



QUARTERLY REPORT TO 31 DECEMBER 2016

HIGHLIGHTS

- The Newcastle Zinc & Iron Recovery Plant (NZIRP) has been redesigned to recycle iron oxide and iron chloride by-products from the primary steel industry (mill scale, furnace dust and spent pickle liquor), as well as the dusts from electric arc furnaces used in secondary steel-making which generally contain high levels of zinc. The Plant will initially produce pig iron, zinc oxide and strong hydrochloric acid (HCl) for sale to industry. This configuration will significantly reduce the capital cost and process risk for the project. Once the first stage is operational, a second stage can be added to convert the zinc oxide product into higher value zinc metal by incorporating the well-proven zinc electrolysis process currently used in global zinc refineries into the Plant.
- In November 2016, Austpac lodged a patent application to protect this new recycling process.
- In October 2016, Mr Colin Iles was appointed a consultant to Austpac Resources N.L. Colin is a metallurgist with over 35 years' experience in international trade, sales and business development and the commercial management of technical projects at plant level. Colin was previously General Manager for Cometals Australia; a subsidiary of the Commercial Metals Company headquartered in Texas, U.S.A. He is experienced in metals marketing and was responsible for key objectives of profit, production and marketing for CMC Cometals Australia. Colin has been intimately involved with supply and offtake contracts with the Australian and international iron and steel industry and is an expert in international metals sourcing and trading. Since October 2016, Colin has been closely involved in the commercialization of the Newcastle Zinc Iron & Recovery Plant and he will be assisting with the testwork program to produce iron and zinc products for marketing purposes.
- Austpac's management and technical team, assisted by Colin Iles, has developed a plan to implement stage 1 of the NZIRP, which will include a pilot scale test program to produce pig iron and zinc oxide to prove the marketability of these products. It is envisaged this program will commence in March 2017. Mass and energy balances and costs for stage 1 are also being refined and potential sources of raw materials for the NZIRP are being reviewed to develop an economic model to fit the requirements of the current Australian Steel industry.
- Over 60% of the 87 million tonnes of steel produced in the USA each year is made using EAF's. They produce hundreds of thousands of tonnes of EAFD, so the potential for Austpac's zinc-iron-HCl recycling process is significant. Austpac has for some time been in contact with an influential group of industrialists which is encouraged by the recent upswing in the US steel industry and who has identified a number of suitable sites for a commercial zinc-iron-HCl recovery plant in North America. They have recently been approached by a US steel producer interested in Austpac's technology and this will be followed up in the coming quarter.

- The draft licence and investment agreement with a company which has a significant heavy mineral resource in Asia to use the ERMS SR synrutile process is still being advanced. The company plans to beneficiate the heavy minerals and produce ilmenite, rutile and zircon and to add value to the project by using Austpac's ERMS SR process to produce high grade synrutile to sell as feedstock for the titanium sponge industry. The company has advised Austpac that project funding has been progressed and that it anticipates this will be finalised during the first quarter of 2017.
- Austpac continues to investigate alternative sources of project capital for the NZIRP and is discussing options with a number of Australian and US corporations and finance houses.
- Austpac anticipates receiving a significant R+D tax concession refund during the coming quarter.

NEWCASTLE ZINC & IRON RECOVERY PLANT (NZIRP)

Blast furnaces (BF) and basic oxygen furnaces (BOF) used in primary steel-making emit fine dusts which predominantly contain iron oxide with some minor contaminants, including zinc. In 2010, Austpac combined these dusts with spent pickle liquor (SPL) from the steel industry and produced marketable iron pellets with very low levels of contaminants, together with strong HCl. Zinc and other volatile metal contaminants were removed during the iron reduction stage and captured as oxides, though levels were economically insignificant.

The iron scrap used by electric arc furnaces (EAF) in secondary steel-making generally contains other metals, including zinc derived from galvanised iron. EAF dust (EAFD) contains as much as 40% Zn, occurring as zinc oxides and other zinc minerals. Austpac's early testwork at Newcastle on high-zinc EAFD had also shown that an acceptable iron pellet could be produced, but at that time the zinc oxide was unmarketable due to contamination from carbon and other impurities.

