Metalicity Limited (ASX:MCT) ("MCT" or "Company") is pleased to provide an update on the Pre-Feasibility ("PFS") for the Admiral Bay Zinc Project ("Admiral Bay"), located in the northwest of Australia.

As part of the PFS, a detailed assessment program of the Ore Sorting technique, which is often amenable to Mississippi Valley type ("MVT") deposits, will be undertaken. Outotec consultants have been commissioned to undertake the test work program from a composite sample of existing diamond drill core.

Preliminary test work has involved sorting amenability evaluation, which was undertaken by Outotec's team of geologists, based on the Admiral Bay drill core photos and geological data. Initial evaluation indicates that a x-ray transmission (XRT) type sensor is likely to be suitable to the Admiral Bay ore.

A follow up test work program on rock samples of waste, low grade ore and high-grade ore, as well as a suitable sensor test work program on a composite sample of existing diamond drill core, is underway. This program is anticipated to inform sensor selection for the subsequent bulk test work program and flow sheet design.

Case studies on various underground MVT deposits have demonstrated an improvement in head grade feed of up to 250% while a reduction in waste can be achieved of up to 50%. By improving head grade feed to 30-40% ZnEq at Admiral Bay, presents an opportunity to produce a Direct Shipping Ore ("DSO") product.

The high-grade resource of 20Mt at 10% ZnEq includes 4.9Mt at 12.5% ZnEq (ASX:MCT 19/4/17). Conceptually upgrading this portion of the resource head grade feed to 30-40%+ ZnEq may define between 2-3Mt of DSO, and would represent an early cash flow, low capex opportunity for an initial stage 1 DSO ‘starter mine’ model.

By deploying the Ore Sorting technique the potential exists to remove up to 50% waste material for the subsequent concentrate product and hence a significant reduction in capex related to hoisting, processing, and infrastructure for subsequent stage 2 Concentrate model, from the global resource of 170Mt at 7.5% ZnEq (ASX:MCT 4/7/16).
Discussions are underway with a range of commodity trading houses and off-take partners regarding the DSO specifications, pricing and logistics, while the company is incorporating initial industry pricing of between $500/t - US$900/t for 30%-40% Zn product into the DSO model for further evaluation and trade off studies.

The ore sorting technique in conjunction with the new drilling techniques and budget will significantly reduce the capital intensity regarding the development and mining of Admiral Bay. These factors along with existing studies on geotechnical, hydrological and metallurgical studies are key success factors to unlock the significant value that exists within the Admiral Bay project, and work is progressing on all fronts.

Metalicity Managing Director, Matt Gauci, commented:

“The testwork and application of the ore sorting technique, has the potential to deliver a Direct Shipping Ore product from the high grade zone as a stage 1 ‘starter mine’, which will bring forward production, accelerate cashflow and substantially reduce pre-production capital.

By removing up to 50% of waste the potential exists to remove significant capex related to hoisting, processing and infrastructure for stage 2 Concentrate model from the global resource.

The latest innovations applied to developing Admiral Bay substantially reduces capital intensity and is a further significant step forward in developing the project.”

Figure 1: Admiral Bay Zinc Project: High grade zone within a 2km strike of M 04/249

Source: Metalicity
Figure 2: Basic principles of ore sorting

Source: Metalicity / Outotec

Figure 3: Productivity improvements and value-add

Source: Metalicity / Outotec
PRE-FEASIBILITY STUDY STAGE 1

Metallurgical Studies

Metallurgical studies undertaken by Simulus Engineers as a part of the 2016 Scoping Study on Admiral Bay highlighted that no fatal flaws had been identified in the mineral processing and metallurgical testwork aspects of the project to date. The ore does not demonstrate any deleterious metallurgical behaviours and can be processed through conventional flotation processing achieving high zinc, lead and silver recoveries.

Additional metallurgical testwork is required, followed by further process plant design simplification and optimisation. Testwork includes materials handling, comminution, variability testing, fluorne identification in the resource model and, if needed, removal, comprehensive head assays for deleterious elements, including possible radionuclides and vendor equipment testing. A key aspect of further work will be ensuring that metallurgical samples are representative of the orebody to be mined, which to date has not been the case. Simulus Engineers have been appointed to perform this work.

