



ASX RELEASE
30 April 2020

Quarterly Activities Report- March 2020

Highlights

- **Advanced PFS for TECH Project completed to include the production of three major battery chemicals – Nickel Sulphate, Cobalt Sulphate and HPA**
- **Awarded Australian Federal Government Grant of A\$2.55M under CRC-P round 8 program with first payment of \$604k received during the quarter**
- **Entered agreement to acquire prospective Sewa Bay Nickel Project property**

Pure Minerals Limited (ASX:PM1) (“**PM1**” or “the **Company**”) is pleased to provide the following update on its activities for the three-month period ending 31st March 2020.

During the quarter, PM1’s wholly owned subsidiary, Queensland Pacific Metals Pty Ltd (“**QPM**”) continued to advance the Townsville Energy Chemicals Hub Project (“**TECH**” or the “**Project**”).

Project Studies

During the quarter, QPM completed a scoping study regarding the production of 99.99% (4N) high purity alumina (“**HPA**”) at the TECH Project. The results of the scoping study demonstrated the significant economic value which HPA would bring to the Project and as such, an updated Pre-Feasibility Study (“**Updated PFS**”) was commissioned.

The Updated PFS was based on TECH producing 3 major battery chemicals; Nickel Sulphate, Cobalt Sulphate and HPA. It was completed shortly after the end of the March quarter (See ASX announcement 7 April 2020).

In addition to HPA production, the Updated PFS also incorporated optimisation work completed by QPM. The Updated PFS concluded that the Project can be a significant supplier of battery chemicals, generating robust financial returns with soft commodity prices and excellent financial returns in stronger commodity cycles

Key outputs of the Updated PFS are detailed below:

Key Physical Outputs*

Area	Output
Plant design life	30 years with ramp up period of 12 months
Ore processed (steady state)	565,714 (wet) tpa
Assumed ore grade	1.60% Nickel 0.18% Cobalt 46.6% Iron 1.69% Aluminium 3.02% Magnesium
Annual production (steady state)	Nickel sulphate 26,398 t Cobalt sulphate 3,097 t 4N HPA 4,007 t Hematite 327,665 wmt Magnesia 20,079 t

Capital and Operating Costs*

Area	Input / Output
Capex ex contingency (0.68 AUD:USD)	AUD 554m
Contingency (0.68 AUD:USD)	AUD 96m
Operating expenditure (Steady state, 0.68 AUD:USD)	AUD 163m per annum

Financial Assumptions and Outputs*

In the table below, the assumptions for each scenario are based on the following:

Base Case: reflects macro assumptions previously assumed when preparing the December 2019 PFS and the February 2020 HPA Scoping Study.

Spot Case: Utilises the underlying commodity and exchange rate spot prices as at 31 March 2020. In the case of HPA, a price of USD 20,000/t was used as there is no real spot market for this commodity.

Area	Base Case	Spot Case
Exchange rate AUD USD	0.68	0.62
Nickel price (USD/lb)	7.00	5.70
Sulphate premium (USD/lb)	2.00	2.00
Cobalt price (USD/lb)	25.00	14.15
Cobalt premium (USD/lb)	nil	nil
HPA price (USD/t)	25,000	20,000
EBITDA (steady state)	AUD 261m	AUD 211m
Post tax NPV	AUD 1.47bn	AUD 1.08bn
Post tax IRR	30.7%	24.9%
Capital payback period	Within 3.5 years	Within 4.3 years



For further information regarding the Updated PFS, please refer to the Company's ASX announcement on 7 April 2020.

**PM1 confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of mineral resources or ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed*



Figure 1: TECH Project Location and Conceptual Layout





Figure 2: TECH Project Conceptual Layout

CRC-P Grant

QPM and its project partners Direct Nickel Projects Pty Ltd (“DNP”) and Commonwealth Scientific and Industrial Research Organisation (“CSIRO”) were successful in their application for a federal government grant under CRC-P round 8.

The CRC-P grants program was set up to support industry-led collaborations with Australian research organisations to develop a product, service or process that will solve problems for industry and deliver real outcomes. CRC-P round 8 also had a specific focus on developing Australia’s critical minerals capability.

QPM applied for and was offered a cash grant of \$2.55M from the Australian Federal Government. In addition, QPM’s partners DNI and CSIRO will generously contribute a substantive \$1.6M of in-kind funding, providing a total benefit of \$4.15M to QPM.

The CRC-P grant demonstrates the strong support QPM has for the TECH Project from varying levels of Government. The first payment under the grant was for \$604k and it was received during the quarter.

Pilot Plant Activities

QPM engaged consultants Strategic Metallurgy to undertake an assessment of the pilot plant at CSIRO's premises. Fortunately, this assessment was carried out before significant lock down measures relating to Covid-19 were implemented.

