# **ASX Announcement**

15 June 2023



#### **Catalyst Metals**

Catalyst Metals controls three highly prospective gold belts. It has a multi asset strategy.

It owns and operates the high-grade Henty Gold Mine in Tasmania which lies within the 25km Henty gold belt. Production to date is 1.4Moz @ 8.9 g/t<sup>1</sup>.

It also controls +75km of strike length immediately north of the +22Moz Bendigo goldfield in Victoria and home to the new greenfield discovery a Four Eagles.

V(th) the acquisition of Vargo in February 2023, the company now compols the 40 km long Marymia Gold Belt in WA with gold mineral resources of 1Moz @3.0g/t Au<sup>2</sup>.

# **Capital Structure**

Shares o/s: 174m Cash: \$38.1m (Mar-23) Dear: \$13.7m

#### **Board Members**

Steppen Boston Non-Executive Chairman

James Champion de Crespigny Managing Director & CEO

Bruce Kay Non-Executive Director

Robin Scrimgeour Non-Executive Director

#### **Corporate Details**

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# Four Eagles Gold Project, Bendigo, Victoria

# Maiden Mineral Resource 163,000oz, incl. Iris Zone at 70,000oz at 26g/t Au

Bendigo's stacked and repetitive mineralisation creates the opportunity for many more nearby high-grade 'Iris Zones'

#### **Key Points**

- Four Eagles Gold Project delivers maiden Mineral Resource of 665,000t at 7.7g/t for 163,000oz Au
- This Mineral Resource includes Iris Zone; a high-grade deposit of 70,000oz at 26.2g/t
- The Iris Zone lies 100m below Boyd's Dam and sits within close proximity (80m) to the proposed underground exploration tunnel; both Boyd's Dam and Iris Zone remain open along strike
- Iris Zone was, prior to recent drilling, one of many targets across Catalyst's Bendigo tenements; the zone has been known of, and first drilled, in 2018
- Catalyst has numerous similar targets across its tenements which, given the repetitive nature of the Four Eagles mineralisation, has the potential to generate similar results to Iris Zone (see Figure 1)

Catalyst Metals Limited (**Catalyst**) (ASX:CYL) is pleased to announce its maiden Mineral Resource for the Four Eagles Gold Project in Victoria of 665,000t at 7.7g/t for 163,000oz Au.

The Mineral Resource includes the exceptional high-grade Iris Zone, containing 70,000oz at 26.2g/t.

**Catalyst MD/CEO, James Champion de Crespigny said:** "This is a significant milestone for Catalyst Metals. The discovery of the Iris Zone demonstrates the true potential of the Bendigo Goldfields. Iris has been known for a long time. There are many similar nearby prospects already with high grade intercepts. These need to be tested. Further, the location of Iris – in close proximity to both Boyd's Dam and the proposed exploration tunnel – is significant as it has the potential to underwrite the cost of the proposed exploration tunnel.

I'm sure many of Catalyst's long-standing shareholders would join me congratulating my fellow Director Bruce Kay and his team within Catalyst on this wonderful discovery."

The Boyd's Dam prospect has been the primary focus of the Four Eagles Gold Project for several years with exploration efforts concentrated at this deposit. The first meaningful drill



intersections at the Iris Zone were identified five years ago and whilst significant at the time, represented only one of several high-grade targets across Catalyst's Bendigo tenements. The true significance of this early intersection was realised in 2022. With a substantial program of diamond drilling completed, the potential was realised with consistent high-grade intersections (Refer CYL ASX announcements 10 February 2023 and 1 June 2023). A concurrent program of Mineral Resource estimation of the Iris Zone has been in progress, resulting in an estimate of 85,000t @ 26.2g/t for 70,000oz Au.

The structural relationship between Iris Zone and Boyd's Dam has now provided proof of concept that Four Eagles contains the same stacking of mineralisation as that of the historical 22-million-ounce Bendigo Goldfield, where high-grade mineralised zones repeated at depth. This finding is important as it demonstrates the potential for other repetitions to occur beneath the previously drilled mineralised positions at Four Eagles. Figure 1 illustrates this potential beneath prospects such as Hayanmi, Pickles, Cunneens, Eagle 5 and Bullock, and other unnamed prospects with equally significant intersections including 3m at 59g/t Au east of Boyd's Dam and 3m at 9.7g/t, south of Pickles.

Seasonal drilling constraints in Victoria have limited Catalyst's ability over time to expedite the exploration of these and other high-potential project areas. A proposed underground exploration access tunnel (Refer ASX announcement 17 November 2022) will allow Catalyst to conduct targeted drilling year-round, potentially accelerating exploration and resource development progress.

Table 1 below details the Mineral Resource estimate which has been reported in accordance with the	
JORC-2012 Code.	

	JORC Classification	Tonnage (t)	Au (g/t)	Ounces (oz)
David/a David	Indicated	455,000	5.0	73,000
Boyd's Dam	Inferred	125,000	5.0	20,000
Inia Zana	Indicated	-	-	-
Iris Zone	Inferred	85,000	26.2	70,000
Four Eagles	Total	665,000	7.7	163,000

Table 1: 2023 Mineral Resource estimate by JORC Classification – Four Eagles

Notes:

- Due to the effect of rounding, totals may not represent the sum of all components.
- Tonnages are rounded to the nearest 5,000 tonnes, ounces are rounded to the nearest 1,000 ounces, grades are shown to two significant figures.
- Reporting criteria are: Indicated and Inferred material where Au >2.0g/t for the shallow Boyd's Dam mineralisation and Au >5.0g/t for the deeper Iris Zone mineralisation
- Tabulation includes oxide, transitional, and fresh material types
- All resources are evaluated as having reasonable prospects of eventual economic extraction





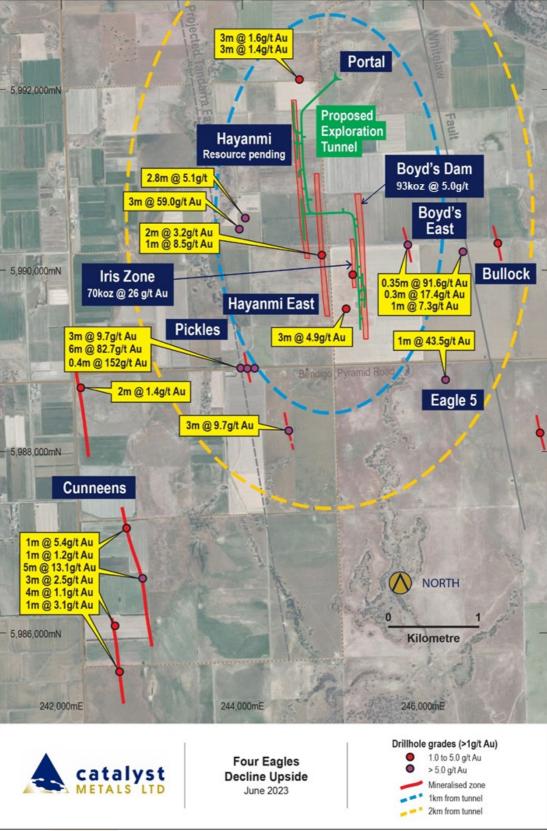


Figure 1: Four Eagles Gold Project showing significant gold occurrences in drilling to date



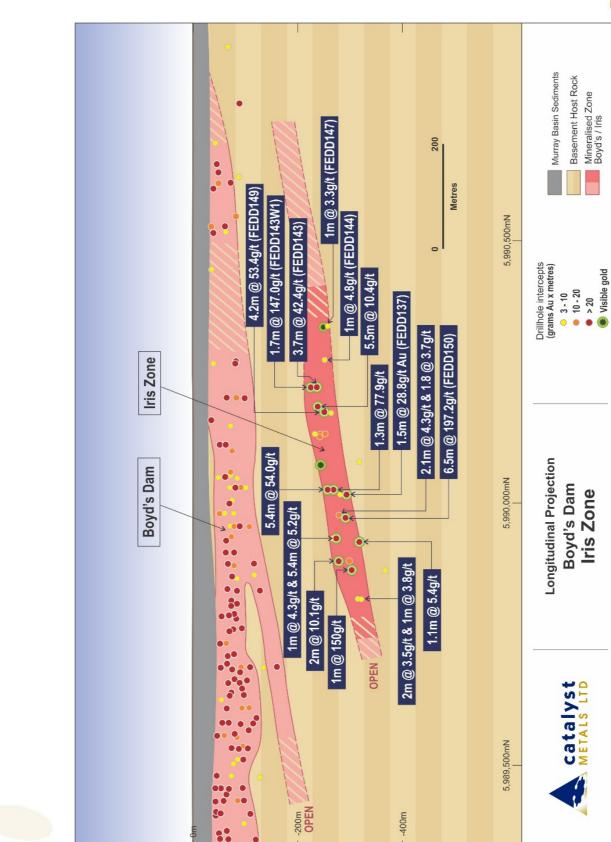


Figure 2: Boyd's Dam longitudinal projection showing the Iris Zone (*Refer ASX announcement 1 June 2023*)



#### **Four Eagles Gold Project**

The Four Eagles Gold Project is situated along the Whitelaw Gold Corridor, 70 kilometres north of the historic Bendigo Goldfield (Figure 12) and is considered a major structural control of gold mineralisation north of Bendigo. In Victoria, Catalyst manages the entire Whitelaw Gold Belt and has interests in twelve Exploration Licences and two Retention Licences, which extend for 75 kilometres along the Whitelaw and Tandarra Faults north of Bendigo and in other areas north of the Fosterville and Inglewood goldfields (Figure 12). The Four Eagles Gold Project is situated on Retention Licence RL006422 and includes the following exploration/development prospects: Boyd's Dam, Iris, Hayanmi, Pickles, Cunneens and several other zones to the east and west.

