

## New zinc-gold-silver mineralisation at Hayes Creek, NT

- Assays received from recent Hayes Creek drill program highlight high-grade, near-surface mineralisation and resource extension potential
- In total 15 drill holes intersected previously unknown mineralisation that sits outside the existing mineral resource at Mt Bonnie, including:
  - 4m @ 6.14% Zn, 1.14g/t Au, 176g/t Ag, 1.29% Pb, 0.11% Cu from 73m in MBRC080, including:
    - 2m @ 10.28% Zn, 1.92g/t Au, 304g/t Ag, 2.11% Pb, 0.17% Cu from 74m
- Scope to increase the mine life of Hayes Creek - Mt Bonnie Resource update to be completed for inclusion in the DFS mine plan

PNX Metals Limited (**ASX: PNX**) is pleased to advise that it has received all assay results from recent drilling at the high-grade Hayes Creek zinc-gold-silver Project<sup>1</sup> (Figures 1 and 2). In addition to resource extension drilling at Mt Bonnie, the program was designed to provide geotechnical, resource, hydrological, and metallurgical information for incorporation in the Project's Definitive Feasibility Study (DFS), due to be completed later in 2018.

Drilling at Mt Bonnie intersected zinc, gold and silver mineralisation in 15 drill holes outside of the existing Mineral Resource envelope extending the known mineralisation by approximately 35 metres. Extensions to the massive sulphide zinc-rich mineralisation occur below the current pit design and both up and down-dip to the existing resource and include;

- 4m @ 6.14% Zn, 1.14g/t Au, 176g/t Ag, 1.29% Pb, 0.11% Cu from 73m in MBRC080, including:
  - 2m @ 10.28% Zn, 1.92g/t Au, 304g/t Ag, 2.11% Pb, 0.17% Cu from 74m (below the pit design)
- 1m @ 7.68% Zn, 1.48g/t Au, 305g/t Ag, 1.88% Pb, 0.31% Cu from 76m in MBDH069 (below the pit design)
- 7m @ 2.24g/t Au and 81g/t Ag from 88m in MBRC089 (gold-silver zone below the pit design)
- 5m @ 3.28% Zn and 1.37g/t Au from 35m in MBRC107 (up-dip from pit design)

### Managing Director Comment

PNX Managing Director James Fox said *"The extensions to zinc-rich massive sulphide mineralisation below the existing pit design, and new mineralisation identified up-dip of the existing resource have the potential to improve the already strong Project economics by reducing the mine strip ratio, providing additional ore feed to the proposed process plant and therefore extending mine life."*

<sup>1</sup> See section 'About PNX's Projects' for further details on Hayes Creek

“Furthermore, since the PFS was published in mid-2017, an ideal site to construct process and tailings management facilities has been acquired, debt has been eliminated and there has been considerable improvement in spot commodity prices. Current zinc spot prices of US\$1.57/lb are +34% higher than the PFS average price used of US\$1.17/lb. Forward price updates along with ongoing Project optimisation will be incorporated into the DFS due later in 2018.”

### Mt Bonnie Drilling (Hayes Creek Project)

In total 65 Reverse Circulation (‘RC’), (3,314 metres), 9 diamond (737 metres), and 1 aircore holes were completed with assay results shown in Table 1. Drilling included 19 grade control holes to provide certainty for early production schedules and 14 exploration holes aimed at testing for mineralised extensions to the south and at depth. Analysis of the information has determined the following outcomes:

- 15 drill holes have intersected mineralisation outside of the current mineral resource boundary. These occur up-dip and down-dip and **extend the known mineralisation approximately 35m along strike (by approximately 30%) to the southwest** and are likely to;
  - extend the pit design further south and at depth providing an increase in the feed to the proposed process plant, and
  - reduce the open-pit strip ratio by identifying mineralisation in what was previously assumed to be waste rock
- Shallow grade control drilling has successfully confirmed near surface gold-silver rich mineralisation to support early production schedules.

