

## ASX Announcement

19 May 2020

This announcement has been authorised to be lodged with the ASX by the Board of Directors of PNX Metals Limited.



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# Fountain Head Gold Project – Further continuity of high-grade mineralised zones

- **All assays from RC drilling now received with additional high-grade gold intercepts, including:**
  - 2m at 4.46 g/t Au from 114m in FHRC164,
  - 2m at 6.62 g/t Au from 144m in FHRC172,
  - 1m at 12.54 g/t Au from 64m in FHRC179
- **Updated Mineral Resource Estimate for Fountain Head due shortly which will inform pit optimisation and proposed mining schedules**
- **Completion of diamond drill core processing from FHDD181 previously reported to contain multiple occurrences of visible gold – assay results due in early June**
- **Technical studies being finalised relating to Environmental Impact Statement with final terms of reference now received from NT EPA after a two-week public consultation period**

PNX Metals Limited (**ASX: PNX**) ("**PNX**", "the **Company**") is pleased to provide an update on its Fountain Head gold development ("**Project**"), located in the Pine Creek region of the Northern Territory, following the receipt of final assays from the recently completed RC drilling program.

Between December 2019 and February 2020, the Company drilled 59 Reverse Circulation (RC) holes at Fountain Head, with all assays now received and reported (Table 2) (see also ASX releases 25 February and 16 March 2020).

The drilling program (Figure 1) was designed to confirm and provide support to the Mineral Resource Estimate and has resulted in increased confidence in the geological model and Project economics. Significantly, a number of holes intersected gold outside the proposed pit-shell and/or the current resource boundary, highlighting new target zones and potential upside for the Project.

The updated Mineral Resource Estimate is expected to be completed shortly and will be used to inform pit design and proposed mine schedules to support the first three years of proposed mining.

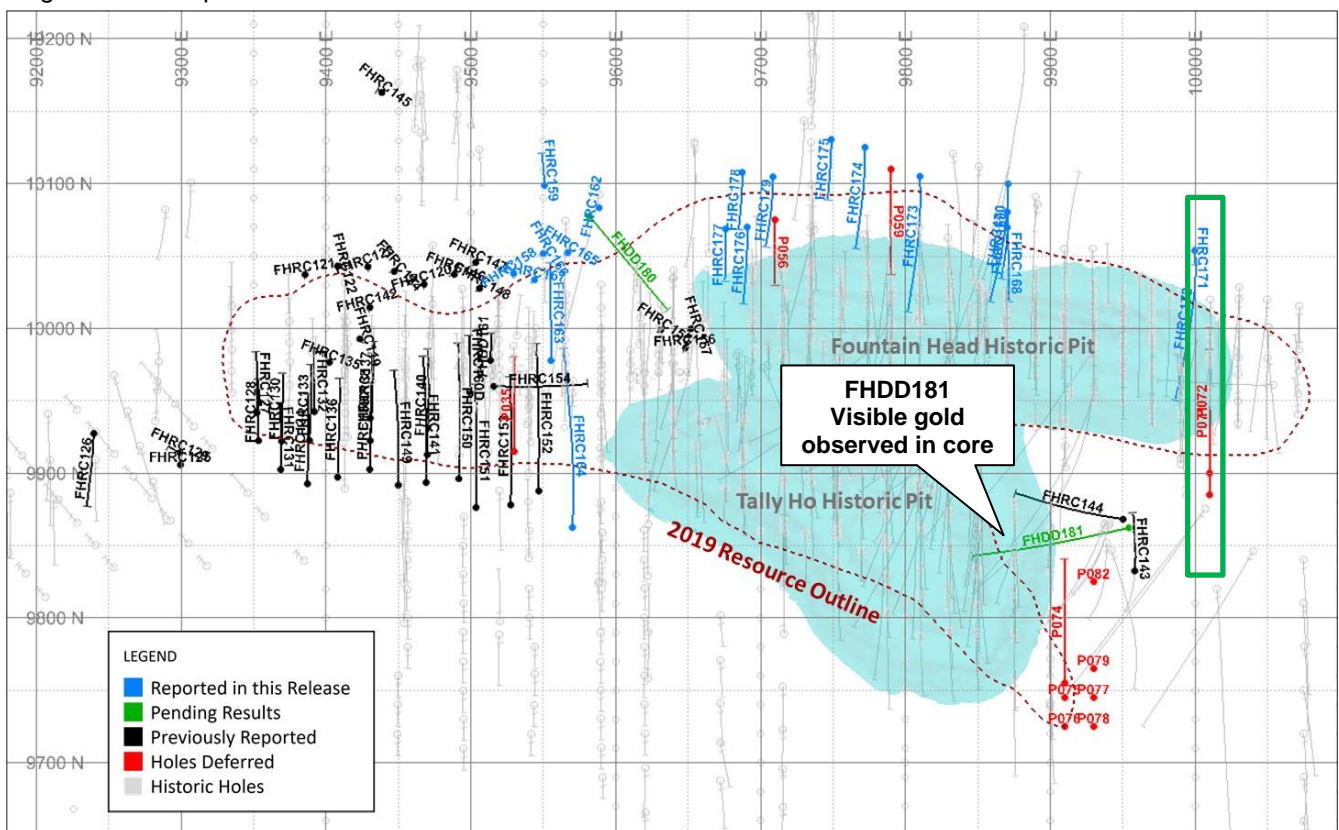
As previously reported (see ASX release 3 April 2020), multiple occurrences of visible gold mineralisation were identified in diamond drill hole FHDD181 over a 35m intercept between approximately 145m and 180m downhole. This has now been extended by a further 8m to 188.14m where two further occurrences of visible gold have been logged, making 11 in total and extending the intercept to a length of 43.59m (Figure 2).

