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# MHM Joint Feasibility Study with American Aluminium Company & \$12M Capital Raising

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macquarieharbour  
mining

ABN 41 124 212 175

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## ASX Release – 20 October 2010

- Contract with American aluminium company Smelter Service Corporation (SSC) to conduct joint feasibility study for salt slag processing
- SSC produces 90,000 tonnes of salt slag per annum, owns a 350,000 tonne single purpose salt slag landfill which may be suitable for reprocessing
- Alreco (MHM's subsidiary) and SSC to discuss potential joint venture for the SSC salt slag reprocessing and landfill reclamation project
- Alreco and SSC to discuss potential partnership throughout the United States where over 1,000,000 tonnes of salt slag is produced each year
- Agreement with SSC is in addition to ongoing discussions with Alcoa USA and expected that outcomes with both parties would be complementary
- Feasibility study scheduled to conclude by 30 June 2011
- MHM to raise \$12,000,000 through private placement of 12,000,000 new fully paid ordinary shares at \$1.00 per share to help fund the feasibility study, rapid expansion into the US market and for working capital

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**20 October 2010, Hobart Australia:** Macquarie Harbour Mining Limited (ASX:MHM) wholly-owned subsidiary Alreco Pty Ltd (**Alreco** or the **Company**) has signed an agreement with American aluminium company Smelter Service Corporation (**SSC**) to conduct a joint feasibility study for salt slag processing in the United States.

As part of this rapid US expansion MHM intends to raise \$12,000,000 through the issuance of 12,000,000 new fully paid ordinary shares at \$1.00 per share via a private placement to be managed by Bell Potter Securities Limited. The capital raising will help fund the feasibility study with SSC, the rapid expansion of the Company into the US market and for working capital.

### Agreement with Smelter Service Corporation

SSC is an aluminium company based in Tennessee has been recycling aluminium scrap and dross since 1978. SSC has continuously grown throughout the past 32 years, currently operating 5 rotary melting furnaces in Mt Pleasant, Tennessee.

SSC provides 2000 pound aluminium ingots and molten metal to customers in a wide geographic range throughout the Southeast and Midwestern portions of the United States.

SSC produces approximately 90,000 tonnes of salt slag per annum and has a 350,000 tonne single purpose ('mono-fill') salt slag landfill that may be suitable for reprocessing. SSC alone produces nearly four times the 25,000 tonnes per annum salt slag that the entire Australian secondary aluminium industry produces. Alreco processes 100% of the salt slag that is produced in Australia and aims to achieve a similar outcome in the US, and ultimately globally.

Alreco and SSC have agreed to work together to conduct a feasibility study for both the SSC salt slag and landfill reclamation project and to assess regional potential to increase the processing capacity for the project.

### Corporate Detail

**ASX Codes:**  
MHM, MHMO

**Issued Capital:**  
87.5M Ordinary Shares  
27.5M Listed Options

**Substantial Shareholders:**  
Rogers Southern PL 12.4%  
Directors 14.7%  
Top Twenty 30.7%

### Directors

**Chairman**  
Basil Conti FCA, FCIS,  
FTIA

**Managing Director**  
Frank Rogers

**Executive Director**  
Ben Mead B.Econ

**Non-Executive Director**  
P Robertson B.E.(Met),  
MBA

**Non-Executive Director**  
Dr Neil Allen B.Sc, PhD

### Contact

PO Box 21  
KINGSTON TAS 7050

Tel: +61 (0)3 6229 9955  
Fax: +61 (0)3 6229 8430

Email: [info@mhml.com.au](mailto:info@mhml.com.au)

Web: [www.mhml.com.au](http://www.mhml.com.au)

More broadly the parties will also explore opportunities for salt slag processing in the US and discuss a potential partnership to capitalise on the 1,000,000 tonnes of salt slag produced each year.

The feasibility study will assess issues such as plant location, permitting, availability of grants and government concessions, regional salt slag production, a comprehensive testing program of SSC's salt slag production on an ongoing basis and availability for reclamation from landfill. The agreement also provides a framework for the parties to discuss a more general partnership to capitalise on the salt slag produced by other parties throughout the US.

The feasibility study is scheduled for completion by 30 June 2011.

While Alreco does not necessarily need a local partner to capitalise on the opportunity for salt slag processing in the US, the Board is pursuing the commercial benefits that a partnership with a well-respected American aluminium company could bring.

