Level 1, 135 Fullarton Road
Rose Park, SA 5067
Australia

Telephone +61 (0) 8 8364 3188
Facsimile +61 (0) 8 8364 4288

info@pnxmetals.com.au
www.pnxmetals.com.au

ASX Announcement

03 May 2017

Hayes Creek Mineral Resources exceed 1.1Moz gold equivalent

Highlights

- **Total Mineral Resources at Hayes Creek** (reported in accordance with JORC 2012):
  - **4.1 million tonnes @ 10.93% ZnEq or 8.47g/t AuEq**[1]

    (4.35% Zn, 1.81 g/t Au, 124 g/t Ag, 0.91% Pb, and 0.25% Cu)
  - **Contains 445,000 tonnes of ZnEq or 1.11 million ounces of AuEq**
- **85% in the higher confidence Indicated category**
- **Updated Mineral Resource at Iron Blow occurs from surface to approximately 270 metres with detailed open-pit and underground mining studies underway**
- **Hayes Creek PFS on target to be completed by mid-2017**

Mineral Resource upgraded: PNX Metals Limited (ASX:PNX) is pleased to announce an update to the total Mineral Resources at its 100% owned Hayes Creek Project containing the Iron Blow and Mt Bonnie zinc-gold-silver deposits, which are located on granted Mineral Leases (Figures 1 and 6) within the Pine Creek region of the Northern Territory.

This update follows completion of a Mineral Resource estimate for the Iron Blow deposit reported by independent mining consultancy group CSA Global Pty Ltd ("CSA Global") in accordance with the JORC Code[2] (Table 1). A summary report prepared by CSA Global also forms part of this ASX release (refer Appendix), including JORC Table 1.

PFS on track: Together, the Iron Blow and Mt Bonnie (see ASX release 09 February 2017)[3] deposits form the Hayes Creek Project. The total Mineral Resources are summarised below (Tables 2 and 3) and will be used as the basis for the Preliminary Feasibility Study (PFS) due for completion mid-2017.

The Hayes Creek Project now hosts total Indicated (84.7%) and Inferred (15.3%) Mineral Resources of:

- 4.1 million tonnes containing 177,200 tonnes of zinc, 238,000 ounces of gold, 16.2 million ounces of silver, 37,000 tonnes of lead, and 9,950 tonnes of copper
- This is equivalent to 445,000 tonnes of ZnEq or 1.11 million ounces of AuEq

The Indicated component of the total Project Mineral Resource continues to support the Company's aim of developing a low cost operation capable of generating strong financial returns.

[1] Refer definition of ZnEq (zinc equivalent) and AuEq (gold equivalent) on Page 3

[2] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

[3] All material assumptions and technical parameters underpinning the estimate continue to apply and have not changed materially

Table 1: *Iron Blow Mineral Resources by JORC Classification as at 03 May 2017*

JORC Classification	Lode	AuEq Cut-off (g/t)	Tonnage (Mt)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)	ZnEq (%)	AuEq (g/t)
Indicated	East Lode	1.0	0.80	7.64	1.83	0.30	275	2.90	20.64	15.53
	West Lode	1.0	1.28	4.14	0.33	0.31	60	1.73	8.84	6.66
Total Indicated			**2.08**	**5.49**	**0.91**	**0.30**	**143**	**2.19**	**13.39**	**10.08**
Inferred	East Lode	1.0	0.02	0.48	0.34	0.16	132	6.01	13.65	9.43
	West Lode	1.0	0.02	0.76	0.96	0.13	109	1.02	5.90	4.44
	FW Gold	1.0	0.21	0.25	0.07	0.03	16	2.03	3.48	2.62
	HW Gold	1.0	0.04	0.06	0.09	0.01	6	1.68	2.57	1.94
	Interlode Gold	1.0	0.04	0.21	0.03	0.07	8	1.66	2.79	2.10
	Interlode Base Metal	1.0	0.12	3.52	0.32	0.14	35	0.69	5.87	4.42
Total Inferred			**0.45**	**1.11**	**0.18**	**0.07**	**27**	**1.71**	**4.38**	**3.30**
Total Indicated + Inferred Mineral Resource			**2.53**	**4.71**	**0.78**	**0.26**	**122**	**2.10**	**11.79**	**8.87**
Total Contained Metal (t)				**119,200**	**19,700**	**6,650**	**9.9Moz**	**170.9koz**	**298,000t**	**721.5koz**

Table 2: *Mt Bonnie Resource Mineral Resources by JORC Classification as at 08 February 2017*

JORC Classification	Domain	Cut-off grade	Tonnage (kt)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)	ZnEq (%)	AuEq (g/t)
Indicated	Oxide/Transitional	0.5g/t Au	195	0.94	2.43	0.18	171	3.80	11.50	9.44
Indicated	Fresh	1% Zn	1,180	4.46	0.94	0.23	121	1.02	9.60	7.88
Total Indicated			**1,375**	**3.96**	**1.15**	**0.23**	**128**	**1.41**	**9.87**	**8.11**
Inferred	Oxide/Transitional	0.5g/t Au	32	0.43	1.33	0.29	74	2.28	6.37	5.23
Inferred	Fresh	1% Zn	118	2.91	0.90	0.15	135	0.54	7.61	6.25
Inferred	Ag Zone	50g/t Ag	21	0.17	0.03	0.04	87	0.04	2.36	1.94
Total Inferred			**171**	**2.11**	**0.87**	**0.16**	**118**	**0.80**	6.73	5.53
Total Indicated + Inferred Mineral Resource			**1,545**	**3.76**	**1.12**	**0.22**	**127**	**1.34**	**9.53**	**7.82**
Total Contained Metal (t)				**58,000**	**17,300**	**3,400**	**6.3Moz**	**66.8koz**	**147,000t**	**388.5koz**

Table 3: *Total Hayes Creek Mineral Resources (Iron Blow + Mt Bonnie) by JORC Classification as at 03 May 2017*

JORC Classification	Domain	Cut-off grade	Tonnage (kt)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)	ZnEq (%)	AuEq (g/t)
Total Indicated (84.7%)			**3,455**	**4.88**	**1.01**	**0.27**	**137**	**1.88**	**11.99**	**9.29**
Total Inferred (15.3%)			**622**	**1.39**	**0.37**	**0.10**	**52**	**1.46**	5.03	3.91
Total Indicated + Inferred Mineral Resource			**4,077**	**4.35**	**0.91**	**0.25**	**124**	**1.81**	**10.93**	**8.47**
Total Contained Metal (t)				**177,200**	**37,000**	**10,050**	**16.2Moz**	**237.7koz**	**445,000t**	**1,110koz**

Notes relating to Tables 1, 2 & 3

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

Metallurgical recoveries and metal prices have been applied in calculating zinc equivalent (ZnEq) and gold equivalent (AuEq) grades.

Iron Blow - A mineralisation envelope was interpreted for each of the two main lodes, the East Lode (Zn-Au-Ag-Pb) and West Lode (Zn-Au), and four subsidiary lodes with a 1 g/t AuEq cut-off used to interpret and report these lodes.

Mt Bonnie - Zinc domains are reported above a cut-of grade of 1% Zn, gold domains are reported above a cut-off grade of 0.5 g/t Au and silver domains are reported above a cut-off grade of 50 g/t Ag.

Metals	Unit	Price	Recovery Mt Bonnie	Recovery Iron Blow
Zn	USD / t	2,450	80%	80%
Pb	USD / t	2,100	60%	60%
Cu	USD / t	6,200	60%	60%
Ag	USD / troy ounce	20.50	70%	80%
Au	USD / troy ounce	1,350	55%	60%

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 from external sources for the period 2017 through 2021 and are consistent with those used in PNX's recently updated Mt Bonnie Mineral Resource Estimate.

Metallurgical recovery information was sourced from test work completed at the Iron Blow deposit, including historical test work. Mt Bonnie and Iron Blow have similar mineralogical characteristics and are a similar style of deposit. In PNX's opinion all the metals used in the equivalence calculation have a reasonable potential to be recovered and sold.

PNX has chosen to report both the ZnEq and AuEq grades as although individually zinc is the dominant metal by value, the precious metals are the dominant group by value and will be recovered and sold separately to the zinc.

The formulae below were applied to the estimated constituents to derive the metal equivalent values:

Gold Equivalent (field = "AuEq") (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 * Au recovery)

Zinc Equivalent (field = "ZnEq") (%) = (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 * Zn recovery)

PNX Managing Director James Fox said: "The completion of this favourable Resource update at Iron Blow is another important achievement in the development of the Hayes Creek Project which now contains over 1.1Moz gold equivalent or 445,000 tonnes zinc equivalent. Over 84% of the Mineral resources at the Hayes Creek Project have been categorised as Indicated. Detailed open-pit and underground mining studies are underway. The close proximity of the Project to essential services and infrastructure, and high zinc and gold equivalent grades make for a potentially low cost, high margin operation that features an attractive mix of readily extractable commodities for investors. We look forward to finalising the studies required for the PFS which is on schedule for mid-2017."

Iron Blow Geology & Resources

The Iron Blow Mineral Resource estimate is based on analysis of information collected from numerous diamond and reverse circulation (RC) drilling campaigns and geological mapping from 1906 through to early 2017. PNX has conducted 2 drill programs at Iron Blow since late 2014, most recently a 5,242 metre, 30 hole RC and diamond drill program completed in early January 2017 (Figure 2).

Drilling has delineated two main massive sulphide lodes; an eastern hanging-wall lode defined by its significant zinc-gold-silver-lead mineralisation, and underneath, a broader predominantly zinc-gold rich western footwall lode. Four additional subsidiary lodes were also modelled and reported separately; two gold rich zones located in the hanging-wall to the East Lode and footwall to the West Lode, and two gold and base metal zones delineated between the East and West Lodes (the "interlode" domain).