Prior to running the pilot plant QPM must, where required, refurbish some sections and also make some modifications to reconfigure the pilot plant. This is largely to do with the iron hydrolysis section of the pilot plant with the Fe % of New Caledonian ore being almost twice that of the grade of the previous ore which the pilot plant was used to process.

With the assessment complete, QPM can proceed with detailed engineering work for the refurbishment and reconfiguration and then award engineering contracts. This work does not require access to the pilot plant and can continue on, minimising disruption to the schedule.

The bulk sample of ore also left New Caledonia during the quarter and arrived in Australia subsequent to quarter end. QPM has sourced quotes for ore preparation, including drying of ore prior to processing.

Acquisition of Sewa Bay Nickel Project

PM1 acquired the Sewa Bay nickel project ("Sewa Bay") from Highlands Pacific Resources Ltd.

Sewa Bay consists of Exploration Licence EL 1761, located on Normanby Island near Esa'ala and Sewa Bay in the Milne Bay Province, located on the south eastern side of mainland PNG.

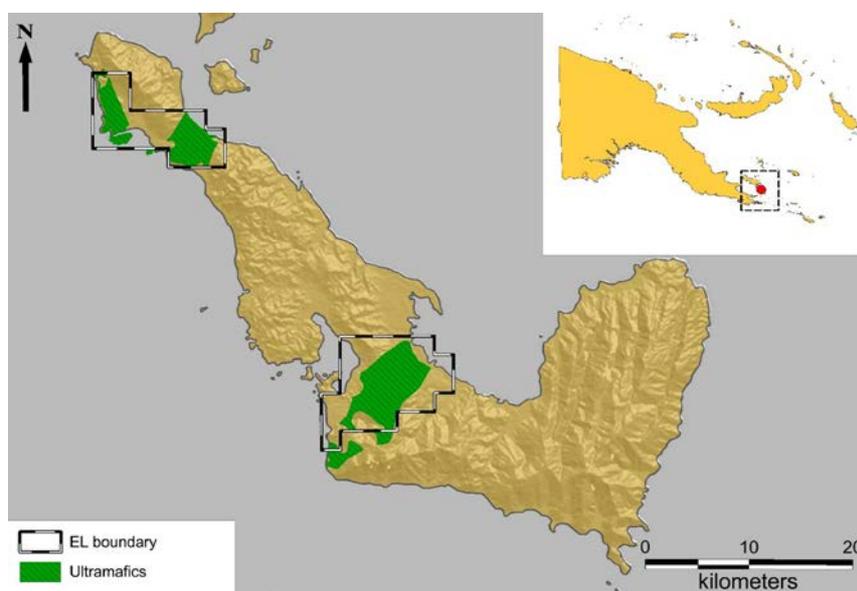


Figure 3: Sewa Bay Location

Sewa Bay is a prospective project and fits in with QPM's long term objective of having multiple sources



of ore to reduce risk profile. For further information, refer to ASX announcement 11 February 2020.

Currently all conditions of the agreement to acquire Sewa Bay have been met with the exception of the tenement transfer being approved by regulatory approvals. This approval is subject to a Warden Hearing on site at Normanby Island, which currently cannot take place due to Covid-19 travel restrictions.

Corporate

Cash

PM1's cash balance as at 31 March 2020 was \$1.056M.

Tenement Table: ASX Listing Rule 5.3.3

Tenements currently held by PM1 as at 31 March 2020 are detailed in the table below.

Tenement ID	Status	Applic Date	Granted Date	Expiry Date	Holding	Name	Registered Co.
E09/2217	GRANTED	17-Feb-17	13-Sep-17	12-Sep-22	100%	Battery Hub	Pure Manganese Pty Ltd
E52/3523	GRANTED	17-Feb-17	06-Nov-17	05-Nov-22	100%	Battery Hub	Pure Manganese Pty Ltd
E09/2136-I	GRANTED	4-Feb-15	20-Jul-16	19-Aug-21	100%	Morrissey Hill	Mineral Developments Pty Ltd
EPM27035	GRANTED	28-Aug-2018	12-Feb-19	12-Feb-21	100%	Serpentinite Ridge	Queensland Pacific Metals Pty Ltd

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Authorised for release by the Board

About Pure Minerals

Pure Minerals (ASX: PM1), through its wholly owned subsidiary Queensland Pacific Metals Pty Ltd (QPM), is focused on developing a modern battery metals refinery in northern Queensland.

The Townsville Energy Chemicals Hub or TECH, will process imported, high grade Ni-Co laterite ore from New Caledonia to produce nickel sulphate, cobalt sulphate and other valuable co-products.



