

26 July 2019

## SHAREHOLDER UPDATE – ZIRP TESTWORK PROGRAM

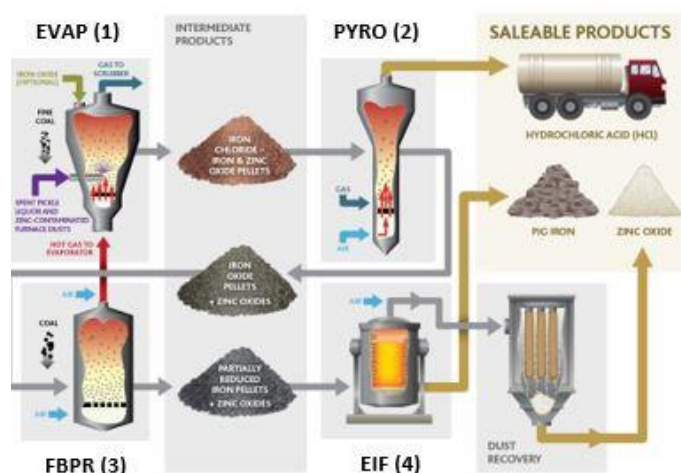
### PROGRESSES AT THE NEWCASTLE PLANT

- Executives from Tangshan Yanshan Iron & Steel of China visited Australia during the past week for discussions and visited Newcastle to observe progress at the plant.
- The improved plenum is installed and further enhancements to the EVAP unit are underway
- Installation of the upgraded dual-duty fluid bed roaster for Stages 1 and 2 is complete.
- Further modifications to the plant will be completed in the coming weeks
- Commissioning of the EVAP unit to commence in August

Executives from the Tangshan Yanshan Iron & Steel Company (the sole owner of YanGang (Hong Kong) Co Ltd, Austpac's largest shareholder) visited Australia during the past week to discuss the ZIRP technology and the positive progress being made with the testwork program. A one-day visit was also made to Newcastle to view progress at the plant.

Austpac's Zinc Iron Recovery Process (ZIRP) is a four-stage process. The first three stages are proven, and the current testwork will prove the fourth process stage; melting FBPR pellets in an electric induction furnace (the EIF stage) to produce samples of pig iron and zinc oxide for market evaluation. To do so, it is necessary to process dust and SPL to produce sufficient FBPR pellets for melting tests at a commercial foundry.

Along with the Austpac team, Compass Engineering Solutions designed and fabricated the enhanced plenum and other modifications to improve the efficiency of the EVAP unit. Compass also upgraded an existing fluid bed roaster which will operate in campaigns during the PYRO and FBPR stages to produce pre-reduced pellets iron/zinc oxide pellets.



The Four-Stage ZIRP Process for Recycling Zinc-Contaminated Furnace Dust

The completion of the testwork program will lead to the commercialisation of ZIRP technology in Australia and the steel industry worldwide.

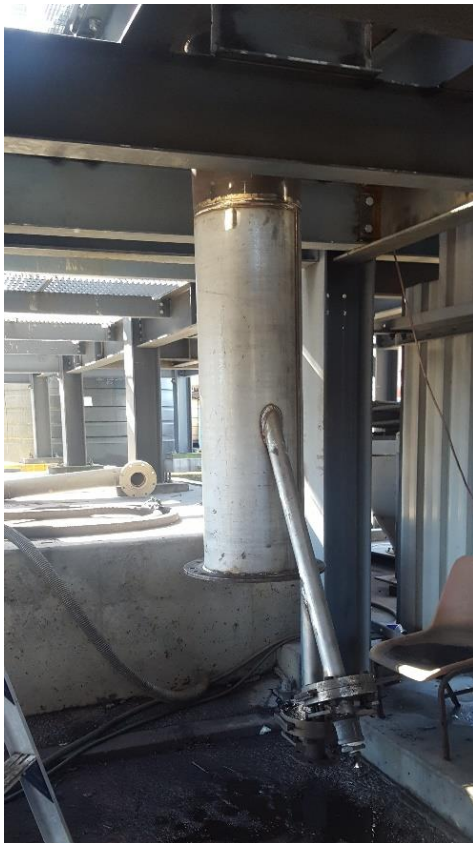
As illustrated in the photos below, installation of the equipment is on schedule. The EVAP unit will be ready for commissioning and production of the pellets will commence in August. Installation of the fluid bed roaster and ancillary equipment will continue so it will be ready for commissioning once the EVAP production run is finished.



**The upgraded EVAP plenum pre-installation**



**Installing the upper body of enhanced FB Roaster**



**Lower body of the upgraded FB Roaster prior to FB plenum installation**



**Installation of the hoppers for pellets and coal which is fed into the FB Roaster via double-dump valves**

Terry Cuthbertson  
Chairman