ASX Announcement
11 July 2019

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New Gold Mineral Resource at Fountain Head Project

- **PNX's first Mineral Resource estimate completed for the Fountain Head Gold Project (reported in accordance with JORC Code, 2012):**
  - **Fountain Head and Tally Ho total (Indicated and Inferred)**
    - **2.58 Mt at 1.7 g/t Au for 138 koz Au; including**
  - **Fountain Head (Indicated and Inferred)**
    - **1.64 Mt at 1.5 g/t Au for 79 koz Au**
  - **Tally Ho (Indicated)**
    - **0.94 Mt at 2.0 g/t for 59 koz Au**
- **60% of the resources in the higher confidence Indicated category**
- **The Fountain Head and Tally Ho Mineral Resources are situated in close proximity to each other and located on granted Mineral Leases 100% owned by PNX**
- **The Mineral Resource occurs from surface down to approximately 190m and is amenable to open pit mining methods**
- **Potential for future growth in resources remains through further exploration drilling along strike**
- **Significantly increases the global Mineral Resource for the Hayes Creek Project where studies to inform a DFS are progressing well including those relating to Government and Environmental approvals**

PNX Metals Limited (**ASX: PNX**) ("**PNX**", "the **Company**") is pleased to announce its first Mineral Resource estimate for the 100% owned Fountain Head gold Project (reported in accordance with the JORC Code, 2012), which together with the Iron Blow and Mt Bonnie VMS deposits comprise the Hayes Creek zinc-gold-silver Project ("**Hayes Creek** or **Project**") in the Pine Creek region of the Northern Territory.

Managing Director Comment

PNX Managing Director James Fox said: "This new gold Mineral Resource at Fountain Head is an important development for the Company as it highlights the significant potential of our large NT exploration tenure and is complementary to existing resources defined for the Hayes Creek Zinc-Gold-Silver Project.

The Fountain Head gold system is no doubt significant in scale, it extends over 1.6km at surface and remains open at depth along the strike extent. We are confident that with continued exploration success, Fountain Head would add significant value to the Hayes Creek Project and improve the already robust case for its development.

New geological re-interpretation and modelling based on historic drilling over the Fountain Head project has identified numerous high-value target areas with the potential to significantly extend the Mineral Resource with further drilling.

Relative values of mining the gold resource at Fountain Head versus using the historic open pits for tails from the Hayes Creek Project will now be assessed along with processing options, and whether, and if so how, the two strategies might be combined."

Independent mining consultants CSA Global Pty Ltd ("CSA Global") have estimated the Mineral Resource in accordance with the JORC Code[1], which is summarised in Table 1. A summary report prepared by CSA Global forms part of this ASX release (Appendix A including JORC 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.*

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

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

Fountain Head and Tally Ho Geology and Mineral Resources

The Fountain Head Mineral Resource Estimate (comprising the Fountain Head and Tally Ho deposits) is based on a new geological model generated from the review, analysis and reinterpretation of information collected from numerous diamond and reverse circulation (RC) drilling campaigns and geological mapping from 1982 through to 2018 (Figure 1). PNX drilled 18 RC (inclusive of 4 diamond drill hole pre-collars) and 4 diamond drill holes for 2,385m at Fountain Head in 2018 where new extensional zones of open high-grade gold mineralisation were identified and extend along the Fountain Head anticline to the west by at least 1.6km.

Mineralisation at Fountain Head is intimately associated with the Fountain Head Anticline. The Tally Ho deposit is located just to the southwest of Fountain Head deposit and sits on the south-western limb of the Fountain Head anticline (Figures 2 and 3).

This Mineral Resource extends to approximately 300m from the western edge of the historic Fountain Head pit, and 75m from the eastern extent of that pit. Beyond that the drilling density reduces from the approximate 50m x 50m spacing nominally required for resource classification, however numerous open areas have been identified to target grade and volume increases to the mineralisation.

[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).

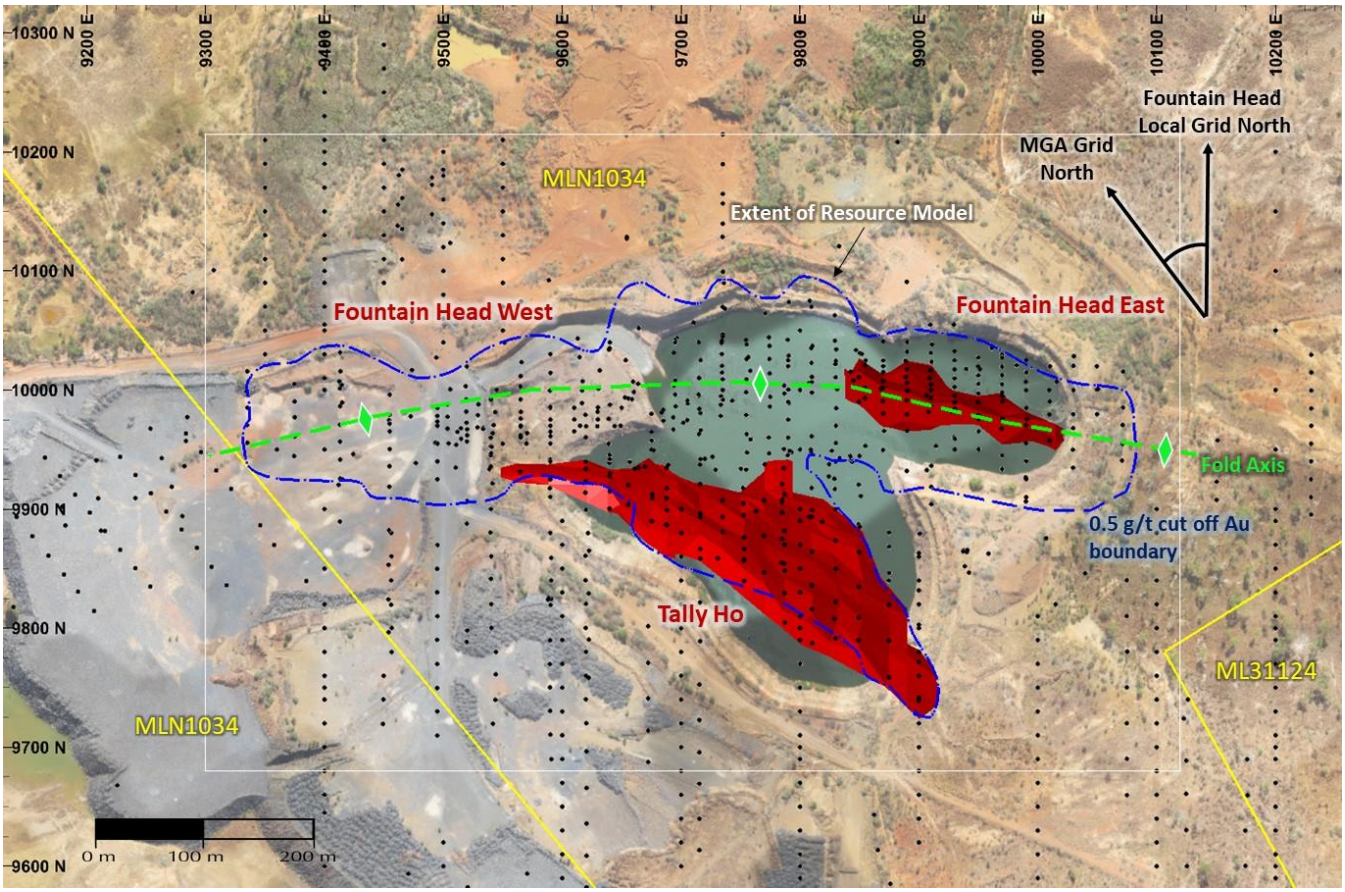

Figure 1: Plan view of the Fountain Head and Tally Ho Mineral Resources showing proximity to historic mining areas, mineral leases and drill collar locations. Fountain Head anticline shown in green.

Mineralisation occurs in veins as either conformable anticlinal lodes (with flanking mineralisation) or subvertical structurally hosted ('ladder vein style") mineralisation associated with brittle failure sub-parallel to the fold axis, and is found within interbedded 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. Increased grades encountered at the Fountain Head Project are thought to result from secondary deformation of the Fountain Head anticline. Gold is associated with quartz veining containing a pyrite-arsenopyrite sulphide assemblage and coarse gold is not uncommon.

The following key structural settings appear to control gold mineralisation at the Fountain Head and Tally Ho deposits:

- In the Fountain Head deposit area, the structurally controlled system of mineralised quartz veins appears largely restricted to the south-western limb and hinge zone of the Fountain Head Anticline. Mineralisation is preferentially hosted in greywacke and sandstone units.
- Subvertical faults or shears subparallel to fold axial planes.
- Vein infill in dilatant zones in the apex of small-scale anticlinal folds associated with the Fountain Head Anticline.
- Conformable veins dipping away on the limbs of the fold, and conformable saddle reefs within the hinge zone of the fold.