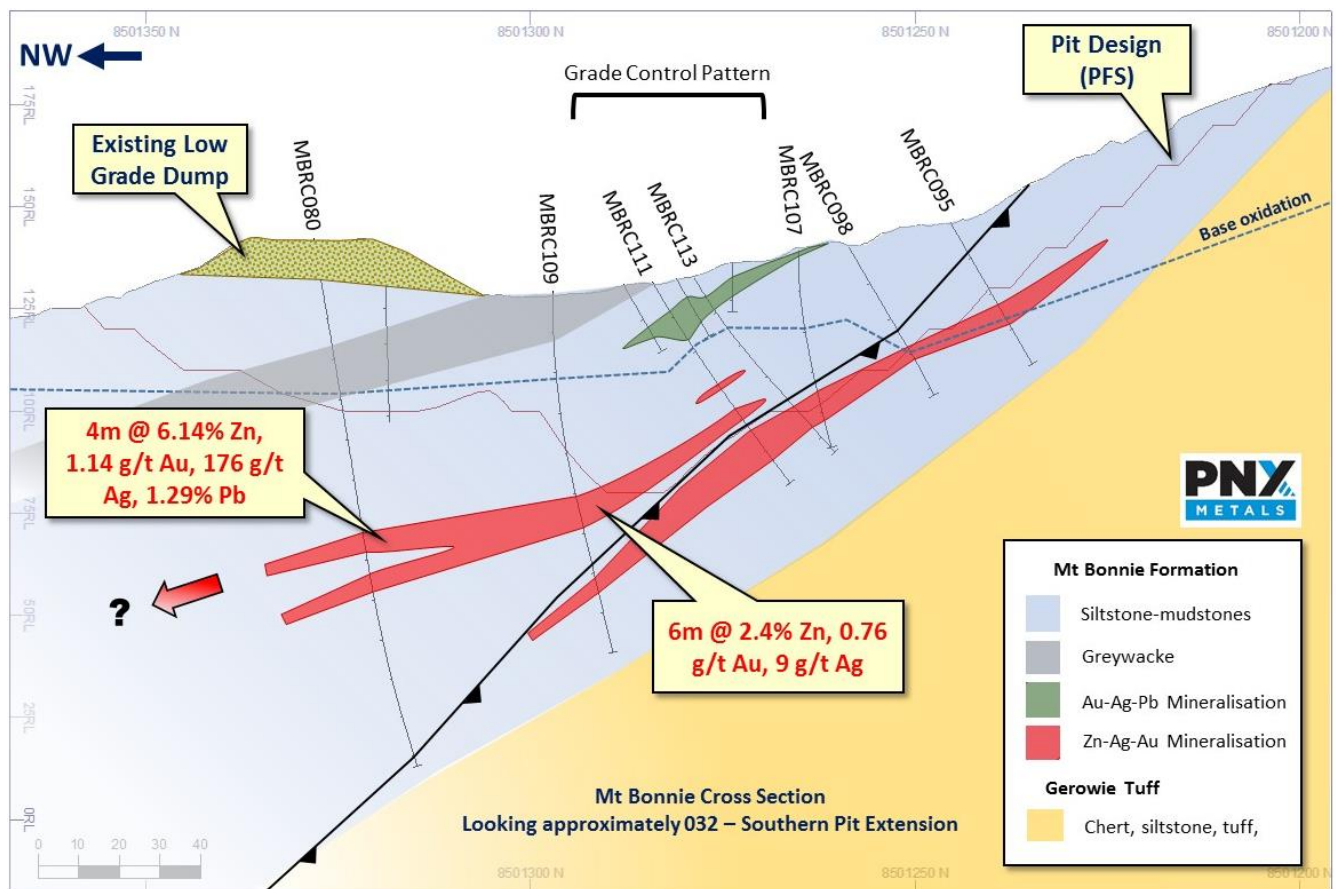
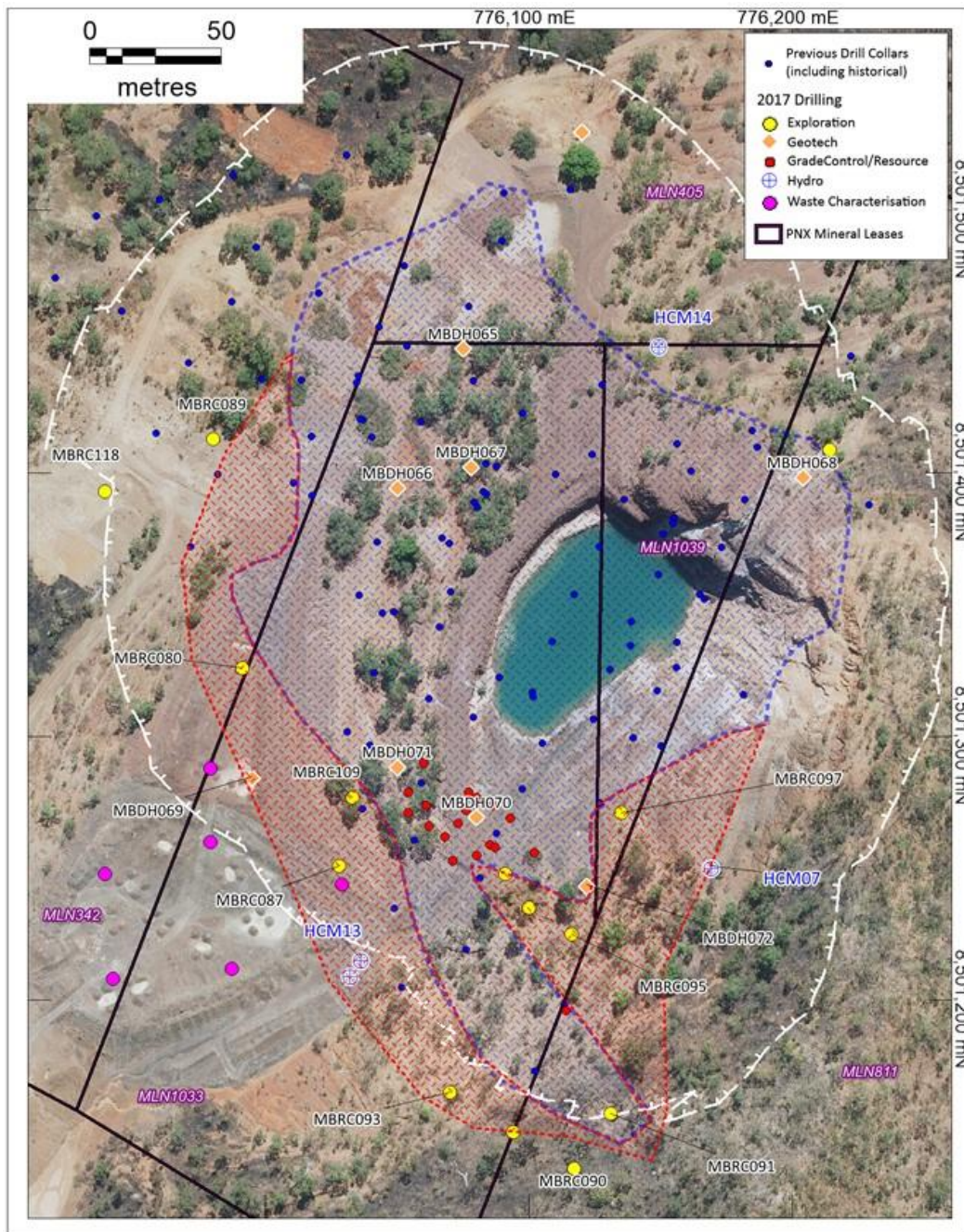


Figure 1: Mt Bonnie X-section showing new mineralisation in MBRC080



Additional works were also completed as follows;

- Hydrogeological test bores successfully installed and hydraulic testing and water quality testing completed satisfactorily.
- Waste rock characterisation samples collected to be geochemically analysed this quarter.
- Structural and geotechnical data collected to build on the information already available for the pit wall stability analysis.
- Additional metallurgical samples generated for ongoing locked cycle and variability analysis aimed at continuing to improve metal recoveries, concentrate grades and rejection of deleterious elements.