The structure of mineralisation at Boyd's Dam is related to a west-dipping 'reverse' fault, which has focussed and introduced gold-bearing fluids into receptive locations along a shallow horizon in the vicinity of the host anticline. This structure (the "Western Shear") is but one of an array of structures, and to date, multiple parallel faults have been identified with multiple diamond drill hole intersections bearing quartz, and in parts anomalous to significant gold grades.

The newly discovered Iris Zone lies on one of these steep west-dipping shear zones and seems to mostly occupy the western limb of the Boyd's Dam anticline.

The historic Bendigo Goldfield reportedly produced some 22 million ounces of gold since discovery in 1851<sup>1</sup>. The success of this goldfield is attributed to the unique style and scale of faulting, which resulted in the repetition of mineable orebodies at depths well beyond one kilometre.

To date, exploration of the Whitelaw Gold Belt to the north of Bendigo by Catalyst has demonstrated similarities to the Bendigo Goldfield such as visible gold in quartz<sup>2</sup>, high grade gold assays, strong arsenic haloes, and close relationships with host rock fold hinges.

The discovery of the Iris Zone has provided a significant, highly sought-after element to the prospectivity of the Whitelaw Gold Belt - the occurrence of a linked, but discrete high-grade mineralised body at depth beneath known mineralisation.

Cautionary Statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties.

<sup>&</sup>lt;sup>1</sup> https://earthresources.vic.gov.au/geology-exploration/minerals/metals/gold

<sup>&</sup>lt;sup>2</sup> For all assay results, including those relating to visible gold refer to Catalyst Metals Limited ASX Announcement 1 June 2023



#### MINERAL RESOURCE ESTIMATE

The Boyd's Dam and Iris Zone Mineral Resource estimates (**MRE**) have been completed by Conarco Consulting Pty Ltd, an independent company with expertise in high nugget gold deposits. Conarco has appraised drillhole data quality, analysed data, compiled grade block models, and produced estimates with the requisite JORC-compliant documentation.

Conarco considered that data collection techniques are largely consistent with industry good practice and suitable for use in the preparation of an MRE to be reported in accordance with the JORC Code. Available quality control (**QC**) data supports use of the input data.

The Four Eagles Gold Project contains several identified gold prospects including Boyd's Dam, Iris Zone, Hayanmi, Pickles, Cunneens, Eagle 5, and Bullock. The MRE applies only to Boyd's Dam and Iris Zone.

The Boyd's Dam and Iris Zone grade block models are considered to represent global (not local) Mineral Resources and therefore there is no underlying assumption of selectivity. It is anticipated that further drilling (infill and grade control drilling) will be required to produce estimates at a local scale, and this will provide information important to mine planning which will in turn determine the appropriate scale of the ultimate mining operation.

In summary, there is estimated to be an Indicated Mineral Resource of 455 kt @ 5.0 g/t gold for 73 koz gold, and Inferred Mineral Resources of 210 kt @ 13.4 g/t gold for 91 koz gold for a total of 665 kt at 7.7 g/t gold for 163 koz gold. These Mineral Resources are tabulated according to the weathering of material:

Zone	Cut off (g/t)	Tonnage (t)	Au (g/t)	Ounces (oz)
Indicated				
Oxide	2.0	295,000	4.4	42,000
Transitional	2.0	40,000	6.2	8,000
Fresh	2.0	115,000	6.1	23,000
Total		455,000	5.0	73,000
Inferred				
Oxide	2.0	60,000	6.5	13,000
Transitional	2.0	5,000	4.9	1,000
Fresh	2.0	60,000	3.6	7,000
Total		125,000	5.0	20,000
Total		580,000	5.0	93,000

Table 2 – Mineral Resources for Boyd's Dam at a 2 g/t cut off

Zone	Cut off (g/t)	Tonnage (t)	Au (g/t)	Ounces (oz)
Inferred				
Oxide	5.0	-	-	-
Transitional	5.0	-	-	-
Fresh	5.0	85,000	26.2	70,000
Total		85,000	26.2	70,000
Total		85,000	26.2	70,000

Table 3 – Mineral Resources for Iris Zone at a 5 g/t cut off



Zone	Tonnage (t)	Au (g/t)	Ounces (oz)
Indianted	455.000	5.0	72.000
Indicated	455,000	5.0	73,000
lu fa ma d	210.000	12.4	01.000
Inferred	210,000	13.4	91,000
Total	665,000	7.7	163,000

Table 4 – Total Mineral Resources for Four Eagles

Since the Boyd's Dam Mineral Resources are in part located in the vicinity of the base of cover (the barren Murray Basin sediments), it is anticipated that a crown pillar will be required for underground mining immediately below this contact. At this point in time, it is unknown where this pillar will be located or how thick the required pillar will be. Table 5 lists the Mineral Resources within a 5m thick pillar immediately below the base of cover which provides an indication of what material may be sterilised by underground mining.

Zone	Tonnage (t)	Au (g/t)	Ounces (oz)
Indicated	35,000	4.1	4,000
Inferred	20,000	8.8	6,000
Total	55,000	6.0	11,000

Table 5 – Boyd's Dam Mineral Resources within a 5m crown pillar (2g/t Au block cut off)

# 1. Geology and Geological Interpretation

Four Eagles is located within the central Bendigo Zone of the Lachlan Fold Belt, approximately 60 kilometres north of the Bendigo Goldfield. The project area lies in the hangingwall of the district scale, Whitelaw Fault, a significant first order structure of the Lachlan Fold Belt that dips steeply west and cuts tightly folded Ordovician turbidites. This structure shallows at depth within the middle-crust where it intersects fertile ocean floor sequences.

Such first-order listric faults in the Bendigo Zone are commonly understood as being the major controls on the location of goldfields. While they are generally un-mineralised at surface, shallow dipping segments of these faults were favourably oriented for reactivation during the 440-420 Ma mineralizing event(s), acting as fluid conduits from the lower crust (Figure 2). Mineralising fluids are thought to have migrated into shallower levels of the crust through vertical networks of bedding-parallel faults and associated low-displacement faults formed during folding and subsequent brittle deformation of the more competent sedimentary units.

This style of mineralisation is associated with arsenic and pyrite mineralisation with lesser sphalerite and galena, and carbonate/sericite alteration haloes which can extend some hundreds of metres from the gold quartz deposit - the relationship between arsenic and gold is therefore proximal to intimate rather than a perfect spatial correlation.



Overall, the structure interpreted from drillhole sections at Four Eagles indicates that the sedimentary sequence is folded into several upright, chevron shaped folds with approximately north-striking hinges (Figure 3). Fold amplitudes are between 100-300 meters and wavelengths are in the order of 100-150 meters. Fold plunges show some variation, but overall there is a general very shallow plunge to the south.

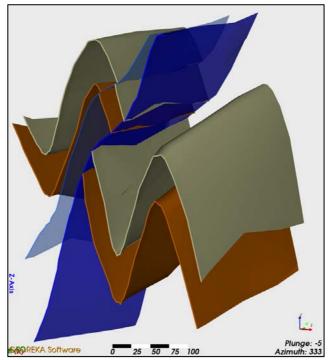


Figure 3 – Modelled folds and fault zone (blue structures) at Boyd's Dam.

Detailed interpretation of faults in drilling shows that Boyd's Dam and Iris Zone are located on a steeply west-dipping fault corridor which has propagated from being bedding-concordant at depth in the west limb of the anticline (the site of the Iris Zone) to a large bedding discordant dilational zone near surface in the east limb (the site of Boyd's Dam). Within the bounds of the faults, the dilation has provided for heightened structural complexity containing more shallowly west-dipping faults (Figure 4). The main faults bounding the corridor dip towards ~268° (MGA grid) and strike ~358° and are well correlated along strike through successive cross sections. A cross section of closely spaced diamond drillholes was drilled into the upper dilational zone in order to better understand the complexity. An array of splay faults was identified which are generally en echelon in orientation which show a positive correlation with high grade mineralisation. Downhole acoustic televiewer data, which were collected in several drillholes along this section, provided additional data on some non-oriented and poorly oriented drill core as well as zones of core loss in the oxide and transitional zones. Analysis of the faults within these zones confirmed that a subset of shallow west-dipping structures is oblique to the main trend with strikes of approximately ~330° and dips towards ~250°



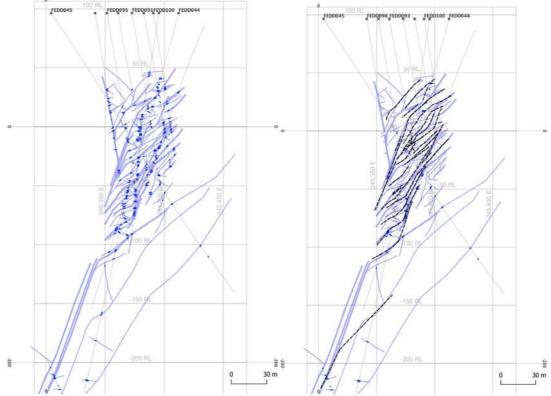


Figure 4 – Cross sections of the detailed section at 5,989,685mN. Sections looking north. Left: All oriented and referenced fault measurements (dark blue) shown with fault interpretation (pale blue). Right: Fault interpretation (pale blue) shown with faults constrained by confidently oriented drill core measurements and televiewer data (black-dashed).