For additional material information summary information including JORC Table 1 sections 1-3 see attached memorandum by CSA Global.

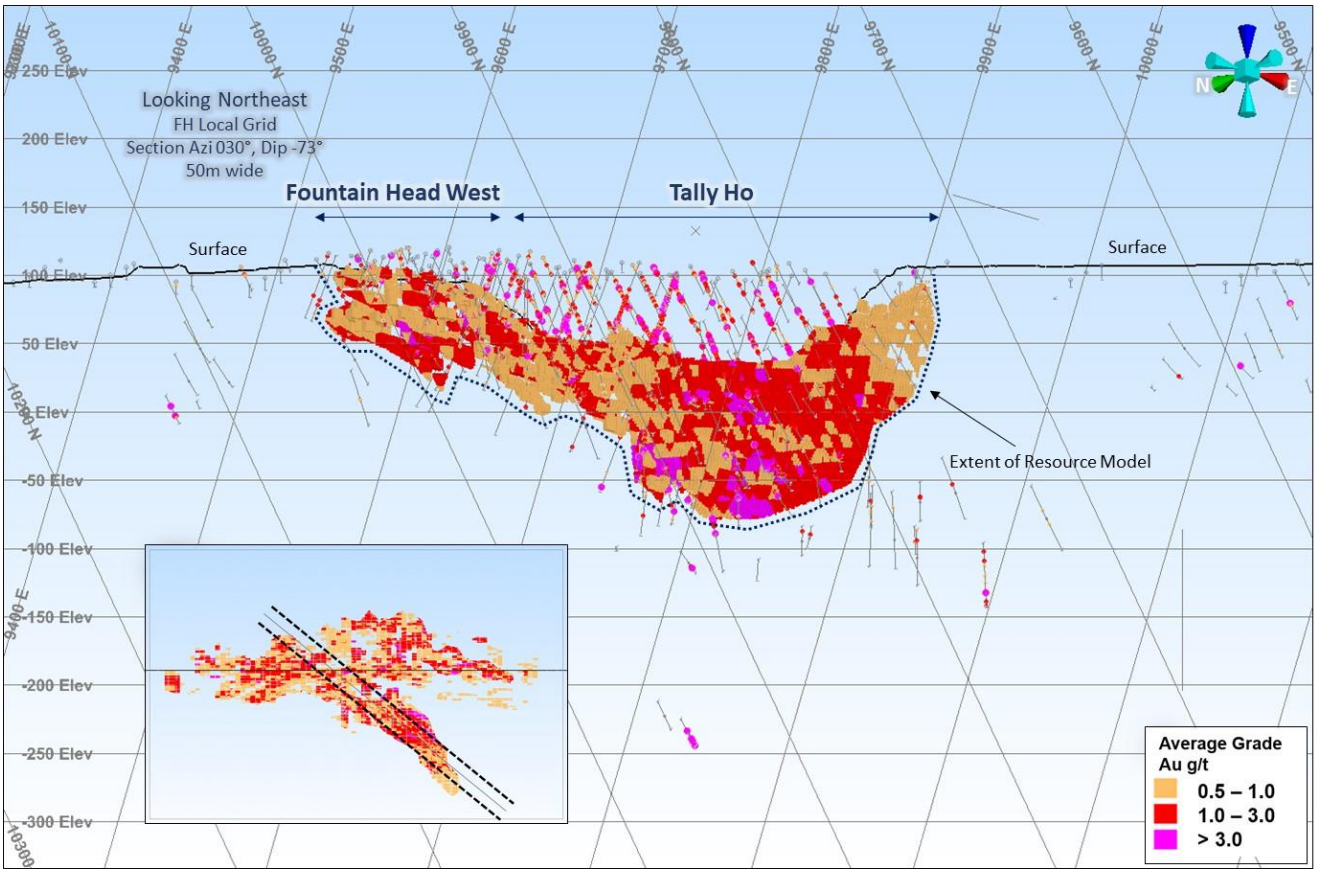

Figure 2: Tally Ho long section and inset plan. >1.0 g/t Au drill intersects also shown below the extent of the Resource

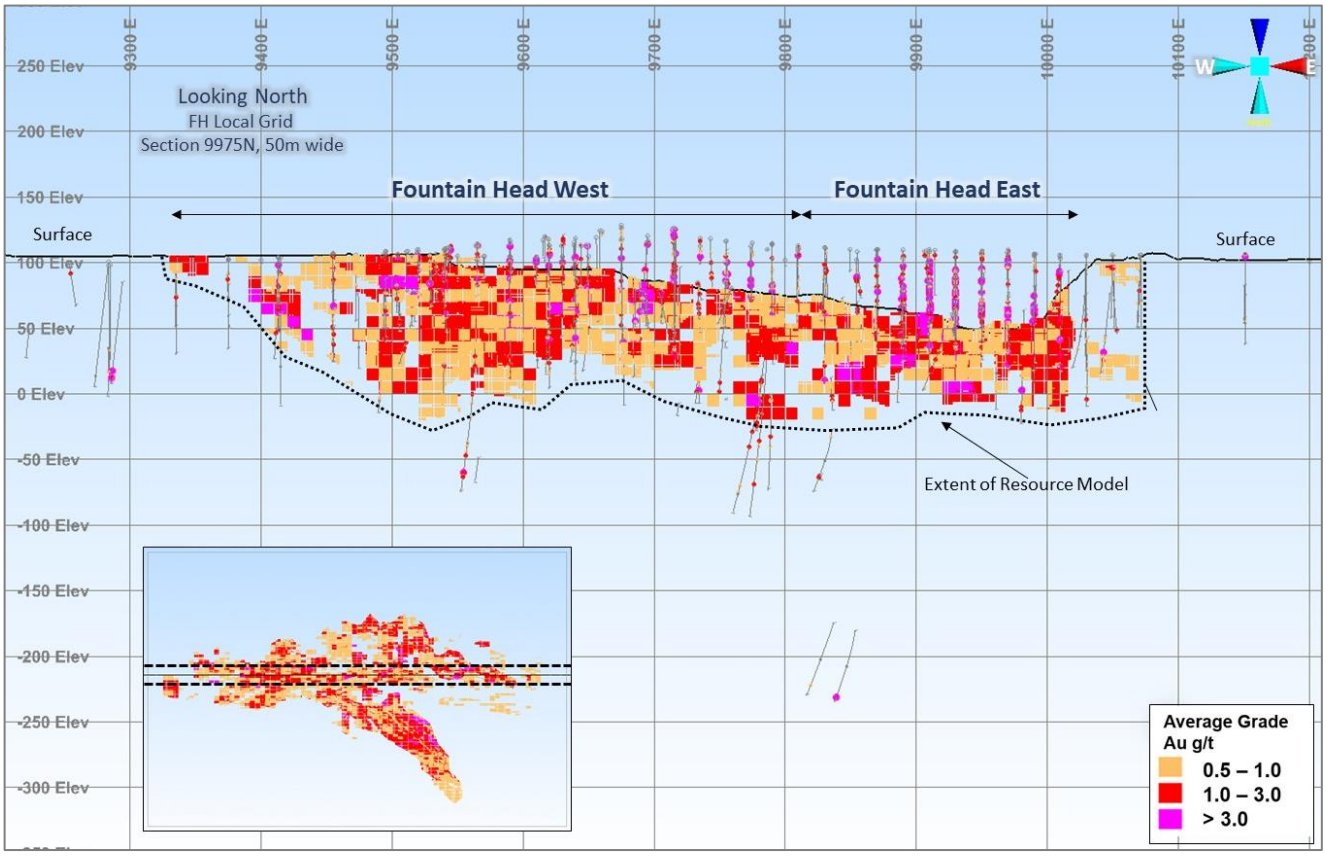

Figure 3: Fountain Head long section and inset plan. >1.0 g/t Au drill intersects also shown below the extent of the resource

Discussion

The scale of the mineralised envelope within the Fountain Head gold Project is significant as gold mineralisation has been intersected from the north-western edge of the existing historic open-pits, being the limit of this Mineral Resource, to the Banner prospect which amounts to an approximate 1.6km strike, and down to a vertical depth of ~250m. Almost the entire strike extent remains open providing numerous exploration targets.

In addition, small-scale historic hard-rock workings have been identified a further 400m to the west of the Banner prospect (ASX release 23 August 2018) along the interpreted Fountain Head anticline, suggesting there is potential for further gold mineralisation in this area[2] (Figure 4).

