

29 April 2016

ASX Release

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March 2016 Quarterly Activity Report

Highlights

- **Integrated Pilot Plant campaign completed at SGS Canada**
- **Basic engineering and cost estimation for Panda Hill completed**
- **Cradle Definitive Feasibility Study (DFS) subsequently announced**

Definitive Feasibility Study

The results of Cradle's DFS on the Panda Hill project were announced on 20 April 2016. The DFS assumes that the Project commences at a throughput of 1.3 million tonnes per annum and is ramped up to 2.6 million tonnes per annum after four years production, with this ramp up funded by Project cash flows. The total mine life is 30 years with total throughput being 72.4 Mt of ore at a strip ratio of 1.5 to 1.

The estimated initial construction capital cost including pre-production requirements is US\$196M (excluding working capital). Average life of mine operating costs for the process are estimated at US\$21.34/kg Nb including royalties and marketing. Positive financial metrics are generated for the Project with a projected NVP₈ (after tax) of US\$542M, a pre-tax IRR of 32%, and a nominal pay-back period of only 4.75 years (from fully funded and inclusive of the expansion capital).

The first 10 years of production (20.6 Mt) is based solely upon Measured and Indicated Resources, with payback of all upfront and expansion capital well within this period. The 30 year life of mine is based upon 35.3 Mt of Measured and Indicated Resources (49%) and 37.1 Mt of Inferred Resources (51%).

In relation to the DFS Craig Burton, the Chairman of Cradle, commented:

"The Cradle DFS demonstrates an exceptionally strong Project. The numbers speak for themselves. On any analysis, this Project is likely to be brought into production and deliver substantial profits for many years. This will be the first new niobium producer in 40 years and the only new producer of this rare metal in the foreseeable future. The demand for niobium continues to grow strongly due to the burgeoning world-wide demand for new-age materials and associated elements like lithium, graphite and niobium. Panda Hill is only seeking to capture a modest portion of this ongoing demand growth. The next 6 months will focus on off-take and debt financing whereupon a decision to mine is expected. During this financing period, front end engineering and fine tuning of the Project will continue, ensuring a rapid and smooth transition into construction."

The Panda Hill project is owned 50 % by Cradle and 50% by Tremont Investments Limited.

Next Steps

The DFS demonstrates a highly economic Project. It is expected that the Project will attract debt and equity finance over the next 6 months and thereupon proceed to decision to mine and construction. The key activities for the next 6 months are:

- Finalising off-take agreements with the selected parties

- Securing debt financing
- Value engineering to look at cost reduction opportunities
- Front end engineering and design on critical items to reduce the construction period
- Construction permitting processes
- Possible procurement of some long-lead items
- Possible early site establishment for the main site based contractor

Other Technical Activity during the Quarter

Mining and Engineering Activity

The work carried out in this quarter focused the completion of the key activities associated with the DFS. Specifically the following was completed or initiated during the period:

Metallurgical Testwork

- The final definitive full scale pilot plant testwork was completed in January. The 35t of bulk sample previously delivered was treated as part of this campaign. The pilot plant ran successfully meeting the required performance criteria. The data collected from the pilot plant was used to finalise the design of the main plant and provide the input information for the operating cost analysis.
- The concentrate generated from the flotation pilot plant was used as the feed for the continuous leaching test that was undertaken to confirm the impurity removal process. This work was completed in February.
- A sample of the flotation concentrate was also delivered to a laboratory in Australia for them to undertake pyrometallurgical testwork on the conversion process to produce FeNb.

Mining & Geotechnical

- The mining schedules were completed and the designs for the waste rock dump and intermediate stockpiles finalised.
- The updated contract mining rates were reviewed and the mining costs calculated for the life of mine.
- The new mining rates were also used to determine the pre-production costs associated with the haul road and ROM pad construction.
- The mining report has been drafted.
- The geotechnical work was completed and the reporting for the DFS undertaken.

Hydrology & Hydrogeology

- Storm water control trench sizing and modelling was completed.
- Design of storm water control system completed.
- Geochem testwork on waste rock and tailings samples has been completed.
- Ground water report completed.
- Surface water management report completed.
- Geochem report completed.