Alreco owns the exclusive global rights to the ALNAK technology, a new and innovative landfill-free process for treating aluminium salt slag. Under the agreement signed with SSC, ownership of the technology would always remain with Alreco regardless of the final structure of any potential partnership between the parties.

The Board of Alreco stresses that the agreement with SSC is expected to be compatible with ongoing discussions with Alcoa. It is expected that outcomes with both parties would be complementary.

Australian operations are progressing well with MHM on track to earn an anticipated \$230,000 EBITDA per month during the technology upgrade, increasing to an anticipated \$8.6 million EBITDA per annum when the upgrade is complete. While the economics of the potential SSC salt slag operation will be determined by the feasibility study, it is believed similar profit margins can be achieved. It should be noted that Alreco owns 100% of any international salt slag operations and does not have to share profits as it presently does in Australia.

### **Australian Operations – technology upgrade update**

The upgrade of the Australian salt slag processing plant is well advanced with the timing of final completion dependent on receipt of council approvals for salt evaporation pond construction. Final approval is not expected to be an issue as salt evaporation ponds have been operated in the area by Cheetham Salt since 1888.

Large sections of the upgraded processing plant have been commissioned, however final commissioning of the closed-loop process is dependent on the use of salt evaporation ponds. The sections that have been commissioned (the first stage 'dry circuit' of the plant) are producing aluminium and aluminium oxide, and performance is exceeding expectations.

The Company is advanced in investigations for a salt crystallisation system that would produce an instant salt product and recover substantial volumes of water, though implementation of this would occur subsequent to the construction and use of evaporation ponds.

The technology upgrade is running on budget.

### **Capital Raising**

MHM will raise \$12,000,000 to fund the feasibility study with SSC, to advance opportunities in the US and for working capital.

The funds will be raised through the private placement of 12,000,000 new fully paid ordinary shares at \$1.00 per share to existing and new sophisticated and institutional investors. The capital raising will be managed by Bell Potter Securities Limited. The allotment of these shares is expected on Tuesday 26 October.

### **Aluminium Salt Slag Project Background**

Macquarie Harbour Mining through wholly-owned operating subsidiary Alreco Pty Ltd owns the exclusive global rights to the proprietary technology for processing of aluminium salt slag, a waste product from the aluminium industry.

Aluminium salt slag is a waste stream from the recycling of aluminium, a by-product from recyclers that has routinely been disposed in landfill. Due to regulatory changes by the EPA this material can no longer be disposed in landfill and this is a major problem for the industry. Without a viable solution the secondary aluminium industry cannot continue to operate using the existing highly-efficient yet waste-generating processes.

Alreco's proprietary technology, the ALNAK technology, processes salt slag and separates it into its individual components of aluminium metal (10-20%), aluminium oxide (30-40%) and a salt and potassium chloride blend (50%). The technology results in total waste treatment and production of aluminium and other saleable products. The technology removes the need for any portion of the salt slag to be disposed in landfills.

The ALNAK technology has significant environmental benefits including:

- reduced energy consumption; the energy used in Alreco recovering aluminium from salt slag is 95% less than the energy required to produce aluminium from bauxite ore
- recycling of salt, potash and aluminium oxide; all valuable commodities that were previously consigned to landfill
- avoidance of hazardous material in landfills

Alreco processes all of the aluminium salt slag produced in Australia under contracts with Alcoa Australia Rolled Products Pty Ltd , a wholly-owned subsidiary of Alcoa Inc (NYSE:AA), and Sims Aluminium Pty Ltd , a wholly-owned subsidiary of Sims Metal Management Limited (ASX:SGM). Alreco also processes other wastes for Sims including non-salt slag and aluminium dross.

Alreco also has a program to progressively process previously landfilled salt slag to recover the valuable commodities. The first landfill that will be reprocessed is owned by Alcoa and contains 160,000 tonnes of salt slag.

There is substantial potential to expand the business overseas with opportunities being considered in the US, Canada, Europe and South Africa. Alcoa Inc has publically stated that by 2015 it intends to end landfilling of aluminium salt slag throughout its global operations. Alreco and Alcoa Inc are in discussions for Alreco to be Alcoa's global partner to assist in achieving this goal and Alreco has also engaged other American aluminium companies about salt slag processing.

### **Further Information**

Ben Mead  
+61 (0)3 6229 9955  
[www.mhml.com.au](http://www.mhml.com.au).

Rudi Michelson  
Monsoon Communications  
+61 (0)3 9620 3333  
rudim@monsoon.com.au