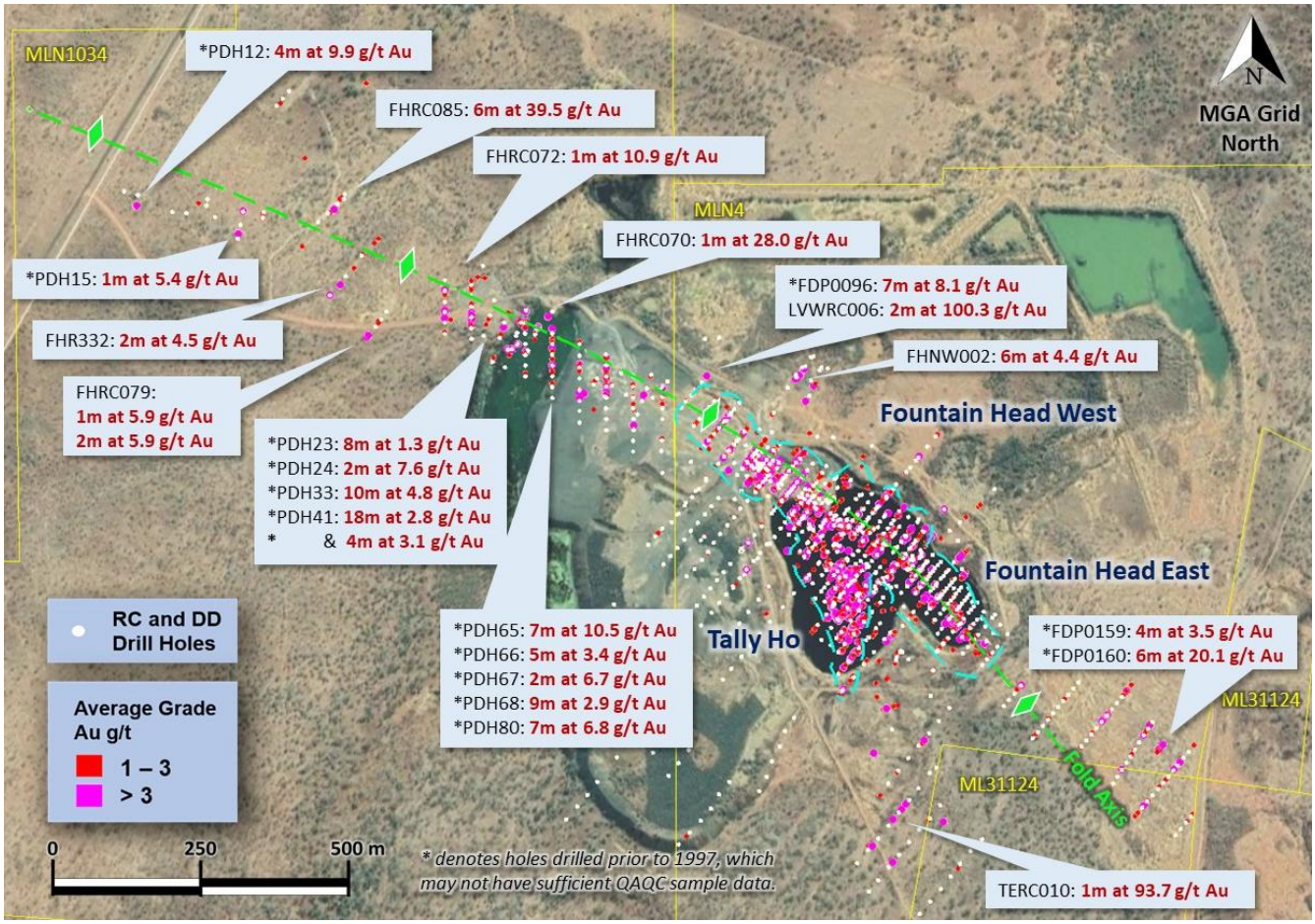

Figure 4: Fountain Head plan showing selection of mineralised drill hole intercepts greater than 1 g/t Au outside of resource

Additional drill testing is required to target extensions to these mineralised zones at depth and increase the density of drill data along strike to support additional Mineral Resources. Interpretation suggests that drilling out the hinge of the anticline and associated sub-vertical structures would provide the greatest return and it is likely that this would occur as part of any future exploration and development programs.

Detailed studies are being undertaken to determine if some of all or some of these Mineral Resources may be incorporated into the overall Hayes Creek project.

[2] Refer PNX ASX announcement 23 August 2018 'High-grade Gold Discovery at the Banner Prospect, NT'

The relative values of PNX mining some or all of these Mineral Resources versus using the historic open pits for tails from the Hayes Creek project will also be assessed, and whether, and if so how, the two strategies might be combined.

Hayes Creek DFS update

The Company is progressing well with Hayes Creek Definitive Feasibility Studies (DFS), having recently completed a fully-underwritten rights issue to raise $5.48 million before costs (ASX release 15 May 2019).

The DFS is on schedule and follows on from the successful completion of a Pre-Feasibility Study (PFS) in mid-2017 which confirmed Hayes Creek to be a promising future low-cost, high margin zinc and precious metal mine that could create significant value for the Company's shareholders (PNX ASX release 12 July 2017).

The DFS is expected to provide increased confidence in all aspects of the Project as well as investigate opportunities to improve mine life and overall Project economics, thereby increasing the prospect of favourable development finance terms and structure.

Hayes Creek comprises the Mt Bonnie (open-cut) and Iron Blow (underground) zinc-gold-silver deposits, and the Fountain Head gold deposit, located in close proximity to each other on wholly owned Mineral Leases within the Pine Creek region of the Northern Territory, 170 km south of Darwin (Figure 5).

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

The "future low-cost" potential of the Project is greatly influenced by near-surface mineralisation at Mt Bonnie which is planned to be accessed via an open-pit and be extracted before the commencement of underground mining at Iron Blow – with Mt Bonnie funding underground development and thus reducing the up-front capital required.

The development of a Mineral Resource at the Fountain Head Project and new near-surface gold/silver mineralisation intersected at Iron Blow (ASX release 27 June 2019) has the potential to augment this strategy with the potential for additional feedstock for Hayes Creek to be assessed.

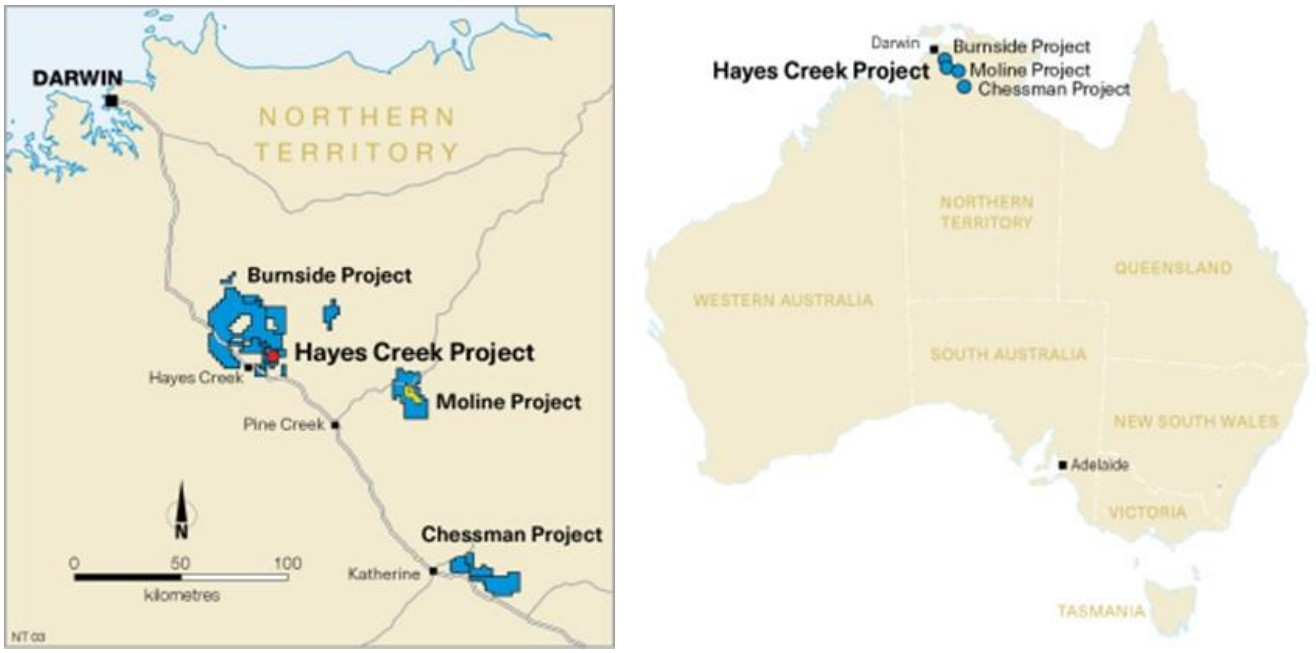

Figure 5: NT Project locations

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin and Mr Charles Nesbitt. 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 Charles Nesbitt is a full-time employee of PNX Metals Ltd. Mr Aaron Meakin and Mr Charles Nesbitt 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 Charles Nesbitt consent to the inclusion of this information in the form and context in which they occur.