This is an exciting development for the Project as the zone is interpreted to be the down-dip extension of the high-grade Tally Ho lode. Due to timing of the assays it will however sit outside of the updated Mineral Resource Estimate and as such also the pit optimisation.

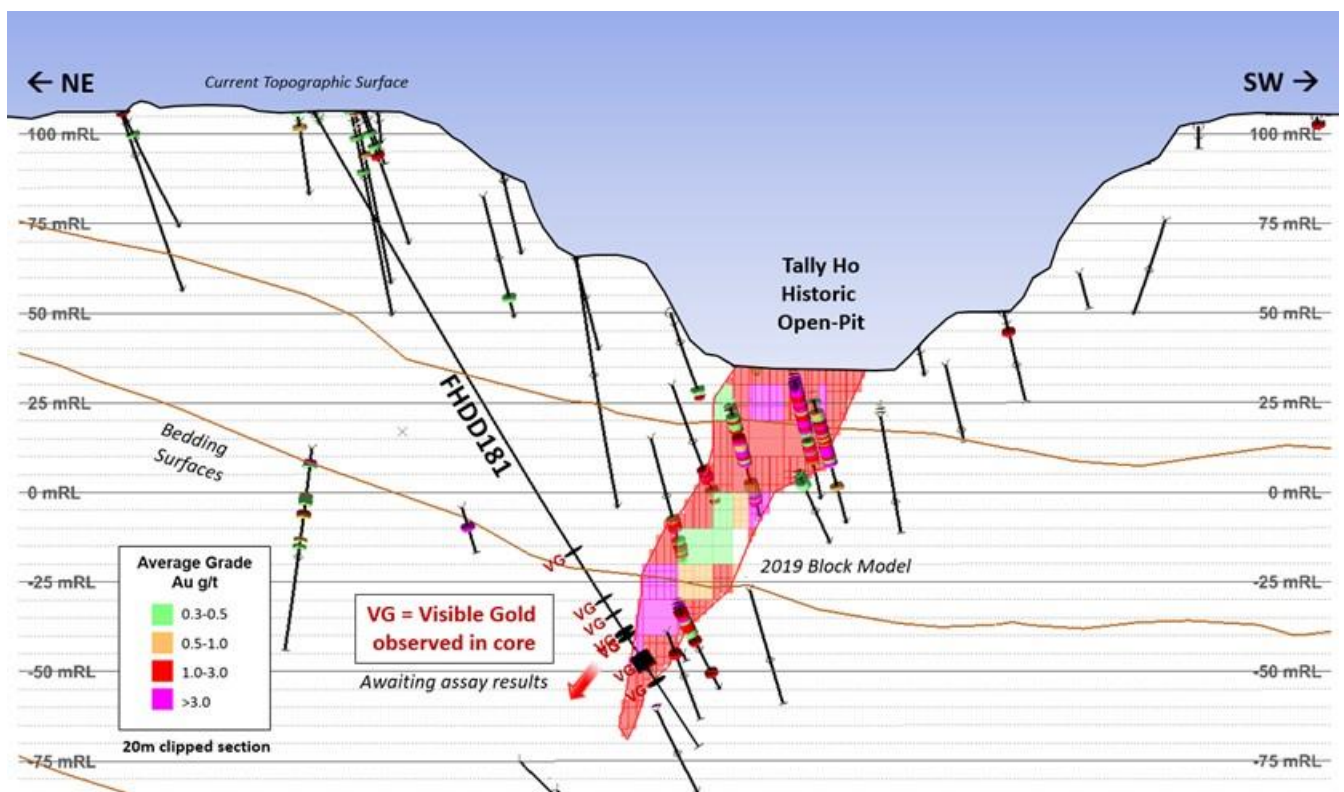
Logging and processing of the diamond drill core (FHDD181) for analysis is complete with assay results expected in early June. The Company is looking forward to receiving these results and incorporating them in the geological model to assess future potential upside to the Project.