**Figure 2: Drilling at Mt Bonnie - blue hashed area is the previous resource estimate projected to surface, red hashed area is an estimate of the new mineralisation projected to surface. White is the boundary of the current pit shell.**

## About PNX's Projects

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 3).

As announced on 31 January 2018 (refer ASX release for full details), PNX executed an agreement with a subsidiary of Kirkland Lake Gold Ltd to acquire 4 mineral leases at Fountain Head, thereby securing the preferred site for the Project's proposed processing plant and tailings facility.

A DFS is currently underway on the Project, following the successful completion of a Pre-Feasibility Study ('PFS') in July 2017<sup>2</sup> which confirms Hayes Creek to be a promising future low-cost, high margin zinc and precious metals mine that could create significant value for the Company's shareholders. The DFS is expected to provide increased confidence in all aspects of the Project as well as investigate opportunities to improve overall Project economics thereby increasing the prospect of favourable development finance terms and structure. It is expected to be completed later in 2018.

The PFS forecasts the Project to generate an NPV<sub>10</sub> of \$133 million, based on net smelter revenue from the sale of zinc and precious metals concentrates of \$628 million (based on consensus views as to future metals prices and exchange rates) over a 6.5 year mine life through annual production of 18,200t zinc, 14,700oz gold, and 1.4Moz silver (39,100t of zinc equivalent). With a low \$58 million initial capital expenditure requirement, the Project is forecast to have a 73% IRR, and very short pay-back period of 15 months.

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

It is envisaged that the Project can be ready for development in 2020 and will directly employ approximately 130 people during operations.

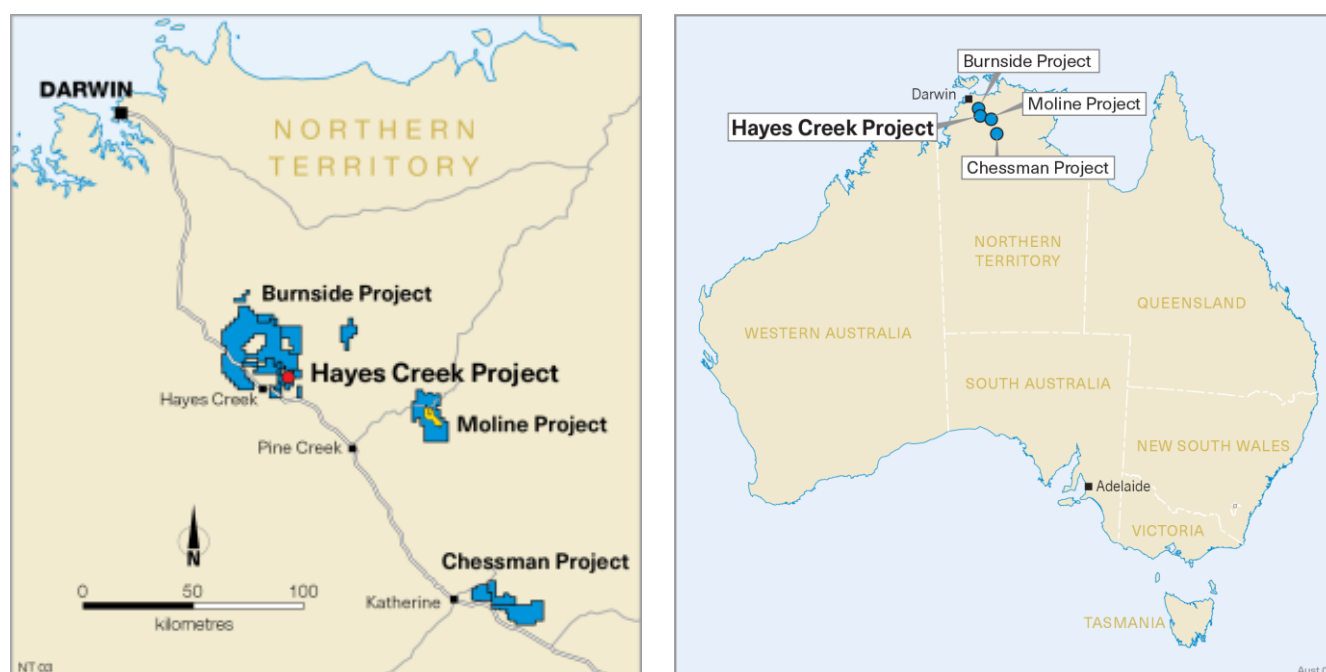


Figure 3: NT Project locations

<sup>2</sup> Refer ASX announcement 12 July 2017 for full details. The material assumptions underpinning the production targets and the forecast financial information derived from the production targets continue to apply and have not materially changed.

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**Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Andrew Bennett, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Bennett 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 Bennett 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.

