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Quarterly Activities Report

Sept 2019

Board & Management:

ASX: PNX Issued Capital as at 17/10/19: 2,435,288,142

Non Exec Chairman: Graham Ascough Non Exec Director: Paul J Dowd Non Exec Director: Peter J Watson Non Exec Director: David Hillier MD/CEO: James Fox CFO/Co Secretary: Angelo Gaudio Top Shareholders as at 17/10/19:Delphi Unternehmensbaratung 40.6%Marilei International Limited6.4%Sochrastem SA6.3%

Share Registry: Computershare Investor Services Pty Ltd Level 5 115 Grenfell Street Adelaide South Australia 5000 Phone: 1300 305 232 (within Australia) +61 3 9415 4657 (outside Australia)

Quarterly Highlights:

NT Regional Exploration (Pine Creek region, in vicinity of, and potentially complementary to the Hayes Creek Project)

- Reverse Circulation (RC) drill program successfully completed comprising 18 drill holes for approximately 1,650 metres at the Fountain Head gold Project with assays due shortly
- Program tested areas of open mineralisation beyond the current resource envelope, and potential highgrade mineralisation trap sites at the junctions of vertical feeder structures and anticline hinge zones
- Preliminary studies underway to assess heap leaching as an option to monetise gold resources at Fountain Head

NT Project Development - Hayes Creek Zinc and Precious Metals Project

- Definitive Feasibility Study (DFS) on schedule, with final metallurgical flotation test work for engineering, offtake and marketing purposes ongoing
- Significant Environmental Impact Statement (EIS) related work is ongoing with a focus on site evaluation, waste rock management, flora and fauna surveys, and stakeholder consultation

Corporate

o \$4.3 million cash on hand at 30 September 2019

Activity during the Quarter

NT Regional Exploration: Fountain Head, Burnside, Moline & Chessman Projects

PNX is pursuing regional exploration targeting gold and base metals mineralisation that has the potential to either complement and enhance the Hayes Creek Project, support a standalone mine development or be of sufficient scale to warrant being processed via existing infrastructure in the region capable of treating free-milling gold ore.

Fountain Head Project

The Fountain Head Mineral Leases (MLs) are located less than 15km from the Mt Bonnie and Iron Blow deposits and provide PNX with the ideal location for the proposed Hayes Creek Project process plant and associated infrastructure.

PNX has recently announced its first Mineral Resource estimate of **2.58Mt at 1.7g/t Au for 138,000 oz Au** for the 100% owned Fountain Head gold Project, reported in accordance with the JORC Code, (see *ASX release 11 July 2019 for full details including JORC tables*).



The relative values of PNX mining some or all of these Mineral Resources versus using the historic open pits for tails (thus sterilising any contained minerals) from the Hayes Creek Project are being assessed, with a strategy being developed to incorporate these gold Mineral Resources into the overall Hayes Creek Project.

A follow-up reverse circulation (RC) drill program of 18 drill holes for approximately 1,650 metres was completed in early October with assays due shortly.

The aim of the drill program was to test areas of open mineralisation adjacent to the current resource envelope and potential higher-grade 'trap sites' within the resource estimate. Interpretation of controls over the gold mineralisation suggest increased grades and thicker intercepts typically occur at the intersection between vertical feeder structures and the anticline fold axis.

Once assays have been received and incorporated in PNX's updated geological model, further drilling is planned to target extensions to any new mineralised zones at depth and to increase the density of drill data along the 1.6km strike to support the potential for additional Mineral Resources.

As part of the assessment process PNX is evaluating the staged development of resources via gold heap leaching on the Fountain Head MLs prior to Hayes Creek sulphide flotation. This would have the added benefit of not sterilising valuable gold assets prior to using the enlarged void at Fountain Head for future tailings storage as per PNX's Hayes Creek development plan.

A key component of identifying this opportunity was the assessment of historic operating data from 2008/2009 that indicated Fountain Head gold mineralisation is amenable to heap leaching with cyanide soluble gold recoveries being achieved in excess of 90%.

Preliminary studies related to the assessment of a potential heap leach operation to monetise the gold from Fountain Head are underway. Testwork includes bottle rolls, followed by bulk sampling for column leaching. Site planning and infrastructure requirements are being considered along with pit design and optimisation.

