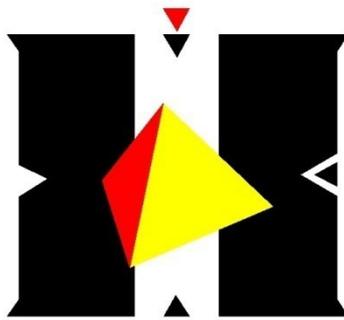


**Retention Licence 3/2009 Oceana**  
**Fourth Annual Progress Report**  
**For The Period**  
**01/02/2016 - 01/02/2017**



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Coordinate system used in maps and diagrams within this report is MGA55 (GDA94), unless otherwise specified.

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## **Abstract**

No field activities were undertaken during the reporting period.

Exploration expenditure for the 12 month period at Oceana totalled \$ 14,626, mostly comprised of water monitoring costs.

Activity on the RL will be stepped up with the production of an updated scoping / feasibility study for the Oceana deposit already in the pipeline.

Additionally, the following activities are planned for the next 12 months:

- Shallow infill drilling within the potentially open-cuttable component of the known resource at Oceana
- Metallurgical test-work on core samples

# 1 Introduction

Australian Hualong P/L (AHL) is a privately owned resources company incorporated in NSW and owned by Mr. Zhian Zhang.

AHL currently holds Retention Licence 3/2009 Oceana, following the acquisition in March 2013 of all of the licences held by Creat Resources Holdings Limited.

## 1.1 Tenement Location

### 1.1.1 Mineral Exploration Area

Retention Licence 3/2009 covers an area of 1 square kilometre and is located south of Zeehan, West Tasmania.

### 1.1.2 Site Location

RL3/2009 covers approximately 1 km<sup>2</sup>, and is located 3.5 km south from Zeehan, Western Tasmania ( Figure). The Henty Road provides road access to RL3/2009. The Emu Bay Railway and the Murchison Highway connect the township of Zeehan with the Port of Burnie, located approximately 140km to the north.

### 1.1.3 Land Tenure

The licence is situated within land currently designated as *Proposed Regional Reserve - CLAC*

