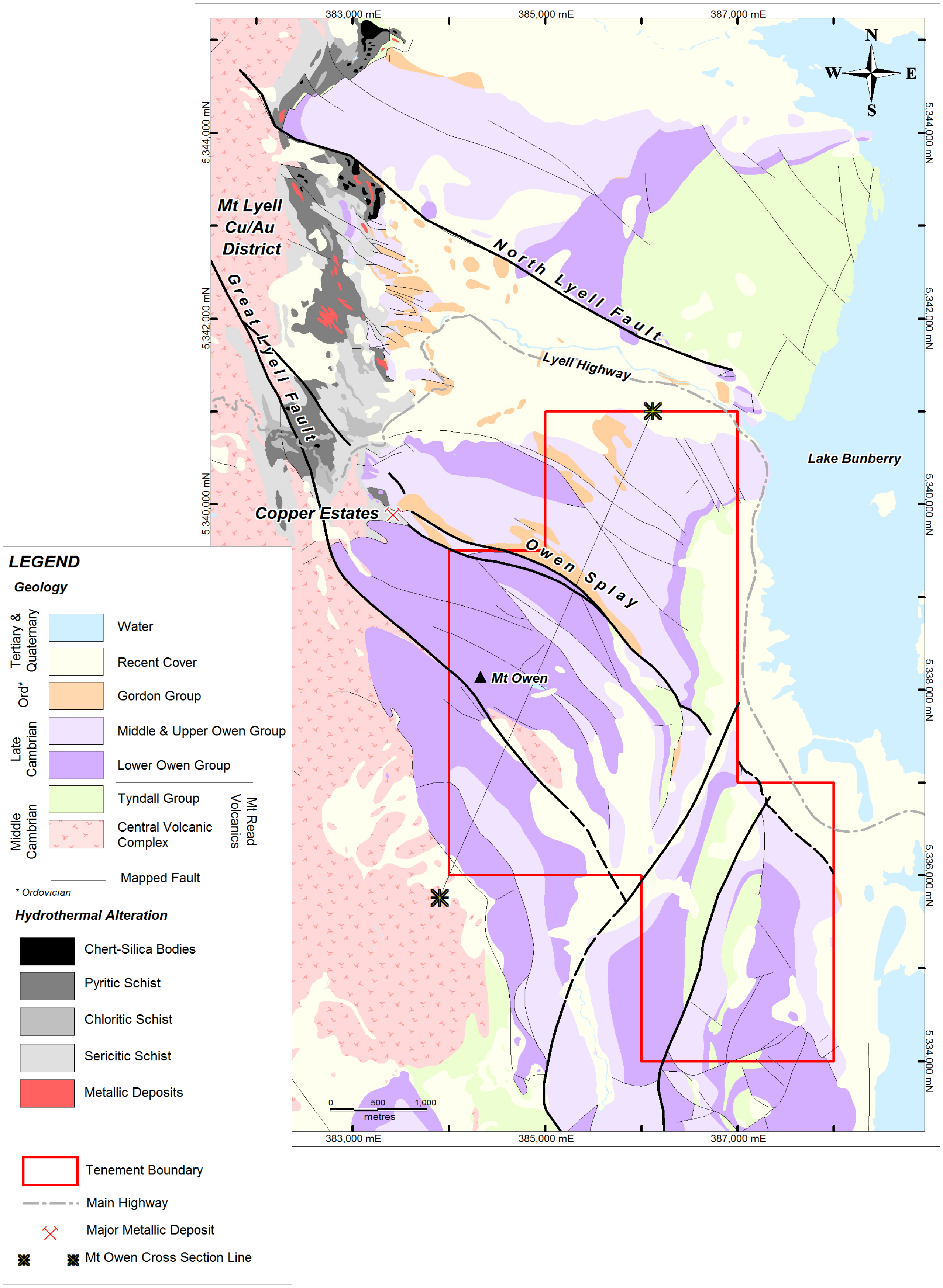


Figure 4. Mt Owen EL 39/2005 Geology

2.3 Mineralisation

The origin of the Mt Lyell mineralization remains contentious with both syngenetic and epigenetic models proposed. The stratigraphic and absolute age on mineralization is not well constrained and is considered inconclusive.

Recent investigations in Western Tasmania (Large et. Al., 2001) suggest the Mt Lyell district formed as massive and disseminated Cu-Au deposits in a subsea-floor setting associated with shallow porphyritic intrusives. The presence of high sulphidation minerals (pyrophyllite, topaz, zunyite and locally enargite) in parts of the Mt Lyell field suggests magmatic input, with similarities to a submarine porphyry copper system (Large et. al., 2001). Corbett (2001) presents a model for alteration and mineralization in the hanging wall of the Great Lyell Fault (Figure 5), showing the change from deeper chalcopyrite dominated system to upper level Pb-Zn sulphides.

The contact between the Owen Conglomerate and Mt Read Volcanics in the North Lyell region exhibits a zone of intense hematite-barite alteration (Noll and Hall, 2005). The hematite alteration zone lies adjacent to altered Mt Read Volcanics and extends into and partially replaces the Owen Conglomerate (Huston and Kamprad, 2001). Hart (1992, 1993) demonstrated that sericite, pyrophyllite, barite, hematite and pyrite extended through the Owen Conglomerate into the Pioneer Beds, with traces of bornite in the Owen Conglomerate. Huston and Kamprad prefer an Ordovician age for mineralization (post Owen Conglomerate), based on lead isotope constraints.

Large et. al., (2001) interpret a 60 km long, NS trending, belt of granitic sill-like intrusives 2-4 km wide occurring along the eastern margin of, and near the base of, the Mt Read Volcanics underlying the Mt Owen EL. It is suggested that these granitoids, which are highly fractionated, high K, magnetite series granites in places, are coeval with the Cambrian Mt Read volcanics. Large (1996) has suggested the Mt Lyell alteration system is connected to hydrothermal alteration related to these granites (Figure 1).

Low grade porphyry Cu mineralization is recognised in places associated with these granites (Large et. al., 1996). Large (2001) suggests the Mt Lyell mineralization is a hybrid VHMS-high sulphidation deposit, connected to a low grade porphyry system at depth. Whole rock geochemistry, metal associations and ratios, oxygen isotopes and salinities all suggest magmatic input to mineralization.

