

**EL01/2006 – Diamond Hill**

**Annual Report**

**2006 – 2007**

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**For LIDDS Pty Ltd**

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## **Summary.**

Exploration Licence 01/2006 comprises 11 square kilometres near Queenstown was granted on 6th September 2006 to Low Impact Diamond Drilling Specialists Pty Ltd (LIDDS).

During 2006 – 2007 one diamond drill hole (MH04) was completed for a total of 208.2 metres. The hole intersected altered sediments with alteration and associated base metals with a peak assay of 1.0 metre @ 79,000 ppm Pb and 5.0 g/t Ag from 128.20 to 129.20 metres down hole.

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## **1.0 Introduction.**

Exploration Licence EL01/2006 comprising 11 square kilometres near Queenstown was granted on 4th September 2006 to Low Impact Diamond Drilling Specialists (LIDDS) Pty Ltd.

During the reporting period September 4, 2006 to September 3, 2007 work undertaken on the licence included literature searches, data reviews and the drilling, logging and assaying of a diamond drill hole designed to test for stratigraphic correlations and structural features that may assist in targeting of future drilling towards mineralisation. A total of 208.2 metres were drilled.

## **2.0 Exploration Objectives.**

The philosophy and objectives of the Exploration undertaken by LIDDS is directed to the definition of a significant hard rock gold and or base metals resource that would be amenable to economic extraction.

The proximity of the lease to the Pearl Creek - Firewood Siding Fault system, the defined edge of the Mt Read Volcanics and the inferred interaction of the splay off the South Henty Fault all allow for the potential of either gold or massive sulphide mineralisation.

Primary exploration has focussed on testing discrete anomalies as defined by independent re-interpretation of historic geophysical data.

### 3.0 Location and Access.

Exploration Licence EL01/2006 is located near the township of Queenstown, situated in the west coastal region of Tasmania.

The licence is situated within open crown land areas and is serviced by a network of unsealed tracks, all weather roads and fire trails.

Topographic relief varies from gently undulating heath areas to steep hills and ridges with deeply incised valleys developed in the western area of the licence. Vegetation is dominated by low scrub and the license is not subject to any agricultural practices

**Figure 1. Exploration Licence 01/2006**



#### **4.0 Regional Geology.**

The regional geology of EL 01/2006 has been previously described by other authors (Qualyle, 1995). The area is adjacent to and may contain fault offset blocks of the main Mount Read Volcanic (MRV) suite that host mineralisation at Queenstown.

The Firewood Siding Fault and its Henty River offset zone appear to connect northward into the Ewart Creek Fault system, dominates the region and rock distribution. Ordovician to Devonian rocks is exposed south of this predominately E-W structure while Cambrian volcanoclastic suites are exposed to the north of it.

In the area east of 373500 E and generally east of the Henty River, the Cambrian rocks have been described as greywacke siltstone with interbedded acid tuffs (Baillie, 1977) contained within the Youlande River Sequence. The materials (Corbett et al, 1989) appear to be enriched in volcanic components and include at least three quartz-feldspar porphyry variants. Some of these bodies have a NW extension but all appear to terminate a little north of the Madam Howard Deposits

The license is dominated by these quartz–feldspar porphyry intrusives some of which (Diamond Hill) are cut by quartz veins carrying gold mineralisation.

## **5.0 Previous Work.**

The area has been subject to both limited production of industrial minerals (barite from the Madam Howard Barite deposits as well as gold exploration in the form of four hand dug exploration adits (circa 1809 – pre-Mt Lyell discovery).

The area has been held under licence by many major companies including Pasminco Exploration, Copper Mines of Tasmania who have undertaken various regional exploration programmes.

Detailed geophysical coverage has been undertaken by Leaman Geophysics (Leaman, 1993) for Pasminco Exploration. This work and that of Copper Mines of Tasmania Pty Ltd (Morrison, 2001) who also undertook significant ground based regional work that included the current Licence area, have provided a large amount of geological and geophysical data. It is noted that several recommendations for additional follow-up exploration specifically related to the Diamond Hill area were never acted upon.