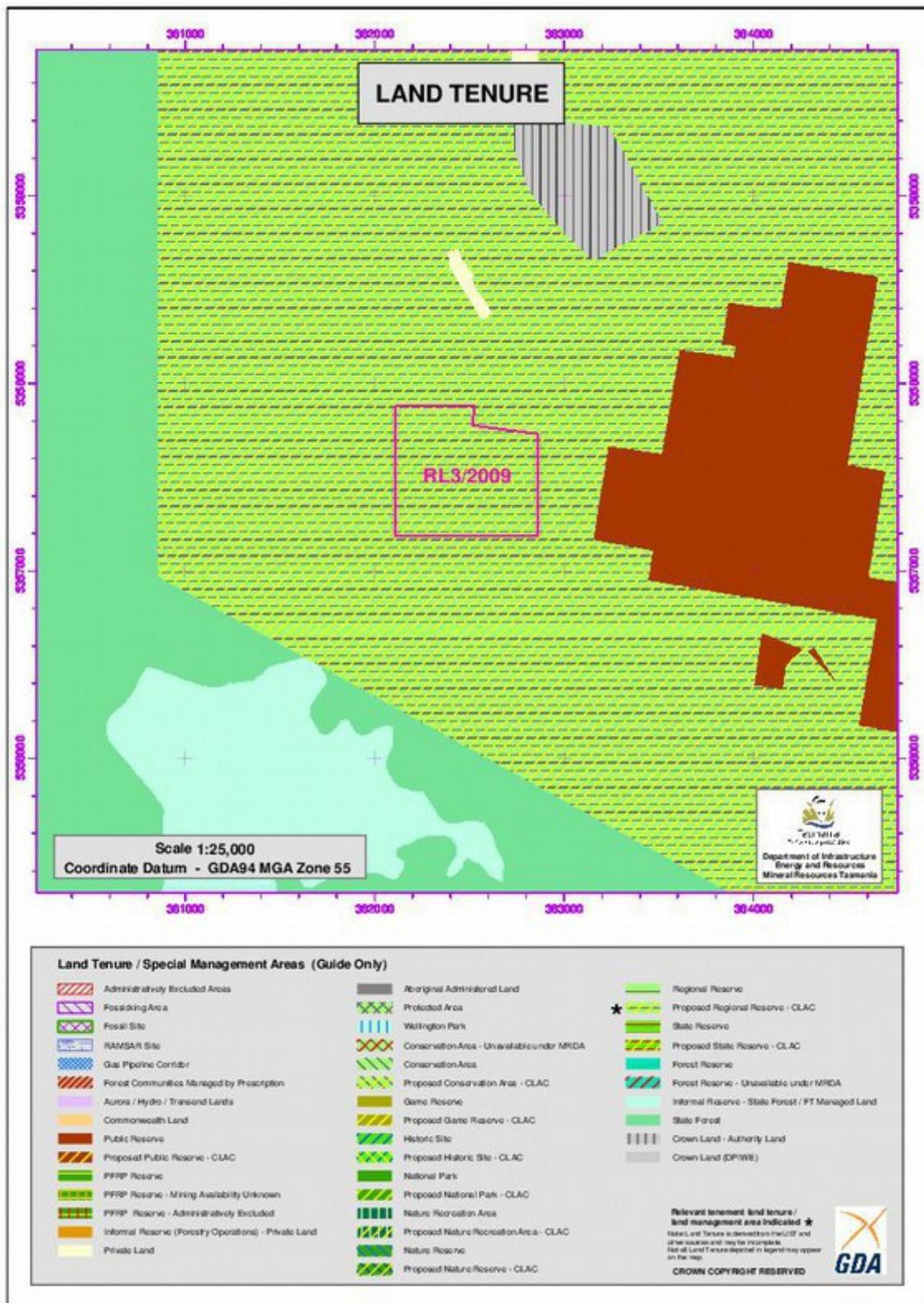


Figure 1: Land Tenure Oceana Retention Licence

## 2 Geology and Previous Work

### 2.1 Previous Mining and Exploration within RL3/2009

The Oceana Lead/Zinc project is hosted by Ordovician-aged carbonates of the Gordon Limestone (Figure 2). The deposit type is similar to the Irish-type of carbonate hosted lead/zinc deposit, particular with the Silvermines and Tynagh deposits (Taylor & Mathison, 1990).

McGilvray (2003) completed a geological and mineralisation study of the Oceana deposit for an Honours thesis based at CODES, the University of Tasmania. The historical notes detailed here are from that report. The initial discovery of lead (and silver) mineralisation at Oceana was in 1887 as part of the Zeehan Mineral Field boom of the late 1880's. From 1892 to 1899 a series of small shafts and drives were driven on the deposit and total of 1016t of ore was extracted at 39% Pb and 445g/t Ag (Blissett, 1962). Mining ceased when the shaft collapsed. Minor extraction went on from 1909 to 1925 and in the early 1950's a joint venture between BHP North and South was formed, Zeehan Mines Pty Ltd., in order to drill out and mine the resource. Drilling consisted of 39 surface diamond holes and 58 underground diamond holes. Mining began in 1954, ceasing in 1960 due to excessive water inflows, reported as 11.3 mega-litres per day (Jack 1961). A 200m shaft was sunk, with the first 30m in decomposed limestone clay, and the establishment of a further 5 levels was completed.

Production is reported in Blissett (1962), as comprising 131,821 tonnes of ore at 11.5% Pb and 132g/t Ag (no zinc reported). Mining was by flat back cut and fill stoping with fill comprising de-slimed mill tailings. Exploration was re-established in 1978 by AMOCO (Jones, 1981) and then an

AMOCO/EZ/Cyprus joint venture (Jones, 1983), followed ultimately by Pasminco in 1992-6 (Quayle, 1993). The exploration work by AMOCO included a study of the Zeehan Mines historical work (Curtis, 1981) with further diamond drilling and costeaning enabling resource estimations to be undertaken.