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For further information please visit the Company's website [www.pnxmetals.com.au](http://www.pnxmetals.com.au) or contact us:

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**Table 1** Drill program hole location and status, sections highlighted in yellow show new mineralisation outside existing resource

H = Hydro, G = Geotech, S = Sterilisation, W = Waste Characterisation, E = Exploration, R = Resource Definition, C = Grade Control, T = Tailings

Hole ID	Type	East MGA	North MGA	RL	Dip	Azi MGA	Total Depth		From	To	Int.	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	AuEq (g/t)*	ZnEq (%)*
HCT01	RC (H)	776001	8501784	119	-90		25	not assayed										
HCT02B	RC (H)	776032	8501210	139	-90		79	not assayed										
HCM05	RC (H)	775847	8501538	119	-90		18	NSI										
HCM06	RC (H)	776375	8501392	131	-90		36	NSI										
HCM07	RC (H)	776169	8501251	166	-90		58		19	20	1	0.17	0.5	1.20	0.17	0.11	1.60	1.70
HCM08	RC (H)	776349	8501117	146	-90		30	NSI										
HCM09	RC (H)	776164	8500938	156	-90		49	NSI										
HCM10	RC (H)	775889	8500629	143	-90		42	NSI										
HCM11	RC (H)	776361	8500481	156	-90		42	NSI										
HCM12	RC (H)	776012	8501795	119	-90		25	NSI										
HCM13	RC (H)	776036	8501216	139	-90		67		2	3	1	1.94	26.0	0.18	0.28	0.05	2.72	2.89
								and	13	15	2	0.30	67.0	0.15	0.79	0.04	1.87	1.99
									25	31	6	0.09	42.7	1.30	0.37	0.03	2.17	2.31
									53	55	2	0.65	0.5	1.92	0.04	0.07	2.62	2.79
HCM14	RC (H)	776149	8501449	139	-90		72	NSI										
HCM15	RC (H)	775937	8501094	137	-90		55	NSI										
HCM16	RC (H)	776146	8504691	117	-90		100	not assayed										
HCM17	RC (H)	776250	8504519	113	-90		120	not assayed										
HCM18	RC (H)	776212	8504369	114	-90		24	not assayed										
HCM19	RC (H)	776139	8504411	114	-90		100	awaiting results										
HCM20	RC (H)	776037	8504547	116	-90		114	NSI										
HCM21	RC (H)	776145	8504507	113	-90		100		10	13	3	0.11	80.3	0.26	0.02	0.04	1.60	1.70
									34	35	1	0.19	0.0	1.64	0.00	0.00	1.74	1.85
									90	93	3	2.72	13.0	0.01	0.01	0.01	2.94	3.12
								EOH	99	100	1	18.53	26.0	0.32	0.22	0.01	19.34	20.54
MBDH064	DD (G)	776119	8501534	123	-60	205	95	not assayed										
MBDH065	DD (G)	776073	8501453	124	-60	25	110	NSI										
MBDH066	DD (G)	776046	8501398	125	-60	122	115		60	90	30	1.41	165.0	5.52	1.28	0.27	10.18	10.81
								incl	62	74	12	2.32	324.1	10.12	2.79	0.45	18.82	19.99
MBDH067	DD (G)	776078	8501407	130	-70	218	100		72	97	25	1.17	82.9	3.62	0.71	0.32	6.79	7.21
								incl	77	82	5	1.27	276.8	6.96	1.87	0.43	13.62	14.46
MBDH068	DD (G)	776203	8501403	161	-60	214	32	NSI										
MBDH069	DD (G)	775994	8501287	143	-60	32	105		76	77	1	1.48	305.0	7.68	1.88	0.31	14.67	15.58
									79	81	2	2.51	54.7	0.03	0.03	0.00	3.35	3.56
MBDH070	DD (G)	776080	8501271	137	-60	122	60		11	13	3	1.74	136.3	0.09	3.40	0.44	6.38	6.77
									42	53	11	2.57	35.5	2.48	0.11	0.25	5.99	6.36

