HASTINGS
Technology Metals Limited

30 April 2019

Hastings Technology Metals Limited

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MARCH 2019 QUARTERLY REPORT

- **The Northern Australia Infrastructure Facility (NAIF) is investigating the potential to provide debt financing for the infrastructure and related costs to the Yangibana Rare Earths Project.**
- **Board approved revised project capital cost of A$427M**
- **Second pilot plant test resulted in recoveries 12% higher at 80.1% compared to maiden pilot plant testing in March 2017**
- **Design and Supply of Rotary Kiln Off Gas Scrubbing Plant awarded to Total Air Pollution Control Pty Ltd (TAPC)**
- **Design and Supply of SAG Mill awarded to Outotec Pty Ltd**
- **EPA approval process continues to follow defined path to conclusion, with the assessment report due to be delivered to the EPA board for review in mid-May**
- **Initial ore sorting test rejected 37% of the mass supplied to the ore sorter, retaining 92.2% of the TREO**
- **Mal Randall appointed as non-executive director**

Yangibana Project – Development Progress

Health and Safety

The site continued to remain Lost Time Injury (LTI) free. There were no reported incidents on site during the March quarter and is currently 234 days LTI free as of March 31, with the Lost Time Injury Free Frequency Rate (LTIFR) at 0 and the Total Recordable Injury Free Rate (TRIFR) at 12.70.

Hastings has submitted the draft Radiation Management Plan and Radiation Baseline monitoring report to Department Mines, Industry Regulation and Safety (DMIRS) for review and comment. It is expected to have comments back from DMIRS in late April and approved final documents in early May. Hastings management attended the first Local Emergency Response Committee (LEMC) meeting for the year at the Gascoyne Junction shire offices. Hastings discussed how to support the Upper Gascoyne Shire from its remote location.

Environment

The presentation and consideration of the Assessment Report by the EPA Board is currently scheduled for mid-May. Hastings has been working to address the final EPA Services requests for additional technical information to support the preparation of the Draft Assessment Report.

Hastings submitted a s43A application (Environmental Protection Act 1986) to the Chairman of the Environmental Protection Authority (EPA) and a s156 application (Environment Protection and Biodiversity Conservation Act 1999) to the Commonwealth Department of the Environment and Energy to revise the Tailings Storage Facilities (TSF) designs. Additional information on the revised TSF designs was also provided to the Department of Water and Environmental Regulation (DWER) for consideration in the Works Approval application (under assessment). The revised TSF designs result in a significant reduction in capital expenditure as well as much improved environmental and closure outcomes.

5C licence applications (Rights in Water and Irrigation Act 1914) to extract 2.5 GL/annum from the SipHon Well Borefield and fractured rock aquifers (which meet the Project water demands) was submitted in February. Hastings anticipates that the DWER will grant the 5C licence shortly after the respective Ministers for Environment grant the environmental permits (State and Commonwealth).

Project Capital Cost

Since the Definitive Feasibility Study (November 2017), the project capital cost has been revised up to A$427 million (ASX release dated 13 March 2019) as a result of selecting globally recognised Tier 1 process plant equipment suppliers and recognising the anticipated increase in local labour costs due to supply constraints arising from a pipeline of construction activity scheduled in Western Australia.

The Tier 1 companies currently engaged offer the most advanced equipment available and allow Hastings to receive equipment performance guarantees, unparalleled field support and backup as well as the confidence that they can generate reliable components on time and with strict adherence to safety, quality and standards procedures.

Due to the approval and execution of newly approved large projects and project expansions, pressure is being experienced within WA's construction labour workforce which has led to competition for specialist construction personnel and major growth in wages within this sector. The impact for Hastings has resulted in increased salary costs of approximately A$42 million dollars from the historically reported DFS position.

Pilot Plant Testing

The beneficiation and hydrometallurgical circuits have previously been successfully tested at pilot scale during the Definitive Feasibility Study (announced Nov 2017). This second beneficiation pilot plant test, completed in November 2018, has further validated the beneficiation circuit as well as providing information and samples for detailed engineering design.

Results of 12-hour shift composites gave 80.1% TREO recovery at 19% TREO, including 7.8% $Nd^2O^3+Pr^6O^{11}$. Maximum concentrate grades of 25.9% TREO, including 10.6% $Nd^2O^3+Pr^6O^{11}$ were achieved during the operation. This is an improvement from the maiden pilot plant test results which achieved a maximum recovery of 70.8% at a concentrate grade of 23% TREO, including 9.8% $Nd^2O^3+Pr^6O^{11}$.

Award of Processing Equipment

During the quarter Hastings announced two significant contracts for processing plant equipment, being the design and supply of the Rotary Kiln Off-Gas Scrubber with Total Air Pollution Control Pty Ltd (TAPC) and the SAG Mill with Outotec Pty Ltd.

Award of the Off-Gas Scrubbing Plant facilitates both the progress of associated civil and structural design work as well as allowing commencement of the approvals associated with the Kiln/Scrubber system.

In conjunction with the already contracted Rotary Kiln to FLSmidth, a significant portion of the long lead items are now secured at fixed pricing and at lead times suitable to achieve plant commissioning during 2021.