An AMOCO/Cyprus Gold Australia Corporation JV continued exploration in 1988 producing a geological study and a feasibility report respectively (Ingham, 1988), quoting 2.47Mt at 9.4%Pb, 4%Zn and 68ppm Ag to a depth of 350m (approximately 840mRL) with a 5%Pb+Zn cut off. These resource figures were reported to a JORC (1985) standard. Pasminco (Saxon 1994) re-estimated the resource based on previous explorers work, concluding with a figure of 2.49Mt at 7.5%Pb, 2.6% Zn and 45.4 ppm Ag. These resource figures were for internal use by Pasminco and were never reported publicly. In 1997 Mancala Pty Ltd completed a re-assessment of the data and concluded that potential for an open pit existed to the immediate north of the old mine, around Resource A (Ackerman, 1998). The estimated resource of 135,000 tonnes at 12% Pb, 2.8% Zn and 68g/t Ag, was based on an open pit operation to 50m (a shallower option was also investigated), with a 10% Pb+Zn cut off. These resource figures were never reported to JORC standards and are only included here for historical purposes.

None of the previous explorers have attempted to recreate the original Oceana mined resource. Since 2002, when Zeehan Zinc acquired the Oceana area under licence, work completed included locating hard copy versions and digitising the old Zeehan Mines drilling data, digitising of all other historically relevant drilling and trenching data. Fieldwork consisted of re-establishing the local grid, undertaking a detailed gravity survey, minor trenching and an initial aircore drilling programme of 3 holes for a total of 100m. ZZ also commissioned SMGC to do resource estimation on a potential open pit resource, this included ZZ completing bulk density measurements on nearly 200 samples of historical core. ZZ completed a further 18 aircore drill holes in April/May 2006.

In 2008, Creat Resources Holdings Limited drilled seven diamond drill holes centred around the known resource for a total of 587m. These drill holes were drilled primarily for metallurgical purposes, but achieved poor recovery generally. Assaying was not systematically undertaken, a lack of funds cited as the reason at the time. The

metallurgical drill holes have not been incorporated into the resource model as of December 2014, however this data will be combined with the Australian Hualong drilling results where possible to obtain an updated resource model.

## 2.2 Local Geology

The Oceana lead/zinc deposits occur as two parallel lodes in steeply east dipping calc-siltites, calcarenites and syn-sedimentary breccias of the Ordovician-aged Gordon Limestone (Figure 3). Mineralisation comprises stratabound, semi-massive galena and sphalerite, locally with semi-massive pyrite, associated with an intensely pervasive, hydrothermal-related, siderite alteration. There are also zones within the drill core and at surface of dark grey/black clays, which are likely to be residual weathering deposits of both the limestone and/or the sulphide bodies.



Figure 2: Oceana local geology looking north-west

The mineralised body is split into two sections by the obliquely cross cutting Oceana Mine Fault with the northern limit of mineralisation truncated by the cross cutting Oceana Fault (Figure 4). The southern end of the mineralisation is believed to taper out to the south whilst both sections are open at depth.