The existing Hayes Creek Project EIS process can also be utilised for approval of heap leaching at Fountain Head with minor additional studies which are now being incorporated into the works program.

Results of the above will provide the basis for a detailed assessment on the economic viability of a heap leach operation at Fountain Head and is expected to be completed prior to the end of 2019.

Cookies Corner prospect (Burnside project) and Moline Project

No significant activity took place on the prospect during the quarter other than the rehabilitation of drill sites which has now been completed.

NT Project Development - Hayes Creek Zinc and Precious Metals Project

The Hayes Creek Project is comprised of the Iron Blow and Mt Bonnie zinc-gold-silver deposits located less than 3km apart on wholly owned Mineral Leases within the Pine Creek region of the Northern Territory, 170km south of Darwin (Figure 1).

A DFS is currently underway on the Hayes Creek Project, following the successful completion of a Pre-Feasibility Study (PFS) in July 2017 which confirmed the Hayes Creek Project to be a promising future low-cost, high margin zinc and precious metal mine that could create significant value for the Company's shareholders. The DFS is expected to provide increased confidence in all aspects of the Hayes Creek Project as well as investigate opportunities to improve overall project economics thereby increasing the prospect of favourable development finance terms and structure.

There is a significant amount of technical work that based on the Project Terms of Reference that continues to inform the DFS and prepare the Project EIS for submission. Submission of the EIS is expected during Q2 2020.



The Hayes Creek Project is located in a favourable mining jurisdiction where the development scenario considers and utilises existing infrastructure that includes rail, road, gas pipeline, high voltage power lines and water, further enhancing project fundamentals and lowering development risks.

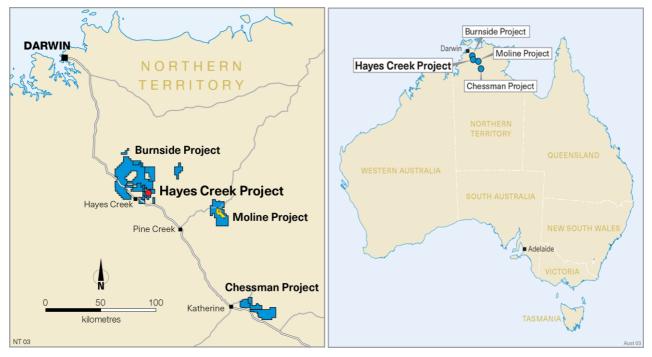


Figure 1: NT Project locations

Hayes Creek Project Development

Terms of Reference for the Project EIS were developed by the Northern Territory Environmental Protection Authority (NT EPA) in consultation with PNX and have been advertised for Public Consultation. The feedback from this consultation period was received in August and resulted in minor amendments to the Project EIS scope which the Company is now incorporating in its work program.

A Stakeholder Consultation Plan is being finalised, and interaction with various stakeholders relating to Project development is underway. This includes liaison with the Northern Land Council (NLC) in relation to a cultural heritage assessment and any required clearance survey work.

Geochemical testwork is ongoing to assist with metallurgical process design and waste rock management. During the quarter:

- 188 samples from fresh rock across the Mt Bonnie and Iron Blow deposits were submitted to broaden the sample base used to develop material segregation criteria which captures the geological variation within each deposit;
- 47 samples from oxide/transition rock (which has received little testing previously) were submitted to develop robust geological (oxidation) based criteria for material handling and mine closure planning;
- 123 historic Mt Bonnie mine samples including ore for the ROM pit, tailings and waste rock were collected to determine potential acid rock drainage issues associated with these materials.

To assist with waste rock management planning, leach column testing of multiple waste samples has been operating since early 2018. Two are still operating, the rest having been completed. One test still operating is a



Mt Bonnie blend of Non-Acid Forming (NAF) and Potential Acid Forming (PAF) waste rock samples, and the other is a PAF sample from Iron Blow. These tests are near completion and a final report is in preparation.

Mt Bonnie Resource

Re-assaying of all Mt Bonnie samples relating to historic under-reporting of Cu, Pb, Zn and Ag in Certified Reference Material (CRM) results has now been completed using pulp duplicates and new CRM. The re-assays are being checked for quality assurance and control and will be incorporated in an updated mineral resource for Mt Bonnie that is expected to be completed in the December Quarter.