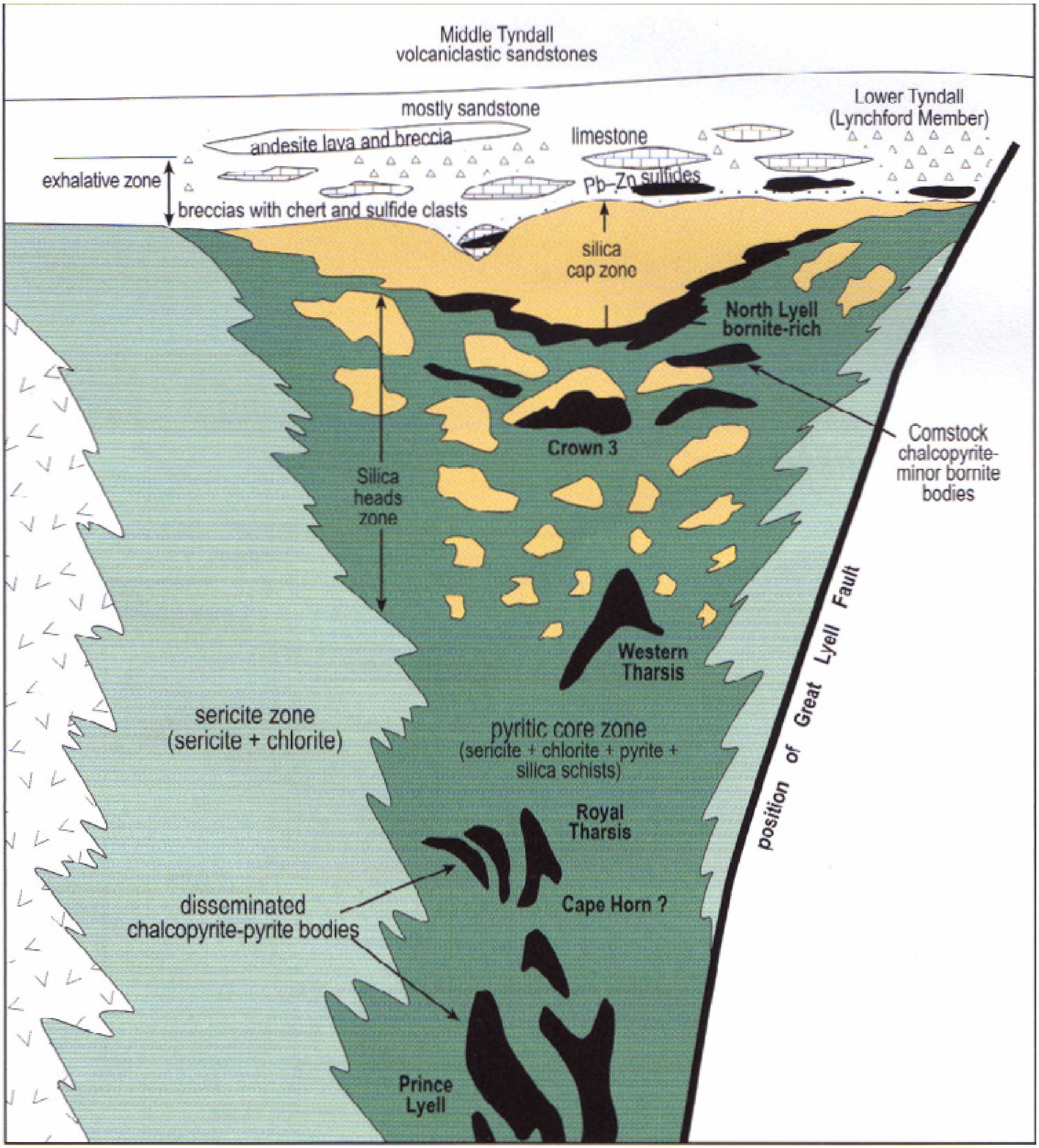


Figure 5. Mt Lyell District Alteration / Mineralisation Model (after Corbett, 2001)

3. Review of Previous Work

Modern documented mineral exploration within the tenement area is limited, with regional airborne geophysical surveys the only reported information from the area. This airborne data was interpreted in conjunction with other geophysical (gravity) and geological datasets by ERA-Maptec for Copper Mines Tasmania. The study identified that there are similar geophysical signatures to the Mt Lyell Deposits (major gravity gradients intersecting with major faults interpreted from aeromagnetic data) occurring within the Mt Owen tenements as the Owen Spur Fault Zone (ERA-Maptec, 1997). Copper Mines Tasmania (CMT) conducted limited field reconnaissance to follow-up the ERA-Maptec structural corridors (Morrison K.C., 1999) and concluded;

- the structural corridors were not reactivated Middle Cambrian faults associated with volcanism,
- there was no evidence of hydrothermal alteration or no known prospects in the volcanics, and
- the Mt Read Volcanics were covered by a thick sequence of Owen Conglomerate.

Subsequently CSIRO, Copper Mines Tasmania and MRTAS flew a hyperspectral sensor (HYMAP) over the tenement area. No documentation of the HYMAP results exists. However, access to the HYMAP data is freely available through MRTAS.

During 2006 and 2007, Pangean Resources commissioned its consultant, Global Ore Discovery to re-process and interpret the openfile Hymap Hyperspectral data over the EL39/2005 area to confirm the original ASTER anomaly. Regional openfile Heli-magnetics covering Mt Owen was processed and interpreted to focus exploration efforts.

Sunshaded RTP and TMI imagery of the magnetics was produced using ERMapper and the Discover add-on to MapInfo. The magnetics interpretation showed a series of NW orientated, trans-orogen, structures trending through the Mt Owen MP anomaly. These structures correlate with the southern projection of the Glen Lyell fault and its splays. The Glen Lyell fault zone is interpreted to define the southern limit of an orogen oblique structural zone that has played a key role in localizing the Mt Lyell district.

Pangean Resources also conducted a rock chip and stream sediment sampling programme. Fourteen (14) Rock and four (4) Stream samples were taken during the field season. None of these samples were anomalous in Cu and a single rockchip (R00202) of white textureless quartz veining returned an assay of 0.62 g/t Au. Thus, geochemical sampling showed no evidence of a geochemical halo from concealed mineralization.