Zones of high-grade mineralisation are typically associated with intervals in drill core that feature a high number of vein-host rock contacts. Due to the nature of the rock-mass in these zones, and particularly at the shallower depths of Boyd's Dam, the recovery of oriented core was poor. However, qualitative section interpretation shows a positive correlation between high grades and WSW-dipping faults within the broader, north trending fault corridor. In such cases televiewer data were again employed to assess the structural controls and detailed analyses were conducted to assess the structural context for high grades within these zones (Figure 5).



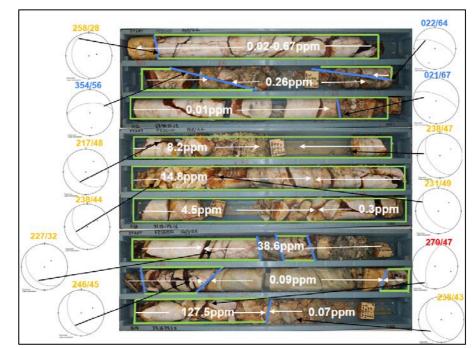


Figure 5 – Example of televiewer analysis in conjunction with drillhole photos and gold assay for a mineralised interval of un-oriented drill core from FEDD100.

This analysis has indicated that at the vein scale, mineralisation at Boyd's Dam is complex. The distribution of mineralised vein contacts demonstrates that varying discrete orientations can be associated with contrasting grade. Veins that parallel the main SSW-dipping mineralised structures are associated with moderate grades, whereas shallowly east-dipping and moderately NE-dipping sets are associated with low grades (Figure 6). A lesser represented orientation of moderately to steeply NW-dipping veins is associated with high grades.

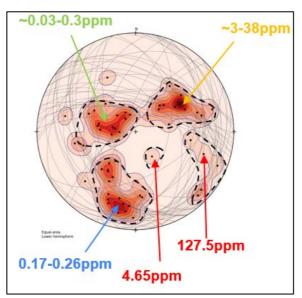
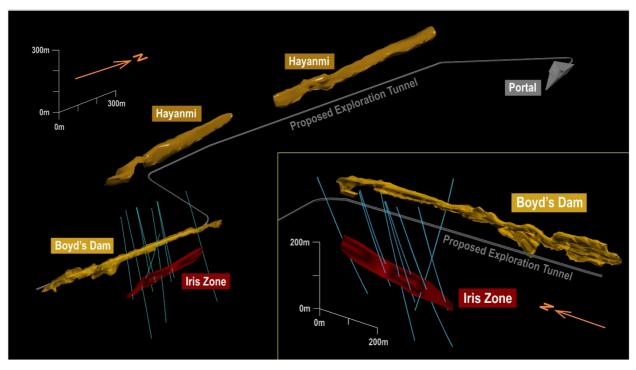


Figure 6 – Stereo plot of detailed structural analysis of mineralised zone showing sets of structures and corresponding gold grades.





Due to the depth of the Iris Zone mineralisation (some 220m at its shallowest point), there are substantially fewer drillholes available to provide such detailed interpretation (Figure 7).

Figure 7: Four Eagles Isometric view – inset focus on Iris Zone (in red) at depth. Boyd's Dam and Iris Zone represented as their respective alteration zones of sericitic alteration

In total, 11 diamond drillholes and one RC drillhole intersect the Iris Zone, all of which are well below the depth of oxidation. As a result, all core is unoxidised with negligible core losses incurred due to drilling. Drilling has identified a syncline immediately to the west of the anticline at Boyd's Dam, and it is this feature that has possibly influenced the structural complexity and the development of dilational sites for the precipitation of quartz, gold, and accessory minerals such as arsenopyrite, pyrite, and sphalerite.

The mineralisation is seemingly driven by and limited by two dominant bedding-parallel quartz-bearing faults which are laminated with embedded stylolites of wall rock. Such faults are understood to be important drivers of mineralisation as they demonstrate multiple movements and pulses of fluid flow. These two faults are between one and six metres apart horizontally, the intervening rock being host to both massive and laminated quartz veins. The volume of mineralisation as determined by the distance between the faults is at a minimum at the northern end of drilling coverage, and at a maximum for approximately 100m of strike towards the southern end. As is typical with this style of mineralisation, the highest gold grades have been within the laminated quartz veins, and as such the gold endowment of Iris Zone is strongest at the margins.

The quartz vein development between the laminated structures appears to attenuate down dip towards the syncline and up dip into the centre of the fold limb. It is yet unclear why this lower segment of the western limb of the anticline is a site of structural complexity and mineralisation. It has been observed in drilling that parasitic folds do occur variably on the limbs of folds at Four Eagles, and it is possible that such a parasitic fold could seed structural development in an otherwise barren limb. Further investigation will be required to establish such influences.



# 2. Drilling Techniques

Due to a variety of representivity issues, several holes have been excluded from the Boyd's Dam and Iris Zone Mineral Resource estimate and are listed in Appendix 2. This table also provides an explanation for their omission. In addition to holes that have obvious reasons for omission, a preliminary block model was created and an appraisal of drillhole versus block grades was carried out. Holes that were expected to have caused bias to the MRE have also been removed.

The database comprised drillholes with several different drilling techniques and are listed in Table 4. In addition, holes that were drilled through the mineralised zones are listed in Table 5 with the number of holes listed per year drilled.

	Boyd's Dam		Iris	s Zone
Hole Type	No. Holes	No. of Metres	No. Holes	No. of Metres
Diamond	70	27,578	11	4137
RC	182	25,127	I	274
Total	252	52,705	12	4,411

Year	No. Holes (Boyd's Dam)	No. Holes (Iris Zone)
2011	1	0
2012	l	0
2015	6	0
2016	3	0
2017	26	0
2018	53	I
2019	31	0
2020	19	0
2021	56	4
2022	56	2
2023	0	5
	•	
Grand Total	252	12

Table 4 – List of drillholes by drilling technique.

Table 5 – Holes drilled by year (Mineralised Zone).

Since data from both diamond and RC drilling were used for estimation at Boyd's Dam, a check was made to ensure there was no bias between these drilling methods. This was done by comparing Q-Q plots of diamond vs RC drilling making sure there a similar data population. Data constrained to the mineralised zone (Figure 8) shows an acceptable comparison between the two drill types albeit the DDH being slightly higher than the RC holes.



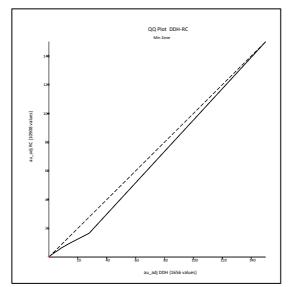


Figure 8 – QQ plot of DDH vs RC drilling from the Mineralised Zone.

As the Iris Zone mineralisation was informed by only one RC drill hole, with the remaining 11 being diamond drillholes, and the estimate classified as Inferred Resources, all 12 drillholes were employed for estimation.

All coordinates were supplied in GDA94 datum, the Map Grid of Australia (MGA) Zone 55. Collar positions were surveyed using differential GPS to centimetric accuracy. Diamond drillhole and RC collars were surveyed using an independent registered surveyor.

The magnetic correction calculation used was sourced from the Australian Government Geoscience Australia Website. In the field, drill rigs are lined up using a handheld compass and subsequently the correction is rounded to the nearest degree. A magnetic azimuth correction of 9 degrees is used, see the below example for a hole drill towards the east:

Prior to 2018, non-magnetic drill rods were implemented to allow downhole azimuth surveys for holes at Boyd's Dam. Subsequently, gyroscopic downhole survey equipment was implemented by drilling contractors to survey DDH and RC drill holes, with relevance to the remaining drilling of Boyd's Dam and all of the drilling of Iris Zone. Early drill rig orientation was established prior to collaring with clinometer and compass however from 2020 onward, a gyroscopic alignment tool was employed. Earlier diamond holes FEDD001-038 were surveyed at 30m intervals downhole, while subsequent holes were surveyed at 6m or 10m intervals with a multishot gyroscopic tool. RC holes were also surveyed at between 10m and 30m intervals.

# 3. Sampling and Subsampling

For RC drilling, samples were collected at rig cyclones at one metre intervals within no sub-sampling. The basement material samples were collected in individual numbered polyweave bags and chip trays were collected by hand from the cyclone and bags for logging purposes. Laboratory samples were selected using Jones riffle splitters producing calico sample bags to a mass of >2kg and <3kg. A small number of samples were trialled using a rotary cyclone splitter, but this technique was discontinued due to erratic sample sizes and difficult cleaning procedures. Samples collected at the rig were weighed prior to sample splitting, with sample weight used to assess the splitting requirements (number of riffles required) to



deliver a sub sample to the desired mass. Calico bag masses were then recorded by the laboratory contractor.