Ore Sorting

Hastings has conducted trials on commercially available technology for ore sorting which has the ability to separate mineralised from non-mineralised material. This enables further cost optimisation opportunities to be identified.

The initial ore sorting test rejected 37% of the mass supplied to the ore sorter, retaining 92.2% of the TREO. The best improvement was seen in the 8 to 25mm size fraction, achieving an upgrade of 157% in TREO grade.

Since the announcement on 21 March, Hastings has commenced further sampling and analysis around ore sorting technology which will give better clarity and insight into how this technology is best utilised in the project.

NAIF Funding

Hastings announced that the Australian Government's Northern Australia Infrastructure Facility (NAIF) has indicated it will further investigate the potential for NAIF to provide debt financing for Yangibana Project's infrastructure (i.e. roads, plant buildings, power station etc) and its related costs.

NAIF's detailed due diligence is under way and Hastings has commenced with the preparation and collation of reports and documentation for the formal Investment Proposal submission process to NAIF during this quarter.

NAIF is a major initiative of the Australian Government. NAIF has access to a A$5 billion lending facility which can provide a range of loan concessions, to support infrastructure development that generates public benefit for Northern Australia.

Project Development Update

During this quarter, Hastings has continued at a rapid pace to progress its project development on many fronts. Work focused on concluding some long lead item contracts and continuing the design process in many other areas.

Camp construction included the mobilisation of the remaining Stage 1, 240-man camp. Hastings is in detailed discussion around the purchase of the remaining 140 rooms required to account for the needed manpower increase during construction.

A peer review conducted by GHD Pty Ltd on the TSF (Tailings Storage Facilities) designs determined that some of the assumptions utilised to design the original TSF 1, 2 and 3 had changed as various assessments and studies had been completed. As a result, it was determined that combining TSF 1 with TSF 2 tailings; and TSF 3 tailings with the evaporation pond would simplify the design and create a better economic and environmental outcome.

The Kiln Design and Supply package progressed during the quarter. There were ongoing clarifications on the process flow diagrams regarding the energy balance which has a direct impact on the kiln burner sizing. Detailed discussions were held with FLSmidth regarding the design of the test mixer, proposed acid concentrate mixer and kiln screw feeder.

An independent review on the overall process flowsheet, materials handling, acid-concentrate mixing and feed to kiln system was completed by a recognised expert with extensive experience in both the engineering and operations of rare earth projects.

The off-gas scrubbing unit contract was signed with TAPC mid-March 2019 after which the following key activities commenced:

- Formal engagement of Tialoc to begin working on process design in conjunction with TAPC.
- Started review of applicable documentation and specifications.
- Overall progress is estimated at 5% completion.

Additional key project items completed in the last quarter:

- Tender for a gas transport agreement was sent to the market.
- Pre-qualification package for the power station was sent to potential bidders.
- Process plant layout of the concentrate dryer, off-gas scrubber and kiln areas were progressed.
- The infrastructure layout drawings were updated to support the works approval and mining proposal submissions.
- CAPEX and OPEX basis of estimate were updated and finalised.
- Technical evaluations for key equipment packages were ongoing.
- Gas piping and valve specification commenced.
- Kiln feed end with accretion removal device and preliminary vendor equipment arrangement developed.
- Thickeners – conforming tender technical documents received.
- Regrind Mill – Final tender clarifications received.
- REE Dryer – Final tender clarifications received.

- Concentrate Dryer – Test work completed; analysis of results commenced.
- Primary crusher – tender evaluation underway.

Exploration Update

Given the well-defined open pit Life of Mine (LOM) plan at Yangibana there is limited urgency to undertake large-scale exploration programs at the present time. Rather the Company looks upon its current cash reserves as an opportunity to improve the LOM plan outcome by addressing opportunities around mining reserves in the near surface for the initial pits to be mined.

Commercial

According to a recent report from Adamas Intelligence (13 March 2019), China for the first time became a net-importer of several rare earth oxides (or oxide equivalents) in 2018. The report quoted that total global primary rare earth oxide production increased by 20.8% last year as China raised domestic mining, smelting and separation quotas for the first time in five years. During the same period, Adamas estimates that illegal production in China fell by 50%, creating a vacuum that was filled by record-high imports from Myanmar and the US (shipments of historic stockpiles from Mountain Pass). This resulted in China becoming a net-importer rare earth oxides (or concentrates) in 2018. With an ongoing crackdown by the authorities on illegal rare earth production (and imports) in China, concentrate imports from Myanmar therefore became a vital source of magnets' rare earth for China's magnet and alloy manufacturers. For 2019, if imports from Myanmar are further curtailed or stopped and China's production quotas are not sufficiently increased to compensate, the potential for supply disruptions will affect the supply of high grade rare earth magnet production.