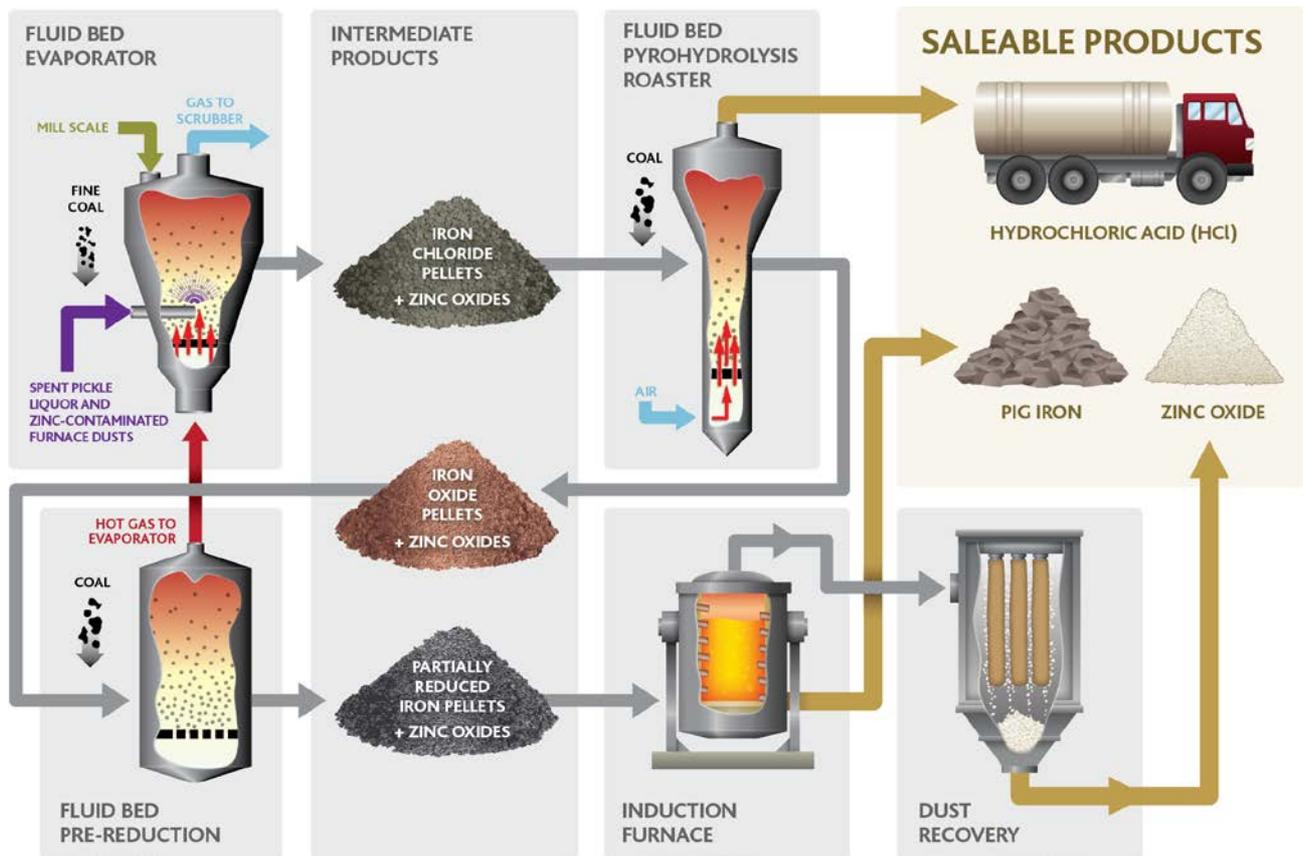
In 2015, Austpac decided to replace its planned two-stage fluid bed iron reduction oxide process with a single fluid bed stage to produce partially reduced iron pellets which will be fed to an electric induction furnace (EIF) to make pig iron. Pig iron is a higher value product compared with the briquetted iron previously contemplated. Any volatile metal components from the EAFD contained in the partially reduced iron pellet feed to the EIF will be removed with the furnace exit gases and be captured in a baghouse.

Recognising that EAFD is a significant zinc resource and that the use of an EIF enables its capture as an oxide, during the second half of 2016, Austpac investigated adding a zinc sulphate electrolysis circuit as a final process step so that the NZIRP could produce zinc metal, pig iron and strong hydrochloric acid. While this option was potentially viable it significantly increased to the capital cost, so it was decided to focus first on the production of pig iron and strong acid for recycling to industry, and zinc oxide which could be sold as a high grade feedstock to a zinc refinery. This first stage simplifies the flowsheet, reduces process risk by using proven technology, and reduces the initial capital cost.