Diamond core was logged to a five-centimetre definition against lithology, weathering, quartz content, alteration, and sulphide mineralogy. The core was also structurally logged for faults, quartz type, bedding, cleavages, younging directions and fold hinge locations. Sample intervals were selected by the geologist where there was adequate quartz and/or sulphide alteration. Broad zones of mineralisation were sampled in their entirety to avoid downstream requirements to take additional infill samples.

The Individual sample lengths were controlled by lithological or structural contacts with variable sample lengths no greater than one metre. Sampling was extended at least two metres prior and past the zones of interest. Core trays were taken to the core cutting station along with a cutting sheet as instruction for the field assistants. Core was cut in sequence in the downhole direction, cut in half along the orientation line. In the absence of an orientation line a reference ellipse was used, such as a cleavage or bedding eclipse. Each sample interval was bagged in sequence as indicated on the cutting sheet instruction in prenumbered calico bags in preparation for submission. For every sample, the remaining length of half core was re-assembled and replaced to the source position in core trays.

For all drill intersections containing anomalous gold values (nominally >0.5 g/t), 1-3Kg of the original pulverized residue material was submitted for bulk leach extractable gold (ALS code BLEG) analysis ME-CN15 (previously ALS code Au-AA15) to reduce the nugget effect of the final gold grade dataset. Where higher-grade samples were determined to be above BLEG analytical parameters, they were determined by fire assay with gravimetric finish (ALS code Au-GRA21). All the final assay data was provided by ALS in a digital comma delimited file, and as a protected PDF file. The BLEG values where available were taken as the most representative Au ppm value for reporting and resource estimation.

Certified reference materials (CRMs) and blanks were submitted every 20th sample with CRMs for the Iris Zone submitted every 30th sample. For Boyd's Dam, a total of 851 CRMs were submitted with 16 different specifications used over time. For the Iris Zone, a total of 123 CRMs were submitted with 13 different specifications used over time. CRMs were largely found to be within the acceptable limit of three standard deviations. CRMs that fell outside of this range were investigated and re-assayed by the laboratory. A total of 740 blanks for Boyd's Dam and 119 blanks for the Iris Zone were submitted, these are not certified and comprise washed builder's quartz sand purchased by Catalyst and used to monitor contamination at the laboratory.

# 4. Mineral Resource Estimation Methodology

# Boyd's Dam

The mineralised zone (Figure 9) was defined as being:

- East of the host anticline
- Stratigraphically above the lower Boyd shear
- Below the base of Murray Basin cover



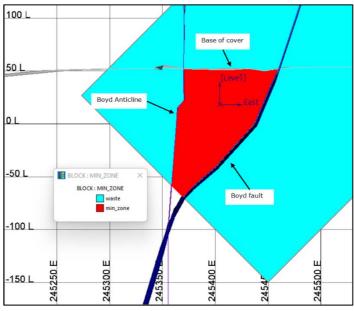


Figure 9 – Cross section showing the mineralised zone.

Drill hole data were composited to one-metre intervals and imported into Snowden's 'Supervisor' software for analysis. Since the mineralisation was not explicitly and tightly constrained, this resulted in the mineralised domain comprising a large amount of low-grade data. Due to the number of low-grade samples, the coefficient of variation was very high and was not an appropriate measure to determine assay top cuts. An analysis using the 'disintegration method' in concert with log probability plots show an acceptably linear trend up to 150 g/t gold. This value equates to the 99.98th percentile and was accepted as an appropriate top cut value.

Variography was then carried out with a normal score transformation, which was required to perform the spatial analysis. A block model was created using Maptek Vulcan software. This model was rotated 45 degrees clockwise about the Y-axis to reflect orientation of the perceived west-dipping fault control on mineralisation. A parent block size of 5 m (X) x 10 m (Y) x 2 m (Z) with a sub-block size of 0.5 m (X) x 0.5 m (Y) x 0.5 m (Z) was used. The parent block size was selected based on the average drill spacing and by kriging neighbourhood analysis (KNA) to select a block with the best overall kriging efficiency, slope of regression and minimal negative kriging weights. The sub-block size was necessary to provide sufficient resolution compared to the wireframes, with all sub-blocks assigned the same grade as corresponding parent blocks. Ordinary kriging (OK) was selected as the appropriate estimation method and an inverse distance weighted (IDW) with a power of 2 was estimated for validation purposes. A total of three interpolation passes was used to fill the block model. The search ellipse distance and orientation used have been selected based on the variograms. The first estimation pass utilised a search distance of 1/3 of the range of the variogram with the number of samples used ranging from 9 to 24 samples. The second pass had a distance approximately equal to that of the variogram with the same minimum and maximum number of samples as the first pass. The third pass used the same distance as pass two, with a decrease in the minimum samples required to two samples. The minimum and maximum numbers of samples for the estimation have been determined from the KNA.

# Iris Zone

The Iris Zone is bounded by two fault structures and is comprised of a discrete body of quartz with gold mineralisation. The quartz body demonstrated continuity along strike as well as up- and down-dip.



Sectional interpretation was completed at each drill section and projected 25m (half the drill spacing) to the north and south of the last drill section.

The wireframe of the mineralised zone was used to code the database to allow identification and independent analysis. The Iris Zone was predominately drilled using diamond holes with irregular sample lengths. Sample lengths are clustered at 0.3m, 1m and to a lesser degree at 0.6m. In conclusion, a 0.6m composite was chosen as this represented the mean of the sample lengths. In addition, this length strikes a compromise between repetitive composites of longer samples when a smaller composite length is used and smearing of shorter samples when a longer composite length is used.

The composite data for the Iris Zone displays a positively skewed distribution This is common for the style of mineralisation and other precious metal deposits. Top-cuts have been assessed using a combination of the log-probability plots, log histogram plots, coefficient of variation and disintegration of data which suggests a top cut of 250 g/t

Variography was then carried out with a normal score transform, which was required in order to perform the spatial analysis. A block model was created using Maptek Vulcan software. A parent block size of 5 m (X) x 10 m (Y) x 5 m (Z) with a sub-block size of 0.5 m (X) x 0.5 m (Y) x 0.5 m (Z) was used. The parent block size was selected based on the average drill spacing and by kriging neighbourhood analysis (KNA) to select a block with the best overall kriging efficiency, slope of regression and minimal negative kriging weights. The sub-block size was necessary to provide sufficient resolution compared to the wireframes, with all sub-blocks assigned the same grade as corresponding parent blocks. Ordinary kriging (OK) was selected as the appropriate estimation method and an inverse distance weighted (IDW) with a power of 2 was estimated for validation purposes. A total of three interpolation passes have been used to fill the block model. The search ellipse distance and orientation used have been selected based on the variograms. The first estimation pass had a distance equal to the range of the variogram with the number of samples used ranging from 8 to 30 samples. The second pass had a distance double to that of the variogram with the same minimum and maximum number of samples as the first pass. The third pass used the same distance as pass two, with a decrease in the minimum samples required to 2 samples. The minimum and maximum numbers of samples for the estimation have been determined from the KNA.

#### **Estimate Validation**

A check was made to ensure the interpolation of the block models correctly honoured the drilling data. This was done by comparing the estimated OK block grade to the composite grades of the mineralised domains. A further check was also made by comparing additional IDW and nearest neighbour (NN) estimates.

#### Boyd's Dam

The mineralised domains showed a reasonable correlation between the estimated grades and the declustered composite grades. Although there was a 17.5% difference between these grades, this is most likely the result of block dimensions being slightly larger than the high grade and erratically distributed gold intervals. This allows for lower grade samples to generally lower the overall grades of blocks. It is the author's opinion that using these block sizes is more appropriate than smaller block sizes that may give an unreasonable expectation of better correlation between block grades and sample grades. Since sample grades above the expected mineable grades are very erratic, smaller blocks will result in less continuous ore zones. Also, the erratic distribution of gold results in greater variability of actual gold grades at smaller volumes, also known as the volume-variance effect. Therefore, the block sizes chosen strikes a balance between selectivity and expected gold grades.



#### Iris Zone

The mineralised domains showed a good correlation between the estimated grades and the composite grades with an overall difference of 1.6% between these grades.

#### **Bulk Density**

Using the equation

SG

= (core weight in air and tray – weight of immersed tray empty – weight of shrink wrap) weight of shrink wrap

(core weight in air and tray – core weight in water and tray) –  $(\frac{\text{weight of shrink wrap}}{\text{sa of shrink wran}})$ 

a total of 135 SG values for Boyd's Dam were determined and sorted into oxide, transitional and fresh categories. The mass-weighted average results for category were:

	Oxide	Transition	Fresh
No samples	58	41	36
SG (Weighted average)	2.2	2.4	2.6

Table 6 – Results of SG measurements.

Additional SG measurements were collected from the Tomorrow Zone resulting in a total of fresh rock samples of 163. This data also supports the SG value of 2.6 for the fresh rock. SG measurements were also taken from the Iris Zone with only 25 samples within the mineralised zone. The average of these samples was 2.65 however further work is required to validate these results.