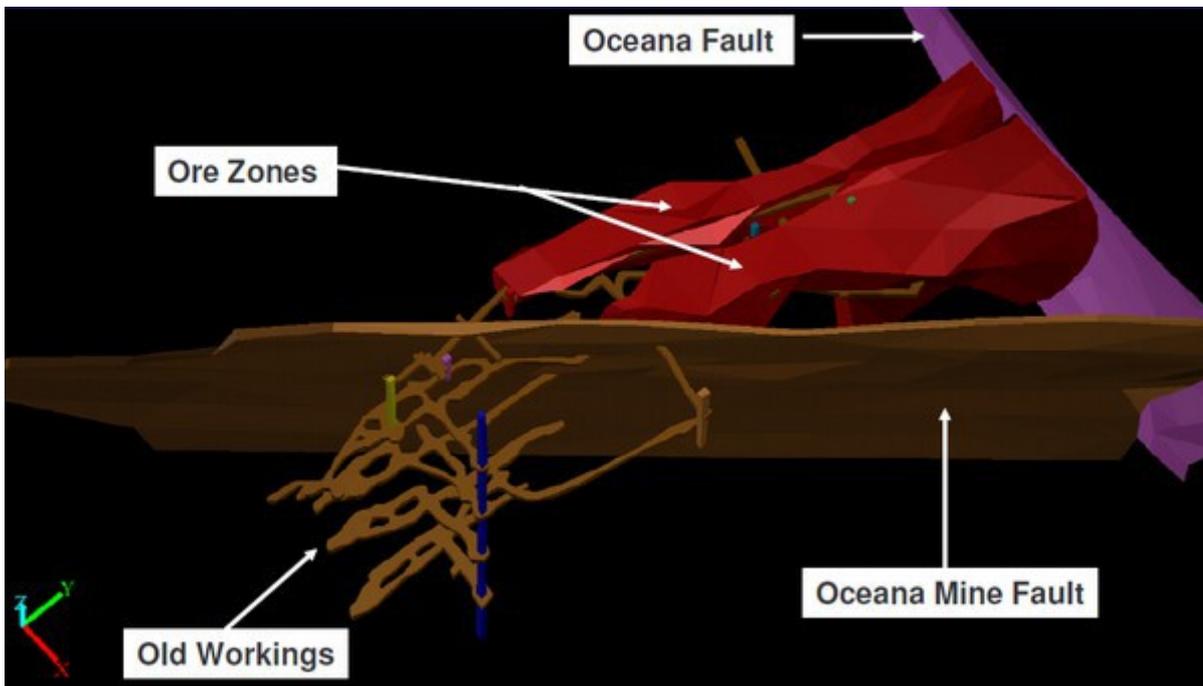


Figure 3: Oceana Resource A mineral zones

The mineralisation north of the Oceana Mine Fault was identified by ZZ as Resource A and consists of a variety of competent, sideritic limestones with galena and sphalerite adjacent to clay-rich oxidised lead- and zinc-rich material. The historical logging records oxidised products of the sulphide mineralisation as being cerussite and hemimorphite/smithsonite. Sections of the old workings by Jack (1961) allude to the possibility of small scale flat lying dextral thrust faults. A low grade envelope exists to the main high grade mineralisation, being more prominent with Resource A.

### **3 Current Activities 2016 – 2017**

The main activities at the Oceana RL during the reporting year has been water sampling and analysis of the small creek at Oceana, continuing the monitoring process which began over 10 years ago. The seasonal water quality of the drainage at Oceana is now documented and recorded for a significant time period that provides detailed information on the background properties of any run-off waters at Oceana.

## **4 Conclusions, Recommendations and Further Work**

The plan for 2017 at RL3/2009 involves producing an updated scoping / feasibility study for the Oceana deposit. Additionally, the following activities are planned:

- Shallow infill drilling within the potentially open-cuttable component of the known resource at Oceana
- Metallurgical test-work on core samples

## **5 Environment**

During the period routine water sampling and analysis of the local creek at Oceana was carried out by the company. Some minor spraying of gorse was carried out on access tracks.

## 6 Expenditure

RL3/2009 Expenditure for the period ending 01<sup>st</sup> February, 2017. Geology expenditure component consists of some core assaying costs carried over from previous year.

Expenditure	\$
Geology (Geochemistry)	\$ 2,000
Rehabilitation	\$ 12,626
<b>TOTAL</b>	<b>\$ 14,626</b>

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