Importantly, 82.2% of the Mineral Resource is classified in the higher confidence Indicated category. Upon completion of the PFS the Company expects to convert much of this Indicated Mineral Resource to a Probable

Ore Reserve. The majority of the Mineral Resource is comprised of sulphide ore and occurs within 270 metres of surface directly beneath and to the south of the historical oxide pit. The highest base metal and gold grades in the deposit are contained within the two massive sulphide lodes, which have been defined continuously over a strike length of about 250 metres, with true widths between 1 and 30 metres and plunging moderately to the south (Figures 3 and 4). As such, it is likely that a portion of the Mineral Resource will be readily accessible by open pit mining methods and the remainder by underground mining methods. Detailed mining studies are being completed.

The resource model generated through interpretation of the drilling data has shown excellent geological continuity and consistency of mineralisation sufficient to support the Mineral Resource classification levels. Recent drilling has delineated an extension to the western lode to surface which enhances the potential for an initial open-pit in addition to the previously considered underground development. Potential also exists for mineralisation to extend underneath the extent of existing drilling and the Resource estimate. Further drill testing is required to potentially extend these mineralised zones at depth; it is likely that this would occur as part of any future development.

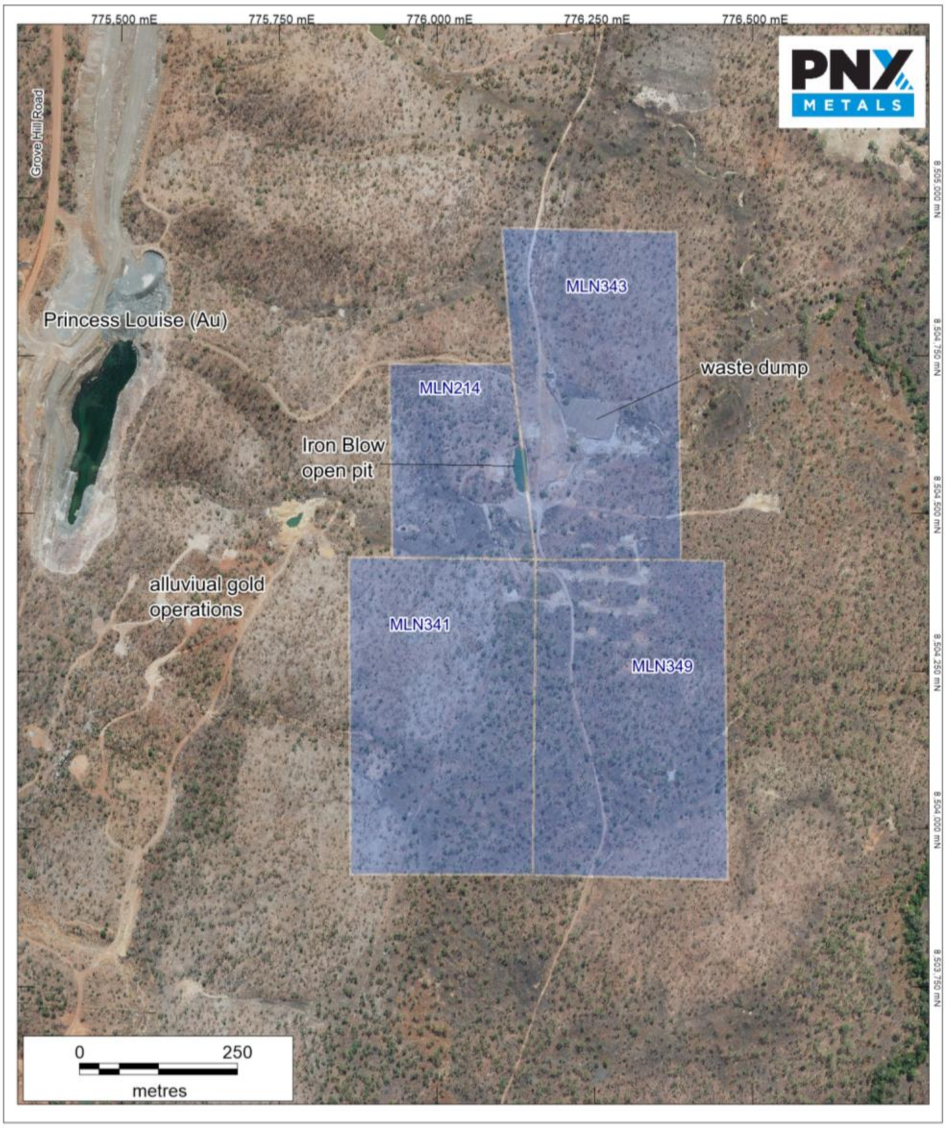

Figure 1: *Iron Blow Mineral Leases and existing infrastructure*

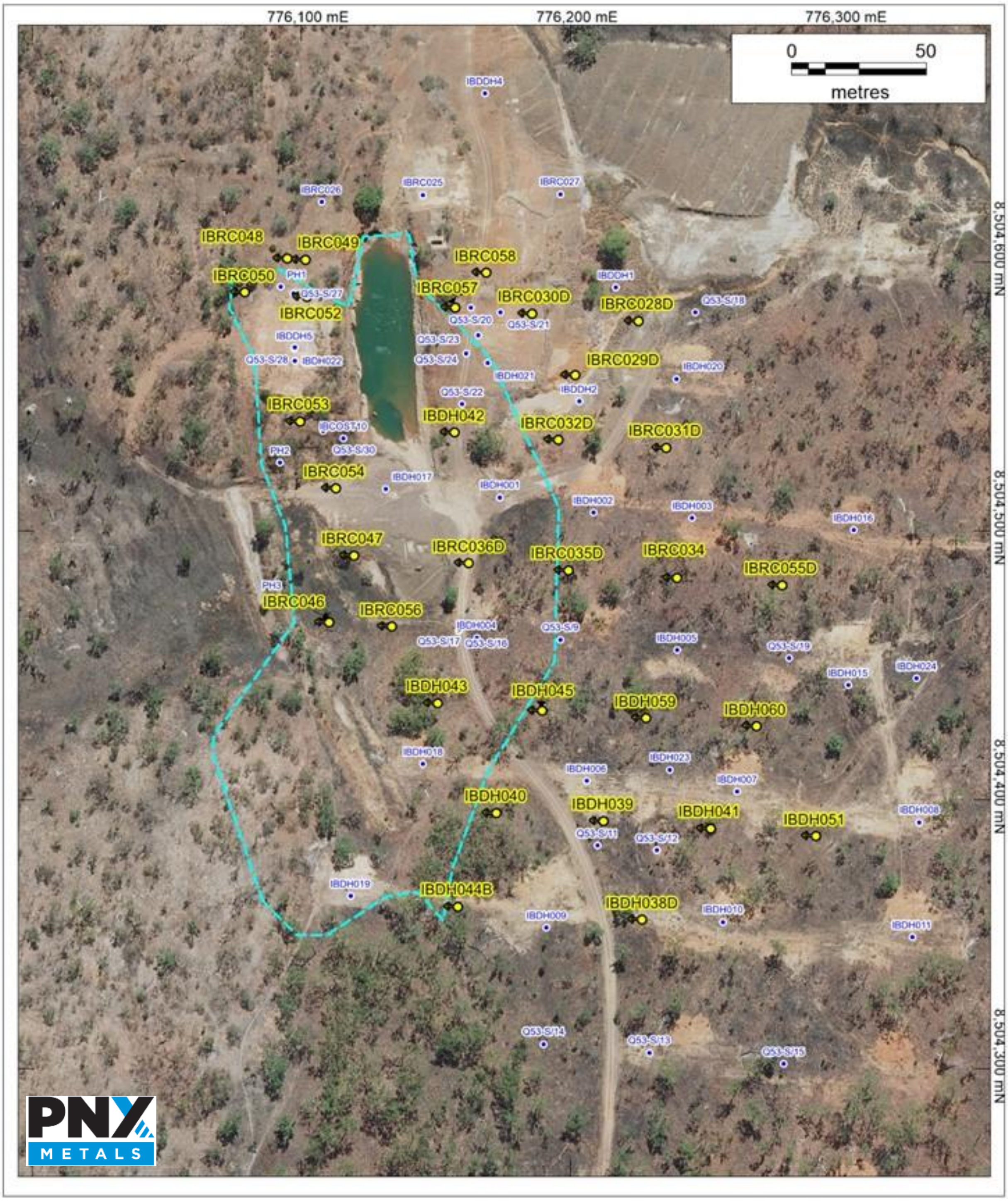

Figure 2: *Iron Blow drill collar plan on aerial photograph with blue hashed line representing the outline of the resource projected to surface*