#### 5. Classification Criteria

#### Boyd's Dam

Since a hard boundary to explicitly define estimation domains was not determined for Boyd's Dam, the Mineral Resource classification was somewhat subjective. Due to the structural complexity and erratic gold distribution, and with the current level of information it was decided that the Measured Mineral Resource category was inappropriate. Therefore, the following criteria were used to define the Indicated and Inferred Mineral Resources.

Two grade shells were created using a 2 g/t gold cut off, first around the 1st estimation pass and the second around the 2<sup>nd</sup> and 3<sup>rd</sup> estimation passes. The 1<sup>st</sup> grade shell was then evaluated with respect to the drillhole data. Blocks that were clearly defined by two or more drillholes remained as Indicated Mineral Resources. This is considered to satisfy the JORC Code requirement of an Indicated Mineral Resource having demonstrable grade and structural continuity. Areas that were defined by zero or one drill hole were downgraded to Inferred Resources as they were considered to be extrapolated rather than interpolated. Blocks within the 2nd grade shell were also considered Inferred Resources. The Indicated and Inferred Mineral Resources for Boyd's Dam are shown in Figure 10.



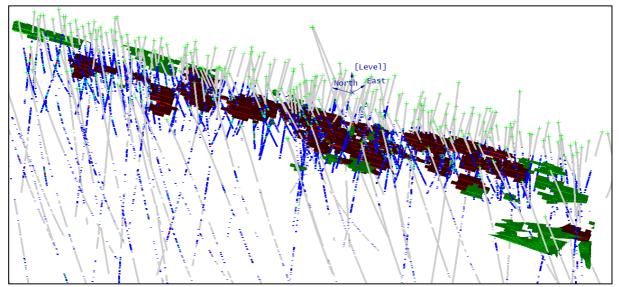


Figure 10 – Isometric view of Boyd's Dam looking northeast showing Indicated Resources (red), Inferred Resources (green) and location of drillholes.

# Iris Zone

Due to the small drillhole assay data set available for the Iris Zone, there is a lesser understanding of the controls of mineralisation as compared with Boyd's Dam. The Iris Zone has been drilled to 50m section spacing, with each section containing no more than two intersections. As a result, Measured and Indicated Resource were considered inappropriate, and the entire zone was classified as an Inferred Resource until such time as detailed analysis and follow-up drilling are completed. The Mineral Resources for the Iris Zone are shown in Figure 11.

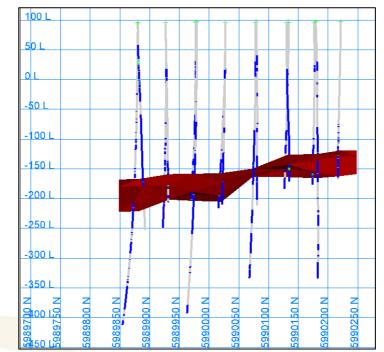


Figure 11– Long section showing the Iris Zone Inferred Mineral Resource.



# 6. Reasonable Prospects for Eventual Economic Extraction

The Mineral Resource is considered to have reasonable prospects for eventual economic extraction (RPEEE) considering:

- the gold grades to hand and the corresponding contemporary costs of mining and processing
- The shallow to moderate depths of mineralisation.

With these, internal studies suggest that the gold mineralisation at Four Eagles can be mined economically from a decline access and processed at one of the available gold processing plants in the district.

# 7. Reporting Cut-off Grades

Cutoff grades were selected that are considered to be reflective of what would be achievable considering the scale of operations, which would drive mining and processing costs.

Boyd's Dam is located at a shallow level, starting at approximately 40 metres below surface, and for this a cutoff grade of 2g/t was applied. The Iris Zone is located substantially deeper than Boyd's Dam, and the anticipated increase in cost to mine this resource is reflected in a higher block cutoff grade of 5g/t.

# 8. Mining and Metallurgical Methods and Parameters

The anticipated mining method at Four Eagles is currently considered to be via underground methods, employing a decline access and highly selective stoping.

The metallurgical performance of Bendigo-style coarse gold in quartz mineralisation has been well established historically, with strong gravity recoverable gold. As announced by Catalyst previously (19 May 2021), metallurgical test work of Boyd's Dam mineralisation has indicated that gravity recovery, floatation, and cyanide extraction are all applicable, with anticipated process recovery in excess of 95%.

There is no specific metallurgical test work completed for Iris Zone mineralisation.

# 9. Competent Person Statement

The information in this report that relates to Exploration Targets and Exploration Results, is based on information compiled by Paul Quigley, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Quigley is the Geology Manager for Catalyst Metals and is employed on a full-time basis. The information in this report that relates to Mineral Resources is based on and fairly represents information and supporting documentation compiled by John Collier, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr. Collier is the Principal Consultant for Conarco Consulting.

Both Mr. Quigley and Mr. Collier have sufficient experience that is relevant to the style of mineralisation and type of deposit 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. Collier consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



This announcement has been approved for release by the Board of Directors of Catalyst Metals Limited.

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#### JORC 2012 Mineral Resources and Reserves

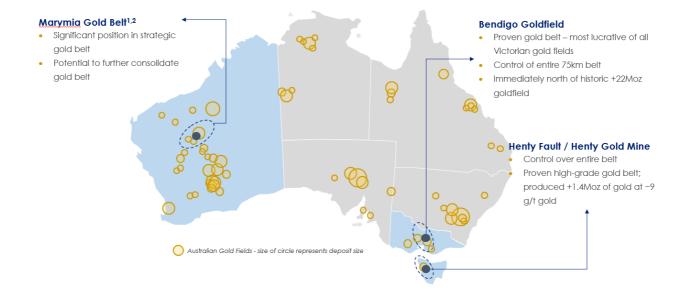
Catalyst confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and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



# **ABOUT CATALYST METALS**

Catalyst Metals is an ASX listed gold producer and explorer. Catalyst has a multi-asset strategy and controls three high grade, highly prospective and strategic gold belts in Australia:

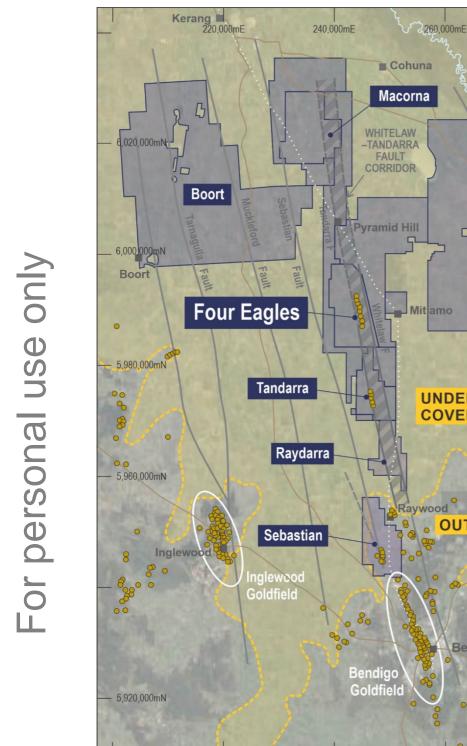
- In Western Australia, the high-grade Marymia Gold Project, which has a total JORC Mineral Resource of 1Moz, including 410koz at 8g/t<sup>3</sup>. Catalyst considers the project hosts considerable exploration upside potential given +40km of underexplored strike potential.
- In Victoria, a large, contiguous and dominant Four Eagles Gold Project, covering 75 kilometres of strike length immediately north of the proven +22Moz Bendigo goldfields and near Agnico Eagle's high grade Fosterville gold mine; and
- In Tasmania, a strategic tenement package covering 25 kilometres of the under explored Henty fault and operates the high-grade Henty Gold Mine which has produced 1.4Moz of gold at a head grade of 8.9 g/t gold.