The RC assay results reported in this release relate primarily to Fountain Head East where numerous potentially mineable gold lodes were intersected (Figure 3). The newly interpreted lodes appear to correlate with alteration trends that follow brecciated zones crosscutting the Fountain Head Anticline axis at a low angle, similar in orientation to the high-grade Tally-Ho lode. The increased drill resolution and data density has resulted in increased definition and reinterpretation of the mineralisation from one broad, near vertical lode to multiple individual lodes oriented at a lower angle of approximately 45°, which remain open at depth and along strike to the east.

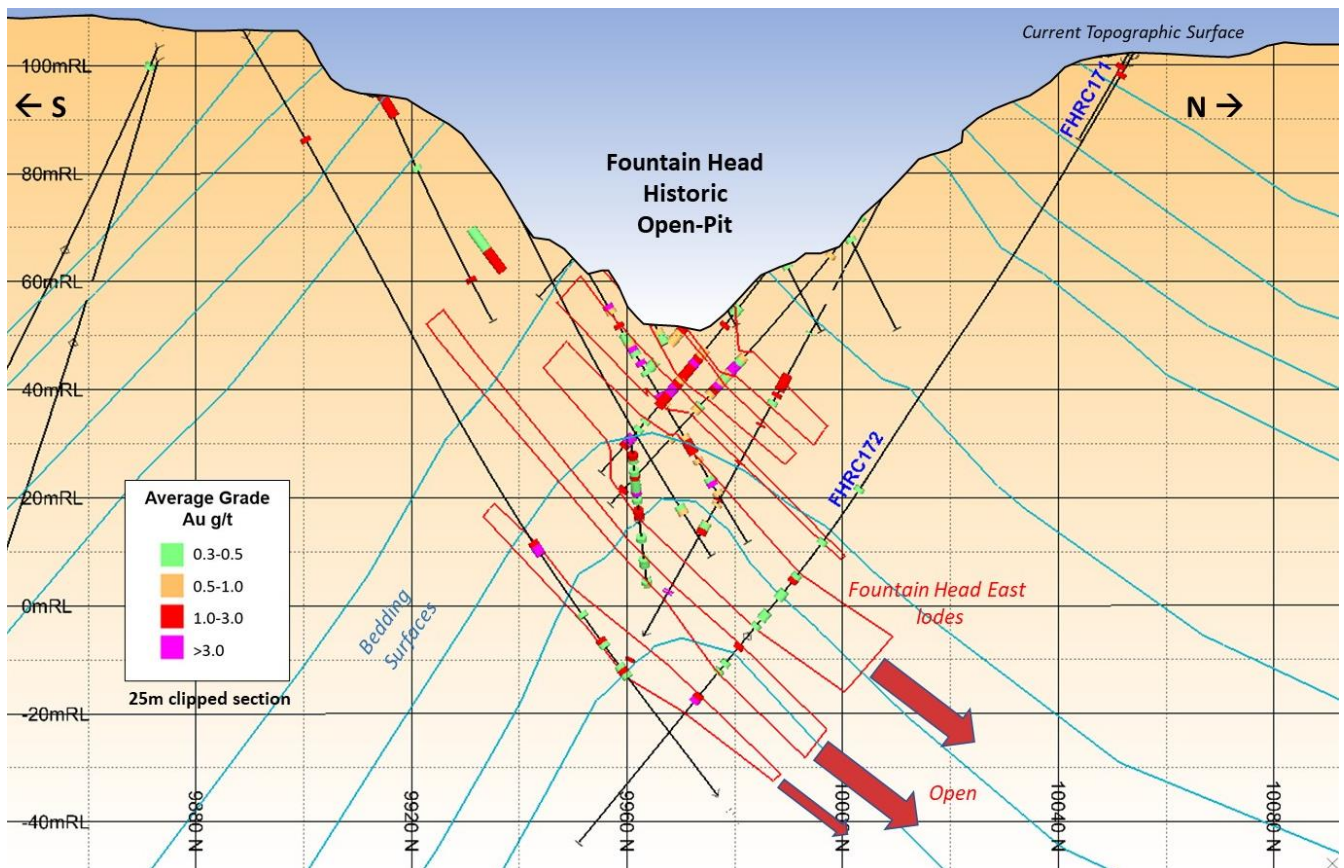
The latest drilling results should elevate a significant portion of the Fountain Head East zone from the Inferred Resource to Indicated Resource category in the updated Mineral Resource Estimate. Any further drilling in this area is likely to occur from the pit subsequent to dewatering due to existing difficulties in drilling at a shallow angle under the pit.