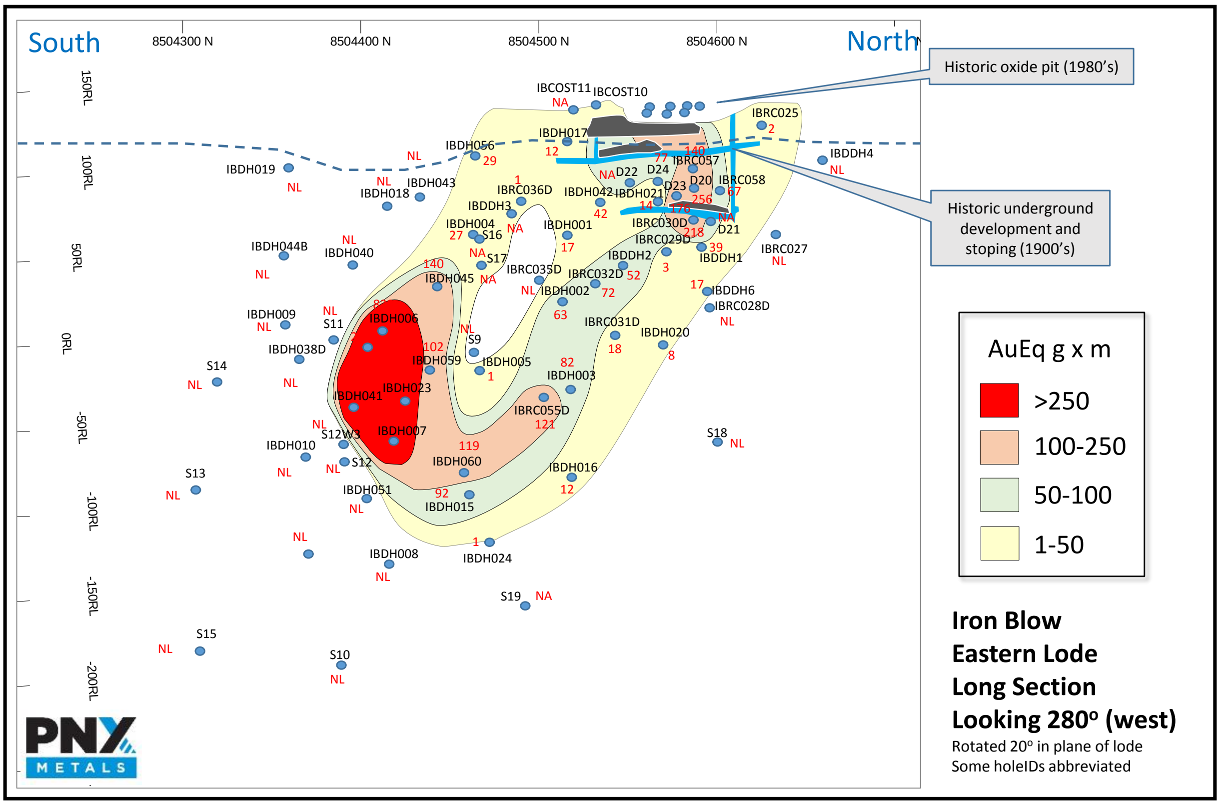

Figure 3: *Iron Blow Eastern Lode long section showing grade x thickness*

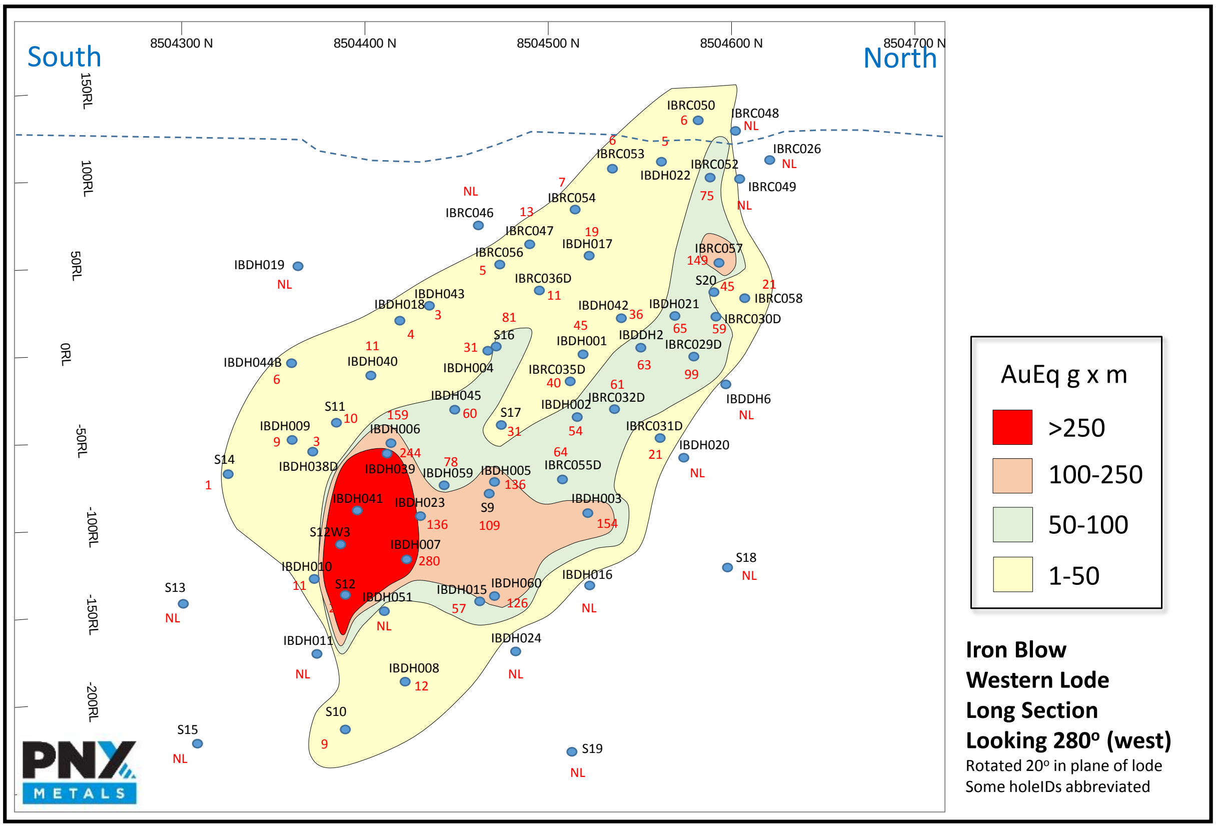

Figure 4: *Iron Blow Western Lode long section showing grade x thickness*

Figure 5: *Iron Blow aerial view (2011) looking east showing low grade stockpile and historic open-pit*

Hayes Creek Pre-Feasibility Study

The Mt Bonnie and Iron Blow deposits form part of the Hayes Creek Project and are located less than 3 km apart on granted Mineral Leases. An updated Mineral Resource was reported for Mt Bonnie on 09 February 2017. The Mineral Resources at Iron Blow and Mt Bonnie along with new metallurgical data from both deposits will be included in the Hayes Creek PFS.

The PFS will expand on the Scoping Study completed in March 2016, which found that mining and processing ore derived from the proposed open-pit and underground operations at Hayes Creek would generate strong financial returns for PNX.

The Hayes Creek Project is located in a favourable mining jurisdiction in the Pine Creek region of Northern Territory, less than two hours by road from Darwin (Figure 6). The development strategy includes the use of existing infrastructure, designed to boost economics and reduce Project risk.

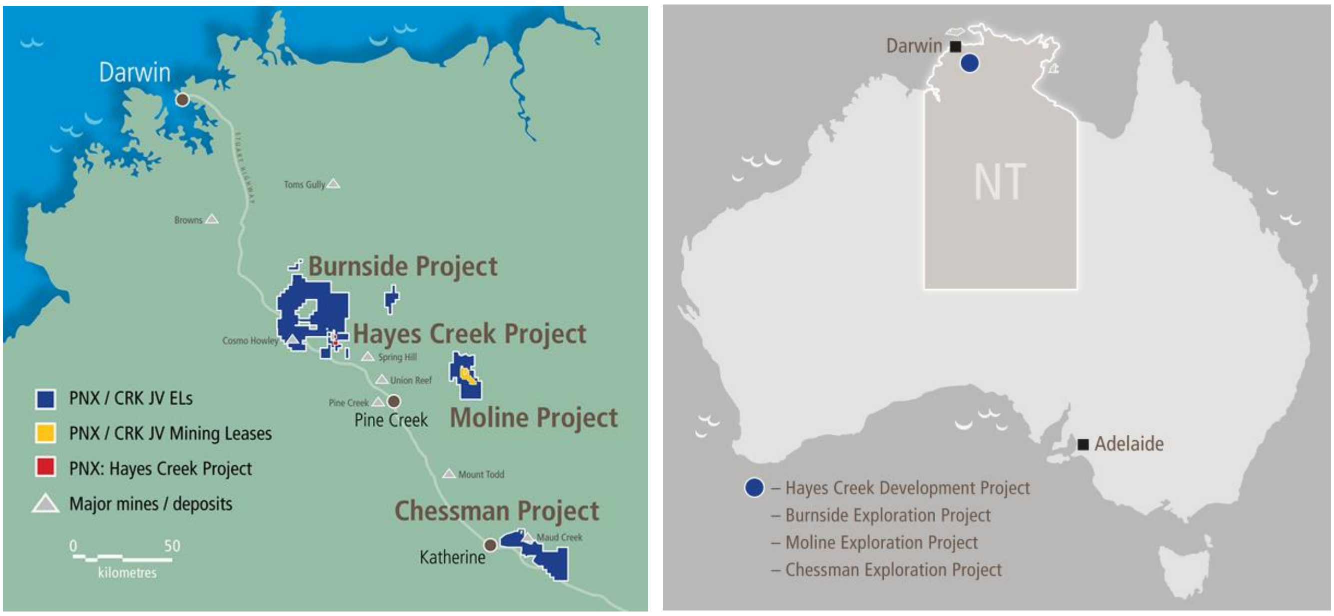

Figure 6: *PNX NT Project locations*

Competent Person's Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin and Mr Andrew Bennett. Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Andrew Bennett is a full-time employee of PNX Metals Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin and Mr Andrew Bennett have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC code). Mr Aaron Meakin and Mr Andrew Bennett consent to the inclusion of this information in the form and context in which they occur.

The information in this report that relates to Exploration Results is based on information compiled by Mr Andrew Bennett 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.

