



TECH Project and Company Update

Highlights

- **Pilot plant activities progressing well in preparation of operation**
- **Formal adoption of planning scheme amendments by Townsville City Council for Lansdown Industrial Precinct**
- **Financial position strengthened with funds received from various fund raising initiatives**

Pure Minerals Limited (ASX:PM1) (“**PM1**” or “the **Company**”) is pleased to provide an update for its wholly owned subsidiary Queensland Pacific Metals Pty Ltd (“**QPM**”) and the Townsville Energy Chemicals Hub (“**TECH**”) Project.

Pilot Plant Activities

QPM’s current focus for the TECH Project is the advancement towards piloting its processing and refining flowsheets. This work programme is partially funded by the \$2.6M Cooperative Research Centres Projects (CRC-P) grant received and supported by in-kind contributions from QPM’s partners. Whilst progress was hindered earlier in the year due to COVID-19, restrictions are being eased and QPM has been able to make significant progress.

The pilot programme will initially involve processing the bulk sample received from QPM’s New Caledonian ore supply partners in the existing CSIRO pilot plant (DNi Process™) to produce nickel-cobalt mixed hydroxide precipitate (“**MHP**”). Aluminium hydroxide will also be produced and is the feedstock required to produce high purity alumina (“**HPA**”).

The MHP will then be processed in a refining pilot plant with the aim of producing battery grade nickel and cobalt sulphate. Similarly, the aluminium hydroxide will be processed in another pilot plant to produce 4N HPA.

In terms of scale, the pilot plant is significantly larger than other pilot plants used to validate operating performance parameters for processing laterite ores. This pilot plant can process 1 dry tonne of ore per day.

Before operation of the DNi pilot plant can commence, a number of activities must be carried out. Firstly, QPM made a number of process enhancements in its PFS and these have to be incorporated into the pilot plant. Additionally, some areas of the pilot plant have to be refurbished or replaced to ensure efficient operation. At present, a number of consultants are assisting QPM including Strategic Metallurgy, Prudentia Process Consulting, The Simulus Group, Boyd Willis Hydromet Consulting and Sage Automation. QPM’s partners in the CRC-P, CSIRO and DNP are actively involved in the pilot plant recommissioning.

One of the key enhancements identified in the PFS related to modification of the iron hydrolysis

section of the processing flowsheet to reduce energy and cooling water consumption. Design and engineering work for this pilot plant modification is now complete and ready for tendering for fabrication.

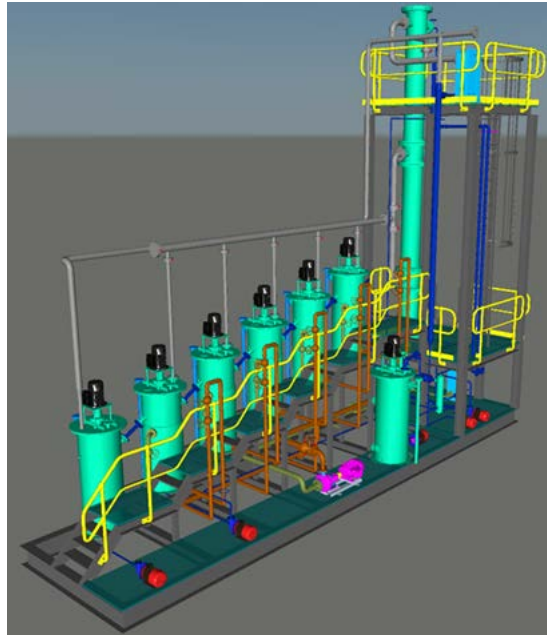


Figure 1: 3D image of iron hydrolysis section of the pilot plant

Whilst progress was hindered earlier in the year due to COVID-19, with restrictions having been eased, QPM has since been able to make significant progress in advancing other work required including:

- Recommissioning of the existing Programmable Logic Controller;
- Reworking the functional specification and updating supervisory control and data acquisition (SCADA) systems to incorporate the new iron hydrolysis section of the pilot plant; and
- Finalisation specifications for equipment requiring replacement/ minor repairs;
- Compiling equipment packages and preparing Requests for Quotation for equipment procurement.



Figure 2: Examination of acid recovery section of the pilot plant



Figure 3: PLC recommissioning

The bulk sample of ore has now arrived in Perth, having been delayed whilst in transit due to COVID-19. The sample will now be transported to the SGS laboratory for testwork, analysis and ore preparation. This will involve drying the ore, screening and assaying a range of size fractions in order to optimise milling requirement, homogenising to ensure grade continuity, assaying for organic matter and loading it into sealed 200L steel drums, which can be picked up by forklift for loading into the pilot plant.

Lansdown Industrial Precinct

Townsville City Council (“TCC”) recently announced it had adopted an amendment to its planning scheme to allow the development of the Lansdown Industrial Precinct.