Traverses conducted during the above-mentioned sampling programme through the Mt Owen MP anomaly identified possible hydrothermal alteration that appears to be the cause of the responses in the Hymap and ASTER data. Twenty (20) PIMA samples were collected in the key alteration zones to prioritize petrology samples to confirm a hydrothermal origin for the identified mineralogy.

4. Exploration Work Completed and Results

4.1 Introduction

Previous desktop studies of remote-sensed data identified interesting alteration in the Mt Owen area of a style similar to that associated with the Mt Lyell district. Previous field exploration in the tenement area by Pangean Resources comprised limited geochemical sampling, PIMA and petrology sampling. During the 2007-08 reporting period, Pangean Resources, commissioned consultants *Global Ore Discovery* to further re-process and interpret HYMAP data to better define anomalous alteration zones over the tenement area. The results of PIMA sampling taken in the previous reporting period were interpreted with the HYMAP data.

4.2 Remote Sensing Investigations

Background

During the 2006-07 reporting period, Pangean Resources consultant's *Global Ore Discovery* processed ASTER satellite imagery covering the Mt Lyell district in order to compare the mineral mapping results to that of the higher resolution Hymap data. ASTER multi-spectral satellite imagery is moderate resolution (15-90m) which allows a scene to cover approximately 70km by 70km, a much larger area than a Hymap run and therefore more applicable to regional studies. The outcomes of the comparison were:

- ASTER clearly identified the Mt Lyell system as a large muscovite response with an internal pyrophyllite signature coincident with a number of the known Cu-Au deposits (Figure 6). The ASTER mineral mapping shows good spatial correlation of muscovite/pyrophyllite and chlorite distribution with that mapped from Hymap data.
- SiO_2 processing using ASTER Thermal Infrared bands (not possible with Hymap) highlights hydrothermal chert bodies mapped (Corbett 1999) in the area of the North Lyell deposit and a silica association with the Iron Blow and Cape Horn ore bodies.
- In addition, the ASTER processing highlights an area of pyrophyllite/muscovite alteration 3km SE of the Mt Lyell district centered on Mt Owen. A silica ASTER response is also associated with the main pyrophyllite response at Mt Owen (Figure 6, Map 1)

Hymap Processing

Pangean Resources' consultants reprocessed the openfile Hymap data covering EL39/2005 to confirm and further refine the ASTER pyrophyllite/muscovite anomaly. ENVI's (commercial image processing software) advanced spectral analysis techniques were used to identify the presence and the relative abundance of minerals with short wave infrared (SWIR) absorption features (phyllosilicates, hydroxylate silicates ,sulphates, carbonates and ammonium bearing minerals) within a given pixel of the Hymap imagery. Minerals in these groups are known to occur as alteration associated with the Mt Lyell style alteration signature. Pyrophyllite and sericite were key minerals identified in the earlier CSIRO Hymap study of the Mt Lyell deposits (maps available by request from MRTAS, no report available at this time).

Pangean Resources' Hymap re-processing confirmed the ASTER pyrophyllite anomaly over Mt Owen. The sericite anomaly is far more restricted in the Hymap data. Alteration mapping in the Hymap data identified a core response in the Mt Owen area (Map 1) consisting of a large pyrophyllite zone on the NE face of Mt Owen with dimensions of 500m by 1km. Within this zone there is a strong sericite anomaly, just after the Telstra Tower Road splits and becomes a series of tight switch- backs ascending Mt Owen. This zone is approximately 500m x 200m and SE-NW orientated. Two other anomalous features were confirmed in the Hymap data reprocessing. The first occurs to the west of the main Mt Owen anomaly in a series of sericite anomalies which cluster into another SE-NW orientated zone 1.5 km x 500m in dimension. The second is located in the far south of the tenement centered on 387250mE, 5335000mN and consists of a narrow 2km long N-S orientated zone of sericite alteration.

4.3 PIMA Sampling

During the 2006-07 reporting period, twenty (20) PIMA samples were collected in the key alteration zones identified in the Hymap from traverses across Mt Owen (Map 2). Observations made during the traverses include;

- Pervasive silification of clasts and matrix, with specular hematite in some units suggesting hydrothermal alteration,
- Fine sericite or platy clays (pyrophyllite) as cross cutting veins in the finer grained units within the Owen Conglomerate,
- Textureless quartz veins, and
- Pervasive alteration of matrix and clasts in units of the conglomerate with a higher proportion of volcanic clasts.

Samples were collected from these areas to confirm the results of the Hymap processing and to prioritize petrology samples that would confirm either the hydrothermal or the detrital nature of the minerals.

The PIMA samples were submitted for analysis and results are presented in Appendix 1. Constituent minerals were identified for each of the PIMA samples. The dominant mineral identified was muscovite, with common phengite and pyrophyllite and minor paragonite and brucite also observed.

The distribution of PIMA samples was mapped and is shown identifying mineral type with spectral reflectance of long and shortwave absorption features (Figure 8).

PIMA field samples have confirmed the presence of pyrophyllite in the Owen Conglomerate and show a well developed vectoring in the white mica chemistry toward the Owen splay.