James Fox
Managing Director & CEO
Telephone: +61 (0) 8 8364 3188

MEMORANDUM

CSA Global Pty Ltd
Level 2, 201 Leichhardt Street
Spring Hill QLD 4000

PO Box 1077
Spring Hill QLD 4004
Australia

T +61 7 3106 1200
E csaqld@csaglobal.com

ABN 67 077 165 532
www.csaglobal.com

To: Andrew Bennett
Cc: James Fox
Date: 03rd May 2017
From: Aaron Meakin
CSA Global Report Nº: R184.2017

Re: **Iron Blow Mineral Resource estimate**

SUMMARY

CSA Global Pty Ltd (CSA Global) was engaged by PNX Metals Ltd (PNX) to prepare a Mineral Resource estimate for the Iron Blow polymetallic deposit (Iron Blow), located in the Northern Territory, Australia. The Mineral Resource estimate was required to be reported in accordance with The JORC Code[1].

The Mineral Resource estimate is shown in *Table 1*, reported above a cut-off grade of 1 g/t AuEq. The Mineral Resource contains approximately 119 kt of Zn metal, 20 kt of Pb metal, 7 kt of Cu metal, 9.9 Moz of Ag and 171 Koz of Au.

Table 1: Iron Blow Mineral Resource estimate

JORC Classification	Lode	AuEq Cut-off grade (g/t)	Tonnage (Mt)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)	ZnEq (%)	AuEq (g/t)	Density (t/m³)
Indicated	East Lode	1	0.80	7.64	1.83	0.30	275	2.90	20.64	15.53	3.48
	West Lode	1	1.28	4.14	0.33	0.31	60	1.73	8.84	6.66	3.66
Total Indicated			**2.08**	**5.49**	**0.91**	**0.30**	**143**	**2.19**	**13.39**	**10.08**	**3.59**
Inferred	East Lode	1	0.02	0.48	0.34	0.16	132	6.01	13.65	9.43	2.91
	West Lode	1	0.02	0.76	0.96	0.13	109	1.02	5.90	4.44	2.88
	Footwall Gold	1	0.21	0.25	0.07	0.03	16	2.03	3.48	2.62	2.98
	Hangingwall Gold	1	0.04	0.06	0.09	0.01	6	1.68	2.57	1.94	2.79
	Interlode Gold	1	0.04	0.21	0.03	0.07	8	1.66	2.79	2.10	2.90
	Interlode Base Metal	1	0.12	3.52	0.32	0.14	35	0.69	5.87	4.42	3.18
Total Inferred			**0.45**	**1.11**	**0.18**	**0.07**	**27**	**1.71**	**4.38**	**3.30**	**3.00**
GRAND TOTAL			**2.53**	**4.71**	**0.78**	**0.26**	**122**	**2.10**	**11.79**	**8.87**	**3.48**

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

[1] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

DATA COLLECTION TECHNIQUES

High-quality diamond core and reverse circulation (RC) samples have substantially informed the Mineral Resource estimate. Drilling data has been collected during numerous drilling campaigns, commencing in 1906. The drilling history is summarised in *Table* 2.

Holes complete prior to 2007 are termed "Historic" in this report. Hole completed after 2007 are termed "Modern".

Table 2: *Iron Blow drilling history*

Year	Company	Holes	Hole Size	Hole Type	Metres	Hole IDs
Historic Drilling						
1906, 1912	Government	2	NR	NR	278.17	B1 – B2
?	Government	3	NR	NR	134.5	PH1–3
1963	BMR	6	NX, BX, AX	DD	712.33	IBDDH1–6
1976–1982	Geopeko	13	NQ, BQ, ?	DD/RCD	3,969.75	Q53-S/9–S/19
1983–1988	MBGUT/Tanami Joint Venture	10	?	DD/RCD	681.7	D20–D30 (renamed to Q53-S/ prefix)
Modern Drilling						
2008	GBS	6	HQ	DD	1,516.4	IBDH001–6
2011	CGA/Kirkland Lake	13	HQ	DD	3,839.7	IBDH007–22
2014	PNX	48	5.5"/HQ	RC/RCD/DD	7,093.2	IBDH023–024, IBDH039–045, 051, 059, 060, IBRC025–058
Total		**101**			**18,225.75**	

Holes B1 and B2 were removed from the database given that these holes have not been located and the veracity of the data could not be determined.

Geopeko drilling (Q series holes) was retained for both interpretation and grade interpolation even though:

- Collar locations are approximate.
- A few drill holes only partially sampled the mineralisation.
- There is therefore potential that some of the early holes (Q53-S/9 to 15) will underestimate gold content.
- No QC data is available to support the database.

The holes were retained for the following reasons:

- The location of the mineralisation in these holes (where intersected) is consistent with surrounding drill hole data.
- Analysis was completed by a reputable laboratory, and original laboratory reports have been retrieved.
- Geopeko had a reputation for strong QC systems, in the opinion of the Competent Persons, so even though the QC data is absent, it likely existed.

Removal of the drill holes would have led to a poorer representation of the grade distribution in the opinion of the Competent Persons.

Quality Control data has been collected during the Modern drilling programmes.

Minor costean and channel sampling, and an interpretation of the mineralisation at the 100 ft and 200 ft underground levels (from historic data), have also been used in the preparation of the Mineral Resource estimate.

DEPOSIT GEOLOGY AND MINERALISATION CONTROLS

The Iron Blow deposit lies near the bottom of the Mount Bonnie Formation close to the contact with the underlying Gerowie Tuff. Like Mount Bonnie, Iron Blow is thought to be a Volcanogenic Massive Sulphide (VMS) deposit formed at or near the sea floor by submarine felsic volcanic activity. The fumaroles circulated metal-rich hydrothermal fluids into the local sediments. These units were then deformed at approximately 1875 Ma during an event which produced open upright folds in the sedimentary sequence. The folds strike approximately north-south and plunge to the north. The deposit was rotated down towards the north-south trending axis of the Margaret Syncline and now lies on its side. The Iron Blow deposit has been partly dismembered by east-west trending cross faults and sheared by thrust faults operating approximately along the bedding planes. The massive sulphides possibly represent ductile boudins in the more brittle enclosing sedimentary package and are the focus for shearing and offset faulting which occurred during the folding.

MINERAL RESOURCE ESTIMATION METHODOLOGY

The following approach was adopted when interpreting the mineralisation:

- All interpretations were based on drill hole grades, drill holes logs, surface mapping, underground mapping and structural features.
- A mineralisation envelope was interpreted for each of the two main lodes, namely the East Lode (Zn-Pb-Ag-Au) and West Lode (Zn-Au). Interpretation was based on both geological logging (brecciated carbonate altered intervals), bedding plane data, and/or elevated Zn or Au. Approximately 1 g/t AUEQ (Au metal equivalent) was used to interpret these lodes, with isoshells created, which were rotated 10 degrees around the positive Y axis as a guide. Note that high grade massive sulphide units occur within these zones, and both gold only and gold plus base metal zones occur.
- Four subsidiary lodes were also modelled. Gold rich zones were interpreted in the hangingwall to the East Lode and footwall to the West Lode, and some lodes (gold and base metal) were also interpreted between the East and West Lodes (“interlode”). A grade of 1 g/t AUEQ was used to define the boundaries to the mineralisation with consideration of the geological framework.

Figure 1 is a section showing drill holes coloured by Au grades along with the interpreted mineralisation boundaries.

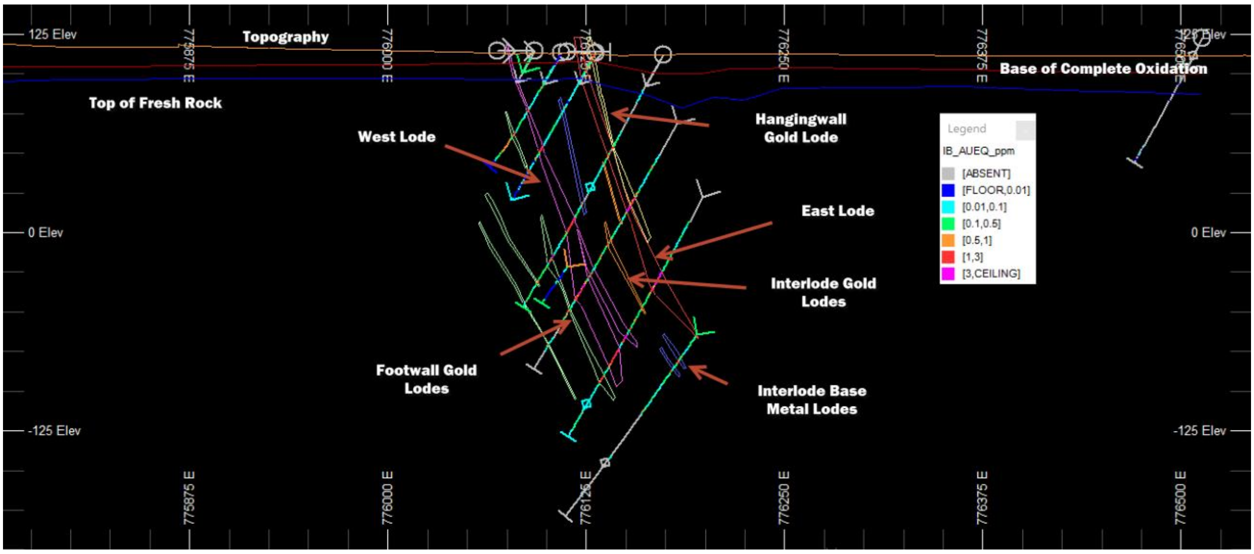

Figure 1: Section showing modelled mineralisation envelopes (CSA Global)

The relative abundance of the economic constituents of interest varies according to oxidation status. The oxide and transitional zones are depleted in Zn and S and contain higher concentrations of Au and Pb, whereas in the transitional and fresh zone, Zn is the primary economic constituent of interest. A hard boundary was therefore adopted at the top of fresh rock boundary for Au, Pb, Zn and S while a soft boundary was adopted for the remaining estimated constituents, namely Cu, Ag, As and Fe.