Hole ID	Type	East MGA	North MGA	RL	Dip	Azi MGA	Total Depth		From	To	Int.	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	AuEq (g/t)*	ZnEq (%)*
MBDH071	DD (G)	776050	8501288	131	-60	122	75		15	23	8	0.47	119.4	3.88	1.40	0.09	6.71	7.13
								incl	17	21	3	0.93	208.1	8.61	2.61	0.14	13.60	14.44
								and	27	29	2	0.11	26.0	1.40	0.37	0.04	2.06	2.19
								and	39	45	6	0.26	43.7	2.86	0.33	0.04	3.84	4.07
								and	46	62	16	2.70	18.1	5.47	0.29	0.32	8.92	9.48
								incl	57	61	4	5.82	71.6	7.62	0.95	0.45	15.43	16.38
								and	68	74	6	0.43	3.0	1.28	0.19	0.03	1.84	1.95
MBDH072	DD (G)	776120	8501243	147	-60	122	45		32	40	8	1.07	4.1	0.48	0.04	0.06	1.73	1.84
MBRC073	RC (S)	775830	8501345	121	-60	122	102	NSI										
MBRC074	RC (S)	775777	8501160	127	-60	122	94	NSI										
MBRC075	RC (W)	775938	8501247	140	-90		19		0	3	3	0.67	59.3	0.09	0.29	0.06	1.87	1.99
MBRC076	RC (W)	775944	8501208	141	-90		19		0	3	3	0.56	30.0	0.14	0.27	0.08	1.42	1.51
MBRC077	RC (W)	775986	8501214	141	-90		19		0	8	8	1.28	41.3	0.18	0.66	0.09	2.54	2.70
MBRC078	RC (W)	775976	8501259	141	-90		73		0	10	10	1.04	29.2	0.16	0.35	0.05	1.90	2.02
MBRC079	RC (W)	775976	8501293	143	-90		19		0	3	3	0.50	11.7	0.22	0.36	0.07	1.18	1.26
MBRC080	RC (E)	775991	8501316	142	-80	122	133		0	1	1	1.51	43.0	0.17	0.53	0.07	2.68	2.85
									73	77	4	1.14	175.8	6.14	1.29	0.11	10.32	10.96
								incl	74	76	2	1.92	304.0	10.28	2.11	0.17	17.37	18.45
									86	88	2	0.36	42.0	0.57	0.35	0.01	1.70	1.80
MBRC081	RC (T)	775984	8500777	141	-90		20	NSI										
MBRC082	RC (T)	776007	8500730	141	-90		60	NSI										
MBRC083	RC (S)	775762	8500885	143	-60	122	66	NSI										
MBRC084	RC (S)	776225	8500790	143	-60	122	66	NSI										
MBRC085	RC (S)	776243	8500931	150	-60	122	66	NSI										
MBRC086	RC (S)	776411	8500843	153	-60	122	72	NSI										
MBRC087	RC (E)	775979	8501413	123	-90		91		0	9	9	0.57	30.2	0.16	0.46	0.08	1.54	1.63
									70	79	9	1.47	25.2	0.41	0.12	0.01	2.31	2.46
MBRC088	RC (W)	776022	8501244	140	-60	120	48		0	8	8	0.66	35.5	0.17	0.49	0.09	1.77	1.88
MBRC089	RC (E)	775979	8501413	123	-60	122	129		88	95	7	2.24	81.1	0.28	0.32	0.01	3.87	4.11
								incl	93	94	1	12.83	14.0	0.05	0.06	0.02	13.16	13.98
									98	101	3	0.25	62.3	1.18	0.52	0.03	2.57	2.73
									107	108	1	1.02	99.0	0.41	0.26	0.01	2.98	3.17
MBRC090	RC (E)	776121	8501139	176	-90		30	NSI										
MBRC091	RC (E)	776132	8501156	175	-90		42		1	11	10	1.32	15.0	0.32	0.35	0.16	2.35	2.49
MBRC092	RC (E)	776094	8501153	166	-90		36	NSI										
MBRC093	RC (E)	776069	8501167	156	-90		48		26	27	1	0.89	25.0	0.24	0.51	0.17	2.08	2.21
MBRC094	RC (R)	776112	8501195	158	-90		36		23	25	2	1.51	41.5	0.13	0.44	0.10	2.66	2.82
MBRC095	RC (E)	776118	8501225	146	-60	122	40		23	29	6	0.89	5.8	0.55	0.08	0.04	1.61	1.71
MBRC096	RC (C)	776108	8501254	144	-60	122	48		6	7	1	0.68	72.0	0.22	1.51	0.12	2.90	3.08
									36	38	2	1.35	0.0	0.83	0.07	0.26	2.71	2.87
									44	45	1	0.45	0.0	1.98	0.02	0.01	2.34	2.48



Hole ID	Type	East MGA	North MGA	RL	Dip	Azi MGA	Total Depth		From	To	Int.	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	AuEq (g/t)*	ZnEq (%)*
MBRC097	RC (E)	776135	8501271	150	-60	122	40		14	17	3	3.67	18.7	0.31	0.09	0.28	4.86	5.16
									23	24	1	0.56	8.0	0.75	0.04	0.01	1.42	1.51
MBRC098	RC (E)	776096	8501236	140	-60	122	42		1	2	1	1.61	-	-	-	-	-	-
									28	31	3	0.81	5.3	0.24	0.10	0.14	1.46	1.55
MBRC099	RC (C)	776078	8501273	137	-90		19		7	9	2	0.25	71.0	0.06	1.13	0.09	2.08	2.21
MBRC100	RC (C)	776074	8501267	137	-90		18		7	9	2	0.42	50.0	0.06	2.30	0.19	2.70	2.87
MBRC101	RC (C)	776085	8501259	138	-90		13		0	10	10	2.86	162.8	0.17	2.61	0.33	7.32	7.77
MBRC102	RC (C)	776087	8501259	138	-60	122	12		1	8	7	3.59	174.6	0.24	2.41	0.35	8.24	8.75
MBRC103	RC (C)	776093	8501270	137	-60	122	14		8	10	2	1.55	306.5	0.08	3.85	0.25	8.45	8.97
MBRC104	RC (C)	776086	8501274	137	-60	122	17		4	5	1	1.21	22.0	0.15	0.73	0.08	2.19	2.32
									10	15	5	2.19	226.6	0.10	3.31	0.25	7.69	8.16
MBRC105	RC (C)	776079	8501277	136	-60	122	19		10	19	9	0.21	103.0	0.48	0.49	0.37	3.15	3.34
MBRC106	RC (C)	776076	8501280	136	-90	122	22		9	15	6	0.05	119.3	0.02	0.26	0.03	1.98	2.10
MBRC107	RC (E)	776089	8501249	139	-90		49		35	40	5	1.37	0.0	3.28	0.15	0.27	5.09	5.41
MBRC108	RC (C)	776076	8501257	137	-90		13		1	8	7	1.52	304.4	0.11	1.25	0.12	6.88	7.30
MBRC109	RC (E)	776035	8501276	129	-90		90		52	58	6	0.76	9.0	2.40	0.20	0.15	3.56	3.78
									71	72	1	0.14	0.0	1.68	0.01	0.01	1.74	1.84
									74	75	1	0.09	2.0	1.54	0.20	0.04	1.76	1.87
MBRC110	RC (C)	776064	8501265	132	-60	122	16		8	9	1	0.74	150.0	0.04	0.71	0.10	3.50	3.71
MBRC111	RC (C)	776059	8501268	132	-60	122	60		10	12	2	0.20	80.0	0.03	0.51	0.05	1.74	1.85
									15	17	2	0.14	42.5	0.77	0.19	0.07	1.71	1.82
									30	31	1	0.93	28.0	1.65	0.31	0.04	3.11	3.31
									44	45	1	0.80	0.0	0.80	0.02	0.16	1.89	2.01
MBRC112	RC (R)	776054	8501271	131	-60	122	19		12	15	3	0.00	124.3	0.10	0.32	0.06	2.17	2.30
MBRC113	RC (R)	776064	8501256	133	-60	122	55		6	8	2	1.12	188.5	0.04	1.26	0.11	4.73	5.02
									40	47	7	0.42	6.7	0.99	0.05	0.08	1.63	1.73
MBRC114	RC (C)	776063	8501274	132	-60	122	19		8	9	1	0.04	202.0	0.04	0.29	0.08	3.29	3.50
MBRC115	RC (C)	776054	8501279	131	-60	122	25		14	20	6	0.58	210.0	0.08	1.46	0.08	4.56	4.84
MBRC116	RC (C)	776058	8501290	131	-60	122	28		7	14	7	0.12	138.7	0.11	1.65	0.09	3.22	3.42
MBRC117	RC (E)	776212	8501408	160	-90		65	NSI										
MBRC118	RC (E)	775942	8501390	122	-60	122	127		102	107	5	0.25	58.4	1.16	0.33	0.03	2.40	2.55
MBAC119	AC (T)	775982	8500768	141	-90		12	NSI										