For further information please visit the Company's website www.pnxmetals.com.au or contact us:

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MEMORANDUM

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To: James Fox

Cc:

Date: 11th July 2019

From: Aaron Meakin

CSA Global Report Nº: R288.2019

Re: **Fountain Head and Tally Ho Mineral Resource estimates**

EXECUTIVE SUMMARY

CSA Global Pty Ltd (CSA Global) was commissioned by PNX Metals Limited (PNX) to assist with geological modelling and to prepare a Mineral Resource estimate for the Fountain Head and Tally Ho deposits (the Project), 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 for Fountain Head and Tally Ho is shown in Table 1. The Mineral Resource estimate is reported above a cut-off grade of 0.7 g/t Au, consistent with the proposed open pit mining method.

Table 1: Fountain Head and tally Ho Mineral Resource estimate, > 0.7 g/t Au

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

** 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).

DRILLING, SAMPLING AND SUB-SAMPLING TECHNIQUES

Diamond core and reverse circulation (RC) samples have informed the Mineral Resource estimate. Drilling data has been collected during numerous drilling campaigns, commencing in 1982.

The database used for grade estimation is comprised of drilling carried out when the project was under ownership of numerous companies including (listed in chronological order):

- Australian Coal and Gold (1982)
- Destiny Prospecting (1987 to 1988)
- NT Gold Mining (NTGM) (1988 to 1989)
- Zapopan (1989 to 1991)
- Dominion Mining Limited (DML) (1993 to 1994)
- Northern Gold (2004 to 2006)
- GBS Gold International (2006 to 2008)
- PNX Metals (2018).

Drilling from 2004 onwards has been collectively termed "**Modern Drilling**" and comprises approximately 52% of the total dataset used for Mineral Resource estimation. Quality control (QC) samples were routinely submitted throughout these drilling campaigns. Any drilling prior to 2004 has been collectively termed "**Historic Drilling**". QC samples were generally not submitted throughout these drilling campaigns. It is therefore not possible to demonstrate the veracity of this data.

Documentation is available however which describes data collection techniques for almost all phases of drilling. Although collar location, downhole survey, logging and analytical techniques have varied slightly over the project's history, all can be considered industry standard at the time.

The two main drilling methods that have been employed are reverse circulation (RC) and diamond drilling. Several drilling companies were employed to undertake the drilling, using a variety of different single-purpose and multiple-purpose drill rigs.

RC drilling was used extensively due to the shallow, near-surface position of the deposit. RC drilling was generally completed using either an RC face sampling bit (ranging between 4 ½" and 5 ¾" diameter) or a conventional percussion hammer and cross-over sub. Diamond drilling was generally completed using HQ size, producing61.1 – 63.5 mm diameter core.

Core was generally sampled at 0.2 m to 1.5 m intervals, with half core submitted for assay. RC drilling samples were for the most part collected at 1 m intervals using a cone splitter mounted on a drill rig at the bottom of the cyclone.

Modern Drilling collars have been surveyed using a differential global positioning system (DGPS). Most Historic Drilling collars have been surveyed. Planned coordinates have been used in the instances where no formal surveying has occurred. Modern Drilling downhole surveys were completed using a Reflex SS single shot camera. Historic Drilling downhole surveys are available for the majority of the holes. GBS Gold used a Reflex EZ-Shot, Flexi Kit, or gyroscope. NGNL used an Eastman single shot camera. Other companies have not recorded the means of which down hole surveys were collected.

ANALYTICAL METHODS AND QUALITY ASSURANCE

Several laboratories and assay techniques have been used throughout the Project's history. North Australia Laboratories (NAL) at Pine Creek, Northern Territory, analysed all Modern Drilling samples. Other laboratories utilised prior to 2004 include Amdel (Darwin), Assaycorp (Pine Creek), Analabs (Darwin), and Classic Comlabs (Darwin and Townsville).

Analysis was by fire assay (50g mainly but sometimes 30 g) with determination by atomic absorption spectrophotometry (AAS).

Modern Drilling Quality Control

PNX insert certified reference materials (CRMs) and field duplicates every 25 samples, and three blanks per hundred samples. Three different gold standards were used by PNX over a range of grades including ST431, ST508 and ST559. The standards were sourced from Gannet Holdings Pty Ltd (Gannet).

GBS Gold was the first company to routinely insert QC samples into the sample stream. For every 30 samples submitted, one standard was submitted. The following gold standards were used: ST02/0286, ST07/5343, ST02/5355, ST07/9258, ST08/8225, ST09/3320, ST16/5357, ST39/6167, ST44/6335, ST48/9278, ST274, and ST383. The standards were also sourced from Gannet. Field duplicate samples were also submitted, with one sample taken every 25 samples. The duplicate bag was usually placed on the outlet of the splitter, otherwise a scoop was used to collect the sample form the reject bag. Blanks were also inserted routinely, in addition to barren quartz flushes after high-grade samples to reduce the potential of contamination.

Blanks results reveal no material issues with carry-over contamination at the primary laboratory.

Field duplicate results, which are dominated by RC splits, indicate poor precision. High relative difference can indicate poor sampling practice, poor assaying or high nugget effect. Poor sampling precision has been noted throughout the Project's history, with respect to both pulp duplicates and field duplicates, and is likely to be largely attributable to the high nugget nature of the deposit. A sampling study should be carried out to support future sampling and analytical activities, and the use of screen fire assay methods should be further assessed. No significant global bias was noted however with either the field duplicates or pulp duplicates.

The accuracy of the laboratories used by PNX and GBS Gold has been adequately demonstrated using CRMs. Although some outliers are present which require explanation, no significant bias is noted.

All Modern Drilling data was used in the dataset used for Mineral Resource estimation.

Historic Drilling Quality Control

No systematic insertion of QC samples was carried out prior to 2004.

CSA Global has reviewed documentation which discusses this Historical Drilling data and notes the absence of QC data precludes assessment of the quality of the data. Sampling precision, analytical accuracy and carry-over contamination were not able to be assessed. Data collection methods are quite well known, however, and reputable laboratories were used which gives some confidence in the data.

In order to understand the materiality of this dataset in terms of impact on the reported Mineral Resource, CSA Global completed a review of all holes that intersected the wireframes that were modelled as part of this Mineral Resource estimate. The lower confidence that is associated with the Historical Drilling data was considered however when classifying the Mineral Resource.

Although no QC data was available to support the drilling campaigns completed by companies prior to GBS Gold, the data was included for Mineral Resource estimation given that historical documentation indicated that data collection techniques were largely consistent with industry good practise, and reputable laboratories were used. Furthermore, the statistical comparison between the Modern and Historical datasets provided additional support.

DEPOSIT GEOLOGY AND GEOLOGICAL MODELLING

The Foundation Head and Tally Ho deposits are located within the Pine Creek Inlier or "Pine Creek Geosyncline", a basin formed by crustal extension of c. 2500 Ma granitic basement, where about 10 km of Proterozoic (~1900 Ma) shallow marine to continental supracrustal rocks (sediments and volcanics) accumulated in <20 million years (Needham *et al.,* 1988).

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, a tight to isoclinally 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. In the area, stratigraphy is folded along northwest-southeast axes that plunge shallowly to the southeast.

Mineralisation at Fountain Head is intimately associated with the Fountain Head Anticline. The Tally Ho deposit is located just to the southwest of Fountain Head deposit and sits on the western limb of the Fountain Head anticline.

Mineralisation 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. Increased grades encountered at Fountain Head are thought to result from secondary deformation of the Fountain Head anticline. Gold is associated with quartz veining containing a pyrite-arsenopyrite sulphide assemblage and coarse gold is also not uncommon.

The following key structural settings appear to control gold mineralisation at Fountain Head and Tally Ho:

- In the Fountain Head area, the structurally controlled system of mineralised quartz veins appears largely restricted to the southern limb and hinge zone of the Fountain Head Anticline. Mineralisation is preferentially hosted in greywacke and sandstone units.
- Subvertical faults or shears subparallel to fold axial planes.
- Vein infill in dilatant zones in the apex of small-scale anticlinal folds associated with the Fountain Head Anticline.
- Conformable veins dipping away on the limbs of the fold, and conformable saddle reefs within the hinge zone of the fold.

Preliminary statistical analysis was completed on the global dataset to assess if a cut-off grade could be used to define boundaries to the mineralisation. Based on this review, a 0.4 g/t Au cut-off grade was selected as the "Mineralisation Indicator Grade" to build volume models to separate mineralised from unmineralised material.

"Grade-based" domains were interpreted where the mineralisation was spatially associated with shear zones. This includes Tally Ho (domain field "MINZON" = 1) and Fountain Head East (MINZON = 2). The shear zone at Fountain Head East is coincident with the hinge zone of the Fountain Head Anticline, while Tally Ho appears to be a separate shear zone which strikes oblique to the axial plane of the Fountain Head Anticline.

Over the entire strike length of the Fountain Head deposit, however, the presence of conformable veins on the limbs of the fold, and saddle reefs within the hinge zone of the fold are noted. It has also been noted that greywackes and sandstones appear to be preferential hosts, compared to adjacent siltstone/mudstone units. The importance of lithology in understanding the distribution of the mineralisation in the broader Fountain Head are is therefore well-established.