ASTER & HYMAP Mineral Mapping Comparison
Mt Owen & Mt Lyell Area

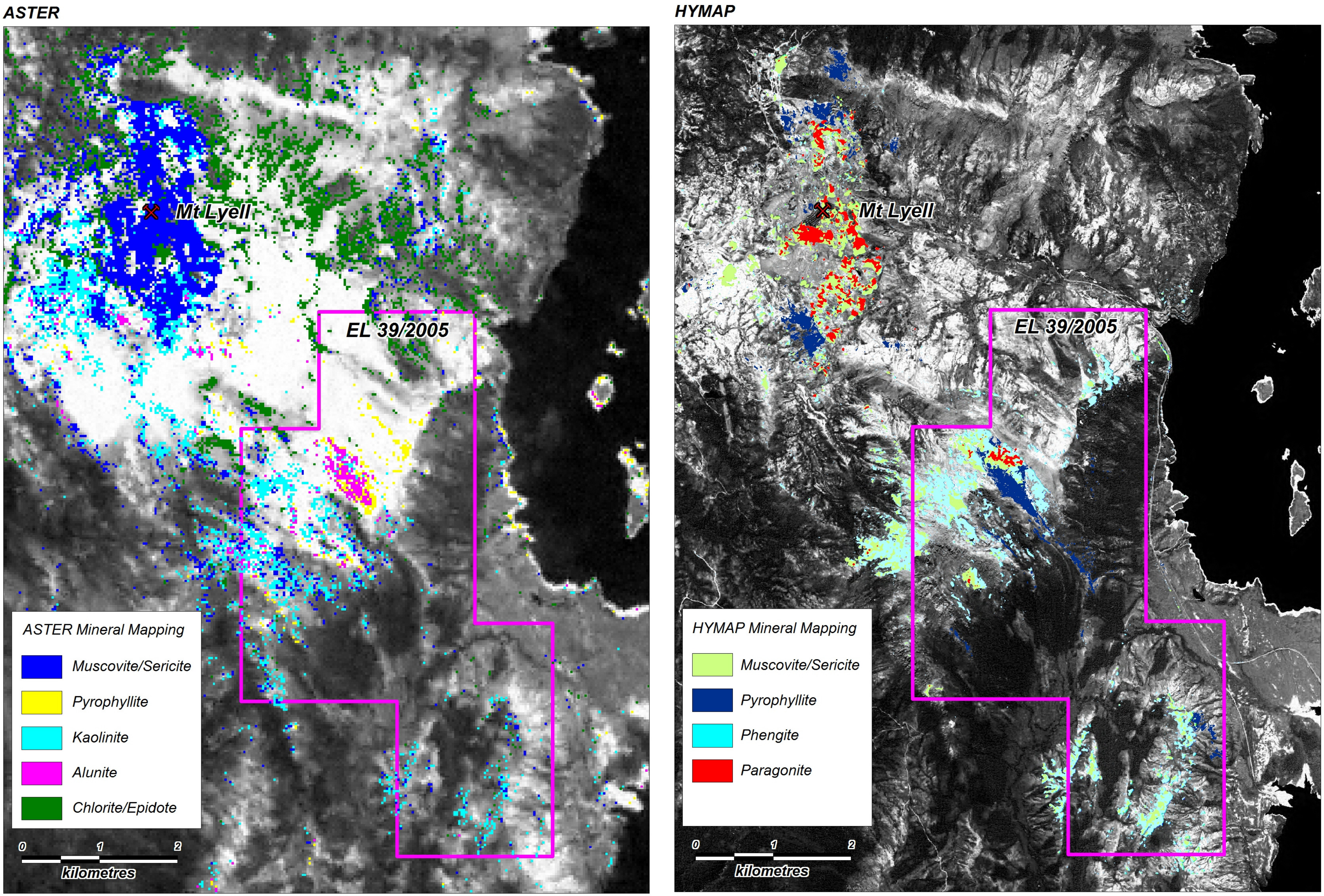


Figure 6. Comparison of ASTER processing and HYMAP data for the Mt Lyell District and EL39/2005 Mt Owen

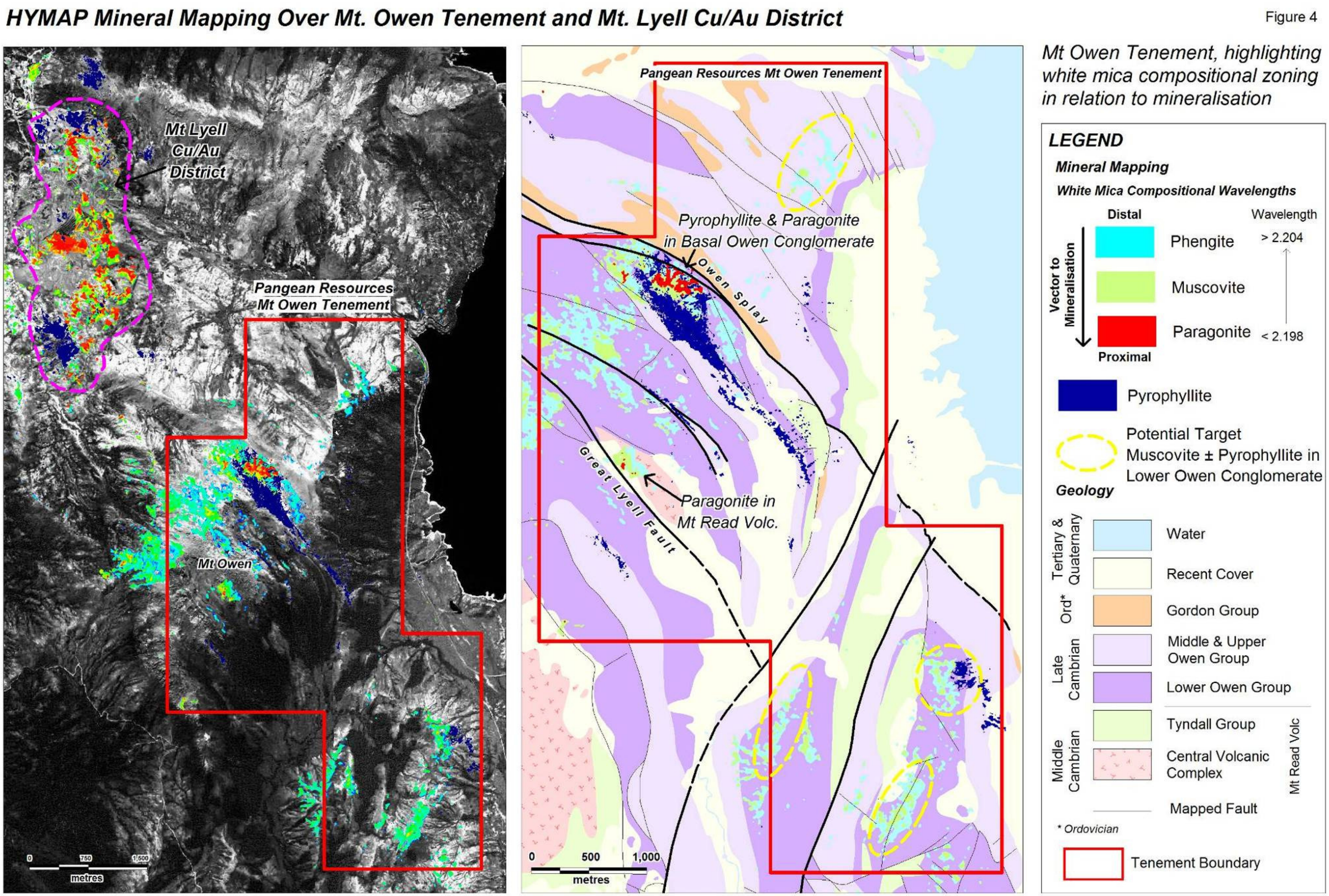


Figure 7. Mt Lyell District and Mt Owen HYMAP mineral mapping

5. Discussion and Interpretation of results

Pangean Resources' Mt Owen tenement area features a 4.5 sq km muscovite-pyrophyllite anomaly (the Mt Owen MP anomaly) identified in the Hymap alteration mapping. The Mt Owen MP anomaly has a similar alteration signature to that observed in the Hymap over the Mt Lyell district (Figures 6 and 7).