Metallurgy and Process Design

Baseline batch flotation of all Mount Bonnie and Iron Blow composites has now been completed and these new metallurgical tests have generated results that are consistent and within expectations based on data from the Hayes Creek Pre-feasibility Study.

Baseline locked cycle testing is now underway on both Iron Blow and Mount Bonnie composites with preliminary results in line with expectations; full results are expected by the end of 2019.

Process Engineering design and costing activities will commence on completion of the locked cycle and materials handling work.

Power and Infrastructure

Further work has taken place during the quarter on defining infrastructure locations and requirements, combined with reviews of numerous options for base power generation and supply.

With the Bonaparte Gas pipeline being less than 1km from the proposed processing facility at Fountain Head, gas fired base load power appears to be the most viable option for the project and negotiations for gas supply and pipeline access are ongoing.

Detailed designs, infrastructure layout and plant locations have been finalised that consider access options and utilise as much previously disturbed ground as possible. These designs will be utilised in the Project EIS work and provide more clarity to the DFS.

South Australia Exploration

Yorke Peninsula & Adelaide Geosyncline Projects

No on-ground exploration activities were undertaken during the quarter by PNX on the Company's Yorke Peninsula or Adelaide Geosyncline exploration tenements.

Ausmex Mining Group Limited (ASX: AMG) is farming-in to PNX's eight exploration licences in the Burra area. Ausmex can earn up to a 90% interest over two stages (60% and 90%) by spending a minimum of \$300,000 in each stage on diamond drilling or other agreed exploratory work. The first stage must be completed by 31 December 2019. (See Ausmex Mining Group ASX releases for further information on work completed during the quarter). All South Australian tenements remain in good standing.

Financial & Corporate

Cash on hand at 30 September 2019 was \$4.3 million.

As at 30 September 2019 the Company had 2,435,288,142 fully paid ordinary shares on issue, and;



- 433,125,000 unquoted options with a 1.50 cent exercise price expiring 30 September 2021;
- 20,000,000 unquoted options with a 1.47 cent exercise price expiring 30 October 2020; and
- 12,440,000 performance rights

Planned Activities December 2019 Quarter:

Hayes Creek DFS

- o Finalisation of updated mineral resource estimate for Mt Bonnie
- o Incorporating final terms of reference to submission of EIS and all necessary EIS related studies
- Ongoing batch flotation and locked cycle flotation of Mt Bonnie and Iron Blow master composites to confirm process design parameters and provide technical information for marketing and offtake
- Completion of a conceptual study for the Fountain Head gold Project to determine the relative values of mining the gold mineralisation versus using the historic open pits as the (in-pit) tails location for the Hayes Creek Project, and whether the two strategies might be combined
- Re-commencement of drilling at Fountain head upon receipt and interpretation and reporting of gold assay results from the recently completed drill program

James Fox

Managing Director & CEO Telephone +61 (0) 8 8364 3188 Email: <u>info@pnxmetals.com.au</u> Website: <u>www.pnxmetals.com.au</u>

Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Bradley Ermel, a Competent Person who is a Member of the Australian Institute of geoscientists (AIG). Mr Ermel has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken 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 Ermel is a full-time employee of PNX Metals Ltd and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.



TENEMENTS

Northern Territory

Tenement	Name	Holder	Area Hectare
ML30512	Mt Bonnie		6.4
ML30589	Mt Bonnie		31.6
MLN1033	Mt Bonnie		4.8
MLN1039	Mt Bonnie		1.2
MLN214	Iron Blow		6.3
MLN341	Iron Blow		14.9
MLN342	Mt Bonnie	PNX Metals Ltd 100%	13.7
MLN343	Iron Blow		14.9
MLN346	Mt Bonnie		16.0
MLN349	Iron Blow		15.0
MLN405	Mt Bonnie		12.0
MLN459	Mt Bonnie		15.0
MLN811	Mt Bonnie		8.1
MLN816	Mt Bonnie		8.1
		Total Hayes Creek	168.0
MLN794	Fishers-1		8.1
MLN795	Fishers-2	PNX Metals Ltd 100%	8.1
ML30936	Good Shepherd		106.0
		Total Other	122.2
ML31124	Fountain Head		33.5
MLN1020	Fountain Head		12.0
MLN4	Fountain Head	PNX Metals Ltd 100%	529.9
MLN1034	Fountain Head		304.2
		Total Fountain Head	879.6
Moline			
ML24173	Moline		3126.0
MLN1059	Moline	PNX Metals Ltd 100%	418.7
MLN41	Mt Evelyn		8.9
		Total Moline	3,553.6
		Total Mineral Leases	4,723.4
EL28616	Moline	PNX Metals Ltd 100%	262.5 km ²
EL31099	Bridge Creek	PNX Metals Ltd 100%	60.2km ²
EL31893	Ringwood Station	PNX Metals Ltd 100%	23.4km ²
		Total Exploration Licences	346.1km ²