**Figure 1:** Fountain Head drill plan showing hole traces and collar locations. Blue shadow shows existing pit outline with red hashed outline showing approximate boundary of current (2019) 0.7g/t Au resource cut-off projected to surface. The Green rectangle highlights the area in the section shown in Figure 3



**Figure 2:** Cross section showing visible gold and position of FHDD181 in relation to Tally Ho lode



**Figure 3:** Fountain Head x-section showing current and historic drill holes and interpreted positions of FH East Mineral Lodes which remain open at depth and along strike to the east.

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### **Ongoing Metallurgical and Permitting Work**

Agglomeration and permeability testing have been completed with final cement agglomeration testing indicating the addition of a relatively low amount of cement during agglomeration provides sufficient percolation and clarity of pregnant leach solution for leaching of the gold. The leach columns are now operational and expected run for at least 6 weeks with initial results expected from mid-June.

Technical studies relating to the Fountain Head Environmental Impact Statement (EIS) are being finalised. The final terms of reference for the EIS has now been received from Northern Territory Environmental Protection Authority after the two-week public consultation period which the Company is now reviewing. No significant changes to the original scope have been identified. The EIS is expected to be submitted by early July 2020.

Despite some delays caused by COVID-19 restrictions, (including sample assay analytical results), the timeframe for completion of the technical studies and possible commencement of Fountain Head development by the end of 2020 remains achievable. Consequently, discussions have commenced with prospective parties for provision of Project development funding.

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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 Charles Nesbitt, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Nesbitt 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 Nesbitt is a full-time contract Exploration Manager with 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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## Fountain Head Drill Results Table

**Table 1:** PNX Drill hole assay summary Fountain Head Project. Significant results reported are those assaying at least 0.5 g/t Au over a 1m interval or greater. Grey area previously released, blue reported in this release.

Hole ID	Type	Easting	Northing	RL	Azi	Dip	Total Depth		From	To	Interval	Au (g/t)
FHRC149	RC	770860	8510198	106	40	-60.00	139.00		53.00	61.00	8.00	2.62
								incl	54.00	55.00	1.00	15.14
								and	70.00	71.00	1.00	0.57
								and	85.00	90.00	5.00	2.14
								incl	89.00	90.00	1.00	9.21
								and	102.00	103.00	1.00	0.88
								and	129.00	132.00	3.00	0.57
FHRC150	RC	770895	8510175	107	40	-60.00	161.00		1.00	2.00	1.00	0.89
								and	49.00	53.00	4.00	0.95
								and	59.00	60.00	1.00	16.99
								and	98.00	99.00	1.00	0.75
								and	108.00	110.00	2.00	3.50
								and	128.00	129.00	1.00	1.52
FHRC151	RC	770892	8510152	108	40	-60.00	150.00		6.00	7.00	1.00	0.69
									145.00	146.00	1.00	2.55
FHRC152	RC	770932	8510133	107	40	-60.00	163.00		70.00	80.00	10.00	2.21
								incl	72.00	78.00	6.00	3.33
								and	89.00	93.00	4.00	7.56
								incl	89.00	90.00	1.00	28.01
								and	108.00	112.00	4.00	1.79
								incl	108.00	109.00	1.00	3.66
								and	128.00	135.00	7.00	3.44
								incl	128.00	130.00	2.00	9.26
								incl	128.00	129.00	1.00	14.18
								and	148.00	149.00	1.00	0.70
FHRC153	RC	770911	8510138	108	40	-60.00	158.00		83.00	92.00	9.00	0.63
								and	99.00	102.00	3.00	2.44
								incl	99.00	100.00	1.00	6.22
								and	129.00	131.00	2.00	2.61
								incl	129.00	130.00	1.00	4.10
								and	138.00	139.00	1.00	0.55
								and	150.00	154.00	4.00	0.66
FHRC154	RC	770955	8510208	106	130	-70.00	185.00		7.00	9.00	2.00	3.75
								incl	7.00	8.00	1.00	6.60
								and	17.00	18.00	1.00	27.18
								and	33.00	34.00	1.00	0.55
								and	56.00	60.00	4.00	0.59
								and	66.00	68.00	2.00	19.92
								incl	66.00	67.00	1.00	36.12
								and	78.00	80.00	2.00	3.87