300,000mE

280,000mE



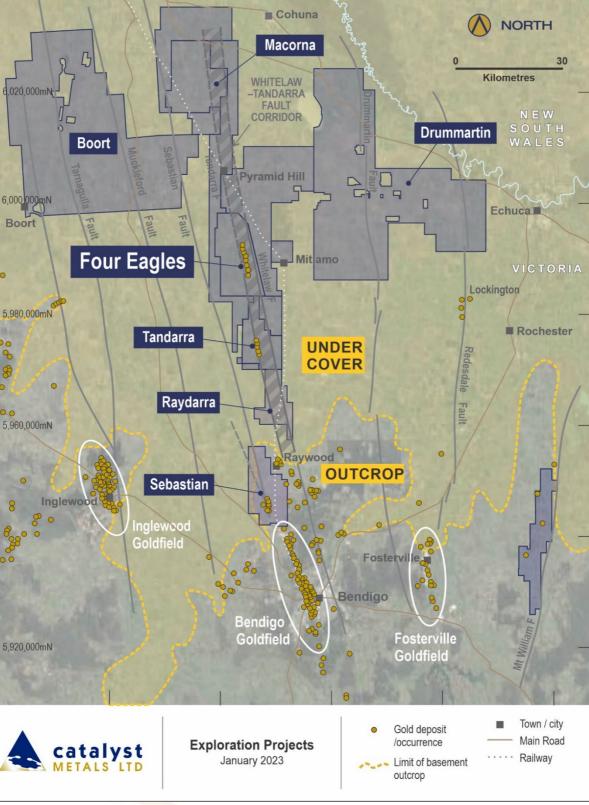


Figure 12: Whitelaw Gold Belt Tenement Holdings showing major Catalyst managed projects



# JORC Table 1, Section 1 – Sampling Techniques and Data

#### Boyd's Dam and Iris Zone

Criteria	JORC Code explanation	
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.	Boyd's Dam The Mineral Resource estimate is based upon geological and assay data from surface diamond drill holes and RC holes. <u>Iris Zone</u> The Mineral Resource estimate is based upon geological and assay data predominately from surface diamond holes and one RC hole.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	DDH Diamond core was cleaned and marked metre-by-metre. The geologist determined which intervals were to be sampled in consultation with criteria such as quartz vein development, sulphide occurrence, and visible gold occurrence. Samples were selected to reflect lithological, structural, and mineralisation boundaries and reflect drill core intervals ranging from 0.2m to 1.1m. The selected intervals for sampling were cut with a diamond-impregnated saw, with half being collected in a calico bag for laboratory submission, the remaining half being transferred back to the source core tray for storage. When core was oriented, the reference line was used as a cut line to ensure the same side of the core was sampled. When core was not oriented, the bottom of the cleavage ellipse was used, with the core rotated such that the top of the foliation is point down the core tray. <u>RC</u> Samples collected at cyclone at one-metre intervals with no subsampling. Cover sequence samples logged and discarded; basal cover and basement material samples collected in individual numbered plastic bags; chip trays collected for every metre drilled.
	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. '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	DDB         The mineralised zones of the drillholes were geologically (and geotechnically) logged, photographed, sampled and cut with ½ core samples submitted to the laboratory for analysis. Samples were dried and pulverised in their entirety, with 25g aliquot split for analysis. <u>RC</u> Assay laboratory samples selected using Jones riffle splitter into calico sample bags to a mass of >2kg (if sufficient sample is available) and <3kg. Sample weight was used to assess the splitting requirements (number of riffles required) to deliver a sub sample to the desired mass constraints. Samples were dried and pulverised in their entirety, with 25g aliquot split for analysis.



Criteria	JORC Code explanation	
	has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, 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).	DDHHoles were initiated using 120mm blade drilling, with cuttings lifted by drilling mud to the base of cover. PVC casing is installed to preserve the collar condition for subsequent drilling.Mud drilled pre-collars are achieved by a diamond drill rig.At end-of-pre-collar depth, the rod string was removed from the hole and steel HWT or PQ casing is installed and shoed into the base-of-hole.HQ triple tube barrel and HQ drill rods were installed to pre-collar depth. Beyond this depth holes were progressed to final depth with DDH drilling techniques, generally employing three-metre barrel and rods. Where ground conditions were poor, 1.5-metre rods were employed to alleviate core loss at tube extraction.RC Holes were initiated using ~180mm blade bit through cover and the
		hole is cased to an appropriate depth to provide stability (down to a depth of at least 80m). Drill holes were cased with PVC to a depth to provide sufficient stability. After casing was installed, holes were completed to designed depth using ~5" RC face sampling hammer. All drilling utilised six-metre reverse circulation drill rods. Truck-mounted air packs of up to 1000psi 1,500cfm compressor and booster(s); plus auxiliary compressor was dictated by water inflows.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	DDHCore runs were documented by the driller, and recoveries measured by the geologist to ensure recovery is known and strategies implemented to maximise recovery (target being above 90%).RCHoles were terminated where sample quality was compromised by groundwater inflow.Sample water content assessed by rig geologist as being dry/moist/wet.Sample splitting was achieved using a Jones riffle splitter to deliver
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	desired sample masses.         DDH         Drillers were under instruction to monitor recovery and rectify core loss through adjusting drill rig operation.         All diamond core is drilled using triple tube equipment to assist in delivering acceptable core recovery.         RC         Geological control maintained at the drill site at all times, to ensure drilling and sampling was to standard.
	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.	Boyd's Dam Diamond drill core from early drilling showed significant core loss. A relationship between sample recovery and grade has not been established through statistical analysis. <u>Iris Zone</u> There has been no bias observed due to core loss.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a	<b>DDH</b> Diamond core was geologically logged for lithology, alteration, quartz veining and to a standard acceptable for subsequent interpretation for use in estimation.



Criteria	JORC Code explanation	
	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<b><u>RC</u></b> Chip samples geologically logged at 1m intervals for lithology alteration, quartz veining and to a standard acceptable for subsequen interpretation for use in interpretation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	DDHGeological logging aspects were qualitative with exception of quart vein content which is estimated semi-quantitatively.Drill core structural measurements was logged prior t cutting/sampling. Drill core orientations were performed on each cor run, and where successful were applied to structural measurements t provide known orientations of structures. Where orientations were no successful, the S1 cleavage was employed as a proxy to orientation; i which case the database is flagged as such.All holes were photographed and image files stored on a cloud-base data site.RC Logging aspects are qualitative with exception of quartz vein conter which is estimated semi-quantitatively.
	The total length and percentage of the relevant intersections logged.	DDH         The total length of all holes was logged in detail. <u>RC</u> All logged intervals represent entire one-metre sample segregatio intervals.
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond drill core was ½ split using a core saw and generally sample at 0.2 to 1.0 m intervals within defined geological (mineralised boundaries. Quarter coring was not routinely required.
preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Lab submission samples collected as described – any mass reduction required for assay purposes performed by laboratory contractor consisting of drying and riffle-splitting. Samples dried and pulverised in entirety, with 25g aliquot split for analysis (laboratory repeat splits historically demonstrate acceptable reproducibility and hence accuracy for this mineralisation).
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples dispatched to commercial assay laboratory (Catalyst have use ALS Pty Ltd exclusively); samples crushed, dried, and pulverised i entirety, with 25g – 30g aliquots selected for analysis (laboratory repea- splits historically demonstrate acceptable reproducibility and hence accuracy for this style of mineralisation).
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Quality control standards, blanks and duplicates were routine included with the drilling samples. The QAQC protocols implemente included: Laboratory and client certified reference materials (3 x standards) and implemented every 20th sample. Performances outside 2 standard deviations as per specification are reviewed with the laboratory, and standard deviations default to a re-assay in every instance.
	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.	Boyd's Dam Duplicate assays of the aqua regia were conducted routinely. Iris Zone There were no duplicate samples taken from holes in the Iris Zone a this is not standard practice for diamond holes.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes ranged in downhole interval from 0.2m to 1.0m and considered appropriate for the style of mineralisation.

25



Criteria	JORC Code explanation	
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.	Gold assay determined by ICPMS via aqua regia digestion (ALS cod AuOG43). Experience has shown this method to be applicable for fin grained gold population of the mineralisation due to the completion of digestion. There is a technical constraint in that coarse-grained gol may not completely enter solution resulting in conservative assay. Du to the highly erratic distribution of gold, anomalous runs of sample were re-assayed by a bulk leach method (BLEG) employing a 2k aliquot. The larger aliquot provides a more representative assay tha the first pass 20g to 50g aliquot methods of analysis.
	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.	Only laboratory assays were used in the 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.	Certified reference materials are implemented every 20th sample wit exception of the RC hole drilled into the Iris Zone which had CRM submitted every 30 <sup>th</sup> sample. Performances outside 2 standar deviations as per specification are reviewed with the laboratory, and standard deviations default to a re-assay in every instance. Blanks were inserted every 20 samples
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Data management procedures were in place. Data management has been outsourced to a specialist provider. There has been no verification of significant intersections be independent personnel.
-	The use of twinned holes.	Boyd's Dam There have been no formal twinned holes drilled. However, a fan very close spaced drilling (10m) was completed. This confirmed th erratic nature of the gold distribution but also assisted in the structur and lithological interpretation. <u>Iris Zone</u> There have been no formal twinned holes drilled. However, a wedg from hole FEDD143 was drilled within 0.7m from the parent hole. The was a good correlation between the two holes including high – and low grade samples.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to ascau data	For diamond core, data was logged digitally into the correspondir template. For RC, holes were logged on to paper and then entered in the template at a later date. This data was then exported via a mac as csv files and then automatically loaded into an externally manage database. Data can be viewed, summarised and interactively filtere using the Power BI Quest <sup>©</sup> Reports – Hole Completeness Report. No adjustments to the data have been made.
Location of data points	assay data. Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral	All drillhole location coordinates were measured using differential GP Collar locations to within an estimated precision of 10mm horizontal and 20mm vertically. All drillholes were downhole surveyed. Drilling orientation was verified prior to collaring with clinometer and compass.