## **6.0 Exploration Completed During the Reporting Period**

During this period the Licence was subject to significant review of all available data by LIDDS.

A single diamond drill hole (MH04) was completed during the reporting period for a total of 208.2m. This hole was selectively samples and returned the best result of 1.0 metre from 128.2 metres down hole of 79,000 ppm Pb and 5.0 g/t Ag associated with bleaching and minor stockwork quartz-carbonate-chlorite-sericite veining within altered siltstones and minor volcanoclastic sandstones.

## **7.0 Discussion and Conclusions.**

The results from MHD004 indicate the presence of a broad alteration zone that has been subject to fluid flows containing base metals. The presence of several faulted zones

Additional work is still required in order to prioritise targets within the licence.

Diamond Hill requires follow-up to confirm historically anomalous gold values and to determine optimal drilling direction and drill hole targets.

## **8.0 Expenditure.**

### **Geoscientific Costs**

- Geology \$ 6,900
- Geochemistry
- Geophysics
- Remote Sensing

### **Drilling & Gridding Costs**

- Gridding
- Drilling \$45,380

### **Land Access Costs**

**Rehabilitation Costs \$ 2,000**

### **Feasibility Study Costs**

### **Other Items**

**Administration Costs \$ 3,000**

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**Total Costs \$57,280**

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## 9.0 References

**Baillie, P.W., 1977.** Strahan. 1:50,000 Geological Map Sheet. *Tas Department of Mines Geological Atlas.*

**Corbett, K.D., Calver, C.R., Everard, J.L., & Seymour, D.B., 1989.** Queenstown. 1:25,000 Geological Mapping Sheet. . *Tas Department of Mines Geological Atlas.*

**Leaman, D.E.,1993,** *EL25/91 Yolande River Aeomagnetic Survey Acquisition. Pasmaenco Exploration.*

**Morrison, K., & Miller, C., 2001,** *Proposed Exploration Program and Budget . Mt Lysle, Queenstown. Copper Mine of Tasmania Pty Ltd.*

**Quayle, P.M., 1995** Yolande River EL25/91 Final Report November 1991 – August 1995. *Pasmaenco Exploration. MRT 95-3746.*