								and	85.00	92.00	7.00	1.54
								and	<b>113.00</b>	<b>115.00</b>	<b>2.00</b>	<b>2.94</b>
								incl	<b>113.00</b>	<b>114.00</b>	<b>1.00</b>	<b>5.26</b>
								and	120.00	121.00	1.00	1.60
								and	135.00	144.00	9.00	1.08
								and	152.00	153.00	1.00	1.02
								and	<b>170.00</b>	<b>171.00</b>	<b>1.00</b>	<b>4.82</b>
FHRC155	RC	771068	8510163	50	0	-90.00	50.00		<b>16.00</b>	<b>18.00</b>	<b>2.00</b>	<b>9.71</b>
								incl	<b>16.00</b>	<b>17.00</b>	<b>1.00</b>	<b>17.49</b>
FHRC156	RC	771073	8510143	65	0	-90.00	65.00		<b>4.00</b>	<b>5.00</b>	<b>1.00</b>	<b>3.13</b>
								and	<b>17.00</b>	<b>33.00</b>	<b>16.00</b>	<b>7.84</b>
								incl	<b>19.00</b>	<b>21.00</b>	<b>2.00</b>	<b>45.51</b>
								and	<b>46.00</b>	<b>52.00</b>	<b>6.00</b>	<b>3.03</b>
								and	<b>56.00</b>	<b>57.00</b>	<b>1.00</b>	<b>3.22</b>
FHRC157	RC	771084	8510151	50	0	-90.00	50.00		23.00	24.00	1.00	0.79
FHRC158	RC	771016	8510259	107	0	-90.00	50.00	No significant intercept				
FHRC159	RC	771071	8510291	104	0	-80.00	100.00		6.00	7.00	1.00	1.49
									72.00	74.00	2.00	0.88
FHRC160D	RCDD	770940	8510214	106	40	-63.00	85.70		4.00	5.00	1.00	0.67
								and	<b>8.20</b>	<b>11.00</b>	<b>2.80</b>	<b>4.17</b>
								incl	<b>9.20</b>	<b>10.40</b>	<b>1.20</b>	<b>7.83</b>
								and	22.30	22.70	0.40	0.83
								and	27.30	28.25	0.95	0.70
								and	<b>45.90</b>	<b>46.20</b>	<b>0.30</b>	<b>2.47</b>
								and	78.60	79.40	0.80	1.75
FHDD161	DD	770965	8510223	107	40	-70.00	52.70		<b>8.35</b>	<b>9.60</b>	<b>1.25</b>	<b>14.86</b>
								and	42.90	43.30	0.40	0.89
FHRC162	RC	771090	8510255	107	0	-90.00	47.00		29.00	30.00	1.00	0.72
FHRC163	RC	770997	8510196	98	40	-60.00	130.00		16.00	17.00	1.00	0.70
								and	37.00	38.00	1.00	0.74
FHRC164	RC	770934	8510098	108	40	-60.00	210.00		<b>114.00</b>	<b>116.00</b>	<b>2.00</b>	<b>4.46</b>
								and	167.00	173.00	6.00	0.94
								and	188.00	191.00	3.00	1.11
								and	206.00	207.00	1.00	0.55
FHRC165	RC	771054	8510246	108	0	-90.00	45.00		27.00	29.00	2.00	1.60
FHRC166	RC	771040	8510256	107	0	-90.00	55.00	No significant intercept				
FHRC167	RC	771024	8510246	107	0	-90.00	65.00		<b>8.00</b>	<b>10.00</b>	<b>2.00</b>	<b>2.70</b>
								incl	<b>9.00</b>	<b>10.00</b>	<b>1.00</b>	<b>4.84</b>
								and	27.00	28.00	1.00	0.60
								and	45.00	46.00	1.00	0.63
FHRC168	RC	771297	8510063	103	220	-60.00	97.00		2.00	3.00	1.00	0.55
								and	<b>64.00</b>	<b>65.00</b>	<b>1.00</b>	<b>3.45</b>
FHRC169	RC	771304	8510071	104	220	-60.00	85.00		42.00	43.00	1.00	0.80
FHRC170	RC	771317	8510086	104	220	-60.00	141.00		104.00	106.00	2.00	0.54
								and	122.00	123.00	1.00	1.16