Criteria	JORC Code explanation	
	Specification of the grid system used.	MGA94 Zone 55.
	Quality and adequacy of topographic control.	Elevation contours (10m) were downloaded from LandVic in MGA zone 55, and a DTM surface was wireframed in Micromine software. Given the relative flat nature of the topography this is considered acceptable.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Boyd's DamDiamond drillholes drilled at a section spacing of approximately 100metres. Drillholes were targeted to intersect prospective structuralpositions some 100m to 300m beneath the oxide-zone mineralisation.For the purpose of the reporting of exploration results, assays areaggregated to reflect continuously sampled zones of significantanomalism for gold.RC holes were also drilled on sections located between existingdiamond drilling providing 25m spacing in general along strike.For each section, holes were spaced 25m across strike.Iris ZoneDrillhole section spacing is approximately 50 metres with generally 2holes intersecting the mineralised zone per section.The data spacing has been taken into consideration when classifying Mineral Resources.
	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.	This spacing was designed to be of a sufficient density to ultimately be included in resource estimation at a global scale. Infill drilling will be required to more accurately assess the structural control on gold distribution and the estimation of Ore Reserves.
	Whether sample compositing has been applied.	The physical compositing of samples has not occurred however mathematical compositing of the assays to 1m intervals has been applied for the Mineral Resource estimate.
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.	Boyd's Dam Drillhole sections were aligned approximately 90 degrees from the strike of mineralisation. Holes were generally inclined 60 - 85 degrees to the east to provide cross-strike investigation within holes and to establish continuity of west-dipping mineralisation. Some early holes were drilled in a westerly direction potentially drilling down-dip and biasing the estimation. Each hole was assessed against this issue independently for inclusion or exclusion from the MRE. Iris Zone Due to the inherent variability in the gold distribution, it is difficult to assess whether a bias is caused by the direction of drilling. However, since the mineralisation is interpreted to be sub-vertical or steeply dipping to the west, little difference is expected between easterly or westerly drilled holes .
	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	Due to the inherent variability in the gold distribution, it is difficult to assess whether a bias is caused by the direction of drilling. However, in addition to holes removed as stated, a fist pass block model was created, and observation were made where drillholes appear to bias the estimation. These holes were also removed from the final estimation.
Sample security	reported if material. The measures taken to ensure sample security.	All samples were controlled by the responsible geologist and stored in secured facility prior to despatch to the laboratory. Samples were transported directly to laboratory by a commercial transportation contractor with security in place.



Criteria	JORC Code explanation	
		Sample number receipt information from laboratory cross-referenced and rationalised against sample number dispatch information.
Audits or reviews	The results of any audits or reviews of sampling techniques	No processes or data used in developing the release of exploration results have been subject to audit or review by non-company personnel or contractors to reduce costs and timelines for reporting.



# Section 2 Reporting of Exploration Results

#### Boyd's Dam and Iris Zone

Criteria	JORC Code explanation	
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	The Four Eagles Gold Project is within RL006422 in the vicinity of Mitiamo Victoria, 50% owned by Kite Gold Pty Ltd (subsidiary of Catalyst Metals Ltd) and 50% owned by Gold Exploration of Victoria Pty Ltd (subsidiary of Hancock Prospecting Pty Ltd). RL006422 is valid and due for expiry on 28/03/2028. Exploration activities were confined to free-hold farmland.
	settings. 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 tenements are in good standing, with expenditures significantly above commitments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	None in the area drilled.
Geology	Deposit type, geological setting and style of mineralisation.	Gold-arsenic bearing narrow quartz veins in Ordovician sediments in the vicinity of a district-scale anticlines. Complex structural development in response to multiple shortening events, with mutual influences between thrust faults and chevron folding of host turbidite sequences. Deposits assessed as being northern extension of Bendigo Goldfield, with potential for post-mineralisation influence/redistribution by proximal granite intrusions. There is potential for some supergene gold enrichment in a paleoweathering profile.
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 o dip and azimuth	There have been no exploration results reported in this release since this is not relevant to the Mineral Resources.



Criteria	JORC Code explanation	
	down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the	
Data aggregation methods	case. In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	There have been no exploration results reported in this release since this is not relevant to the Mineral Resources.
	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.	There have been no exploration results reported in this release since this is not relevant to the Mineral Resources.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There have been no exploration results reported in this release since this is not relevant to the Mineral Resources.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	There have been no exploration results reported in this release since this is not relevant to the Mineral Resources.
	If it is not known and only the down hole lengths are reported,	



Criteria	JORC Code explanation	
	there should be a	
	clear statement to	
	this effect (e.g. 'down	
	hole length, true	
	width not known').	
Diagrams	Appropriate maps	There have been no exploration results reported in this release since
	and sections (with	this is not relevant to the Mineral Resources.
	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.	
Balanced reporting	Where	There have been no exploration results reported in this release sind
bulunceu reporting	comprehensive	this is not relevant to the Mineral Resources.
	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.	
Other substantive	Other exploration	There have been no exploration results reported in this release sine
exploration data	data, if meaningful	this is not relevant to the Mineral Resources.
	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	
Fromthe and seconds	substances.	Further DC drilling will be required to develop descent
Further work	The nature and scale	Further RC drilling will be required to develop deeper resources
	of planned further work (e.g. tests for	concert with diamond drilling.
	lateral extensions or	It is recommended that further work be carried out to test for the
	depth extensions or	appropriateness of density values and also a review of the QAQC data
	large-scale step-out	
	drilling).	



Criteria	JORC Code explanation	
	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 are included throughout this report.



# Section 3a Estimation and Reporting of Mineral Resources – Boyd's Dam

Criteria	JORC Code explanation	
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.	The collation of logging and sampling data used a number of Microsoft Excel logging templates. For diamond holes, the data was logged directly into the template. For RC drilling, data was written on paper logs and then entered into the template. Within each template, there were the corresponding tabs for each piece of information such as surveys, lithology, alteration, structure etc. These tabs also included auto-populated data, locked cells that cannot be over-written and drop-down lists all of which aim at reducing errors.
	Data validation procedures used.	Once logging was completed, a validation macro is run which highlights any errors that are required to be amended before exporting the data. These errors included interval overlaps, logging past EOH, QAQC field dups missing the parent sample ID, etc. Once the data was validated, it was exported as CSV files using another macro on the logging sheet. Further validation steps including QAQC verification were conducted as the data is imported into the database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Site visits were conducted by Conarco at the Catalyst office and core processing facility in Bendigo.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Due to the high level of details in the lithology and structural logging, there is a high level of confidence in the lithological and structural interpretation. Due to the erratic nature of the gold distribution, there is less confidence with the controls on mineralisation. From a global perspective, there is greater confidence with less confidence at more local scales. This confidence is reflective in the Mineral Resource classification, as there are no Measured Resources even in areas where there is high drill density.
	Nature of the data used and of any assumptions made. The effect, if any, of	Drillhole data has been used to create the geological domains Conarco has been involved with the project for a number of years. The
	alternative interpretations on Mineral Resource estimation.	understanding of the project, especially the structures, has evolved over this time. Catalyst have recently engaged a structural geologist to assist with detailed structurally interpretations and modelling.
	The use of geology in guiding and controlling Mineral Resource estimation.	The use of geological information obtained from drill core logging was paramount to the creation of the lithological and structural domains. In addition, where core recovery was low, the use of a downhole acoustic televiewer was used.
	The factors affecting continuity both of grade and geology.	With the data available, it was apparent that the gold mineralisation was constrained to west dipping structures that break out from the Boyd anticline axis. Within this structural "damage" zone the gold distribution is very erratic. Due to this, there are no Measured Resources with the Mineral Resources stated being a global estimate.
Dimensions	The extent and variability of the Mineral Resource	The block model is 1,100m in length which encompasses the main zone of mineralisation. The Murray Basin sedimentary cover is generally 40m thick and is not mineralised. The mineralisation at times, but not



Criteria		JORC Code explanation	
		expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	always, lies directly underneath the base of cover and forms discrete lenses which dip $\sim$ 45 – 60° to the west. These may be up to 30 – 40 m along dip and range from 1-2m to several meters wide. The deepest part of the Boyd's Dam Mineral Resource is at approximately -20RL or 75 meters below the surface.
Estimation d modelling techniques	and .	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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The Mineral Resource estimation was compiled using Maptek's Vulcan <sup>™</sup> software. The grade estimation was interpolated using ordinary kriging with check estimates using inverse distance weighted (power of 2) and nearest neighbour techniques. The model distribution of raw sample lengths suggests an appropriate composite length of 1m. The dataset was assessed for outlier (extreme) gold grades by use of log probability plots, disintegration of data structure, and other statistical methods such of coefficient of variation (CV). This suggested an appropriate top cut of 150 g/t gold was necessary. The estimate used a three-pass system where the first pass was 1/3 range of the variogram for that domain, the second and third passes used the range of the variogram. The minimum / maximum samples were determined from a kriging neighbourhood analysis resulting in the first and second passes using between 9 and 24 samples with a maximum of 4 samples from any hole. The third pass used between 2 and 9 samples (no limit per hole). All blocks estimated from the third pass were designated as Inferred Resources. The orientation of the search pass was determined from the attitude of the mineralised domain and also the variography. This estimate is the maiden Mineral Resource for the project. Therefore, there are no previous estimates or mine production data. The estimate using the moler distance Weighted (power of 2) and Nearest Neighbour estimates.
		Theassumptionsmaderegardingrecoveryofby-products.Estimationofdeleteriouselementsorothernon-gradevariablesofeconomicsignificance(e.g.sulphurforacianage	No assumptions have been made regarding recovery of by-products. The model contains estimated values for gold only. No deleterious elements have been identified and thus not estimated.
		characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A kriging neighbourhood analysis resulted in an optimum block size of 5 mE x 10 mN x 4 mRL. However, since the block model was rotated in the dip direction, a smaller block (2m) in the RL direction was used as it was assumed this would better reflect the structural controls on mineralisation. To better define the boundaries against the edge of the domain, a sub- block size 0.5 mE x 0.5 mN x 0.5 mRL was used with sub-blocks being assigned the same grade as the parent block.