## Appendix 1

### Drill Hole MH04 Low Impact Diamond Drilling Specialists.

#### Drill Hole Summary.

Low Impact Diamond Drilling Specialists Pty Ltd			
MHD004 Summary Drill Log			Collar : AMG AGD66 - 5343700N, 378300E
FROM (m)	TO (m)	DESCRIPTION	MINERALISATION
0.0	13.7	Cream- grey clay - very poor core recovery	
13.7	15.2	Lt grey weathered siltstone	
15.2	18.2	White quartz vein - poor recovery	
18.2	24.2	Lt grey weathered siltstone. Bedding 30-40CA Strong overprinting cleavage 20CA	
24.2	25.4	Lt to dk grey finely interbedded siltstone / sandstone. Bedding 90CA	
25.4	36.0	Lt grey to locally dk grey black weathered siltstone and local sandstone. Bedding 80CA and cleavage 30CA	
36.0	37.3	White massive quartz+carbonate+chlorite vein with weak limonite staining on joints. Vughy with minor late dk brown chlorite clots to 1cm and minor pink carbonate patches	
37.3	39.0	Lt grey weakly weathered massive sandstone	
39.0	39.1	Puggy Fault with minor quartz vein rubble - uncertain orientation	
39.1	85.3	Pink to cream to lt grey massive, moderately silicified locally hematitic? siltstone to fine grained sandstone. Bedding not evident. Moderate 1-10mm quartz-carbonate veining at low to moderate angle to CA - dominantly 50-60CA. Cleavage 30CA. Minor earlier and thicker quartz + pink carbonate+chlorite veining. Veining generally 50-70CA.	
85.3	87.1	Dk grey massive to moderately bedded, moderately silicified volcanoclastic? sandstone. Bedding locally disrupted by soft sediment deformation? Bedding 40-70CA. Sharp conformable upper contact, gradational lower contact. Moderate 1-5cm quartz-carbonate veining at all angles to CA.	
87.1	145.8	Lt grey to pink fine grained siltstone to coarse lithic volcanoclastic siltstone. Diverse intervals reanging from massive volcanoclastic sandstone to finely laminated siltstone with diffuse bands from 5-50cm of coarse lithic sandstone. Bedding generally 60CA. 128.9m-1-2cm galena veinlet 20CA.	128.4-129.1m 1-3% galena + trace sphalerite as late veinlets, patches and disseminations. 128.9m-1-2cm galena veinlet 20CA.
145.8	147.5	Dk grey disrupted, weakly bedded siltstone.	145.8-146.1m 3-5% disseminated and vein galena ± sphalerite ± barite?, locally replacing host rock. 146.1-147.5m trace disseminated sphalerite.
147.5	147.5	Fault??	
147.5	162.5	Lt grey strongly silicified, strongly quartz veined and weakly to moderately crackle brecciated siltstone. No bedding evident. Zone of fracturing and moderate to strong quartz veining. Veining at all angles to CA. Strongest quartz veining associated with broken core.	161.7-162.25m 5%(locally 20%) sphalerite as veinlet stockwork and disseminations - pale brown Fe poor sphalerite.
162.5	176.1	Pink to lt grey massive, weakly silicified, siltstone. Weak to moderate quartz-carbonate veining to 1cm. Bedding 20CA.	162.25-165.3m Trace to 3% sphalerite ± galena associated with quartz veinlets. 165.3-176.1m Rare disseminated sphalerite
176.1	180.2	Grey to pink shear zone - late brittle faults zone. Sheared and faulted interval at 20-30CA	
180.2	EOH	Lt cream to pink massive weakly sericite-quartz-carbonate+chlorite altered siltstone. Minor barite veins to 10cm, generally 30CA. 20' 2-202.7m Puggy-rubby fault, low angle to CA.	Pyrite 1-2% as fg disseminations. Trace fg disseminated chalcocopyrite

#### Collar Survey (GDA94)

5,343,885 mN  
378,809 mE  
297 mAHD

#### Down Hole Survey.

Date Started 10/09/07  
Date Completed 21/09/07  
Final Depth 208.2 m

Survey Depth (down hole)	Inclination	Magnetic Bearing	GDA94 Converted Bearing (+12.5°)
80	-70	188	200.5
110	-70	220(?)	232.5
160	-69	195	207.5
208	-68	185	197.5

## Assays

Sample	Au ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	from m	to m	Interval m
15401	0.02	3	60	50	80	124.00	125.00	1.00
15402	<0.01	2	20	40	50	125.00	126.20	1.20
15403	<0.01	2	10	50	50	126.20	127.20	1.00
15404	<0.01	1	10	60	80	127.20	128.20	1.00
15405	<0.01	5	10	79,000	90	128.20	129.20	1.00
15406	<0.01	<1	10	160	90	138.20	139.40	1.20
15407	<0.01	<1	10	170	60	144.20	145.70	1.50
15408	<0.01	3	20	9,800	340	145.70	147.20	1.50
15409	<0.01	1	10	240	60	147.20	148.70	1.50
15410	<0.01	1	10	60	30	148.70	150.70	2.00
15411	<0.01	<1	10	60	100	150.70	151.70	1.00
15412	<0.01	<1	10	30	20	155.00	156.20	1.20
15413	<0.01	<1	10	1,180	20	158.00	159.50	1.50
15414	<0.01	<1	10	50	5,200	159.50	161.00	1.50
15415	<0.01	1	20	140	7,710	161.00	162.70	1.70
15416	<0.01	<1	10	160	270	166.30	167.30	1.00
15417	<0.01	<1	10	60	580	167.30	168.30	1.00

### Duplicates

Sample	Au ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm
15404	<0.01	n/a	n/a	n/a	n/a
15409	n/a	1	10	210	60