## Notes relating to Table 1

Due to effects of rounding, the total may not represent the sum of all components.

Significant Intersections reported in the above table are gold equivalent (AuEq) > 0.7 g/t and >1m thickness. Metallurgical recoveries and metal prices have been applied in calculating gold equivalent grades.

Metals	Unit	Price	Recovery
Zn	USD / t	2,555	80%
Pb	USD / t	2,033	60%
Cu	USD / t	6,653	60%
Ag	USD / troy ounce	19	70%
Au	USD / troy ounce	1,236	51%

In order to assess the potential value of the total suite of minerals of economic interest, formulae were developed to calculate metal equivalency for the gold and zinc (see below). Metal prices were derived from average consensus forecasts for the period 2017 through 2021 and are consistent with those used in PNX's March 2016 Scoping Study.

Metallurgical recovery information was sourced from test work completed at the nearby Iron Blow deposit, and the Mt Bonnie deposit, including historical test work. Mt Bonnie and Iron Blow have similar mineralogical characteristics and are a similar style of deposit, hence the assumption that metallurgical characteristics are similar between the two deposits is considered reasonable by the Competent Person. The formulae below were applied to the estimated constituents to derive the metal equivalent values:

Gold Equivalent (g/t) = (Au grade (g/t) \* (Au price per ounce/31.10348) \* Au recovery) + (Ag grade (g/t) \* (Ag price per ounce/31.10348) \* Ag recovery) + (Cu grade (%) \* (Cu price per tonne/100) \* Cu recovery) + (Pb grade (%) \* (Pb price per tonne/100) \* Pb recovery) + (Zn grade (%) \* (Zn price per tonne/100) \* Zn recovery) / (Au price per ounce/31.10348).

Zinc Equivalent (%) = (Au grade (g/t) \* (Au price per ounce/31.10348) \* Au recovery) + (Ag grade (g/t) \* (Ag price per ounce/31.10348) \* Ag recovery) + (Cu grade (%) \* (Cu price per tonne/100) \* Cu recovery) + (Pb grade (%) \* (Pb price per tonne/100) \* Pb recovery) + (Zn grade (%) \* (Zn price per tonne/100) \* Zn recovery) / (Zn price per tonne/100)

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are derived from HQ or PQ diamond core samples cut in ½ or ¼ for sampling purposes, and reverse circulation (RC) chips which are cone-split for sampling</li> <li>All core and chips have been geologically logged by the onsite geologist</li> <li>Sampling interval match geological boundaries for core and are at 1m intervals for RC chips</li> <li>Sample weights were typically 2-3 kg</li> <li>Magnetic susceptibility measurements were taken using KT-10 meter</li> <li>Field portable XRF measurements taken for 34 elements (Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Rb, Sr, Zr, Mo, Ag, Cd, Sn, Sb, W, Hg, Pb, Bi, Th, U, Pd, S, Ba, K, Cs, Sc, Se, Te, and Au) using an Niton XL3T 950 device</li> <li>Mineralised intercepts have been verified using the field portable XRF instrument which gives a qualitative measure of the relevant elemental abundances</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>All RC drilling was from surface with 5.25" bit with a face sampling hammer. Drilling was carried out by Geo Drilling Pty Ltd, Northern Territory using a truck mounted Schramm 450 drilling rig</li> <li>All diamond drilling was carried out by WDA Drilling Services Pty Ltd, using an Alton HD900 drilling rig</li> <li>Camteq Proshot and Globaltech Pathfinder multi-shot survey tools were used at regular intervals (approximately every 30m downhole) as instructed by PNX's on-site geologist to monitor the downhole position</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential</li> </ul>	<ul style="list-style-type: none"> <li>Core recovery was measured for each core run (typically 3 to 6 m), with core recoveries averaging about 98%.</li> <li>Sample recovery was estimated visually by inspecting the size of the sample collected, and recorded in the geological log at 1m intervals. Recovery of the tailings dam clays was poor, but will have no impact on mineral resource estimates</li> </ul>