FHRC171	RC	771385	8509967	103	220	-60.00	19.00		3.00	4.00	1.00	1.18
FHRC172	RC	771386	8509968	102	220	-60.00	180.00		4.00	5.00	1.00	1.25
								and	116.00	117.00	1.00	1.37
								and	120.00	121.00	1.00	0.59
								and	132.00	133.00	1.00	0.74
								and	<b>144.00</b>	<b>146.00</b>	<b>2.00</b>	<b>6.62</b>
								incl	<b>145.00</b>	<b>146.00</b>	<b>1.00</b>	<b>11.67</b>
FHRC173	RC	771273	8510129	108	220	-60.00	157.00		<b>99.00</b>	<b>100.00</b>	<b>1.00</b>	<b>2.80</b>
								and	102.00	103.00	1.00	0.69
								and	145.00	146.00	1.00	1.38
FHRC174	RC	771257	8510169	110	220	-60.00	125.00		1.00	2.00	1.00	0.83
								and	<b>11.00</b>	<b>12.00</b>	<b>1.00</b>	<b>2.18</b>
								and	28.00	29.00	1.00	0.53
FHRC175	RC	771243	8510188	109	220	-60.00	79.00		6.00	7.00	1.00	0.87
FHRC176	RC	771160	8510179	107	220	-60.00	97.00		5.00	6.00	1.00	1.29
FHRC177	RC	771147	8510188	107	220	-60.00	70.00		53.00	54.00	1.00	1.16
FHRC178	RC	771181	8510210	107	220	-60.00	79.00		3.00	4.00	1.00	0.76
								and	<b>37.00</b>	<b>38.00</b>	<b>1.00</b>	<b>3.31</b>
								and	47.00	48.00	1.00	0.67
								and	75.00	78.00	3.00	0.81
FHRC179	RC	771196	8510194	109	220	-60.00	97.00		45.00	47.00	2.00	0.70
								and	61.00	62.00	1.00	0.73
								and	<b>64.00</b>	<b>65.00</b>	<b>1.00</b>	<b>12.54</b>
								and	<b>68.00</b>	<b>69.00</b>	<b>1.00</b>	<b>4.85</b>
FHDD180	DD	771081	8510255	107	180	-50.00	130.70	Still to be processed				
FHDD181	DD	771227	8509851	108	295	-60.00	205.70	Visible gold logged – pending assays				

## Fountain Head background

The Fountain Head Project hosts a Mineral Resource Estimate (mid-2019) of **2.58Mt at 1.7g/t Au for 138,000 oz Au** (Table 1) (reported in accordance with the JORC Code, 2012 see ASX release 11 July 2019 for full details including JORC tables).

The Company is currently assessing the feasibility of a heap leach operation as a low-cost, scalable option for generating early cashflow from existing gold resources whilst preserving the Hayes Creek zinc-gold-silver Mineral Resources for development at a future point in time. This strategy may also provide an opportunity to enhance overall Hayes Creek Project economics and extend the project mine life with the mined-out Fountain Head pit available for use as tailings storage from subsequent sulphide flotation of ore from the Mt Bonnie and Iron Blow deposits.

Excellent gold recoveries with low reagent consumption were achieved from metallurgical testwork (see ASX release 7 November 2019) resulting in PNX accelerating studies and the approvals process for the development of a gold heap leach operation at Fountain Head.

Successful gold leaching may also lead to the development of other gold deposits in the region, many of which lie within PNX's project areas. Some of these deposits are currently considered "stranded" due to their modest grades and distance from existing processing infrastructure. PNX's longer-term aim is to evolve Fountain Head into a regional processing hub capable of monetising a pipeline of gold and base metals assets.

## Fountain Head Resource Estimate

Independent mining consultants CSA Global Pty Ltd ("CSA Global") have estimated the Fountain Head Mineral Resource in accordance with the JORC Code<sup>1</sup>, which is summarised in Table 1.

**Table 1:** Fountain Head and Tally Ho Mineral Resources by JORC Classification as at 11 July 2019 estimated utilising a cut-off grade of >0.7 g/t Au which is consistent with the assumed open cut mining method (see PNX ASX release 11 July 2019).

JORC Classification	Tonnage (Mt)	Au (g/t)	Ounces (Koz)
<b>Tally Ho</b>			
Indicated	0.94	2.0	59
Inferred	–	–	–
<b>Total</b>	<b>0.94</b>	<b>2.0</b>	<b>59</b>
<b>Fountain Head</b>			
Indicated	0.50	1.5	23
Inferred	1.15	1.5	55
<b>Total</b>	<b>1.64</b>	<b>1.5</b>	<b>79</b>
<b>Total Fountain Head + Tally Ho*</b>			
Indicated	1.43	1.8	83
Inferred	1.15	1.5	55
<b>Total</b>	<b>2.58</b>	<b>1.7</b>	<b>138</b>

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

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements referenced in this release continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

<sup>1</sup> 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).