A 3D block model of the mineralisation has been created using Datamine software. Samples were used to interpolate grades into blocks using ordinary kriging. Quantitative kriging neighbourhood analysis was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. The block model was validated prior to being reported.

Both Au equivalent and Zn equivalent were reported using the metallurgical recovery and commodity price assumptions shown in Table 3. Metallurgical test work was completed prior to the March 2016 Iron Blow Scoping Study and no additional work has been completed since. Recommendations were provided by mworx Pty Ltd regarding recoveries to be adopted in the metal equivalents calculation. Metal prices were derived from forward price estimates.

Table 3: Metal equivalent parameters

Parameter	Unit	Value
Zn price	US$/t	2,450
Pb price	US$/t	2,100
Cu price	US$/t	6,200
Ag price	US$/troy ounce	20.50
Au price	US$/troy ounce	1,350
Zn recovery	%	80
Pb recovery	%	60
Cu recovery	%	60
Ag recovery	%	80
Au recovery	%	60

It is PNX's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

The formulae below were applied to the estimated constituents to derive metal equivalent values:

*Gold Equivalent (field = "AUEQ") (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 * Au recovery)*

*Zinc Equivalent (field = "ZNEQ") (%) = (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 * Zn recovery)*

REASONABLE PROSPECTS HURDLE

Clause 20 of the JORC Code (2012) requires that all reports of Mineral Resources must have reasonable prospects for eventual economic extraction, regardless of the classification of the Mineral Resource.

The Competent Persons deem that there are reasonable prospects for eventual economic extraction of mineralisation on the following basis:

- The project is located close to road and port infrastructure, approximately 145 km southeast of Darwin.
- The mineralisation contains elevated Zn, Pb, Cu, Au and Ag grades over a reasonable strike length.
- The mineralisation forms a continuous coherent zone which should allow mining with only moderate dilution, subject to the adoption of robust grade control processes.
- The mineralisation reported lies within approximately 270 m of surface and is therefore potentially amenable to open pit mining.
- There is significant potential to recover Au, Pb, Zn and Ag in addition to Cu.
- The Mineral Resource is near the Mount Bonnie deposit which is wholly owned by PNX, hence common infrastructure could be developed.
- There is some potential to increase the Mineral Resource with additional drilling.

MINERAL RESOURCE CLASSIFICATION

The Mineral Resource has been classified in accordance with guidelines contained in the JORC Code. The classification applied reflects the author's view of the uncertainty that should be assigned to the Mineral Resources reported herein. Key criteria that have been considered when classifying the Mineral Resource are detailed in JORC Table 1 which is contained in Appendix 1.

After considering data quality, data distribution, and geological and grade continuity, the following approach was adopted when classifying the Mineral Resource:

- The East and West Lode were classified as Indicated in the fresh zone. These areas are tested by mainly modern drilling on a 20 m N by 20–40 m RL pattern. Geological evidence is considered sufficient to assume geological and grade continuity between points of observation where data and samples are gathered. *Figure 2* and *Figure 3* show the drill spacing in the East and West Lodes respectively. All transitional and oxide material in the East and West Lode was classified as Inferred due to a paucity of modern analytical data and limited density information.
- Subsidiary lodes were classified as Inferred given drilling had sampling was more limited and these lodes were less continuous. Geological evidence is considered sufficient to imply but not verify geological and grade continuity.

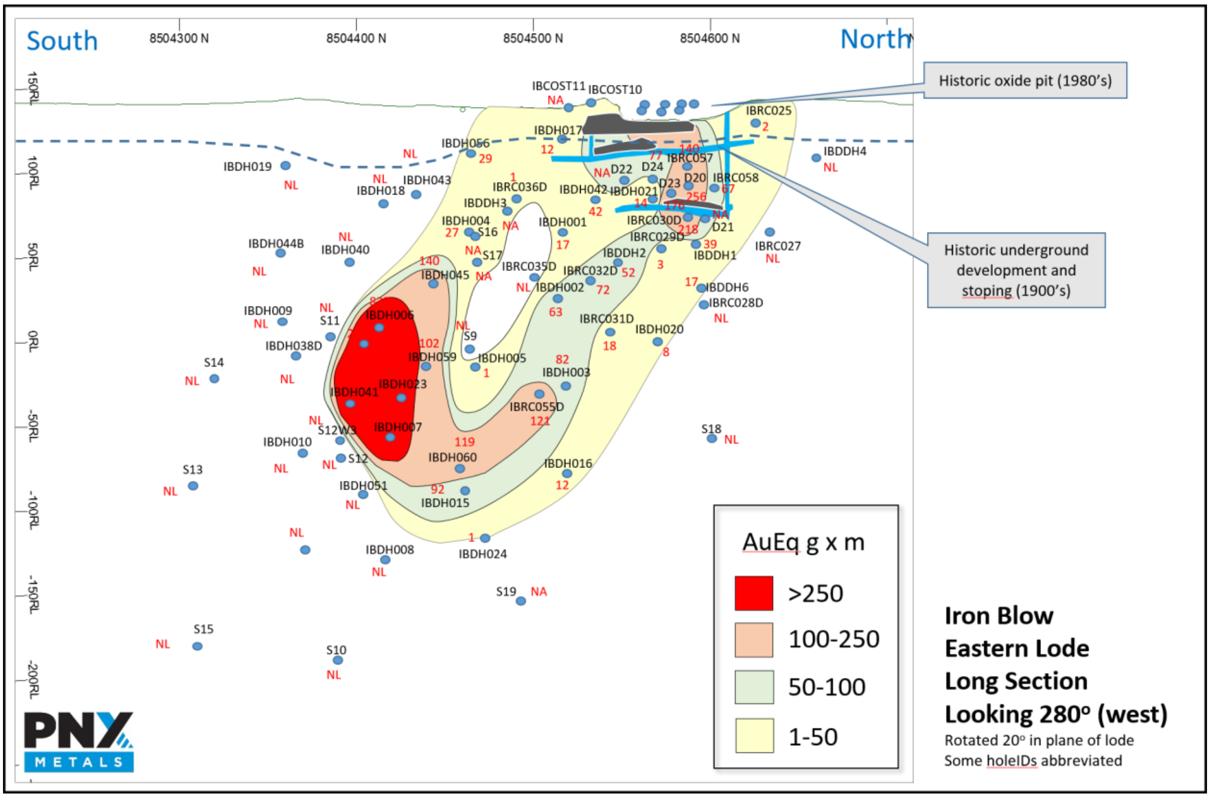

Figure 2: Long Section East Lode (provided by PNX)

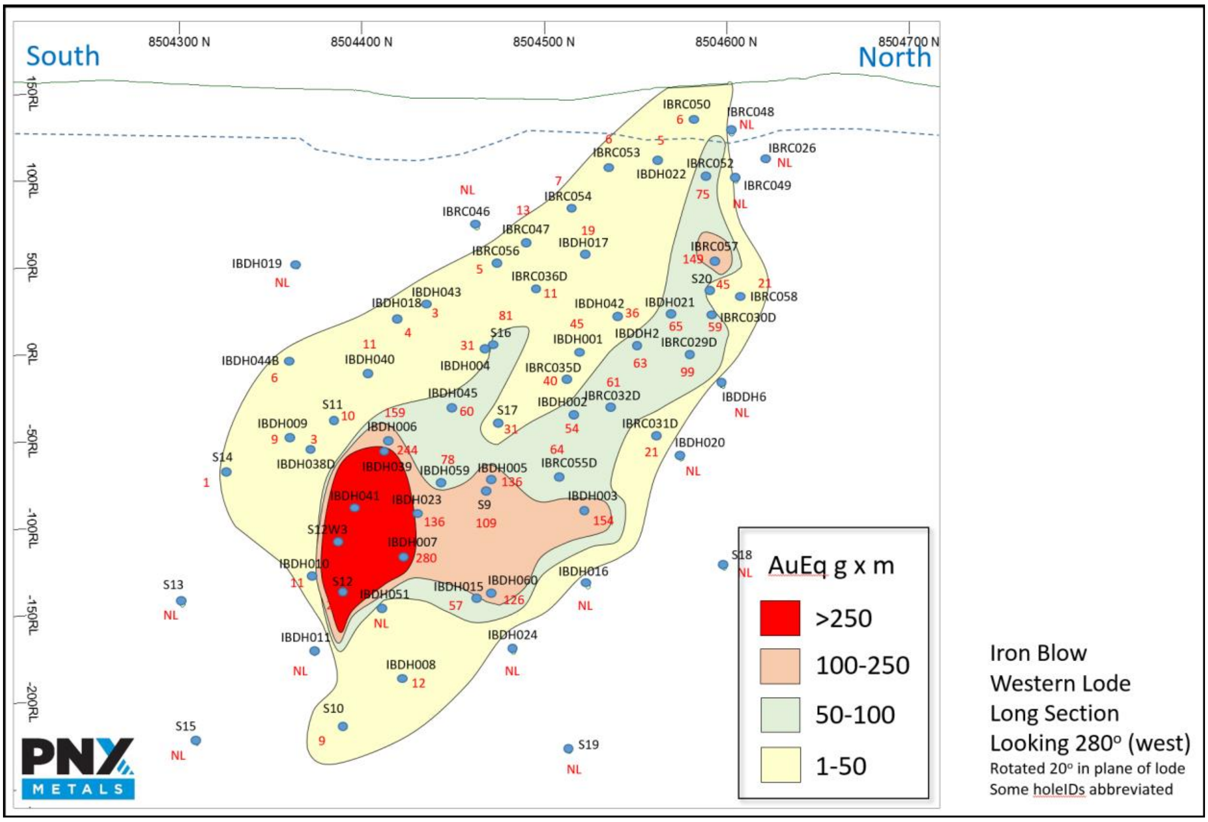

Figure 3: Long Section West Lode (provided by PNX)