Pure Minerals' senior management has combined experience of more than 60 years in nickel refinery operations and is well versed in dealing with nickel and cobalt buyers around the world.

With established infrastructure, a well-developed labour pool and a long history of processing imported laterite ore, Townsville is the ideal location for the project.

***Cautionary Statement:**

The PFS referred to in this announcement is a study of the potential viability of the TECH project. It has been undertaken to understand the technical and economic viability of the TECH project.

The Company has concluded that it has a reasonable basis for providing the forward looking statements included in this announcement. The reasons for this conclusion are outlined throughout this announcement. However, the assumptions and results of the PFS set out above and elsewhere in this announcement ("**PFS Parameters**") have been developed through pre-feasibility level work (+/- 25% accuracy) and the use of macroeconomic assumptions. **For the avoidance of doubt, investors are advised that the PFS Parameters do not constitute a production forecast or target in relation to any mineral resources associated with any project owned by PM1 or QPM.** PM1 and QPM wish to expressly clarify that the PFS Parameters are based on an expected grade of nickel-cobalt ore to be imported by QPM under an ore supply agreement with third party New Caledonian ore suppliers. The PFS Parameters have been disclosed by PM1 and QPM in order to provide investors with an intended scale and nature of the Project.

The PFS referred to in this announcement has been undertaken to assess the technical and financial viability of the Project. Further evaluation work, including a Definitive Feasibility Study ("**DFS**") is required before PM1 will be in a position to provide any assurance of an economic development case. The PFS is based on the material assumptions set out in Annexure A. These include assumptions about the availability of funding and the pricing received for the Project's products. While PM1 and QPM consider all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by this PFS will be achieved. To achieve the outcomes indicated in this PFS, pre-production capital (including contingency) in the order of AUD 650m (assuming an exchange rate of 0.68), additional capital for the DFS and working capital is likely to be required.

Investors should note that there is no certainty that the Company will be able to raise this amount of funding required when needed. It is also possible that such funding may only be available via equity funding which may have a dilutive effect on the Company's share value. The Company may also pursue other strategies in order to realise the value of the Project, such as a sale, partial sale or joint venture of the Project. If this occurs, this could materially reduce the Company's proportionate ownership of the Project. Accordingly, given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

Competent Persons Statement

Information in this announcement relating to the processing and metallurgy (including the JORC table in Annexure C) is based on technical data compiled by Mr Boyd Willis, an Independent Consultant trading as Boyd Willis Hydromet Consulting (BWHC). Mr Willis is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Willis has sufficient experience which is relevant to metal recovery from the style of mineralisation and type of deposits in New Caledonia where the ore will be sourced (from third parties pursuant to an ore supply agreement) and to the activity which they are undertaking to qualify as a Competent Person under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves'. This includes over 21 years of experience in metal recovery from Laterite ores. Mr Willis consents to the inclusion of the technical data in the form and context in which it appears.

Forward Looking Statement

This Announcement contains certain forward-looking statements with respect to the financial condition, results of operations, and business of the Company, and certain plans and objects of the management of the Company. These forward-looking statements involved known and unknown risks, uncertainties and other factors which are subject to change without notice, and may involve significant elements of subjective judgement and assumptions as to future events which may or may not occur. Forward-looking statements are provided as a general guide only and there can be no assurance that actual outcomes will not differ materially from these statements. Neither the Company or its directors, QPM or its directors, nor any other person, gives any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. In particular, those forward-looking statements are subject to uncertainties and contingencies, many of which are outside of the control of the Company. A number of important factors could cause actual results or performance to differ materially from the forward-looking statements. Accordingly, Investors should consider the forward-looking statements contained in this Announcement in light of these disclosures.



Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Pure Minerals Limited

ABN

61 125 368 658

Quarter ended ("current quarter")

31 March 2020

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation (if expensed)	(295)	(1,125)
(b) development	-	-
(c) production	-	-
(d) staff costs	(30)	(156)
(e) administration and corporate costs	(377)	(1,069)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	5
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	664	664
1.8 Other (provide details if material)	-	(10)
1.9 Net cash from / (used in) operating activities	(37)	(1,691)

2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities		
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation (if capitalised)	(28)	(28)
(e) investments	-	-
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	(372)
2.6	Net cash from / (used in) investing activities	(28)	(399)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	622
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(167)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	455

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,120	2,691
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(37)	(1,691)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(28)	(399)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	455

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,056	1,056

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,056	1,120
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,056	1,120

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter
\$A'000**

(41)

Director and consulting fees paid to Directors and/or Director related entities \$40,500

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities		Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>			
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>			
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(37)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	(28)
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(64)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	1,056
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	1,056
8.7 Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	16
8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:	
2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	
3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer:	

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 30 April 2020

Authorised by: The Board of PM1

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.