# 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 (e.g. '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 Reverse Circulation (RC) chips which were cone-split for sampling</li> <li>All the RC chips used have been geologically logged by the onsite geologist</li> <li>Sampling intervals are at 1m intervals for RC chips. Samples were either submitted in 1m intervals</li> <li>Sample weights were typically 2-5 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> </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 United Drilling Services Pty Ltd, Western Australia using a truck mounted Modern Sandvik DE840 Multipurpose Drill Rig</li> <li>A Relfex downhole survey instrument was used to take single shot positional surveys approximately every 30m downhole</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 loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <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 insitu regolith and fresh rock was excellent</li> <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>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <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>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<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 (6 m) to reduce sample contamination</li> <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 typical for the RC drilling method but caution is warranted given reports of coarse gold during historical mining operations</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Original RC samples were submitted to Intertek NTEL in Alice Springs, Northern Territory for sample preparation before being sent to Perth for Assay.</li> <li>After crushing and pulverizing to – 75 microns, each sample is homogenized within the bowl, and a 200g sub-sample of the pulverized sample is submitted for conventional fire assay for gold (FA50)</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>Intertek NTEL have internal QAQC procedures, including certified reference materials, duplicates and blanks, results of which are reviewed by Intertek NTEL 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</li> </ul>

Criteria	JORC Code explanation	Commentary
		precision of the assay data
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 specific twinned holes have been carried out as yet</li> <li>No external laboratory assays have been carried out</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> <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><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></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</li> <li>Drill collars have been surveyed using a differential global positioning system (DGPS), to a nominal +/- 20 cm accuracy in the XY direction. Downhole surveys were completed using a Reflex SS single shot camera</li> <li>Drill collar coordinates are typically recorded in GDA94 (MGA Zone 52), then transformed to Fountain Head Local Grid via Datamine Discover software, with +1000 m added to the RL value</li> <li>A hydrographic survey was conducted in January 2019 to obtain an accurate pit floor surface of the water-filled conjoined Fountain Head and Tally Ho open pits. Measurements were made using a remotely controlled hydrographic craft fitted with an RTK GPS and Ceducer sonar system. The remote craft recorded data over a 5 m grid plan of the pit extents</li> <li>A Terra 3D aerial drone was flown over the Project area in July 2014, producing a high quality DTM surface and a composited aerial photograph using a CanonIXUS127HS camera. Some vegetation artefacts can be seen</li> <li>The final DTM used in the resource model is a version of the Terra 3D DTM that has been updated with the 2019 hydrographic survey DTM, and then reduced in size to be manageable within the Datamine software</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• At Fountain Head, the data spacing is irregular, although much of the drilling is along north-south lines using the Fountain Head Local Grid, dipping at <math>-60^{\circ}</math>, towards azimuths of either <math>000^{\circ}</math> (dipping northward) or <math>180^{\circ}</math> (dipping southward). Drill line spacing is typically 20-40 m. On section, holes are spaced 5-30 m apart, with an average of approximately 15 m. There is a rapid decrease in drill data density outside the current resource area, lacking holes north and south, as well as at depth in the east and west.</li> <li>• At Fountain Head East, line spacing is typically 20 m. Holes are spaced tightly along drill lines at around 5 m apart, in order to define the central mineralised shear. In this area, no drilling has tested rocks more than 125 m from surface.</li> <li>• At Fountain Head West, drill line spacing is irregular and lines are either 10, 20 or 40 m apart. The areas with 40 m spacing would benefit from infill drilling, particularly in the far west of the resource.</li> <li>• At Tally Ho, line spacing is typically 20 m, although there are at least 4 lines within the Tally Ho orebody with around 30 m spacing. Around 13 holes have reached depths of over 200 m below ground surface, down to around 350 m, targeting deep extensions to the orebody.</li> <li>• The sample spacing is sufficient to establish the grade continuity of mineralised zones</li> <li>• RC samples are collected at routine 1 metre downhole intervals, which is appropriate for RC drilling and for the thickness of the known mineralisation. The 1m samples, for intervals where mineralisation was interpreted to be likely, were submitted for assay.</li> <li>• Four metre composite samples were taken over intervals where the drill hole was not expected to intersect mineralisation. The composite samples were collected by spear sampling the 1m bulk RC samples and combining the spear samples into composite samples over the four metre interval. Where the assays suggested that significant mineralisation may exist within the four metre composite sample, the 1m samples collected from the drill rig mounted cone splitter were then submitted for assay.