In order to better understand the lithological controls, PNX created 3D models of the various greywacke and siltstone units that host mineralisation. The following units were modelled:

- Greywacke A (GA) MINZON = 3
- Mudstone B (MB) MINZON = 4
- Greywacke B (GB) MINZON = 5
- Mudstone C (MC) MINZON = 6
- Greywacke C (GC) MINZON = 7
- Mudstone D (MD) MINZON = 8
- Greywacke D (GD) MINZON = 9.

Figure 1 is a cross section showing the modelled lithological units.

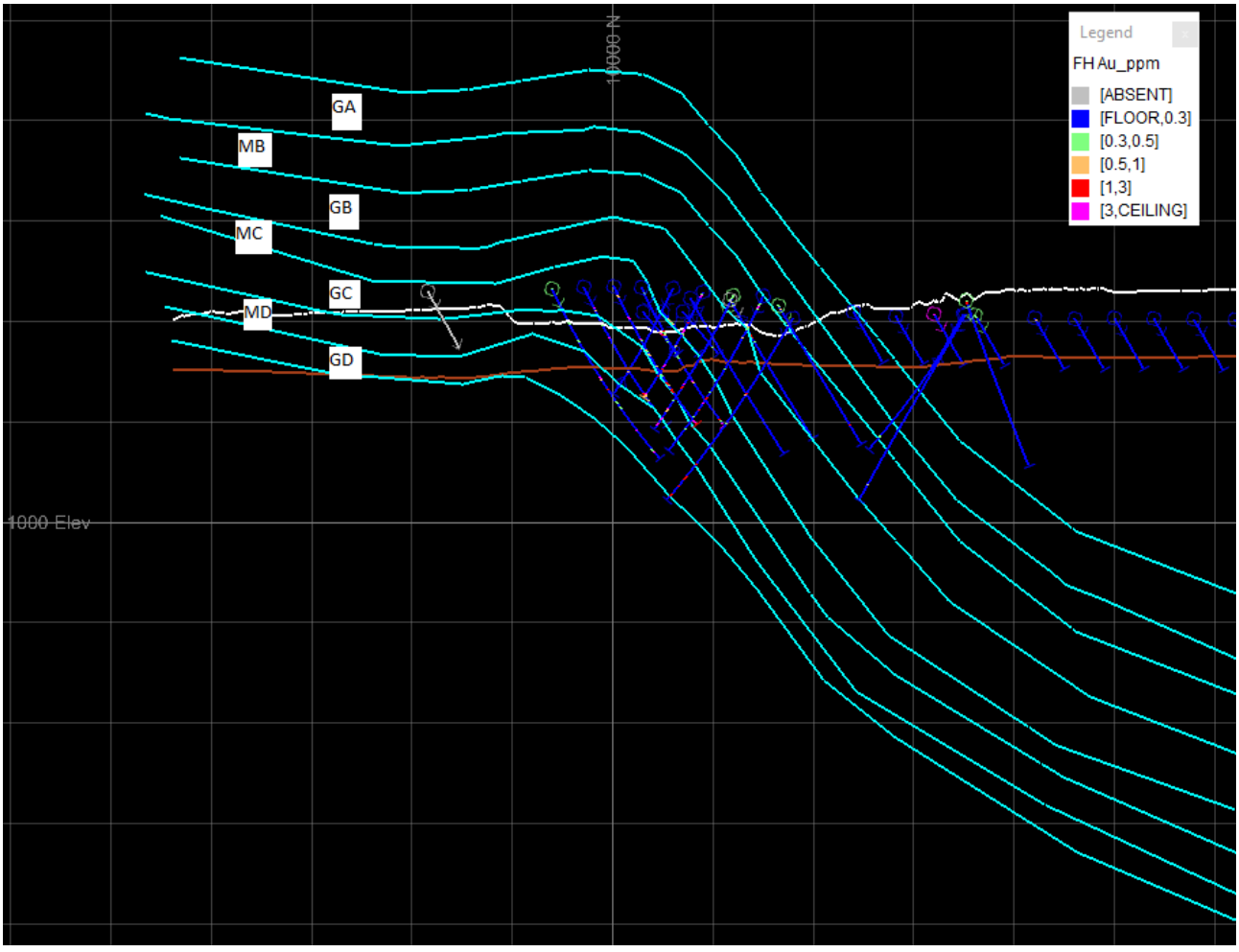

Figure 1 Cross section 9,590 m E showing modelled lithological units and drill holes (Au grades shown). Topography profile shown in white and top of fresh rock shown in brown.

After reviewing the distribution of gold in relation to the modelled lithology, it was clear that the lower two Greywacke units (GC and GD) were preferential hosts, likely due to the brittle nature of the host rocks promoting dilation and hydrothermal fluid movement. It was also clear that there was clear continuity conformable with the lithological units in some areas. For the most part, however, the distribution of mineralisation within the lithological units was somewhat irregular and did not lend itself to discrete modelling of lenses around each mineralised intersection. Accordingly, lithological

boundaries, rather than grade boundaries, were used as domain boundaries ("stratigraphy-based domains").

It was also clear that the mineralisation occurred within the hinge zone, or on the southern limb of the Fountain Head Anticline. In order to constrain reporting of Mineral Resources to within the Fountain Head Anticline hinge zone, a 3D model was created of this hinge zone area. Strings were digitised around the hinge zone on each of the main drill sections and then linked to form the 3D solid model. Mineral Resources have not been reported outside this area, given that the mineralisation rapidly diminishes away from the hinge zone. Without application of this constraint, there was potential for significant grade smearing. The hinge zone constraint model is shown in *Figure 2*.

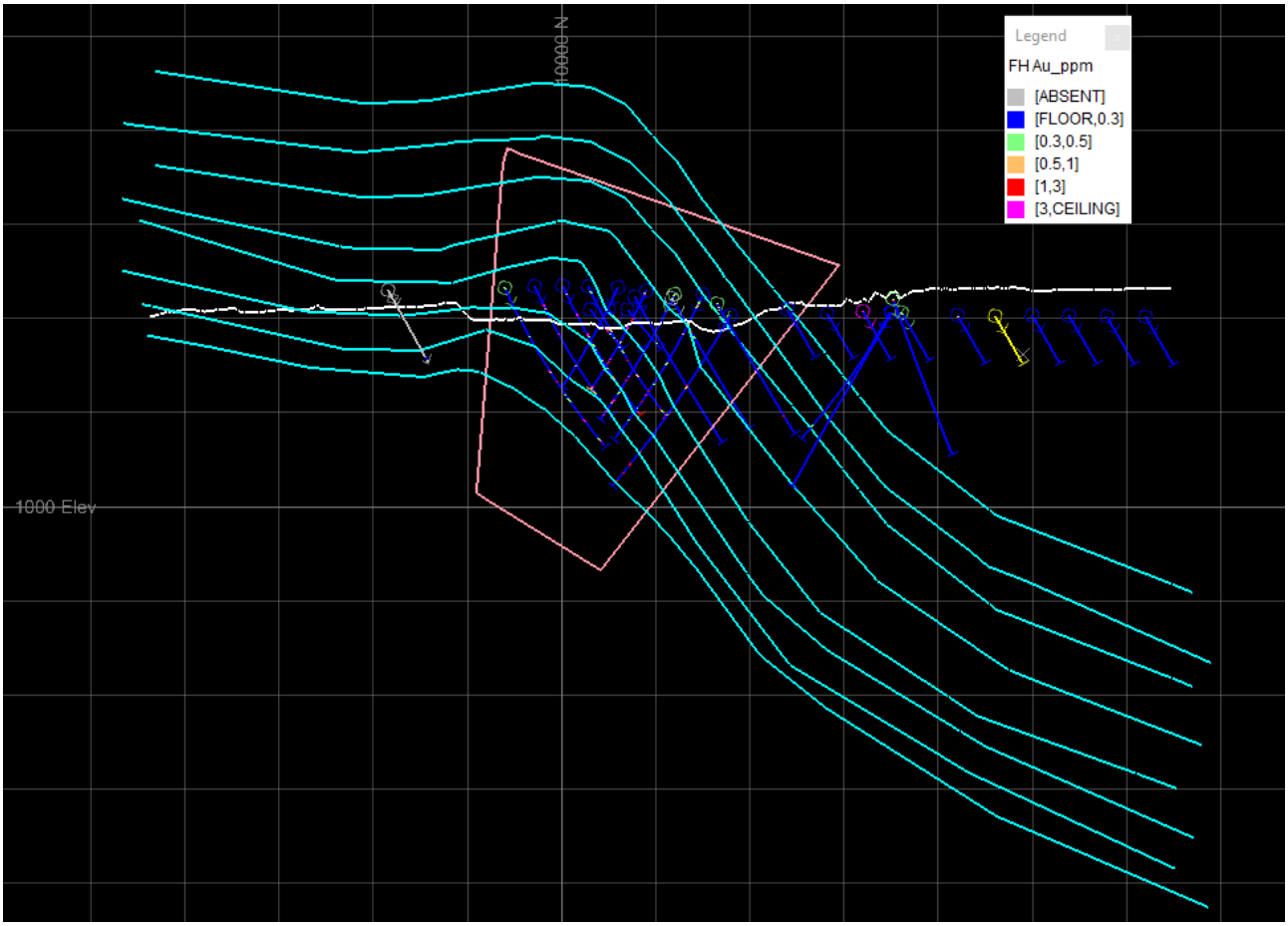

Figure 2 Cross section 9,590 m E showing modelled lithological units in light blue and drill holes (Au grades shown). Topography profile shown in white and top of fresh rock shown in brown. Hinge Zone constraint shown in pink.