Geotechnical Studies

Geotechnical studies undertaken by SRK Consulting as part of the 2016 Scoping Study on Admiral Bay identified a very limited geotechnical dataset especially in terms of dedicated geotechnical logging data, and recommended the acquisition of additional data during Stage 1 to progress orebody knowledge. This data includes (1) photo logging of core photos currently available to enhance the geotechnical database (2) geotechnical logging of existing core through all units and orebodies, spread out across the orebody.

Additional drilling of diamond-cored, oriented investigation holes, with detailed geotechnical logging of core through all units and orebodies will be undertaken during the PFS Stage 2, as well as stress measurements using either acoustic emission (AE) or deformation rate analysis (DRA) techniques. A more comprehensive geotechnical database will significantly improve the knowledge base and inform stress knowledge, mine access and mining method. SRK Consulting have been appointed to perform this work.

Hydrogeological Studies

Hydrogeological studies undertaken by SRK Consulting as part of the 2016 Scoping Study confirmed the presence of three regional groundwater systems within the Admiral Bay project area. Further evaluation of background information and seismicity data is required to confirm the type of aquifer system (ie. Confined/unconfined), groundwater recharge, discharge and transport processes, and physical and chemical properties of the aquifer systems. Mine dewatering and shaft sinking currently represent the greatest groundwater technical issues and therefore project risks.

The primary objective of the groundwater study is to develop an updated conceptualisation of the groundwater regime, specifically to inform assessment of the identified risk associated with the potential of ingress of groundwater in the proposed underground workings. The conceptualisation will be used as inputs to improve the geotechnical model for the deposit, which can in turn be used to develop an updated assessment of the risks associated with the ingress of groundwater and management thereafter.

Ore Sorting Studies

As part of the ongoing studies, the recent evaluation of sensor based ore sorting, has provided an alternative mechanism to reduce the capital and operating cost. Outotec, has been appointed to perform the studies required to validate the concept for the Admiral Bay ore body. The ability to remove waste hoisted up to surface, provide significant economic benefits, by reducing the materials handling, higher grade feed into the plant, increased capacity and many others.
FUNDING STRATEGY

The PFS Stage 1 is underway and fully funded. The Company is evaluating a range of additional funding options for Stage 2 of the PFS and beyond including but not limited to, the sale of non-core assets, a formal Joint Venture (JV) with parties the company is in discussions with, the sale of a Net Smelter Royalty (NSR), a Commodity Streaming Deal (CSD), pre-payment on off-take and/or a capital raising including a share purchase plan so that existing shareholders may participate in the progress of this world class asset.

The Company will inform the market should it decide to proceed with any of these options.

ENQUIRIES

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About Metalicity Limited

Metalicity Limited is an Australian mining exploration company with a primary focus on base metals sector and the development of the world class Admiral Bay Zinc Project, located in the north west of Australia. The company is currently undertaking a Pre-Feasibility study on Admiral Bay. The Company’s secondary focus is the rare metals sector where early stage exploration has commenced. The Company is supported by a management team with 300+ years collective experience in the resources sector and strong shareholder base of institutional and sophisticated investors.

About Outotec

Outotec offers sustainable mineral processing solutions, from pre-feasibility studies to complete plants and life-cycle services. Our comprehensive offering makes the efficient and profitable treatment of virtually all ore types possible. With more than a century of experience, we have the heritage as well as the established R&D resources to continuously improve and develop sustainable technologies in-house. We design and deliver state-of-the-art mineral processing equipment, optimized processes, including intelligent automation and control systems, as well as complete plants. Fast and reliable ramp-up combined with long-term operation and maintenance services ensure that customers receive the best return on their investments.

Information in this ASX Announcement was reviewed by Outotec. Outotec has extensive hands-on experience with a strong technical background in metallurgical testwork and reviews. Outotec have provided a comprehensive review of Admiral Bay ore suitability to ore sorting and consent to the information contained in this ASX Announcement.