Pangean Resources consultants, *Global Ore Discovery*, has demonstrated that Hymap white mica mapping and PIMA analysis of surface alteration samples from the Mt Owen MP Anomaly shows a strong vector from distal phengite to proximal paragonite toward the Owen Splay (Figure 8). The Mt Owen MP anomaly shows a strong correlation to the detailed alteration patterns mapped around the Western Tharsis orebody. Detailed alteration studies of Western Tharsis (one of the Mt Lyell Cu – Au deposits) shows a pyrophyllite-muscovite "cap" to the mineralization and also shows a well developed zonation in white mica chemistry from distal phengite to ore proximal paragonite. Alteration mapping of the Mt Lyell deposits also suggests there is a progressive change in mica composition from distal to proximal, where sodic paragonite mica is noted.

The distribution of the Mt Owen alteration is controlled by the Owen Splay, a regional scale reverse fault that branches off the trans-orogen Glen Lyell fault system. In contrast to the Mt Lyell deposits which are hosted in the Mt Read Volcanics, the Mt Owen MP anomaly is hosted by the basal unit of the overlying Owen Conglomerate. Pangean Resources mapping has highlighted the structural complexity of the Mt Owen area, with fault bounded blocks of Mt Read Volcanics beneath Owen Conglomerate.

The Mt Owen MP Anomaly may represent a hanging wall alteration halo to concealed Mt Lyell style Cu-Au mineralisation in the underlying volcanic; the Owen splay acting as a conduit to hydrothermal fluids. Hematite alteration in the Owen Conglomerate could represent the passage of metal-depleted hydrothermal fluids that may have deposited significant pyrite and base metals at deeper levels along the Owen Splay fault system. The North Lyell region exhibits a zone of intense hematite-barite alteration (Noll and Hall, 2005) at the contact between the Owen Conglomerate and Mt Read Volcanics. The hematite alteration zone lies adjacent to altered Mt Read Volcanics and extends into and partially replaces the Owen Conglomerate (Huston and Kamprad, 2001).

The results and interpretation of Pangean Resources exploration favour the models of mineralisation described by Large et al. (1996, 2001) with development of epigenetic mineralization in the Mt Lyell district and an epigenetic origin for the Mt Owen MP anomaly.

Structural modeling of the Mt Owen Splay area (Figure 9) (after Noll and Hall, 2005) suggests less than 300 m of Owen Conglomerate may overly the Mt Read Volcanics. Coupled with the results and interpretation of remote-sensed studies this indicates prospective Cu-Au exploration drill targets may exist at depth in the Mt Owen Splay area.