The top of fresh rock boundary was modelled to support Mineral Resource estimation.

ESTIMATION METHODOLOGY

Statistical analysis and variography was completed in Supervisor software. Sample data were composited to 1 m lengths, which is consistent with the dominant sample length, and top cuts were then applied after reviewing the domain sample histogram and log-probability plot. Top cuts were applied on a domain basis and varied from 10 g/t to 50 g/t Au. Some domains were not top cut given that no significant outliers existed in the data.

Variography was completed using data within the Tally Ho and Fountain Head East mineralisation envelopes (MINZONs 1 and 2), and data located on the southern limb of the Fountain Head Anticline only for the stratigraphic domains (MINZONs 3 to 9). Only data on the southern side of the anticline was used given the fact that the geometry was consistent, which prevented unfolding of the data. A horizontal variogram fan was initially created to define the known strike of the mineralisation. The dip was then selected from the across-strike vertical fan and the plunge was selected from the dip-plane fan. Variogram models were then created in the direction of maximum continuity (plunge and major direction), orthogonal to the plunge in the plane of the reef (semi-major direction) and across-strike (minor direction). A log transform was applied to the data given the highly skewed nature of the distribution. Downhole variograms were created for each MINZON to determine the nugget effect, with a lag of 1 m adopted to capture the shortest possible sample spacing. The mineralisation displays a high nugget component (>50%) and significant short-range grade variability.

Quantitative kriging neighbourhood analysis (QKNA) was then undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates.

Based on the QKNA results, a block size of 10 m E by 5 m N by 10 m RL was chosen, and a minimum of 6 samples and a maximum of 16 samples were selected. The primary, secondary, and tertiary search ellipse dimensions represent approximately half of the variogram range, the full variogram range and ten times the full variogram range respectively which varies from domain to domain. Discretisation was set to 3 by 3 by 3.

3D block models of the mineralisation were created using Datamine software. Composited and top cut samples were used to interpolate grades into blocks using ordinary kriging. The block models were validated prior to being reported, both visually and by statistical comparison of sample and block grades.

For Mineral Resource estimation a density value of 2.54 t/m^3 and 2.75 t/m^3 were applied to oxide/transitional and fresh material respectively, following statistical analysis of water immersion results.

CLASSIFICATION CRITERIA

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 Attachment 1.

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

- Tally Ho was wholly classified as Indicated. The Mineral Resource estimate was substantially informed by Modern Drilling data, and the drill spacing was considered sufficient (approximately 20–25 m E by 20–25 m RL) to assume grade and geological continuity between points of observation given the style of mineralisation.
- Fountain Head East was wholly classified as Inferred. The Mineral Resource estimate is substantially informed by Historical Drilling data with no associated QC samples, with a highly variable drill pattern of 10–50 m E by 10–50 m RL.
- Fountain Head West was classified as a combination of Indicated and Inferred. A wireframe was constricted around the area toward the western end of the deposit where drilling has been on a pattern that approximates 15–30 m E by 10-15 m RL. This area is informed by both Modern and Historical Drilling. The remaining Mineral Resource within the prospective hinge zone area was

classified as Inferred, which is associated with a highly variable drill pattern of 10–50 m E by 10–50 m RL.

The Mineral Resource is shown by classification in *Figure 3*.

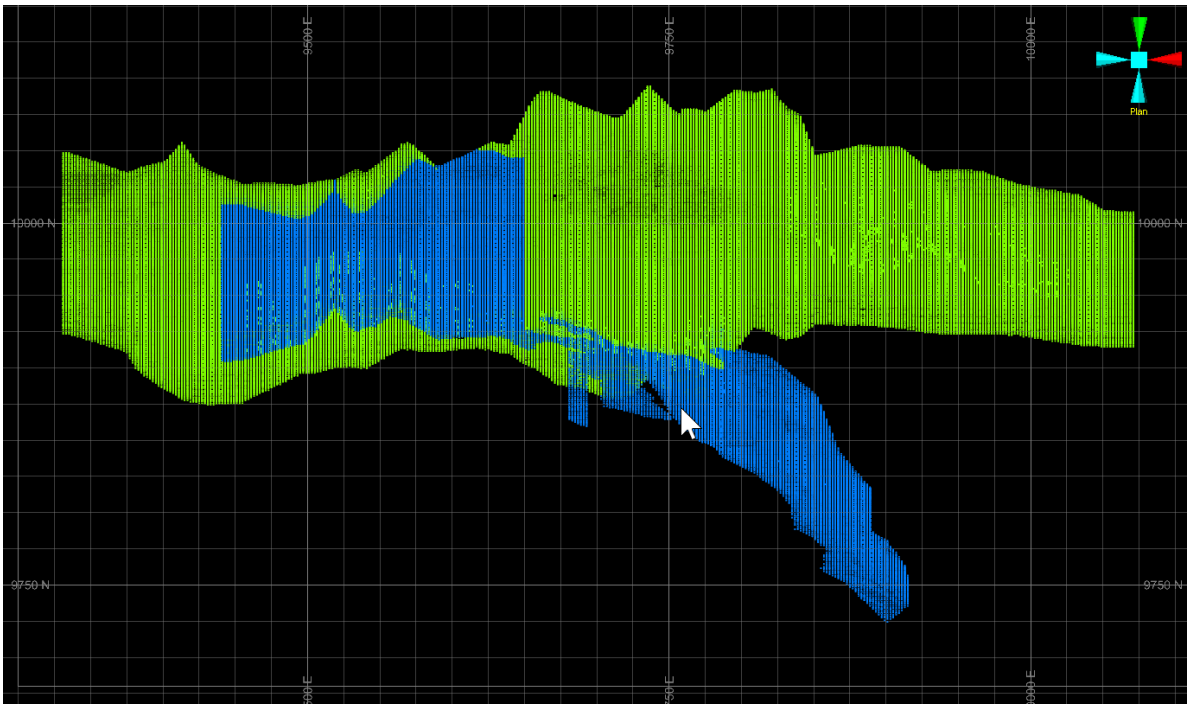

Figure 3: Fountain Head and Tally Ho Mineral Resource classification (Indicated: blue, Inferred: green)

MODIFYING FACTORS

The selected cut-off grade assumes an open pit mining method. The Competent Persons consider this is reasonable given the mineralisation is close to surface and following preliminary results of a pit optimisation exercise which was based on the block model created during this Mineral Resource estimate.

It is assumed that any ore mined will be able to be processed. Ore from the Fountain Head and Tally Ho deposits has been previously mined and sold; hence the Competent Persons consider this assumption is reasonable. It is further understood that the majority of the mineralisation is free-milling. Metallurgical test work is recommended to validate this assumption.

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 135 km from Darwin
- Cut-off grades have been adopted which is consistent with the anticipated mining method (open pit and underground)
- A pit optimisation study has been completed in parallel with this work which shows positive economic results, albeit of a preliminary nature.
- There is some potential to increase the Mineral Resource with additional drilling.