The ability to recover pig iron, strong HCl and zinc oxide from zinc-contaminated dusts from the steel industry is unique. Accordingly in November 2016, Austpac lodged a patent application entitled "Processing of Zinc-Containing Waste Materials" to protect this new recycling process

Austpac's management and technical team has been augmented by Colin Iles, who joined the Company as a consultant in October 2016. Colin is a metallurgist with over 35 years' experience in international trade, sales and business development and the commercial management of technical projects at plant level. Since October he has been closely involved in planning the commercialization of the Newcastle Zinc Iron & Recovery Plant. The team has been developing a strategy to fund and implement stage 1 of the NZIRP, and it has recognised that before construction can recommence it will be necessary to demonstrate that the pig iron and zinc oxide can be produced in the pilot scale plant at Newcastle. This will prove the marketability of these products. A test program has been designed to achieve this and it is envisaged this will commence in March 2017.

Mass and energy balances and costs for stage 1 are being revised and re-estimated and potential sources of raw materials for the NZIRP are being reviewed to develop an economic model to fit the requirements of the current Australian Steel industry. Several outside groups have indicated an interest in the outcome of the testwork and marketing program, the success of which will financially assist the Plant's development.



NZIRP STAGE 1 – PROCESS FLOW DIAGRAM

ONGOING DEVELOPMENTS IN THE USA

During the first quarter of 2016, Austpac was approached by and commenced discussions with an influential group of industrialists in the USA who recognised that Austpac’s technologies created an immediate opportunity to recycle EAFD in that country. The US steel industry produces 87 million tonnes of steel, over 60% of which comes from electric arc furnaces that generate large volumes of EAFD. The group has been waiting for Austpac to finalise plans for the zinc-iron-HCl recovery process at Newcastle. They have identified a number of sites in the steel producing region in the northeast of the country, and was recently been approached by a US steel producer interested in Austpac’s technology. The proposed testwork and marketing program will assist the follow up of this opportunity.

ERMS SR SYNRTLITE TECHNOLOGY LICENCE

During the first half of 2016, Austpac was approached by a company with a significant heavy mineral resource in Asia regarding a licence to use the Company’s ERMS SR synrutile process. The company plans to develop a mine and a mineral separation plant to produce ilmenite, rutile and zircon, and is seeking technology to add value to the ilmenite. A draft licence and investment agreement has been negotiated under which the company can build a plant to beneficiate the ilmenite and produce high grade synrutile, which the company intends to sell as feedstock for the production of titanium sponge, an intermediate process in the manufacture of titanium metal. The company plans to undertake a scoping study followed by a bankable feasibility study, and it will establish an entity to manage the construction and operation of an ERMS SR Plant.

Minor modifications were made to the agreement during the quarter and the company now only awaits final approvals in order to sign the agreement.

EL 5291 NHILL

In June 2016, Austpac executed a Grant Agreement with the State of Victoria as represented by its Department of Economic Development, Jobs, Transport and Resources. The grant is part of the Victorian Government's TARGET initiative to co-fund innovative exploration in the western part of the state. Austpac will be government-assisted financially to undertake a geophysical and drilling program within the Company's Exploration Licence 5291. The Grant includes three milestones; an initial program of ground magnetic and gravity surveys, followed by a drill hole to test the basement below the younger Murray Basin sediments for porphyry copper-gold and volcanic-hosted massive sulphide systems, and final technical and financial reporting.

Milestone One has been completed, along with the required reporting to the Department. This entailed new detailed ground magnetic data and new close spaced gravity data, followed by computer modelling of both sets of the new field data.

Current work is focused on the selection of the location for the proposed vertical diamond drill hole under Milestone Two of the Grant Agreement. Drilling is planned during the first half of 2017.

Mining Exploration Entities:

EL 5291 (Nhill); Located between Nhill and Dimboola, Victoria; 100% Austpac Resources N.L.

For further information please contact:

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NOTE: This report is based on and accurately reflects information compiled by M.J. Turbott who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists and is a competent person as defined in the Australian Code for Reporting of Identified Mineral Resources and Ore Reserves.

About Austpac Resources N.L. (ASX code: APG)

Austpac Resources N.L. [www.austpacresources.com] is a minerals technology company currently focused on recycling waste chloride solutions and iron oxides produced by steelmaking to recover hydrochloric acid and iron metal. Austpac's technologies also transform ilmenite into high grade synthetic rutile, a preferred feedstock for titanium metal and titanium dioxide pigment production. The Company has been listed on the Australian Stock Exchange since 1986.