RECOMMENDATIONS

CSA Global recommends the following actions are completed to support the ongoing exploration effort at Iron Blow:

- The historical void model should be further validated and a work program designed to improve the accuracy of this model. This may involve geophysical methods (such as passive seismic, detailed 3D seismic, sonar and radar techniques or cross-hole seismic and radio-imaging), detailed assessment of historical data such as abandonment plans (which may be lodged with mines departments), making inferences from previous mining methods, drill hole void data or company report data. Discussions should be held with a geophysicist to discuss the relative merits and costs associated with each geophysical method. In addition to the requirement to deplete Mineral Resource block models, voids represent a significant safety risk in an operating environment. Most known open pit mining procedures involve demarcation and probe drilling prior to mining.
- In order to convert Inferred Mineral Resources to higher classification categories, further infill drilling is required. CSA Global recommends a drill spacing of 15 m E (along strike) by 15 m Z (down dip) to allow Mineral Resources to be considered for Measured classification, and a drill spacing of 25 m E (along strike) by 25 m Z (down dip) for Indicated Mineral Resources. Underground fan drilling would be recommended to support stope design if underground mining methods are adopted, while open pit grade control drilling would be recommended to support ore block delineation if open cut mining is adopted.
- A grade control pattern of 2.5 m to 10 m (E) by 5 m to 10 m (RL) is recommended initially over a 25 m or 50 m block, located in an area critical to early cash flow. This should be completed prior to start-up and would give a high level of confidence in local block estimates. This will enable detailed assessment of the geometry and grade of the mineralisation and allow drill spacing to be further assessed.
- There is limited drill hole information within the oxide and transitional zones. This area of the Mineral Resource is classified as Inferred and should be drill tested as a matter of priority given the importance of early production on project economics. Density and analytical data should be collected from these holes.
- PNX should investigate the base metal certified reference materials (CRM) results as a matter of priority. Many results from 2015 through 2016 are below the mean minus two standard deviation range. If there are issues with the CRMs, a complete set of new CRMs should be sourced from a supplier. Alternatively, if there were issues with the laboratory, the original assay results should be replaced with results from an umpire laboratory. A representative set of pulps should be selected initially to submit to an umpire laboratory to quantify the issue.
- Data storage systems, including back-up and security should be externally audited.
- Although the controls to the mineralisation are relatively well understood, continued development of the geological model is recommended to support future Mineral Resource estimation and establishment of the mine geology function. Further understanding of the different styles of mineralisation, and their geological controls, within the interpreted East and West Lodes in particular is required.
- Establishment of the mine geology system should be considered well in advance of mining. Systems to ensure development of the geological model, high-quality sampling, rapid capture and storage of data, QC assessment, robust ore block interpretation, minimisation of ore loss and dilution, production tracking and reporting, and reconciliation should be established.

COMPETENT PERSONS STATEMENT

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin and Mr Andrew Bennett. Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Andrew Bennett is a full-time employee of PNX Metals Limited and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin and Mr Andrew Bennett have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Aaron Meakin and Mr Andrew Bennett consent to the disclosure of the information in this report in the form and context in which it appears.

Attachment 1: JORC Table 1

JORC Table 1 Section 1 – Key Classification Criteria

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	Samples used in the Mineral Resource estimate were mainly obtained through reverse circulation (RC) and diamond drilling methods collected from campaigns completed by several companies from 1963 through 2016. Limited costean and channel samples collected by PNX Metals Limited (PNX) from the base of the Iron Blow open pit have also been used.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Diamond core has been sawn in half or quarter using a core saw. The cut line for drill core is along the apex of the foliation or mineralisation. RC samples were collected using a riffle or cone splitter mounted at the bottom of the cyclone at regular 1 m intervals to collect a $1/8^{th}$ fraction for assay and a $7/8^{th}$ fraction for logging.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. "RC 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Most RC and diamond drilling samples were used to obtain 0.5 m to 2 m samples which were pulverised and submitted for inductively coupled plasma optical emission spectrometry (ICP-OES) or inductively coupled plasma optical mass spectrometry (ICP-MS) for base metals and fire assay with determination by atomic absorption spectrometry (FA/AAS) for gold. Historic holes were sampled at similar intervals. For Geopeko Limited (Geopeko) percussion and diamond holes, Cu, Pb, Zn, Ag, Cd and Fe were determined by AAS following mixed acid digestion in mixed acids including hydrofluoric acid. Bi, As, Sb and Sn were done by pressed powder XRF. Au and Ag were by fire assay fluxing of a 30g sample followed by AAS. S was by a LECO titrimetric method.
Drilling techniques	*Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	RC and diamond (primarily HQ and NQ) drilling were completed to support the preparation of the Mineral Resource estimate. Two holes were drilled at Iron Blow in the early 1900s, and the location of these holes could not be confidently determined. The Bureau of Mineral Resources (BMR) then completed 6 diamond holes in 1963. Geopeko and MGBUT completed 23 diamond holes from 1976 through 1988 and GBS Gold Australia Corporation (GBS) completed 6 diamond holes in 2008. Crocodile Gold Australia Pty Ltd (CGA), now Kirkland Lake, completed 13 diamond holes in 2011. PNX have drilled 48 reverse circulation (RC) and diamond holes since 2014. Drilling completed prior to 2007 is termed "Historical Drilling" and drilling completed after 2007 is termed "Modern Drilling" in this report. RC and diamond drilling dominate the database. Recent coring completed by PNX has been oriented using a Reflex ACE tool.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Drilling recoveries are recorded by PNX for both RC chips and diamond core. In RC chips, recovery is visually estimated based on the size and weight of the sample bag and residue. Excellent recoveries were observed in dry samples and reasonable recovery was observed in wet samples with some loss of fines. Recoveries in diamond core were high below the limit of oxidisation. In rare holes that have intersected the mineralisation

Criteria	JORC Code explanation	Commentary
		in the oxide zone, larger core losses were observed due to washing of clays.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Triple tube drilling has occasionally been used in addition to larger (HQ) diameter core sizes to maximise sample recovery. RC drilling utilised an external booster typically keeping samples dry to about 60 m and maximising recoveries.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship between grade and recovery has been identified.
Logging	*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.*	Comprehensive logs capturing lithological, mineralogical, magnetic susceptibility, geotechnical, and portable x-ray fluorescence (pXRF) data are available for all recent drilling (2008 onwards). Historical drilling has been logged, however in most cases the logs are not available and the core location is unknown. The ability to test the veracity of this data is therefore limited. Logging codes are available however, hence the historical data is useful to assist interpretation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is generally qualitative in nature. All core stored at Brocks Creek has been photographed wet and dry.
	The total length and percentage of the relevant intersections logged.	All diamond core and RC drilling has been geologically logged.
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Diamond samples are generally half-core, with core sawn in half using a core-saw. Occasionally quarter-core samples are taken.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC samples were collected using a riffle (2015) or cone (2016) splitter mounted at the bottom of the cyclone at regular 1 m intervals to collect a 1/8th fraction for assay. The splitter was blown out and cleaned after each 6-m drill rod to reduce contamination.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples submitted by PNX in 2015 were prepared at North Australian Laboratories Pty Ltd (NAL), which is an independent laboratory based in Pine Creek in the Northern Territory. Upon arrival at the laboratory, samples are sorted, reconciled against the accompanying sample despatch notice and dried in a gas fired oven at 130°C for three hours. Samples are removed from the oven and cooled prior to being crushed using a 200 by 125 Jacques Jaw Crusher, which is cleaned with compressed air between each sample. Nominal particle size discharge is 3 mm to 5 mm. Approximately 1 kg of sample is split from the crushed sample using a Jones riffle splitter. The 1 kg subsample is pulverised to a nominal 100 µm particle size in a vertical spindle pulveriser. The pulverised sample is roll mixed on a rubber mat to ensure the sample is homogenised and a 400 g and 50 g cut is taken from the mat rolled sample for base metals and gold analysis respectively. Two holes were prepared and assayed at Bureau Veritas in Adelaide (IBRC032D and IBDH045) in 2016 due to their dual purpose in metallurgical and geotechnical studies. Samples were oven-dried in calico bags at 105°C for a minimum of two hours. Whole samples were crushed to 3 mm in a Boyd Crusher and the whole sample was then milled in a LM5 pulveriser. Samples greater than 3 kg are double bowled. The grind specification was 85% passing 75-micron. Grind was determined at a rate of 1:20 by wet sieve analysis. A 200-g aliquot of ground pulp was