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drilling has been undertaken on sections orthogonal to the strike of the mineralisation. Given the folded nature of the stratigraphy at Fountain Head, and often conformable mineralisation, an effort has been made to drill orthogonal to the stratigraphy. This means holes on each section are often drilled at different orientations. For the most part, holes are drilled at a high angle to the mineralisation. Some</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>sampling bias, this should be assessed and reported if material.</i>	<p>holes, however, have been drilled down dip of the stratigraphy, and sub-parallel to the mineralisation. Holes at Tally Ho and Fountain Head East, where the mineralisation is more shear hosted and linear, have been drilled at a high angle to the mineralisation. Most drill holes are oriented to intersect mineralisation close to perpendicular to the interpreted orientation of the main zone of mineralisation.</p> <ul style="list-style-type: none"> <li>The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Logging, 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>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been carried out at this point</li> <li>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>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Project comprises four granted Mineral Leases (MLs) totaling 879.67 hectares, all 100% owned by PNX. These include MLN4, MLN1020, MLN1034 and ML31124</li> <li>All mineral titles are situated within Perpetual Pastoral Lease 1111, NT Portion 695, known as Ban Ban Springs Station</li> <li>PNX has entered into an arrangement with the pastoral lease owners, which governs land access and other obligations for each party. No other landowner access agreements are in place</li> <li>Native Title has been extinguished over the Mineral Leases, and hence, Native Title issues will not affect the development and operation of these project tenements</li> <li>The Mineral Leases are in good standing and no known impediments exist</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Fountain Head and Tally Ho deposits have been subject to sporadic exploration over a long period of time. Drilling has taken place when the project has been owned by the following companies: <ul style="list-style-type: none"> <li>PNX Metals (2018)</li> <li>GBS Gold International (2006 to 2008)</li> <li>Northern Gold (2004 to 2006)</li> <li>Dominion Mining Limited (DML) (1993 to 1994)</li> <li>Zapopan (1989 to 1991)</li> <li>NT Gold Mining (NTGM) (1988 to 1989)</li> <li>Destiny Prospecting (1987 to 1988)</li> <li>Australian Coal and Gold (1982).</li> </ul> </li> <li>The mineralisation at Fountain Head and Tally Ho occurs within the upper units of the Mount Bonnie Formation, the uppermost division of the South Alligator Group, open folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. These cyclic siltstone, mudstone and greywacke packages have been metamorphosed to greenschist facies.</li> <li>In the area, stratigraphy is folded along northwest-southeast axes that plunge shallowly to the southeast. The southeast-striking anticline has variable limb dips and the axis is faulted by northwest-southeast trending faults. The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and several late syn-orogenic to post-orogenic Proterozoic granitoids.</li> <li>Mineralisation at Fountain Head occurs in veins as either conformable anticlinal lodes (with flanking mineralisation) or subvertical “ladder vein” styled mineralisation associated with brittle failure sub-parallel to the fold axis, and is found within mudstones, greywackes and phyllite units. Sheeted quartz vein stock-works occur mainly in the axial zone with veins predominantly dipping northeast, and some saddle reefs occur in the axial zone).</li> <li>The Tally Ho deposit is located just to the south of Fountain Head deposit and sits on the western limb of the Fountain Head anticline. The Tally Ho deposit strikes sub-parallel to the Fountain Head deposit and consists of a linear zone of mineralisation striking northwest-southeast and plunging to the southeast. The quartz veins are 1–20 cm thick and host gold with a minor pyrite-arsenopyrite association.</li> <li>Previous mining at Fountain Head has consisted of small-scale mining of quartz reefs and alluvials from 1886 sporadically up to</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>1989. In 1995, Dominion Mining Ltd carried out trial open pit mining at Fountain Head. The Tally Ho lodes were discovered in 2006 and the deposits were mined to approximately 50m below surface by GBS in 2007-2008, producing approximately 1.13Mt @ 1.65 g/t for 60,200oz</p> <ul style="list-style-type: none"> <li>• See ASX release 11 July 2019 where PNx published the results of a new mineral resource estimate</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>• Mineralisation at Fountain Head occurs as conformable and crosscutting lodes within mudstones, greywackes and phyllite units of a NW /SE striking anticline that plunges to the SE. The lithological units are believed to belong to the Mount Bonnie Formation, within the South Alligator Group. Gold mineralisation is hosted by sub vertical shear related stock-works, fracture zones in grey-wackes and saddle reefs at lithological contacts. Most of the resource is in the hinge zone of the anticline with gold grade rapidly tapering off down dip on the limbs</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></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>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></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 classified as significant if they occur at a minimum of 0.5 g/t Au, although mining cut-offs may be significantly lower or higher, depending on the depth of the intersection</li> <li>• Each sample assay used for reporting is averaged across any repeat assay grades for that sample</li> </ul>

Criteria	JORC Code explanation	Commentary
<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>• Due to the folded nature of some mineralised zones, and unknown geometry of extensions to mineralisation, there is no clear relationship yet between intersected width and true width</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>• Further drill 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</li> <li>• Further metallurgical work including materials handling and column tests will be conducted and incorporated in the assessment of Fountain Head heap leaching</li> </ul>