COMPETENT PERSONS STATEMENT

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin and Mr Charles Nesbitt. Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Charles Nesbitt is a full-time employee of PNX Metals Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin and Mr Charles Nesbitt 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 Charles Nesbitt 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 obtained through reverse circulation (RC) and diamond drilling methods collected from campaigns completed by several companies from 1982 through 2018.
	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. RC drilling samples were generally collected at regular 1 m intervals using a cone splitter mounted on a drill rig at the bottom of the cyclone.
	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.	RC and diamond drilling were used to obtain 0.5 m to 2 m samples which were pulverised to produce a 50 g charge for fire assay with determination by atomic absorption spectrometry (FA/AAS) for gold. A 30 g charge was used for a minor number of samples.
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. The database used for grade estimation is comprised of drilling carried out when the project was under ownership of numerous companies including (listed from most recent): <u>Modern Drilling</u> • PNX Metals (2018) • GBS Gold International (2006 to 2008) • Northern Gold (2004 to 2006) <u>Historical Drilling</u> • Dominion Mining Limited (DML) (1993 to 1994) • Zapopan (1989 to 1991) • NT Gold Mining (NTGM) (1988 to 1989) • Destiny Prospecting (1987 to 1988) • Australian Coal and Gold (1982). Drilling from 2004 onwards has been collectively termed "Modern Drilling" in this report and comprises approximately 52% of the total dataset. Quality control (QC) samples were routinely submitted throughout these drilling campaigns. Any drilling prior to 2004 has been collectively termed "Historic Drilling" in this report. QC samples were generally not submitted throughout these drilling campaigns.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Modern Drilling Drilling recoveries are recorded by PNX for both RC chips and diamond core. In RC chips, the 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, although with some loss of fines. Diamond core recovery is detailed in the geological logs and captured within the database. GBS Gold drilling recoveries are not available in detail in the reports and data available to PNX. It is noted that all diamond holes suffered varying amounts of core loss. Historic Drilling Diamond drilling completed by Destiny records that core drilling recovery in the oxidised rock gave poor recovery. RC drilling (also completed by Destiny) is indicated to have had good recovery above the water table (30–45 m depth), and satisfactory samples in most cases when the drilling continued below the water table. There is no apparent record of sample recovery for other historical drilling.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drilling was typically carried out using a face-sampling hammer. Core was cut in half using a core saw.
	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.*	Drill logs capturing lithological data are available for all drilling. Modern Drilling At the completion of logging, the geologist marked the core ready for sampling. Geological descriptions were entered directly onto standard logging sheets, using standardised geological codes Historical Drilling Historical drilling has been logged, however in most cases the physical logs are not available. The ability to test the veracity of the data in the database is therefore limited.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is generally qualitative in nature. All Modern Drilling core is stored at Brocks Creek and 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.*	Modern Drilling and Historical Drilling Diamond samples are generally half-core, with core sawn in half using a core-saw.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Modern Drilling RC samples were collected using a cone splitter mounted at the bottom of the cyclone at regular

Criteria	JORC Code explanation	Commentary
		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. Historical Drilling Most historical holes were sampled on a 1 m basis (others sampled on a 2 m basis) via a cyclone and split via a riffle splitter (when dry) and a rotary splitter when wet. Historical reports suggest about 20% of pre-2001 holes were drilled using a X-over sub behind the hammer bit. It is thought that this type of technique had the potential to produce contaminated samples below the water table. CSA Global understands that these holes are mainly the "PDH series" holes that were drilled when Zapopan were project owners. The holes are located in the south-western area away from the main mineralisation at Fountain Head.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Several laboratories and assay techniques have been used throughout the Projects history. North Australia Laboratories (NAL) at Pine Creek, Northern Territory, has analysed all Modern Drilling samples. Amdel (Darwin), Assaycorp (Pine Creek), Analabs (Darwin), and Classic Comlabs (Darwin and Townsville) were used in Historical Drilling campaigns. Modern Drilling All samples submitted were prepared at NAL, which is an independent laboratory based in Pine Creek in the Northern Territory. Upon arrival, samples were sorted and the reconciled against the sample submission documentation. Core samples are initially crushed in a jaw crusher to a size of 10 mm. The jaw crusher is cleaned by compressed air between samples. The sample then passes through a roll crusher to reach a size of 2–3 mm (or more if tabular/platy). This sample is then split down to 1 kg, with the remaining samples returned as coarse reject to site and stored under cover for future reference. The 1 kg sample is Keegor milled to a size of 100 microns, and the mill cleaned with a barren silica flush between samples. 400 grams of this fine material is retained for sampling, from which 50 g is taken for fire assay (FA50). Historical Drilling Historic samples have predominantly been assays using 50 g fire assay. Subsampling procedures have varied slightly between the laboratories that have been used.
	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 protocols.
	Measures taken to ensure that the sampling is representative of the in-situ material collected,	Modern Drilling

Criteria	JORC Code explanation	Commentary
	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 by GBS Gold and PNX. Historical Drilling Field duplicates were not inserted in the sample stream.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Poor precision is noted from the RC field duplicate results. A sampling study has been recommended to determine optimal sample sizes for the deposit.
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 gold, fire assay fusion with a lead oxide flux and various other reagents is used. The dore prill is parted and the Au content analysed by AAS.
	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.	No geophysical tools were used to support the preparation of this Mineral Resource estimate.
	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.	Modern Drilling GBS Gold and PNX submitted duplicate samples at a rate of 1:25 to 1:30, certified reference materials (CRMs) at a rate of 1:30 and blanks at a rate of 1:50. Historical Drilling Historical drilling programmes did not routinely insert QC samples. QC data was limited to a relatively minor amount of field duplicates and laboratory repeats for these periods. Accordingly, there is greater risk associated with this data. Summary Given all available QC results, CSA Global considers that a moderate level of confidence can be placed in the precision and accuracy of the analytical data used in the preparation of this Mineral Resource estimate. QC results for the Modern Drilling indicate that acceptable levels of accuracy have been established and no material issues with contamination are noted. Poor precision is noted with regard to the field and pulp duplicates. No significant bias exists, however, in the results. While this is not unexpected for such a high-nugget gold deposit, recommendations have been made to attempt to improve sampling precision in the future. Some concern exists with the historical results, given the lack of QC data and therefore the inability to test the veracity of this data. The quality of the data has been considered in the classification of this 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.

Criteria	JORC Code explanation	Commentary
	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 storage (physical and electronic) protocols.	Modern Drilling Templates have been set up to facilitate geological and geotechnical logging. Prior to the import into the central database, logging data is validated for conformity and overall systematic compliance by the geologist. Geological descriptions were entered directly onto standard logging sheets, using standardised geological codes. 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. Historical Drilling Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols are largely unknown for Historical Drilling programmes.
	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.*	Modern Drilling 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. Historical Drilling Most drill hole collars have been surveyed using total station methods. Historic downhole surveys are available for the majority of the Historical Drilling. GBS Gold used a Reflex EZ-Shot, Flexi Kit, or gyroscope. NGNL used an Eastman single shot camera. Other companies have not recorded the means of which down hole surveys were collected.
	Specification of the grid system used.	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.
	Quality and adequacy of topographic control.	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. A Terra 3D aerial drone was flown over the Project area in July 2014, producing a high quality

Criteria	JORC Code explanation	Commentary
		DTM surface and a composited aerial photograph using a CanonIXUS127HS camera. Some vegetation artefacts can be seen. 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.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	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 –60°, towards azimuths of either 000° (dipping northward) or 180° (dipping southward). Drill line spacing is typically 20-40 m. On section, holes are spaced 5 m to 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. At Fountain Head East, line spacing are again typically 20 m. Holes are spaced tightly along drill lines at around 5 metres apart, in order to define the central mineralised shear. In this area, no drilling has tested rocks more than 125 metres from surface. 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. At Tally Ho, line spacing is typically 20 m, although there are at least 4 lines within the Tally Ho orebody with around 30 metres 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.
	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 classifications applied to the Mineral Resources given the 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.	Compositing was not applied at the sampling stage.
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 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 holes, however, have been drilled down dip of the stratigraphy, and sub-parallel to the mineralisation. Holes at Tally Ho and Fountain

Criteria	JORC Code explanation	Commentary
		Head East, where the mineralisation is more shear hosted and linear, have been drilled at a high angle to the mineralisation.
	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.
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 carried out prior to PNX's ownership are not known.
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

Criteria	JORC Code explanation	Commentary
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.*	The Project comprises four granted Mineral Leases (MLs) totalling 879.67 hectares, all 100% owned by PNX. These include MLN4, MLN1020, MLN1034 and ML31124.
	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.	All mineral titles are situated within Perpetual Pastoral Lease 1111, NT Portion 695, known as Ban Ban Springs Station. 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. 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.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	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: • PNX Metals (2018) • GBS Gold International (2006 to 2008) • Northern Gold (2004 to 2006) • Dominion Mining Limited (DML) (1993 to 1994) • Zapopan (1989 to 1991) • NT Gold Mining (NTGM) (1988 to 1989) • Destiny Prospecting (1987 to 1988) • Australian Coal and Gold (1982).

Criteria	JORC Code explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	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, a tight to isoclinally 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. 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. 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). 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.
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* • *Downhole length and interception depth* • *Hole length.*	Exploration results are not being reported.
	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*	Exploration results are not being reported.