Criteria	JORC Code explanation	Commentary
		packaged in a labelled and bar-coded sample bag. The bulk pulverised sample was return to the original calico bag and stored in 2001 drums for return to the client. CSA Global understands that sampling techniques used by Kirkland Lake and GBS were like those used by PNX, although all drilling previously completed was diamond only. According to the analytical database, the GBS holes (IBDH001–6) were mainly sampled as quarter-core with some half-core. Kirkland Lake samples (IBDH007–22) were almost all half-core. GBS samples were crushed to 2–3 mm, split to less than 1 kg, and milled to approximately 100 microns from which 50 g was taken for assay. Kirkland Lake samples were crushed to a nominal 85% passing 75 microns. Sampling and sample preparation techniques used by Geopeko are not known in any detail, although half core was sampled in Q53-S/20 according to the analytical database. Sampling and sample preparation techniques adopted by BMR are not known. Percussion and diamond holes drilled by MGBUT in the 1980s were completed by Overland Drilling. Percussion holes were sampled in 3 m intervals via a cyclone and splitter (presumably riffle). Samples averaged 10 kg and were submitted to the Mount Bonnie assay laboratory for Au and Ag analysis. Diamond holes (S20/S21) were HQ, with recoveries generally exceeding 90%. Potentially mineralised core was cut into two equal halves perpendicular to bedding. Even metre marks terminated sampling intervals.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Subsampling is performed during the preparation stage according to the assay laboratories' internal protocol.
	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.	RC field duplicates were inserted in the sample stream at a rate of one in every 25 samples. Results given confidence in sample collection procedures during the 2015 and 2016 RC drilling programs completed by PNX.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The techniques are considered total. For samples submitted in 2015 and 2016, the analytical methods vary according to tenor of the mineralisation. For very high grade samples, separate sample submissions are requested using the "G340" code, in which ammonium acetate is added to keep the Pb in solution. The "G300" and "G400" methods have lower detection limits and better precision for concentrations of the analyte below 1% compared with the G340 method. Once the concentration exceeds 1%, the G340 method is used which is an "ore grade" procedure and has a better precision. Determination is by ICP-OES or ICP-MS depending on the element. For gold, fire assay fusion with a lead oxide flux and various other reagents is used depending on the mineral type followed by cupellation of the recovered lead button in a magnesium oxide cupel. The dore prill is parted and the Au content analysed by AAS. Diamond core from 2016 was analysed by Bureau Veritas in Adelaide. A larger suite of elements was tested as part of the metallurgical work as follows:

Criteria	JORC Code explanation	Commentary
		• PF101: Ca, Fe, Mg, Mn, S, Zn – peroxide fusion with ICPMS determination. • PF102: Ag, As, Ba, Bi, Cd, Ce, Co, Cu, La, Nd, Ni, Pb, Pr, Sb, Sn, W, Y – peroxide fusion with ICP-AES determination. • FA002; Au, Pt, Pd – lead collection fire assay by ICP-AES on 40 g sample. Kirkland Lake's drill samples were submitted in 2011 and assayed at NTEL in Darwin. Gold assay results were based on 50 g fire assay. Base metal analysis was by ICP-MS. CSA Global understands drill samples were submitted in 2008 by GBS to NAL in Pine Creek using similar techniques to those applied in 2015 and 2016. Assay results for drilling undertaken by Geopeko also are available and complete. Analabs reports indicate that Cu, Pb, Zn, Ag and Cd and Fe were prepared using the "A6" code, which utilised a hydrofluoric acid mixture digestion with AAS finish. As, Sb, Sn and Bi were analysed using XRF on pressed powder. Au was analysed according to the "RG50" code, which is a 50-g fire assay and S was analysed by LECO. Standards and repeats were reported by Analabs in each batch. MGBUT samples were analysed for Au, Ag, cu, Pb, Zn, As ad Sn by the Mount Bonnie Laboratory. Assay results for drilling undertaken by BMR are available for gold, however analytical techniques are not known.
	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.	Portable XRF instruments are used to assist with selection of the appropriate analytical technique. Limited XRF has been used where no assay data exists within the modelled mineralisation envelopes.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Kirkland Lake and GBS submitted duplicate samples at a rate of 1:25, certified reference materials (CRMs) at a rate of 1:25 and blanks at a rate of 1:50. PNX used the same QA processes, except blanks are submitted at a rate of 3:100. PNX also submitted a batch of samples to an independent laboratory (Bureau Veritas) for umpire analysis. QC results from the BMR, Geopeko and MGBUT drilling are not available. Given all available QC results, CSA Global considers that a relatively high level of confidence can be placed in the precision and accuracy of the analytical data used in the preparation of this Mineral Resource estimate. Some concern exists with the 2016 base metal CRM results. PNX is currently liaising with the primary laboratory regarding these results. Given the results are below the expected range, if any issue exists with the analysis, the analytical bias is likely to be low and therefore have a conservative effect on the Mineral Resource estimate.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections have been verified by alternative PNX company personnel.
	The use of twinned holes.	No twinning has been completed to verify historical intersections, however the location and tenor of historical intersections is broadly consistent with modern holes.
	Documentation of primary data, data entry procedures, data verification, data	Templates have been set up to facilitate geological and geotechnical logging. Prior to the import into the central

Criteria	JORC Code explanation	Commentary
	storage (physical and electronic) protocols.	database, logging data is validated for conformity and overall systematic compliance by the geologist. Assay results are received from the laboratory in digital format. Once data is finalised it is transferred to an Access Database on the PNX server, which is backed up and stored offsite weekly.
	Discuss any adjustment to assay data.	No adjustments were made to the analytical data, other than replacing below detection results with a value equal to half the detection limit.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill holes completed from 2008 onwards been surveyed by qualified surveyors using a differential global positioning system (DGPS) instrument, to a nominal +/- 20 cm accuracy in the X and Y directions. Downhole deviations have been measured by downhole survey instruments. In most cases, this has been by single shot camera, however a multi-shot camera and gyroscope have also been used. Where data is affected by magnetic interference, the azimuth readings have been adjusted manually based on adjacent values. Collars from historical drilling undertaken by BMR and Geopeko were georeferenced from available plans, and are probably accurate to +/– 10 m. The location of these holes is therefore subject to greater uncertainty than the holes completed from 2008 through 2016.
	Specification of the grid system used.	MGA Zone 52 is the adopted grid system.
	Quality and adequacy of topographic control.	An aerial photography and topographic survey was undertaken by drone in 2014 with a Canon Power Shot ELPH110HS camera flown with an average ground sampling distance of 5.26 cm. The topography file is considered extremely accurate.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The data spacing is irregular, but overall averages 20 m section spacing over a strike length of about 300 m, with holes spaced approximately 15–50 m apart on section.
	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.	The Competent Persons believe the mineralised domains have sufficient geological and grade continuity to support the classification applied to the Mineral Resources given the current drill pattern. Mineral Resource estimation procedures are also considered appropriate give the quantity of data available and style of mineralisation under consideration.
	Whether sample compositing has been applied.	Samples were composited to 1 m prior to grade interpolation. This was considered appropriate given that most the samples have been collected over this interval. This allowed the natural variability of the sample data to be maintained prior to grade interpolation.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The sectional azimuth is grid 090° and most holes are dipping 60° east. This allows the holes to intersect the mineralisation at a high-angle to its strike.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.

Criteria	JORC Code explanation	Commentary
Sample security	*The measures taken to ensure sample security.*	A PNX geologist and field assistant are always present at the RC drill rig while samples are being drilled and collected. On completion of logging, samples were bagged and tied for transport to either the Brocks Creek compound for holding, or directly to the laboratory by PNX personnel. For diamond drilling, core is collected daily from the rig and transported to the Brocks Creek compound. The cut samples are bagged and tied and transported directly to the laboratory by PNX or laboratory personnel for analysis. The Brocks Creek compound is locked and has 24-hour camera security when no personnel are present. Sample security measures for drilling programmes completed prior to 2015 are unknown.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews of sampling techniques and data have been carried out.

JORC 2012 Table 1 Section 2 – Key Classification Criteria

Mineral tenement and land tenure status	*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.*	Iron Blow comprises four granted Mineral Leases totalling 51.07 hectares, all 100% owned by PNX. All are 100% owned by PNX. The Mineral Leases include MLN214, MLN341, MLN343 and MLN349. The Mineral Leases are currently underlain by Exploration Leases (ELs) EL25748 to east, and EL10120 to the west. EL25748 is subject to an earn-in arrangement with Kirkland Lake, whereby PNX can earn 90% interest through staged expenditure commitments. As of January 2017, PNX has earned a 51% interest in this ELs. EL10120 is owned by a third party.
	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.	Native Title has been extinguished over the Mineral Leases, nevertheless PNX is taking cultural heritage into consideration during project development studies, and engaged consultancy group "In Depth Archaeology" to undertake a field assessment and archaeological report. The Iron Blow leases show evidence of extensive mining disturbance, however in undisturbed areas there is evidence for Aboriginal occupation consistent with the broader region. Given the significant extent of disturbance within the leases, the assessment concluded that there is very low risk of further Aboriginal sites within the work area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Iron Blow deposit has been subject to sporadic exploration by numerous parties since the early 1900s. A summary of the drilling history is provided in Table 1 Section 1.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Iron Blow deposit lies near the bottom of the Mount Bonnie Formation close to the contact with the underlying Gerowie Tuff. Like Mount Bonnie, Iron Blow is thought to be a volcanogenic massive sulphide (VMS) deposit formed at or near the sea floor by submarine felsic volcanic activity. The fumaroles circulated metal-rich hydrothermal fluids into the local sediments. These units were then deformed at approximately 1875 Ma during an event which produced open upright folds in the sedimentary sequence. The fold's strike approximately north-south and plunge to the north. The deposit was rotated down towards the north-south trending axis of the Margaret Syncline and lie on their sides. Both the Iron Blow and Mount Bonnie deposits have been partly dismembered by east-west trending cross faults and sheared by thrust faults operating approximately along the bedding planes. The massive sulphides possibly represent ductile boudins in the more brittle enclosing sedimentary package and are the focus for shearing and offset faulting which occurred during the folding. Permeability created by deformation is interpreted to be the dominant control on the current geometry and location of the polymetallic mineralisation at Iron Blow.
Drill hole information	*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:* • *Easting and northing of the drill hole collar* • *Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drill hole collar* • *Dip and azimuth of the hole*	Exploration results are not being reported.

	• *Downhole length and interception depth* • *Hole length.*	
	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.	Exploration results are not being reported.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Exploration results are not being reported.
	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.	Exploration results are not being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Exploration results are not being reported.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The sectional azimuth is grid 090° and most holes are dipping 60° east which means they generally intersect the mineralisation at a high-angle to its strike.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	Exploration results are not being reported.
Diagrams	*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 drillhole collar locations and appropriate sectional views.*	Relevant maps and diagrams are included in the body of the report.
Balanced reporting	*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.*	Exploration results are not being reported.
Other substantive exploration data	*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*	No substantive exploration data not already mentioned in this table has been used in the preparation of this Mineral Resource estimate.

	characteristics; potential deleterious or contaminating substances.	
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further work will be focused on testing for dip extensions and strike extensions and to confirm grade and geological continuity implied by the current block model.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams have been included in the body of this report.