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	<i>loss/gain of fine/coarse material.</i>	<ul style="list-style-type: none"> <li>No relationship has yet been established between sample recovery and grade. The vast majority of RC samples were dry, but when samples became wet, there was unavoidable loss of fines (typically 5-10% of the sample weight). This has the possibility of introducing a sample bias. Geological logs include the wet or dry nature of the sample</li> </ul>
Logging	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All core has been geologically and geotechnically logged by the onsite geologist,</li> <li>RQD was measured for each metre</li> <li>All core has been photographed prior to cutting for assay</li> <li>Intervals with like geological characteristics are logged in detail, with sample boundaries corresponding to changes in geology</li> <li>All RC chips have been geologically logged by the onsite geologist at 1m intervals and chip trays have been retained and photographed</li> <li>Log fields include lithology, colour, grainsize, texture, veining, sulphide mineralisation, alteration, strength, recovery and sample moisture</li> <li>Logs have been aided by the use of magnetic susceptibility and portable XRF measurements on each metre sample</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p><b>CORE:</b></p> <ul style="list-style-type: none"> <li>All core was cleaned and metre intervals marked up prior to cutting and sampling</li> <li>All core samples to be submitted for assay comprised sawn quarter or half core samples</li> <li>After cutting the half or three quarter core remaining in the trays contains the orientation and metre marks</li> <li>Samples of all mineralised intercepts and their surrounding ~10m are submitted for assay. Intervals submitted for assay are based on visual and portable XRF readings</li> <li>Cone splitting at the drill rig provides about a 1/8<sup>th</sup> fraction of the total drilled portion for assay</li> </ul> <p><b>RC CHIPS:</b></p> <ul style="list-style-type: none"> <li>All samples were cone split. The splitter was blown with compressor air and cleaned at the end of each rod (6m) to reduce sample contamination</li> <li>All mineralised intercepts and their surrounding ~10m are submitted for assay. Intervals submitted for assay are based on visual and</li> </ul>

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		<p>portable XRF readings</p> <ul style="list-style-type: none"> <li>• Duplicate field samples were taken each 25<sup>th</sup> sample by using a dual outlet on the cone splitter to check representivity of sample</li> <li>• Individual samples are placed in individual sample bags and clearly identified prior to submission to the laboratory for assay</li> <li>• The sample sizes are appropriate for the grain size of the material being sampled</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were submitted to Northern Australian Laboratories (NAL) in Pine Creek, Northern Territory</li> <li>• After crushing and pulverizing to – 100 microns, each sample is roll mixed on a rubber mat after pulverizing, a barren flush is pulverized between each sample, the samples are subjected to a four acid digest (considered a total digest for the elements of interest) and read using ICP-MS and OES for a suite of elements (lab methods G400 and G340 for ore grade samples). A sub-sample of the pulverized sample is also submitted for conventional fire assay for gold (FA50).</li> <li>• Density determinations have been undertaken on core using the Archimedes method</li> <li>• PNX submitted certified reference materials and duplicates samples every 25<sup>th</sup> sample and also submitted blank quartz material to check laboratory analytical and sample preparation quality at a rate of 3 blanks per 100</li> <li>• NAL have internal QAQC procedures, including certified reference materials, duplicates and blanks, results of which are reviewed by NAL prior to reporting to PNX</li> <li>• Visual assessment of the standards, blanks and duplicates shows that a high degree of confidence can be placed in the accuracy and precision of the assay data</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No twinned holes have been carried out. A statistical comparison between RC samples and diamond core will be undertaken during resource estimation</li> <li>• External laboratory assays are routinely carried out prior to resource estimation. No bias has been identified in any of the valuable elements to date</li> <li>• All logging has been carried out using standardised logging codes to professional standards. All geological, geotechnical and sampling information has been entered into a digital database which has been validated for sample overlaps and missing data</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>All hard copies of information are stored in a secure compound at site. Digital copies are held on site and at PNX's Adelaide office on a backed-up server</li> <li>No adjustments to assays have been made. Where gold assay data has been repeated by the lab, the average value has been reported in the significant intersection calculations.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Downhole surveys have been collected by at approximate 30m intervals downhole and manually adjusted where magnetic interference is encountered in pyrrhotite bearing mineralisation</li> <li>The drill collars were located using a Garmin GPS Map 60 hand-held GPS unit and verified using a second unit. The drill hole locations are considered accurate to within 5m and will be picked up with differential GPS prior to resource estimation. All coordinates are quoted using the GDA94 datum and projected to MGA zone 52</li> <li>Topography has been accurately measured using a drone survey over the area in 2014</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The drill spacing is irregular, due to the irregular topography and historical mining activities; however the overall drill spacing within the mineralised zone is approximately 15 x 20m, with the current program including a small close-spaced grade control pattern at about 6 x 6m,</li> <li>The sample spacing is sufficient to establish the grade continuity. Cored sample intervals are determined from geological contacts and then at metre intervals within a particular unit. Where isolated samples are less than one metre in width they have been cut to geological boundaries. RC samples are collected at routine 1 metre downhole intervals, which is appropriate for RC drilling and for the thickness of the known mineralisation</li> <li>No sample compositing has been carried out in ore zones. In waste zones, up to 5m composite have been sampled by spearing the original 1m sample. The waste composites will be used for waste rock characterisation studies and geological interpretation</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a</li> </ul>	<ul style="list-style-type: none"> <li>Most drill holes are oriented to intersect mineralisation close to perpendicular to the interpreted orientation of the main zone of mineralisation. The mineralisation may be folded in some areas, which could result in the possibility of drill holes being not optimally orientated. Some holes in the current program were deliberately</li> </ul>