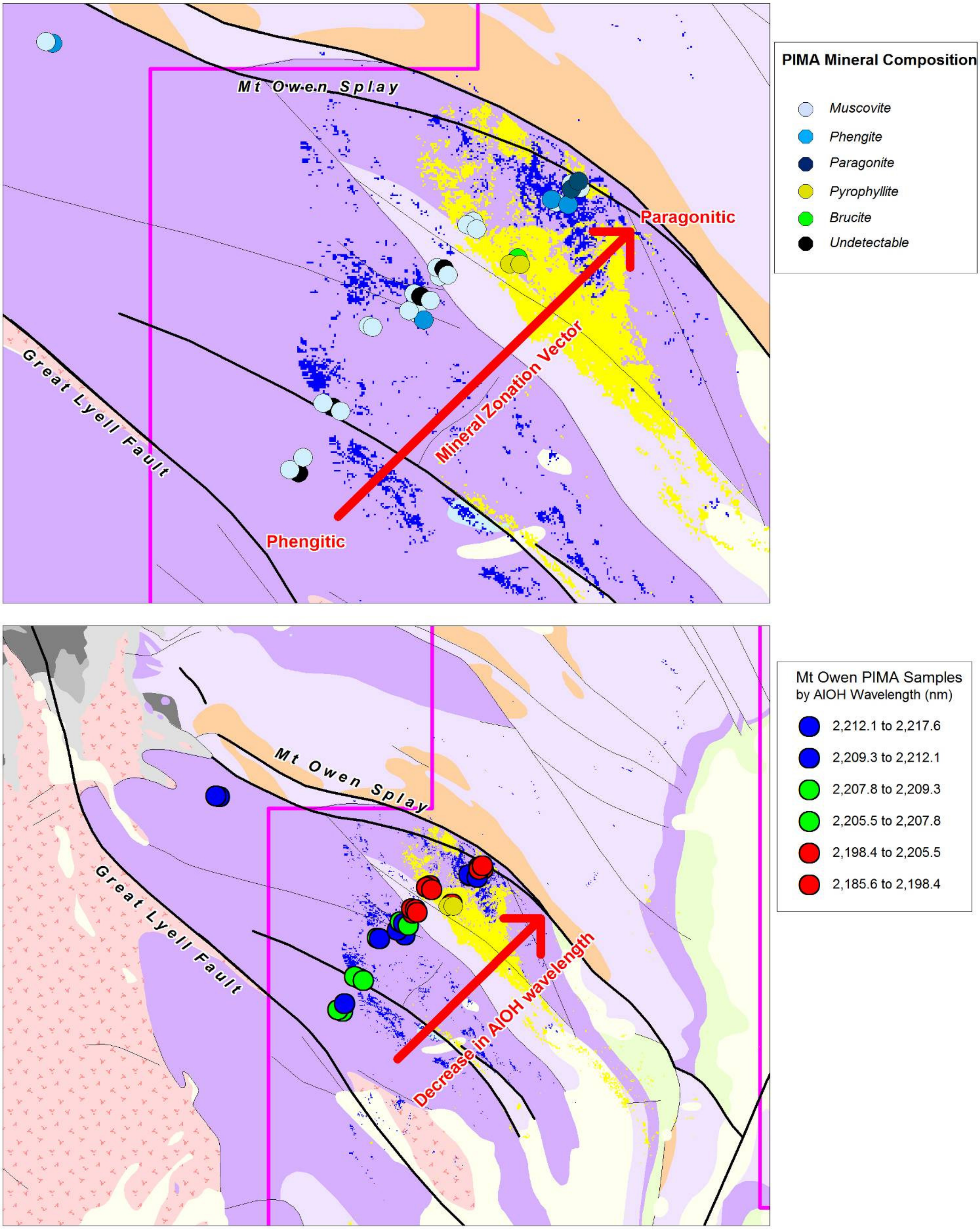
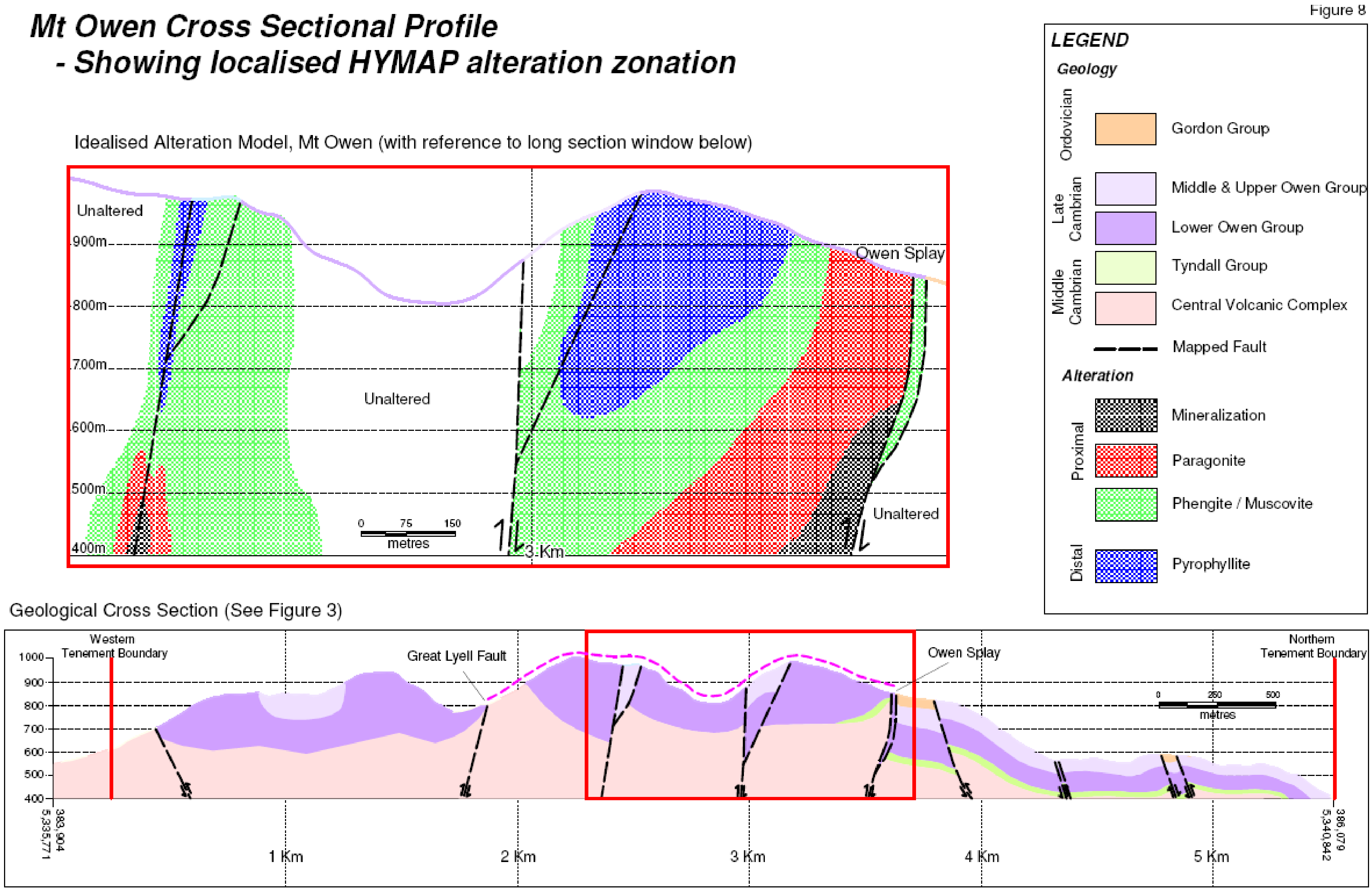


Figure 8. PIMA sampling showing mineral zonation and progression from distal phengite to proximal paragonite



(Fault dips with reference from Noll and Hall, Great Lyell Fault, Western Tasmania: A collage of Middle and Late Cambrian growth faults reactivated during Devonian orogenesis, p427, Australian Journal of Earth Sciences v52, 2005)

Figure 9. Mt Owen Cross Sectional Profile showing localized HYMAP alteration zonation

6. Conclusions and Proposed program

The Mt Owen muscovite-pyrophyllite (MP) anomaly featured in EL39/2005 shows a strong correlation to the alteration patterns coincident with mineralization of the Mt Lyell group of deposits. Field observations and results of PIMA sampling suggest hydrothermal alteration is the cause of the responses observed in the ASTER and Hymap remote-sensing studies with the Owen Splay acting as a conduit to hydrothermal fluids.

Structural studies of the Mt Owen area indicate a series of NW orientated, orogen-oblique, structures are coincident with the Mt Owen muscovite-pyrophyllite (MP) anomaly. The distribution of the Mt Owen alteration is controlled by the Owen Splay, a regional scale reverse fault that branches off the trans-orogen Glen Lyell fault system. The Owen Splay localizes Cu/Au mineralization at the Copper Estates on the western edge of EL39/2005.

Modeling shows that the Owen Splay has post-mineralisation, south block-up, reverse movement within the order of 300-400m, juxtaposing the Lower Owen conglomerate and locally the Tyndall Group against the Gordon Group and the Upper Owen Conglomerate to the north. This suggests the reverse movement on the Owen Splay has brought the Mt Read Volcanics closer to surface in EL39/2005 and the Mt Owen MP Anomaly may represent a hanging wall alteration halo to concealed Mt Lyell style Cu-Au mineralisation in the underlying Mt Read Volcanics, possibly less than 300m below surface.