JORC 2012 Table 1 Section 3 – Key Classification Criteria

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	Logging is completed onto templates using standard logging codes. Analytical results are imported directly into the Access database by a database specialist.
	Data validation procedures used.	CSA Global completed numerous checks on the data. Absent collar data, multiple collar entries, suspect downhole survey results, absent survey data, overlapping intervals, negative sample lengths and sample intervals which extended beyond the hole depth defined in the collar table were reviewed. Only minor validation errors were detected which were communicated to PNX and corrected prior to the preparation of the Mineral Resource estimate.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Site visits have been completed by Andrew Bennett who assumes Competent Person status for the data and geological modelling components of the work. Aaron Meakin assumes Competent Person status for the Mineral Resource estimate and has not completed a site visit. The outcome of the site visits (broadly) were that data has been collected in a manner that supports reporting a Mineral Resource estimate in accordance with the JORC Code, and controls to the mineralisation are well-understood.
	If no site visits have been undertaken indicate why this is the case.	Andrew Bennett has undertaken a site visit.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Geological interpretation was completed by Andrew Bennett from PNX. Peer review of the interpretation was completed by Aaron Meakin from CSA Global. Anomalous concentrations of Cu, Pb, Zn, Ag and Au are located toward the base of the Mount Bonnie Formation. The mineralised zone comprises lenses of gossanous mineralised breccia and highly altered, rotated and sheared blocks of siltstone and tuffaceous mudstone. The mineralised zones have been tilted to the west at between 60° and 75°. Geological modelling has aimed to separate the numerous different mineralisation styles.
	Nature of the data used and of any assumptions made.	All interpretations were based on both drill holes, surface mapping and other structural features. A mineralisation envelope was interpreted for the East Lode (Zn-Pb-Ag-Au) and West Lode (Zn-Au). Interpretation was based on both geological logging (brecciated carbonate altered intervals), bedding plane data, and/or elevated Zn or Au. Approximately 1 g/t AUEQ was used to interpret these lodes, with isoshells created rotated 10 degrees around the positive Y axis as a guide. Note that high grade massive sulphide units occur within these zones, and both gold only and gold plus base metal zones occur. Gold rich zones were also interpreted hangingwall to the East Lode and Footwall to the West Lode, and some lodes (gold and base metal) were also interpreted between the East and West Lodes. A grade of 1 g/t AUEQ was used to define the boundaries to the mineralisation for these subsidiary lodes.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local but not global basis.
	The use of geology in guiding and controlling Mineral Resource estimation.	Geological logging and mapping from the Iron Blow open pit has been used to guide mineralisation interpretations.

Criteria	JORC Code explanation	Commentary
	The factors affecting continuity both of grade and geology.	Continuity of mineralisation is good, however there is limited modern drilling data in some areas of the Mineral Resource, particularly in the oxide and transitional zones. Additional drilling is required to confirm geological and grade continuity in these areas.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Mineral Resource is contained within an area defined by a strike length of 300 m and across-strike width of approximately 2 m to 40 m. All reported Mineral Resources lie within approximately 215 m of surface, which makes the deposit potentially amenable to open pit mining and /or underground mining.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	The Mineral Resource estimate has been completed using two main grade estimation domains (East and West Lodes) and four subsidiary estimation domains (Footwall Gold, Hangingwall Gold, Internal Gold and Internal Base Metal). The following top cuts were applied following statistical analysis: East Lode: 50 g/t Au, 1500 g/t Ag West Lode: 20 g/t Au, 600 g/t Ag Footwall Gold: 10 g/t Au, 100 g/t Ag Internal Base Metal: 150 g/t Ag Hangingwall Gold: No top cuts Internal Gold: No top cuts. Quantitative kriging neighbourhood analysis was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids. A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. Dynamic anisotropy was used to ensure undulation in the mineralisation was captured by the search ellipses. Ordinary kriging was adopted to interpolate grades into cells, with variogram rotations consistent with search ellipse rotations. Statistical analysis was completed using Supervisor software. All geological modelling and grade estimation was completed using Datamine software.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	One previous Mineral Resource estimate was reported in accordance with the JORC Code in 2014. The Mineral Resource reported herein is similar in size and grade to the 2014 Mineral Resource estimate, however the Mineral Resource has largely been converted from Inferred to Indicated following additional drilling.
	The assumptions made regarding recovery of by-products.	Iron Blow is a polymetallic deposit. It is assumed that Zn, Pb, Cu, Ag and Au can be recovered.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	As, Fe and S have been estimated to allow consideration of deleterious elements in mining studies.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A 2.5 m E by 10 m N by 10 m RL parent cell size was used with sub-celling to 0.5 m E by 1 m N by 1 m RL to honour wireframe boundaries. The drill hole data spacing is highly variable but approximates 20 m along strike by 15 m by 50 m down-dip.

Criteria	JORC Code explanation	Commentary
	Any assumptions behind modelling of selective mining units.	No assumptions were made regarding selective mining units.
	Any assumptions about correlation between variables	No assumptions have been made regarding correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	The following approach was adopted by PNX following consideration of the geology and statistical analysis of the global analytical dataset: • All interpretations were based on both drill holes, surface mapping and other structural features. • Mineralisation envelope was interpreted for the East Lode (Zn-Pb-Ag-Au) and West Lode (Zn-Au). Interpretation was based on both geological logging (brecciated carbonate altered intervals), bedding plane data, and/or elevated Zn or Au. Approximately 1 g/t AUEQ was used to interpret these lodes, with isoshells created rotated 10 degrees around the positive Y axis as a guide. Note that high grade massive sulphide units occur within these zones, and both gold only and gold plus base metal zones occur. Wireframing these units would have been complex; hence it was decided to attempt to select an appropriate interpolation algorithm to limit smoothing to ultimately reflect the Competent Persons view of the likely grade distribution within the broad envelope. • Gold rich zones were interpreted hangingwall to the East Lode and Footwall to the West Lode, and some lodes (gold and base metal) were also interpreted between the East and West Lodes. A grade of 1 g/t AUEQ was used to define the boundaries to the mineralisation.
	Discussion of basis for using or not using grade cutting or capping.	The coefficient of variation (COV), histograms and probability plots were reviewed for Au, Cu, Pb, Zn and Ag to help understand the distribution of grades, and assess the requirement for top cuts for each estimation domain. Top cutting was deemed necessary where the COV was high (>1.2) and individual high-grade samples were deemed to potentially result in biased block model results. The point at which the number of samples supporting a high-grade distribution diminishes was generally selected as the top-cut.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Drillhole grades were initially visually compared with cell model grades. Domain drill hole and block model statistics were then compared. Swath plots were also created to compare drillhole grades with block model grades for easting, northing and elevation slices throughout the deposit. The block model reflected the tenor of the grades in the drill hole samples both globally and locally.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a wet basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource reported above a cut-off grade of 1 g/t AUEQ. The adopted cut-off grade is considered reasonable for Mineral Resources which are likely to be extracted by open pit methods.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining*	In selecting the cut-off grades, it was assumed that open pit mining methods could be applied at Iron Blow.

Criteria	JORC Code explanation	Commentary
	dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Some internal dilution exists within the interpreted mineralisation boundaries but this material was not modelled. Further drilling is required to ascertain if these zones are continuous and can therefore be selectively removed during mining.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	A metallurgical test work programme is underway for the Iron Blow deposit. The work is being carried out to establish the optimal processing route to recover economic constituents at Iron Blow. Preliminary recovery results have been used to calculate metal equivalent grades. The formulae below were applied to the estimated constituents to derive metal equivalent values: *Gold Equivalent (field = "AUEQ") (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 * Au recovery)* *Zinc Equivalent (field = "ZNEQ") (%) = (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 * Zn recovery)*
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Environmental considerations have not yet been considered due to the early stage of this project. It is therefore assumed that waste could be disposed in accordance with a site-specific mine and rehabilitation plan.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Bulk density determinations adopted the water displacement method.

Criteria	JORC Code explanation	Commentary
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.	Both historical and recent core has been subject to density determinations. PNX have set up a specific gravity station at Brocks Creek for water immersion determinations. Porosity is generally not an issue with the determinations, at least below the limit of oxidation, although samples are soaked for at least 24 hours prior to measuring wet weights, or longer until they stop bubbling.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Density has been estimated in the fresh zone (where there is significant data). Values were assigned in the oxide and transitional zones (where there is limited data) as follows: • East Lode Oxide 2.60 g/cm^3 • East Lode Transitional 3.00 g/cm^3 • West Lode Oxide 2.60 g/cm^3 • West Lode Transitional 3.00 g/cm^3 • Internal Gold Oxide 2.50 g/cm^3 • Internal Gold Transitional 2.60 g/cm^3
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1 as follows: • The East Lode and West Lode were classified as Indicated in the fresh zone. These areas are tested by modern drilling on a nominal 20 m N by 20–40 m RL pattern. Geological evidence is considered sufficient to assume geological and grade continuity between points of observation where data and samples are gathered. All transitional and oxide material in the East and West Lode was classified as Inferred due to a paucity of modern analytical data and limited density information. • Subsidiary lodes were classified as Inferred given drilling had sampling was more limited and these lodes were less coherent continuous. Geological evidence is considered sufficient to imply but not verify geological and grade continuity.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	The current model has not been audited by an independent third party but has been subject to CSA Global's internal peer review processes.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.

Criteria	JORC Code explanation	Commentary
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No detailed production figures are available for Iron Blow.