Tailings Storage Facility (TSF)

- TSDF delivery pipeline detailed.
- Bill of Quantities (BoQs) revised with contractor rates.
- Decant system design finalised with drawings.
- Start-up capital and sustaining capital estimates for the TSF determined.
- Operating costs estimates determined.
- Tailings geotechnical work ongoing.
- TSF report drafted.

Engineering (Plant & Infrastructure)

- Process flow diagrams (PFDs) completed.
- P&IDs completed.
- Plant layouts finalised.
- Final BoQs completed for all disciplines.
- Smelter design completed.
- Access and diversion road designs completed.
- Adjudication of site based contracts completed.
- Capital and operating cost estimates produced.
- Project execution schedule developed.
- DFS reporting in progress.

Social and Environmental Activities

Wet Season dust and water monitoring activities have continued during the quarter.

Community consultations were undertaken regarding moving of the access road to the south of Panda Hill.

Corporate Activity

During the quarter, James Kelly was appointed as an executive director.

Marketing and Financing

Discussions with potential off takers for the sale of ferroniobium and project financing continue, both of which are being coordinated by the Denham-backed Pangea team out of South Africa.

Tenement Summary

As at 31 March 2016, Panda Hill Tanzania Ltd, the joint venture company owned 50% by Cradle and 50% by Tremont Investments Limited, held the following interests in tenements:

Project	Tenement Number	Percentage Interest
Panda Hill Niobium, Tanzania	ML237/2006	100%
Panda Hill Niobium, Tanzania	ML238/2006	100%
Panda Hill Niobium, Tanzania	ML239/2006	100%

Panda Hill Niobium Project Overview

The Panda Hill Niobium Project (Figure 2) is located in the Mbeya region in south western Tanzania, near the borders with Zambia and Malawi, and approximately 650km west of the capital Dar es Salaam. The industrial city of Mbeya is situated only 35km from the Project area and will be a significant service and logistics centre for the Project. Mbeya has a population of approximately 280,000 people and has recently completed the construction of a new international airport.

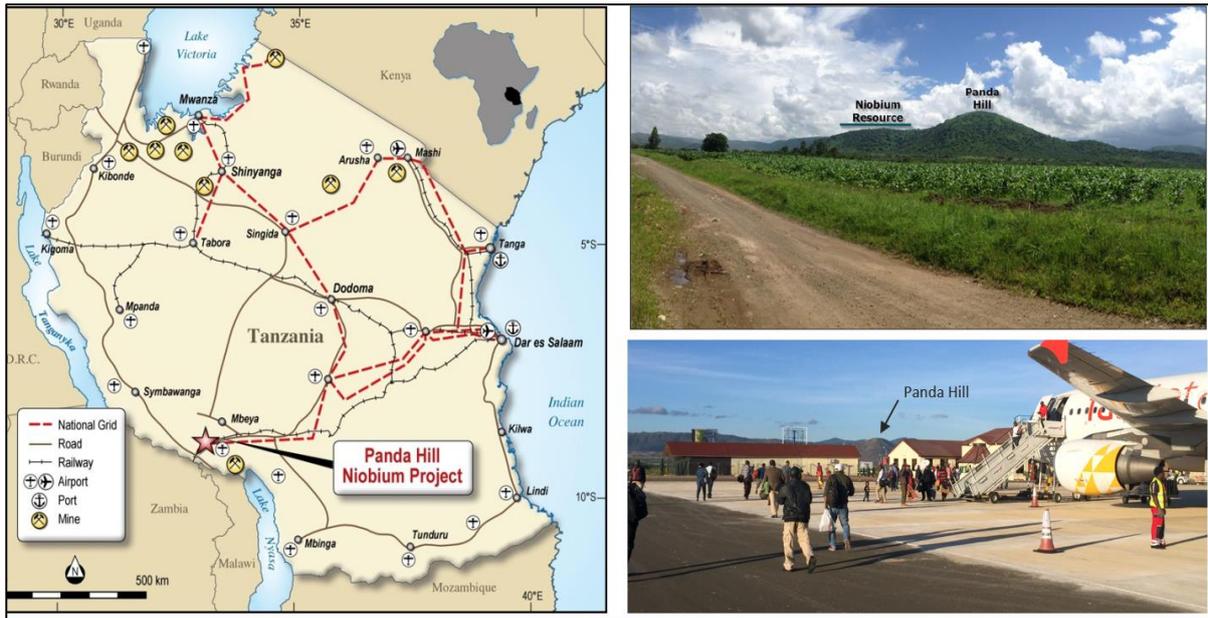


Figure 2: Location of the Panda Hill Niobium Project

The Project is covered by three granted Mining Licences (Figure 3) totalling 22.1km², which will enable a quick transition from the study and development phases, through construction and into operation. The area has excellent access to infrastructure, with existing roads, rail, airports and power available in close proximity. The three granted Mining Licenses were all renewed in the December 2015 quarter for a further 10 year period (valid until November 2026).

