1 EXECUTIVE SUMMARY

EL61/2007 and EL62/2007 are separate licences in the Macquarie Harbour region in Western Tasmania which were granted on 27 April 2007. Both have common boundaries with other licences previously held by Goldstock Mining Pty Ltd. a wholly owned subsidiary of MHM Metals Ltd. Prior to November 2010, MHM Metals Ltd., was formerly called Macquarie Harbour Mining Ltd., and several previous reports have been submitted by Macquarie Harbour Mining (e.g. Richardson 2009, 2010, Lindsay 2010, 2011, 2012).

EL61/2007 lies in a zone of meta-sedimentary Proterozoic rocks on the Sorell Peninsula while EL62/2007, which straddles Macquarie Harbour, covers a magnetic high which reflects a continuation of the prospective nickel-bearing ultramafic rocks northwards offshore.

In previous reports, both licences have been reported together with EL63/2007, which formed part of a contiguous block of licences covering the whole of Cape Sorell Peninsula. EL61/2007 forms a narrow wedge of ground between EL21/2007 and EL22/2007, which are prospective for base and precious metals. EL62/2007 is contiguous with EL22/2007 and covers an area of water of Macquarie Harbour, in the event that significant mineralisation was found on the north coast of EL22/2007 this EL would cover any possible northerly extensions underwater. Previous reports concerning the relinquished EL’s under discussion are mostly concerned with the silica occurrences on EL63/2007. However, there is no Proterozoic silica on either EL61/2007 or EL62/2007. EL63/2007 is being retained by MHM Metals, and the work on the two relinquished licences has been limited.
2 INTRODUCTION

This is the final report on EL61/2007 (57 sq km), EL62/2007 (67 sq. km) which were held in the name of Goldstock Mining Pty Ltd, a wholly owned subsidiary of MHM Metals Ltd (“MHM”). EL61/2007 lies between EL21/2007 and EL22/2007 with the ocean along its south western boundary, and EL62/2007 covers part of Macquarie Harbour between EL20/2007 to the north and EL’s 21 & 22/2007 to the south (see Figure 1). The licences both fall within the South West Conservation Area and any exploration requires continual consultation with the relevant government authorities, particularly Mineral Resources Tasmania and Parks and Wildlife Services.

Previous reports on these EL’s have been managed by Macquarie Harbour Mining Ltd. however the company changed its name in November 2010 to MHM Metals Ltd.
Figure 1. Location of EL’s 61/2007, 62/2007
3 REGIONAL GEOLOGY

EL 61/2007 represents an area of older rocks (Mesoproterozoic-Neoproterozoic) which form thrust boundaries with younger Neoproterozoic and Cambrian sequences. The area has been mapped and described by McClenaghan and Findlay (1993). EL62/2007 has no geological outcrop but observation of airborne geophysical data indicates that the NNE trending magnetic high which reflects the Hibbs ultramafic belt (known to host nickel mineralisation) on the south side of Macquarie Harbour, continues to the north (see Figure 2). A simplified geological map of EL61/2007 is shown as Figure 3.

EL61/2007:

The principal geological unit within this licence is a metamorphosed turbidite sequence of interbedded quartzwacke and mudstone/siltstone considered to be of lower Neoproterozoic age. In the southwest of the tenement there are also metamorphosed impure dolomite-rich sequences of mudstone, siltstone and sandstone which correlate to the Oonah Formation. There are also minor early Cambrian gabbroic intrusions.
Figure 2. Magnetic Map of Macquarie Harbour area
Figure 3. Generalised geology of the Cape Sorell Peninsula
4 REVIEW OF WORK BY PREVIOUS EXPLORERS

Modern exploration commenced south of Macquarie Harbour in the mid-1950’s and has been carried out intermittently since then, led by a relatively small number of companies which have expended considerable time and effort in an area with no existing infrastructure and a climate which limits concerted field programmes to the warmer months. This work was directed mainly towards base and precious metals but regional airborne geophysics and geological mapping by Lyell – EZ Explorations (1956-1962) and BHP (1965-1972) were instrumental in providing a strong basis for the structural understanding of the area.

Because of the low prospectivity for metallic mineralisation on EL61/2007 and EL62/2007 is over water, there has been no ground based follow-up base or precious metals exploration over the area covered by these two licences. However, an airborne VTEM survey was flown in April 2010 over the entire block of EL’s and the results have been reported by Reid (2010).

5 WORK DONE BY MHM

The history of exploration from the early 1970’s until 2009 has been reported in previous annual reports to MRT and will not be repeated here (e.g. Lindsay, 2012). The airborne VTEM and magnetic survey has also been previously reported to MRT by Reid (2010). As there were no significant VTEM anomalies defined by the survey, no follow up work was warranted. EL62/2007 was held purely as security in case of north-striking mineralisation being discovered at Hill99 prospect on EL22/2007. EL22/2007 has been relinquished by MHM Metals as being unprospective.
6 REFERENCES


7 Key words:

Sorell Peninsula, Airborne VTEM, Neoproterozoic sediments.