Northern Territory – Farm-in Tenements

Tenement	Name	Holder	(Area sq km)
Burnside Pr	oject *		
EL10012	Mt Ringwood		14.9
EL10347	Golden Dyke		10.0
EL23431	Thunderball		13.4
EL23536	Brocks Creek		70.4
EL23540	Jenkins		16.7
EL23541	Cosmo North		3.3
EL24018	Hayes Creek		23.4
EL24051	Margaret River		86.9
EL24058	Yam Creek	PNX Metals Ltd 90%, Newmarket 10%	3.3
EL24351	McCallum Creek		13.4
EL24405	Yam Creek		4.1
EL24409	Brocks Creek South		22.1
EL24715	Mt Masson		56.8
EL25295	Margaret Diggings		10.0
EL25748	Burnside		584.5
EL9608	Mt Bonnie		10.0
Chessman I	Project *		
Tenement	Name		
EL25054	Maud		64.0
EL28902	Maud	PNX Metals Ltd 90%, Newmarket 10%	104.5
ML30293	Chessman		1.1
		Total Exploration Licences	1,112.8

*PNX Metals Ltd earned a 90% interest under a farm-in agreement with Newmarket Gold NT Holdings Pty Ltd (Newmarket)



Exploration Licences	Name	Holder	(Area sq. km)
Adelaide Geosyr	ncline **		
EL6326	Burra Central		84
EL5874	Burra West	PNX Metals Ltd 100%	69
EL6150	Burra North		300
EL6327	Mongolata		60
EL5918	Princess Royal		314
EL6386	Bagot Well		71
EL5910	Spalding		157
ELA2019/00085	Washpool		135
			1,190
Yorke Peninsula			
ELA2018/00013	Minlaton	Wellington Exploration Pty Ltd 100%#	509
ELA2017/00169	Point Pearce		38
ELA2019/00062	Koolywurtie	PNX Metals Ltd 100%	255
EL6399	Coonarie	7	254
			1,059
		Total Exploration Licences	2,249

**Ausmex Mining Group Ltd earning up to 90% in these tenements over 2 stages under a farm-in agreement

[#] Wellington Exploration Pty Ltd is a wholly owned subsidiary of PNX

Rule 5.5

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Name of entity

PNX METALS LIMITED	
ABN	Quarter ended ("current quarter")

67 127 446 271

Quarter ended ("current quarter")

30 SEPTEMBER 2019

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(747)	(747)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs*	(176)	(176)
	(e) administration and corporate costs	(223)	(223)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	8	8
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	170	170
1.8	Other	-	-
1.9	Net cash from / (used in) operating activities	(968)	(968)

*excluding costs included in exploration expenditure

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-

Cons	solidated statement of cash flows	Current quarter	Year to date (3 months)
		\$A'000	\$A'000
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Loan repayment	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	5,304	5,304
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(968)	(968)

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	4,336	4,336

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	836	1,204
5.2	Call deposits	3,500	4,100
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)	4,336	5,304

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items6.1 and 6.2

Transactions during the current quarter include: Non-executive Director fees and superannuation of \$49k.

Current quarter \$A'000	
49	
-	

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

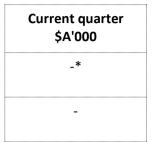
*None other than those payments described in Item 6 above.

8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
0.2			

- 8.3 Other (please specify)
- 8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation *	1,250
9.2	Development	-
9.3	Production	-
9.4	Staff costs (net of outflows included in item 9.1 exploration)	135
9.5	Administration and corporate costs	145
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	1,530

* Predominantly in relation to Hayes Creek Definitive Feasibility Study



10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced.	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased.	-	-	-	-

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.

Sign here:

Company secretary

Date: 18 October 2019.

Print name: Angelo Gaudio

Notes

- 1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly 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 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.