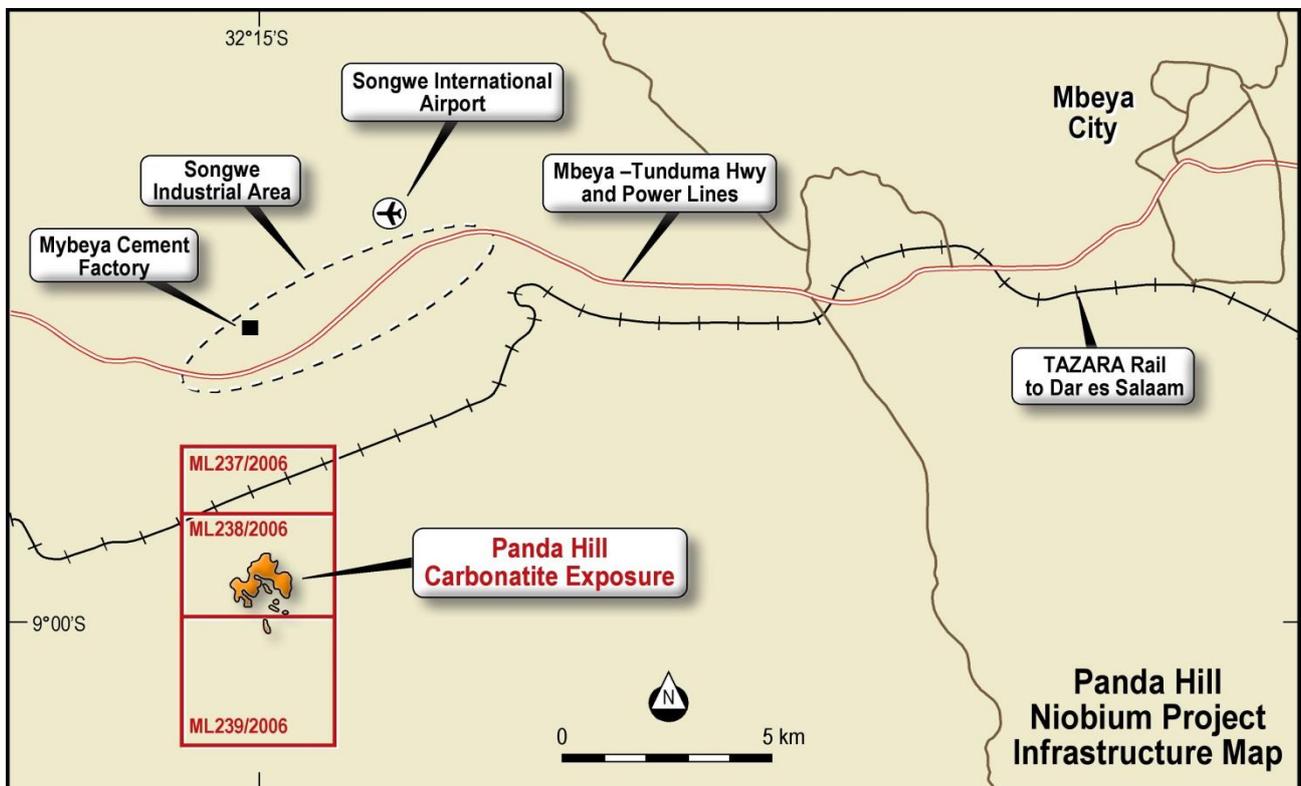


Figure 3: Mining Licences and Local Infrastructure

Competent Person's Statement

The information in this document that relates to the DFS is based on information compiled or reviewed by Mr Neil Inwood who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Inwood has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Inwood consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

By order of the Board