The future program for the tenement aims to test this concept with deep penetrating geophysics (such as Dipole Dipole IP or MT/CSAMT), to evaluate whether chargeable zones representing buried mineralization are located beneath the Mt Owen MP anomaly. Drill testing of any elevated chargeable zones could follow, to determine whether base metals are present with pyrite. Detailed field mapping, rock chip and PIMA sampling is also considered appropriate to evaluate/confirm the HYMAP anomaly (Figure 10), and to advance the exploration understanding of the south-eastern segment of EL39/2005.

7. Environment

Field studies carried out by Pangean Resources were low impact in nature. Field access utilized existing bush tracks and roads.

8. Expenditure

Expenditure - Mt Owen July 2007 - June 2008	
EL39/2005 Mt Owen Expenditure	Expenditure Year 2
Geochemical Analysis	
Remote Sensing Processing and Interpretation	$750.00
Geological Consulting	$18,799.00
Travel and Field Costs	
Subtotal	
Administration Costs (15%)	$6,110.50
Total Expenditure	$25,659.50

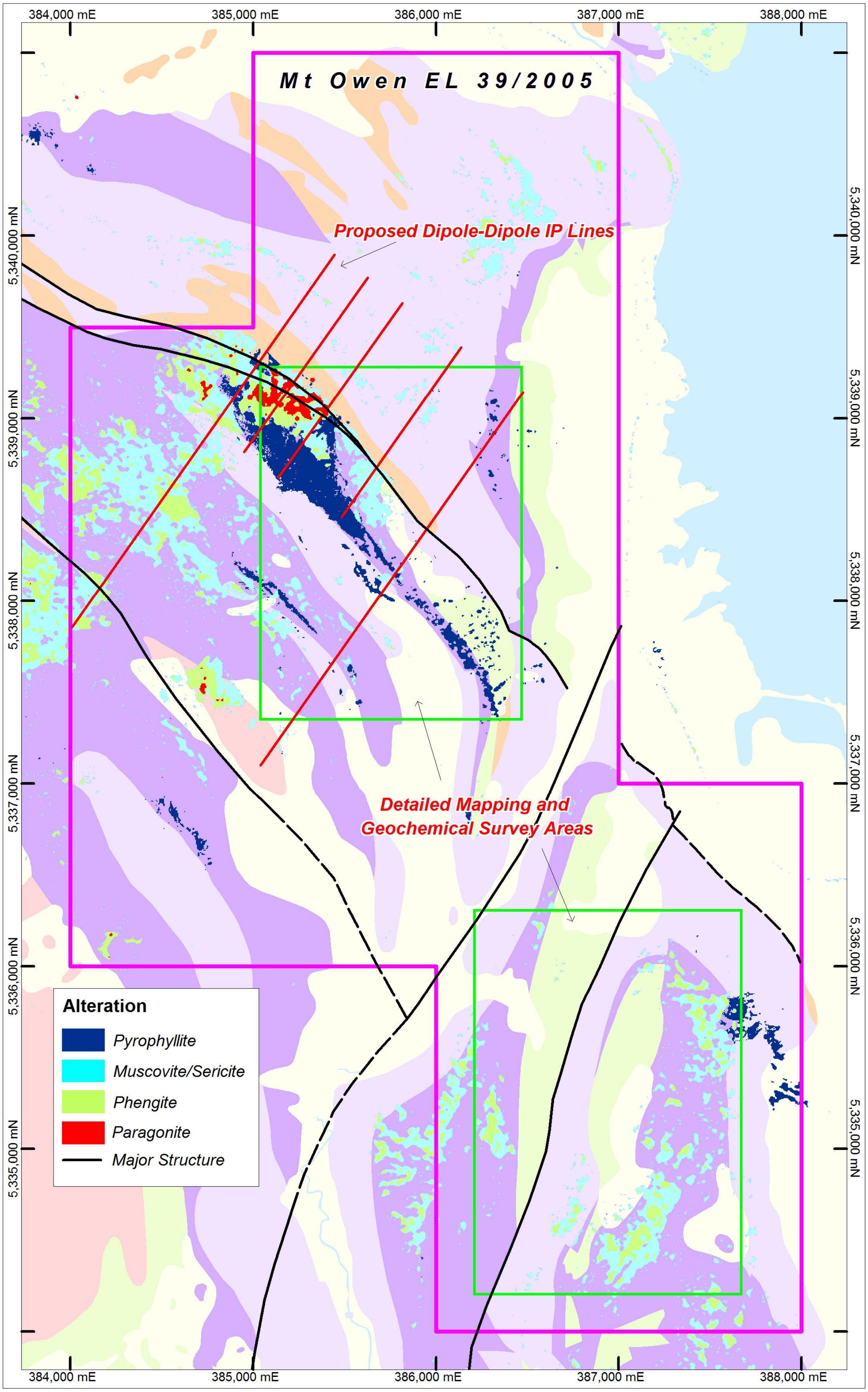


Figure 10. Proposed work program in EL 39/2005 for 2008/09 field season

9. References

Corbett, K.D.,2001. New Mapping and Interpretations of the Mount Lyell Mining District, Tasmania: A Large Hybrid Cu-Au System with an Exhalative Pb-Zn Top. Economic Geology Vol. 96.

ERA-Maptec, 1997, Interpretation of Aeromagnetic and Gravity Data set in EL 52/94 and ML 1M/95, Queenstown, Tasmania. Openfile Report, MRTAS (Report Number 98-4181)

Huston, D.L. and Kamprad, J.,2001, Zonation of Alteration Facies at Western Tharsis: Implication for the Genesis of Cu-Au Deposits, Mount Lyell Field, Western Tasmania. Economic Geology Vol. 96.

Large, R., Doyle, M., Raymond, O., Cooke, D., Jones, A., and Heasman, L., 1996. Evaluation of the role of Cambrian granites in the genesis of world class VHMS deposits in Tasmania. Ore Geology Reviews Vol. 10.