This is a crucial step in the progression of the TCC’s plans for an environmentally sustainable and advanced technology industrial estate in Queensland’s north and welcomed by QPM. The following link details the TCC’s release.

townsville.qld.gov.au/about-council/news-and-publications/media-releases/2020/may/lansdown-major-amendment-adopted

Following this amendment, QPM can now progress with environmental study work and refining the site layout with greater certainty for the TECH Project with the aim of lodging the initial development application within the next few months.

Saunders Havill Group has been engaged to progress the requisite study work and development application process.

Figure 4 below shows the conceptual layout of the Process Plant, Refineries and other infrastructure at the Lansdown site.

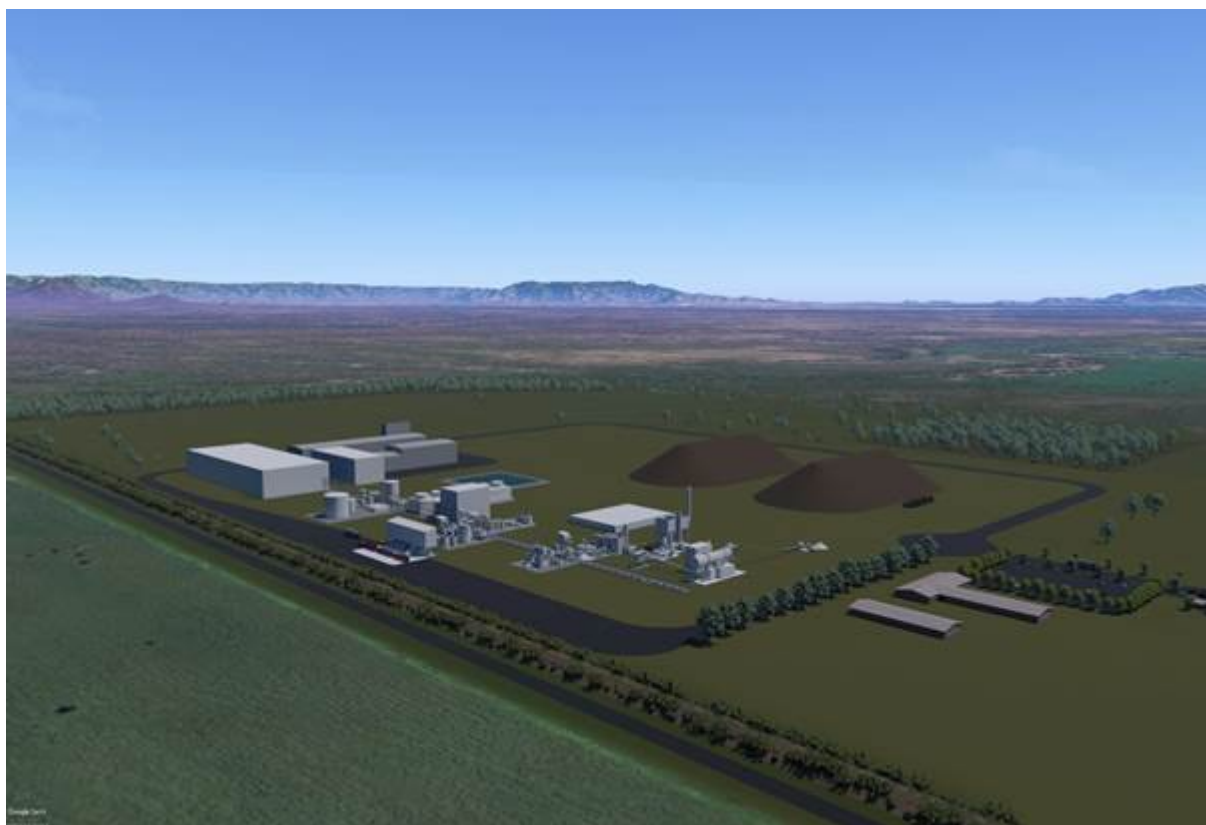


Figure 4: TECH Project conceptual layout



Pure Minerals Managing Director John Downie commented: *“Considering the challenges in recent months with COVID-19 restrictions, we are encouraged by the progress made on process development and design of the pilot plant. Furthermore, the advancement of the Lansdown precinct allows us to continue with our work leading to a development application. We are also grateful for the support and assistance provided in recent months from our stakeholders.”*

Cash Balance

Funds have been received from the recent capital raising and the first tranche (\$409,973) of the Metamor R&D loan facility has been drawn down (refer to ASX announcement 1 May 2020). In addition, all payments from the CRC-P Federal Government grant for the financial year ended 30 June 2020 have been received. This represents \$1.2M out of the \$2.6M grant.

As a result of the COVID-19 disruptions, cost mitigation strategies were implemented by the Company including all board and management taking significant salary reductions and renegotiation of various contractor agreements.

As a result of the various fund raising and cost mitigation initiatives, PM1 has strengthened its financial position and currently has a cash balance of \$2.0M.

This announcement has been authorised for release by the Board.

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