On December 17, 2018, representatives of the European Commission, the European Parliament, and the European Council agreed on a compromise for the European Union (EU) regulation setting binding carbon dioxide (CO_2) emission targets for new passenger cars and light-commercial vehicles for 2025 and 2030. The agreed-upon targets aim to reduce the average CO_2 emissions from new cars by 15% in 2025 and by 37.5% in 2030, both relative to a 2021 baseline. For light-commercial vehicles, a 15% target for 2025 and a 31% target for 2030 were agreed upon. A copy of the European Commission policy update is available from this web link. https://www.theicct.org/sites/default/files/publications/EU-LCV-CO2 2030_ICCTupdate_20190123.pdf

Against this background of potential supply constraints and tightening vehicle exhaust emissions regulations in the near future, Hastings is well positioned to be the next (non-China) major producer of rare earths for the permanent magnet market. Negotiations for offtake contracts with German Tier 1 manufacturers continue as part of its project finance loan application for the untied loan guarantee scheme (UFK) offered by the German government. These German offtake contracts will be an integral part of the UFK scheme project loan.

Appointment of Director

During the quarter the Company appointed Mr Mal Randall as a Non-Executive Director of the Company. Mr Randal has more than 40 years' experience in corporate, management and marketing in the resource sector, including more than 25 years with Rio Tinto. Mr Randall's experience covers a broad range of mineral activities including iron ore, base metals, uranium, mineral sands and lithium.

Mr Randall is the Non-Executive Chairman of Kalium Lakes Limited and is a Non-Executive Director of Argosy Minerals Limited, Magnetite Mines Ltd and Thundelarra Ltd. Mr Randall holds a Bachelor of Applied Chemistry and is a fellow of the Australian Institute of Company Directors.

Share Placement and Rights Issue

Subsequent to quarter end, the Company raised ~ $12 million with the placement of 71,127,812 shares at 17 cents per share, with 35,563,914 free attaching options exercisable at 25 cents per share with expiry date 12 April 2022.

The Company also announced a partially underwritten non-renounceable rights issue to raise up to a further $16.5 million at 17 cents per share with one free attaching option (terms as above) for every two new shares. As advised earlier today, due to delays in a number of shareholders receiving the Replacement Prospectus due to Easter and Anzac Day public holidays, the Board has resolved to extend the Closing Date of the Rights Issue offer to 5.00pm (WST) on Wednesday 8 May 2019.

Brockman Project

The Company continues the process of preparing documentation to support the application of a Mining Lease on the Brockman Project.

Competent Person Statements

The scientific and technical information in this announcement and that relates to process metallurgy is based on information reviewed by Ms. Narelle Marriott (Principal Engineer – Beneficiation) and Mr. Zhaobing (Robin) Zhang (Process Engineering Manager) of Hastings Technology Metals Limited. Both Ms. Marriott and Mr. Zhang are members of the AusIMM. Each has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined by the JORC Code 2012. Ms. Marriott and Mr. Zhang consent to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

About Hastings Technology Metals Limited

Yangibana Project

Hastings Technology Metals Limited (ASX:HAS, Hastings or the Company) is advancing its Yangibana Rare Earths Project in the Upper Gascoyne Region of Western Australia towards production. The proposed beneficiation and hydro metallurgy processing plant will treat rare earths deposits, predominantly monazite, hosting high neodymium and praseodymium contents to produce a mixed

rare earths carbonate that will be further refined into individual rare earth oxides at processing plants overseas.

Neodymium and praseodymium are vital components in the manufacture of permanent magnets which is used in a wide and expanding range of advanced and high-tech products including electric vehicles, wind turbines, robotics, medical applications and others. Hastings aims to become the next significant producer of neodymium and praseodymium outside of China.

Hastings holds 100% interest in the most significant deposits within the overall project, and 70% interest in additional deposits that will be developed at a later date, all held under Mining Leases. Numerous prospects have been identified warranting detailed exploration to further extend the life of the project.

Brockman Project

The Brockman deposit, near Halls Creek in Western Australia, contains JORC Indicated and Inferred Mineral Resources, estimated using the guidelines of JORC Code (2012 Edition).

The Company is also progressing a Mining Lease application over the Brockman Rare Earths and Rare Metals Project.

Hastings aims to capitalise on the strong demand for critical rare earths created by the expanding demand for new technology products.

For further information on the Company and its projects visit www.hastingstechmetals.com

For further information please contact:

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TENEMENT SCHEDULE

as at 31 March 2019 (All tenements are in Western Australia)

YANGIBANA PROJECT

Gascoyne Metals Pty Limited (100% subsidiary)

Es09/1989, 2007, 2084, 2086, 2095, 2129, 2137, - 100%

Es09/1043, 1703, 1704, 1705, 1706, 2296, 2297 2298, 2333 (application) - 70%

Ms09/157, 160, 164, 165 - 100%

Ms09/159, 161, 163 - 70%

Ps09/482, 489 - 100%

G09/10, 14 - 100%

G09/11, 13 - 70%

L09/66-72, 74, 75, 80-83, 85, 86-87 (applications) - 100%

Yangibana Pty Limited (100% subsidiary)

Es09/1700, 1943, 1944, 2018, 2334 (application) - 100%

Ms09/158, 162 -100%

Gs09/16-18 – 100%

BROCKMAN PROJECT

Brockman Project Holdings Pty Limited (100% subsidiary)

M80/636 (application)

E80/5248 (application)

P80/1626 to 1635 - 100%