Morrison K.C., 1999, Copper Mines of Tasmania EL52/94 partial Relinquishment Report 13/01/99. Openfile Report, MRTAS (Report Number 99-4279)

Noll, C.A. and Hall, M., 2003. Stratigraphic architecture and depositional setting of the coarse-grained Upper Cambrian Owen Conglomerate, West Coast Range, western Tasmania. Australia Journal of Earth Sciences Vol.50

Noll, C.A. and Hall, M., 2005. Great Lyell Fault, western Tasmania: a collage of Middle and Late Cambrian growth faults reactivated during Devonian orogenesis. Australian Journal of Earth Sciences Vol.52

Nunn, D. and Nano, S., 2007. Mt Owen EL39/2005 Annual Report June 2007. Pangean Resources Pty Ltd commissioned consultants, *Global Ore Discovery*.

10. Keywords

Mt Lyell
Mt Owen
Copper
Gold
Pyrophyllite
Hymap
ASTER

Appendix 1. PIMA sample locations and analysis results

Sample	Easting	Northing	Index	TSA_S Mineral1	TSA_S Weight1	TSA_S Mineral2	TSA_S Weight2	TSA_S Error	AlOH	AlOH_D epth
MO-P01_A	384451.59	5338235.15	Integrate 8 Matrix & Veins	Aspectral	NULL	NULL	NULL	5000	2205.57	0.504
MO-P01_B	384451.59	5338235.15	Integrate 8 Matrix	Muscovite	0.584	Wood	0.416	162.89	2208.13	0.504
MO-P02	384465.59	5338283.15	Integrate 2 Matrix & Fill?	Muscovite	0.669	Phengite	0.331	16.471	2209.8	0.678
MO-P04_A	384556.6	5338441.15	Integrate 2 Vein	DryVegetation	1	NULL	NULL	1447.03	2210.05	0.462
MO-P04_B	384556.6	5338441.15	Integrate 4 Matrix	Muscovite	1	NULL	NULL	79.53	2208.47	0.585
MO-P04_C	384556.6	5338441.15	Integrate 4 Matrix/Vein	Muscovite	1	NULL	NULL	47.913	2208.1	0.671
MO-P06_A	384673.59	5338694.14	Integrate 8 Vein	Muscovite	1	NULL	NULL	205.82	2208.77	0.54
MO-P06_B	384673.59	5338694.14	Integrate 8 Matrix	Muscovite	1	NULL	NULL	213.61	2209.38	0.552
MO-P07_A	384816.6	5338733.14	Integrate 2 Matrix	Muscovite	0.787	Kaolinite	0.213	80.149	2210.15	0.68
MO-P07_B	384816.6	5338733.14	Integrate 2 Vein	Phengite	0.536	Muscovite	0.464	45.393	2212.45	0.703
MO-P07_C	384816.6	5338733.14	Integrate 2 Matrix	Muscovite	0.506	Phengite	0.494	46.394	2212.15	0.681
MO-P09_A	384825.59	5338788.14	Integrate 1 Matrix	Muscovite	0.701	Kaolinite	0.299	83.391	2207.87	0.551
MO-P09_B	384825.59	5338788.14	Integrate 1 Matrix	Muscovite	1	NULL	NULL	61.633	2206.96	0.56
MO-P10_A	384825.59	5338788.14	Integrate 16 Matrix	Aspectral	NULL	NULL	NULL	5000	2209.81	0.493
MO-P10_B	384825.59	5338788.14	Integrate 16 Matrix	Muscovite	1	NULL	NULL	394.86	2206.89	0.489
MO-P11	384882.6	5338850.14	Integrate 2 Sandy	Muscovite	1	NULL	NULL	146.47	2200.25	0.492
MO-P12	384896.59	5338874.15	Integrate 4 Sheared surface	Muscovite	0.735	Paragonite	0.265	38.15	2199.89	0.877
MO-P13_A	384896.59	5338874.15	Integrate 2 Vein	Aspectral	NULL	NULL	NULL	5000	2201.15	0.381
MO-P13_B	384896.59	5338874.15	Integrate 8 Matrix	Muscovite	1	NULL	NULL	420.88	2201.09	0.433
MO-P14_A	383680.59	5339585.14	Integrate 1 Vein	Phengite	1	NULL	NULL	70.643	2215.81	0.699
MO-P14_B	383680.59	5339585.14	Integrate 4 Matrix	Muscovite	0.63	Phengite	0.37	40.713	2210.97	0.716
MO-P15_A	384978.6	5339013.15	Integrate 2 Matrix & Vein	Muscovite	0.538	Paragonite	0.462	112.17	2196.58	0.534
MO-P15_B	384978.6	5339013.15	Integrate 2 White Fragment?	Muscovite	1	NULL	NULL	201.61	2196.7	0.494
MO-P16	384978.6	5339013.15	Integrate 1 Matrix	Muscovite	0.698	Paragonite	0.302	36.385	2198.46	0.727
MO-P17_A	385121.6	5338900.14	Integrate 4 White Fragment	Brucite	0.567	K_Alunite	0.433	3994.98	2197.22	0.486
MO-P17_B	385121.6	5338900.14	Integrate 4 Matrix?	Pyrophyllite	1	NULL	NULL	271.42	NULL	NULL
MO-P17_C	385121.6	5338900.14	Integrate 4 Fragment	Pyrophyllite	0.525	Muscovite	0.475	150.79	2204.04	0.608
MO-P18	385229.58	5339091.14	Integrate 1 Matrix	Muscovite	0.777	Kaolinite	0.223	126.97	2209.63	0.588
MO-P19	385229.58	5339091.14	Integrate 1 Matrix	Phengite	0.567	Kaolinite	0.433	250.78	2209.58	0.485
MO-P20	385274.59	5339074.15	Integrate 1 Matrix	Phengite	0.822	Halloysite	0.178	49.396	2213.17	0.743
MO-P21_A	385302.58	5339139.14	Integrate 1 Matrix	Muscovite	0.51	Paragonite	0.49	110.34	2196.03	0.648
MO-P21_B	385302.58	5339139.14	Integrate 1 Matrix	Muscovite	0.546	Paragonite	0.454	117.65	2196.41	0.638
MO-P22_A	385302.58	5339139.14	Integrate 2 Matrix	Paragonite	0.595	Muscovite	0.405	83.624	2195.42	0.745
MO-P22_B	385302.58	5339139.14	Integrate 2 Matrix & Veins	Paragonite	0.605	Muscovite	0.395	74.514	2195.4	0.713

Maps

Map 1. EL39/2005 PIMA & HYMAP Mineral Mapping

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