Criteria	JORC Code explanation	Commentary
	high grades) and cut-off grades are usually Material and should be stated.	
	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.	Exploration results are not being reported.
	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 characteristics; potential deleterious or contaminating substances.*	No substantive exploration data not already mentioned in this table has been used in the preparation of this Mineral Resource estimate.
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 was completed onto templates using standard logging codes, although there has been some variation between the project owners. Analytical results received by PNX 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 Charles Nesbitt who assumes Competent Person status for the data. Aaron Meakin assumes Competent Person status for the Mineral Resource estimate and has not completed a site visit.
	If no site visits have been undertaken indicate why this is the case.	Charles Nesbitt has undertaken a site visit.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Lithological and mineralisation interpretations were completed by PNX. Peer review of the interpretations was completed by CSA Global. Within the broader Fountain Head deposit area, lithology plays a critical role in controlling the mineralisation. In the Fountain Head East and Tally Hi deposit areas, there is a dominant structural control (mineralisation is spatially associated with a shear zone). <u>Lithological Models</u> In order to better understand the importance of lithology in controlling mineralisation, 3D models of the greywacke and siltstone units in the Fountain Head area were created as follows: • Greywacke A (unit "GA") • Mudstone B ("MB") • Greywacke B ("GB") • Mudstone C ("MC") • Greywacke C ("GC") • Mudstone D ("MD") • Greywacke D ("GD"). After reviewing the distribution of gold in relation to the modelled lithology, it was clear that the lower two Greywacke units (GC and GD) were preferential hosts, likely due to the brittle nature of the host rocks promoting dilation and hydrothermal fluid movement. It was also clear that there was clear continuity conformable with the lithological units in some areas, and the

Criteria	JORC Code explanation	Commentary
		mineralisation was intimately associated with the hinge zone of an anticline. For the most part, the distribution of mineralisation within the lithological units was irregular however and did not lend itself to discrete modelling of lenses around each mineralised intersection. In order to constrain reporting of Mineral Resources within the stratigraphic domains to the anticline hinge zone, a 3D model was created of the hinge zone area. Strings were digitised around the hinge zone on each of the main drill sections and then linked to form the 3D solid model. Mineral Resources have not been reported outside this area, given that the mineralisation rapidly diminishes away from the hinge zone. Without application of this constraint, there was potential for grade smearing. <u>Mineralisation/Grade Models</u> The Tally Ho and Fountain Head East areas were relatively linear continuous zones of mineralisation which could be confidently interpreted. The Tally Ho deposit is thought to be spatially associated with a shear zone while mineralisation at Fountain Head East is thought to be spatially associated with a zone of deformation along the axis of the Fountain Head Anticline. Both of these areas were modelled using a 0.4 g/t Au cut-off grade. Sectional interpretations were joined to form 3D solid models of the mineralisation for each zone, which were used to constrain grade estimation.
	Nature of the data used and of any assumptions made.	Geological logging has been used to assist with lithological modelling. Seven stratigraphic units were modelled to support Mineral Resource estimation in the greater Fountain Head area. Given the erratic nature of the mineralisation in this area, discrete grade-based wireframing was not practical or appropriate. The stratigraphic models were therefore used as domain boundaries, in concert wit the hinge zone constraint. A cut-off grade of 0.4 g/t Au has been used to define outer mineralisation envelopes at Tally Ho and the Fountain Head East, where the mineralisation is more linear and thought to be spatially associated with a shear zone and deformation along the axial plane of the Fountain Head Anticline respectively.
	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 Competent Person notes that the use of stratigraphic domains at Fountain Head has led to a greater amount of smoothing that would occur with grade-based model constraints. This is considered appropriate given the style of mineralisation.

Criteria	JORC Code explanation	Commentary
	The use of geology in guiding and controlling Mineral Resource estimation. *The factors affecting continuity both of grade and geology.*	Geological logging and limited historical mapping have been used to guide Mineral Resource estimation. The controls on the mineralisation are both lithological and structural, and this understanding has governed the resource estimation approach. Based on previous work, the following key structural settings appear to control gold mineralisation at Fountain Head and Tally Ho: • The structurally controlled system of mineralised quartz veins appears largely restricted to the southern limb and hinge zone of the Fountain Head anticline • Subvertical faults or shears subparallel to fold axial planes, including three northwest-southeast trending faults that can be seen to offset the orebody and control mineralization • Vein infill in dilatant zones in the apex of small-scale anticlinal folds associated with the Fountain Head Anticline • Conformable veins dipping away on the limbs of the fold, and conformable saddle reefs within the hinge zone of the fold. Continuity of mineralisation is good at Tally Ho and Fountain Head East, but highly variable in the greater Fountain Head area.
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 at Fountain Head is contained within an area defined by a strike length of 750 m. The plan width of the prospective hinge zone is in the order of 100 m. The Mineral Resource at Tally Ho is contained within an area defined by a strike length of 400 m. The plan width is in the order of 5–30 m. Reported Mineral Resources lie either within or close to the bottom (up to 50 m vertically) of a pit shell which was generated by an independent consultant to PNX to demonstrate reasonable prospects for eventual economic extraction. The cut-off grade selected assumes an open pit mining method.
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 estimation domaining approaches. <u>Lithological Domains</u> Seven lithological units were model to constrain grade interpolation in this broader area, with MINZON numbers allocated as follows: • Greywacke A (unit “GA”) MINZON 3 (not reported) • Mudstone B (“MB”) MINZON 4 (not reported) • Greywacke B (“GB”) MINZON 5 (not reported) • Mudstone C (“MC”) MINZON 6 • Greywacke C (“GC”) MINZON 7 • Mudstone D (“MD”) MINZON 8 • Greywacke D (“GD”) MINZON 9.

Criteria	JORC Code explanation	Commentary
		Given the irregular and low tenor nature of the mineralisation in the GA, MB and GB units, this material has not been reported as part of the Mineral Resource estimate. <u>Grade Domains</u> The Tally Ho and Fountain Head East areas were relatively linear continuous zones of mineralisation which could be confidently interpreted. Both of these areas were modelled using a 0.4 g/t Au cut-off grade. Sectional interpretations were joined to form 3D solid models of the mineralisation for each zone. Tally Ho was assigned a field = "MINZON" code of 1, and Fountain Head East was assigned MINZON code of 2. Top cuts were selected following statistical analysis, primarily reviewing log-probability plots and histograms. The point at which the number of samples supporting the high-grade tail diminishes was the primary method. The selected top cuts are shown below. • MINZON 1 30 g/t Au • MINZON 2 30 g/t Au • MINZON 6 15 g/t Au • MINZON 7 50 g/t Au • MINZON 8 15 g/t Au • MINZON 9 30 g/t Au. 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 be met. Dynamic anisotropy was used to ensure undulation in the mineralisation relating to the folded nature of the stratigraphy was captured by the search ellipses (i.e. rotating search ellipses). Ordinary kriging was adopted to interpolate grades into cells, with variogram rotations consistent with the search ellipse rotations where dynamic anisotropy was employed. Statistical analysis was completed using Supervisor software. All geological modelling and grade estimation were 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.	No mine production records were available. Production has occurred since previous Mineral Resource estimates, hence comparison to these would not be useful.

Criteria	JORC Code explanation	Commentary
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding the recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No deleterious elements have been estimated.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A 10 m E by 5 m N by 10 m RL parent cell size was used with sub-celling to 2 m E by 1 m N by 2 m RL to honour wireframe boundaries. The drill hole data spacing is highly variable but approximates 20 m along strike by 10 m to 50 m down-dip. The block size therefore represents approximately half the drill hole spacing.
	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.	Mineralisation models were constructed using a cut-off grade of 0.4 g/t Au for Tally Ho and Fountain Head East. These models were used to constrain grade estimation in these areas. Over the broader Fountain Head area, lithological models were constructed. Each lithological unit was used as a separate estimation domain. A further “hinge zone” wireframe was also used to prevent Mineral Resources being reported away from the prospective hinge zone area.
	Discussion of basis for using or not using grade cutting or capping.	Top cuts were applied following statistical analysis.
	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 compared. Swath plots were then 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 dry 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 0.7 g/t Au. This grade was selected following completion of a preliminary pit optimisation exercise which demonstrated potential for open pity extraction. 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 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*	In selecting the cut-off grades, it was assumed that open pit mining methods would be applied.

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	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.	
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.*	It is assumed that there are no major metallurgical issues. The Tally Ho and Fountain Head deposits have been previously mined and processed.
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 been considered. 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. A total of 369 measurements were available, taken from drill core (generally full HQ2 core)
	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.	Samples were generally wax coated prior to immersion.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Review of the density database indicated little variation between holes, lithology and deposits. Density has been applied based on oxidation status, using the mean values within the mineralised area. The following values were applied for all MINZONs: • Oxide 2.54 g/cm^3 • Fresh 2.75 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. After giving due consideration to the integrity of all input data, available QC results, data distribution, geological and grade continuity, areas of the deposit were classified as Inferred where geological continuity is reasonable and the

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		deposit has been drilled on a 50 m E by 50 m RL pattern (or denser). Areas of the deposit were classified as Indicated where geological continuity is good, and the deposit has been drilled on a 25 m E by 25 m RL pattern (or denser). Indicated areas were downgraded to Inferred where they were substantial informed by historical data supported by limited QC data.
	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. High-nugget gold mines are particularly susceptible to Mineral Resource uncertainty. The presence of coarse gold in addition to significant short scale variability increases the likelihood of 'unexpected' resource and financial results. During mining, the potential for poor reconciliation results (both positive and negative) over small production volumes in particular is high.
	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.	Mining of both the Tally Ho and Fountain Head deposits stopped in 2008. Reconciliation results comparing production statistics with the block model are limited to historical reports. The results generally show relatively close alignment, which gives some confidence in the input data.