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	<i>sampling bias, this should be assessed and reported if material.</i>	<ul style="list-style-type: none"> <li>oriented oblique to mineralisation as their purpose was not for resource definition but for geotechnical and structural control</li> <li>Any biasing effect is yet to be determined</li> </ul>
Sample security	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Logging, cutting and sampling has been carried out by PNx personnel who are always on site during drilling, and samples are submitted to the laboratory by the same people</li> <li>No third parties have been allowed access to the samples</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits have been carried out at this point</li> <li>A visual comparison of the assay results with the field portable XRF shows an acceptable correlation with lab results</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Iron Blow deposit is located within MLN214, MLN341, MLN343 and MLN349 which covers an area of some 51.07 hectares,</li> <li>The Mt Bonnie deposit is located within MLNs 1033, 1039, 342, 405 and 811, with surrounding tenure for infrastructure including MLNs 346, 459 and ML30589</li> <li>The deposits and drilling is situated within Perpetual Pastoral Lease 1217, NT Portion 07122 known as Douglas Station. PNx have an access agreement with the station owner</li> <li>The Mineral Leases are in good standing and no known impediments exist</li> <li>A 'Sale and Purchase Agreement and Heads of Agreement for Farm In and Joint Venture Agreement' (Agreement) between PNx and Newmarket Gold NT Holdings Pty Ltd (Newmarket) was signed on 15 August 2014 for the 100% acquisition by PNx of the mineral leases containing the Iron Blow and Mt Bonnie deposits. Newmarket retains a 2% royalty on any silver and gold production from those deposits</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration at Iron Blow has consisted of oxide mining, geological mapping, surface geochemical sampling and diamond drilling</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• GBS and Newmarket carried out limited drilling in 2007 and 2011 respectively. Cores for these holes have been inspected and relogged (thereby verified) by PNX for consistency</li> <li>• Extensive exploration on the broader tenement package by previous explorers has focused on gold exploration. Numerous base metal prospects have been identified in surface geochemical sampling by these explorers that have not been adequately followed up due to the lower gold values</li> <li>• Newmarket completed an airborne EM (VTEM) survey over parts of the tenement package. Numerous conductive rocks prospective for base metals have been identified by PNX for further ground truthing and follow-up work</li> </ul>
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Iron Blow and Mt Bonnie are stratabound base metal, silver and gold massive sulphide deposits. They are located within the Mount Bonnie Formation of the South Alligator Group, within the Pine Creek Orogen of the Northern Territory. Both deposits appear to be located at similar stratigraphic positions on opposite limbs of the roughly north-south trending Margaret Syncline</li> <li>• Mineralisation is hosted within carbonaceous siltstones and mudstones within the lower portion of the Mount Bonnie Formation. It appears to have formed early in the basin development and has associated footwall alteration consisting of variable proportions of chlorite, amphibole, calcite, silica, and talc with associated vein and disseminated sulphides. The mineralisation appears to be consistent with a volcanic hosted massive sulphide deposit (VHMS) characteristics, or could possibly be related to carbonate replacement style. Further work is required to determine the exact association.</li> <li>• The massive sulphide mineralisation is dominantly massive pyrrhotite with zones of coarse-grained, high-grade sphalerite, arsenopyrite, chalcopyrite, with lesser galena. Significant silver and gold grades are also present in previous drillholes within the massive sulphide and within adjacent quartz-veined and brecciated sediments containing significant disseminated and stringer sulphides, which is possibly the vent zone typical of VHMS deposits</li> <li>• Mineralisation at both Iron Blow and Mt Bonnie is structurally complex and appears to be deformed by the regional deformation events. Structural mapping and logging is continuing to determine the precise nature, timing, and geometry of the mineralised bodies</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to table and diagram in main announcement for drill summary details</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Reported results are interval length weighted</li> <li>No high cut-off grades have been applied</li> <li>Reported intersections are based on sharp grade boundaries and may include narrow intervals of sub-ore grade mineralisation which would be considered as internal dilution if mined by open pit methods</li> <li>Reported intersections are reported as significant if they occur at a minimum of 0.7 g/t Au, calculated on an equivalence basis. This is consistent with the minimum cut-off grade reported in previous announcements. Mineralised intersections were observed to be coherent and have sharp grade boundaries, but may include narrow intervals of sub-ore grade mineralisation which would be considered as internal dilution if mined by open pit methods</li> <li>Higher grade mineralised zones have been reported if coherent downhole intervals =&gt;6g/t Au (equivalent) is encountered</li> <li>Metal equivalent grades assumptions are calculated using the following formula: <b>Au Eq g/t</b> = [(Au grade g/t x (Au price oz/31.1034768) x Au recovery) + (Ag g/t x (Ag price oz/31.1034768) x Ag recovery) + (Cu grade % x (Cu price per t/100) x Cu recovery) + (Pb grade % x (Pb price per t/100) x Pb recovery) + (Zn grade % x (Zn price per t/100) x Zn recovery)] / (Au price per oz/31.1034768) x Au recovery. <b>Zn Eq %</b> = [(Au grade g/t x (Au price oz/31.1034768) x Au recovery) + (Ag g/t x (Ag price oz/31.1034768) x Ag recovery) + (Cu grade % x (Cu price per t/100) x Cu recovery) + (Pb grade % x (Pb price per t/100) x Pb recovery) + (Zn grade % x (Zn price per t/100) x Zn recovery)] / (Zn price per t/100) x Zn recovery</li> <li>Metal prices and recoveries for equivalent value calculations are</li> </ul>

Criteria	JORC Code explanation	Commentary
		detailed in the main body of the report
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• All significant intersections are quote as downhole widths</li> <li>• The core to bedding relationships suggest that the true widths of the massive sulphide zones are very close to true widths</li> <li>• The geometry of the mineralisation is approximately 45deg NW at Mt Bonnie and most of the drill holes have been drilled towards the SE perpendicular to the mineralisation</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to the main body of this announcement</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All matters of importance have been included</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant information has been included</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Detailed geological interpretations will be completed following modelling of the drilling and incorporated with historical data and mapping results to estimate a mineral resource</li> <li>• PNX are undertaking DFS level studies (expected completion 2<sup>nd</sup> half 2018) looking at future project development</li> </ul>