Criteria	JORC Code explanation	
	Any assumptions behind modelling of selective mining units.	The estimate is considered a global Mineral Resource and therefor there are no assumptions with respect to selective mining units. It anticipated that further drilling (infill drilling) will be required t produce an estimation a local scale and this will provide informatic important to mine planning and scale of the operation.
	Any assumptions about correlation between variables.	There were no assumptions as only gold was estimated.
_	Description of how the geological interpretation was used to control the resource estimates.	<ul> <li>The lithological and structural geology interpretation was used control the resource estimates. The mineralised zone was determined by being: <ul> <li>stratigraphically above the Boyd shear</li> <li>east of the Boyd anticline</li> <li>below the base of cover</li> </ul> </li> </ul>
_	Discussion of basis for using or not using grade cutting or capping.	The mineralised domain was reviewed by log probability plots, the disintegration method and other statistical methods such as coefficiened of variation. These determined that there were outlier values in the dataset and that grade capping at 150 g/t gold was appropriate. The was the 99.98 <sup>th</sup> percentile meaning very little metal was removed by grade cutting. In addition, the mineralised zone is comprised of a substant sandstone bounded above and below by shale units. When reviewed independently, the sandstone unit still suggests a top cut of 150 g/t gold required. Since the model was not constrained by lithology, an overall top cut 150 g/t gold was considered appropriate.
_	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	A comparison of the drill hole grades to the block model grades we made. The swathe plots show an acceptable level of comparative dat It is noted that due to an unconstrained (to grade) model, there is large amount of low-grade data which could bias the swathe plots. visual check of the block model and drillhole grades also shows a acceptable comparison. As mentioned above, addition estimation checks were carried out als with acceptable comparisons.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the	Mining has not commenced so reconciliation data is not available. The tonnages reported are dry metric tonnes.
Cut-off parameters	method of determination of the moisture content. The basis of the adopted cut-off grade(s) or quality	A 2 g/t gold cut off has been used to define the Mineral Resources, this is in the vicinity of cutoff grades applied presently at other sma medium scale selectively mined gold orebodies in Australia.
Mining factors or assumptions	parameters applied. Assumptions made regarding possible mining methods, minimum mining dimensions and	A very high-level and preliminary economic assessment of the init Boyd's Dam's Mineral Resource had been completed by Catalyst. The data provided to Conarco suggests that, at this early stage, the projecould be viable. This assumes that not all resources are mined, high grade areas of the resource are extracted and that these tonnes and
	internal (or, if applicable, external) mining dilution. It is always necessary as	grade are diluted. In addition, a gold price of A\$2500 and a 2 government royalty have also been used in the assessment. The results suggest a modest return on investment and that the satisfies the JORC Code requirement for reasonable prospects



Criteria	JORC Code explanation	
	part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	eventual economic extraction (RPEEE). The project is highly sensitive to the gold ounces mined, both positively and negatively. It is anticipated that Boyd's Dam would form part of a broader project area within the Four Eagles retention Licence area and does not take into account further exploration success either from Boyd's Dam or other nearby deposits such as Hayanmi and Pickles.
Metallurgical factors 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.	Metallurgical studies have been completed in 2016 and 2021 by AMML Pty Ltd. The first test work during 2016 incorporated two samples totalling 37 kg while in 2021, 8 samples or approximately 30 kg each were submitted. Both analyses noted "spotty" gold content for the samples submitted. The analysis in 2021 also included aspects of gravity, flotation and leach. In conclusion, the results suggested that a recovery of >90% is expected with some results suggesting a recovery of 98% is achievable. Given the style and nature of mineralisation, these results are within expectations.
Environmental factors assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining	Catalyst Metals have had a number of technical studies conducted to assist the preparation of the Exploration Work Plan for a planned exploration tunnel. These technical studies, include geotechnical, flora & fauna, hydrology and cultural heritage. The findings of these technical studies confirmed that there are no matters which are deemed terminal to the development of the exploration tunnel. Additional Flora & Fauna studies are being completed in Spring 2022, to determine the approvals pathways within the Victorian Mining &



Criteria	JORC Code explanation	
	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	Although these approvals are for an exploration decline and development, they demonstrate these approval processes are we advanced for a project at this stage. They do not take into consideration full mine scale production and processing facilities however it i considered too early in the project's life to determine an optimal mine operation plan e.g. on-site processing or off-site toll treatment.
	reported with an explanation of the environmental	
	assumptions made.	
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.	The specific gravity was determined by the Archimedes method usin shrink wrap to prevent water infiltration.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	The method above used dried core samples that have been shrin wrapped to account for porosity or vughs. In addition, the SG have bee split between the oxide, transitional and fresh rock and applied to th corresponding zone within the resource model.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different	In total, there were 135 samples with the result shown below. Thes results are within expectations however SG measurements shoul continue to be taken over regular intervals.



Criteria	JORC Code explanation							
			Oxide	Transition	Fresh			
		No samples	58	41	36			
		SG (Weighted average)	2.2	2.4	2.6			
		These measurements are expected to be an average value entirety of each weathered zone. Lower and higher values						
		expected throughout the	deposit s	such as vugh	zones (whe			
		measurements cannot be ta	aken) and qu	artz zones respe	ectively.			
Classification	The basis for the	Measured Resources						
	classification of the Due to the inherent erratic nature of gold minera							
	Mineral Resources	density of drilling, there are	no Measure	ed Resourced sta	ated.			
	into varying	Indicated Resources						
	confidence	First pass estimation and						
	categories.	Where 2 g/t gold grade s	shell shows	continuity with	two or mo			
		drillholes.						
		Inferred Resources						
		Remaining areas of the 2 g/	t gold grade	shell.				
		By using a 2 g/t grade she	ll and assum	ning continuity o	of two or mo			
		drillholes, will avoid an und	lue fragmen	tation of the Mi	neral Resou			
		classifications.						
	Whether appropriate	See above						
	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).							
	Whether the result	The results appropriately re	flect the vie	w of the Compe	tent Person.			
	appropriately reflects							
	the Competent							
	Person's view of the							
	deposit.							
Audits or reviews	The results of any	The process of the Minera			•			
	audits or reviews of	reviewed by Catalyst . The			ure and whe			
	Mineral Resource	not a full audit of the proce	ss and result	ts.				
	estimates.							
Discussion of	Where appropriate a	The accuracy of the Miner						
relative accuracy/	statement of the	Competent person. Many fa						
confidence	relative accuracy and	geostatistical methods we						
	confidence level in the	unconstrained model which	•	-				
	Mineral Resource	grade samples. This in turn						
	estimate using an	The Mineral Resource is co		-				
	approach or	complexity and ultimately t		-				
	procedure deemed	It is likely further drilling wi						
	appropriate by the	of downside to this Minera						
	Competent Person.	the stated Mineral Resourc	e but within	the mineralised	zone.			
	For example, the							
	application of							
	statistical or							
	geostatistical							
	procedures to							



Criteria	JORC Code explanation	
	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 statement should specify whether it	The Mineral Resource is considered to be a global estimate of gold. Further infill/grade control drilling will be required, including Indicated
	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.	Further infill/grade control drilling will be required, including indicated Resources, for mine planning purposes.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	There is no production data available



# Section 3b Estimation and Reporting of Mineral Resources – Iris Zone

Criteria	JORC Code explanation	
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.	The collation of logging and sampling data uses a number of Microsoft Excel logging templates. For diamond holes, the data is logged directly into the template. For RC drilling, data is written on paper logs and then entered into the template. Within each template, there are the corresponding tabs for each piece of information such as surveys, lithology, alteration, structure etc. These tabs also include auto- populated data, locked cells that cannot be over-written and drop- down lists all of which aim at reducing errors.
	Data validation procedures used.	Once logging is completed, a validation macro is run which highlights any errors that are required to be amended before exporting the data. These errors include interval overlaps, logging past EOH, QAQC field dups missing the Parent SampleID, etc. Once the data has been validated, it is exported as CSV files using another macro on the logging sheet. Further validation steps including QAQC verification are conducted as the data is imported into the database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Site visits were conducted at the Catalyst office and core processing facility in Bendigo.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological interpretation was based around quartz content, nominally greater than 60%. There was reasonable continuity of quartz that was evident from section to section. There is greater confidence of the average gold grade within the quartz domain than if gold itself had been used, which is much more erratically distributed. The overall lithological and structural framework is well understood. However, at more local scales additional information from diamond holes or other such means such as acoustic televiewer is required to better understand the lithological and structural controls on the mineralisation. Due to the erratic nature of the gold distribution, there is less confidence with the controls on mineralisation. From a global perspective, there is greater confidence with less confidence at more local scales. This confidence is reflective in the Mineral Resource classification, as there are no Measured or Indicated Resources even in areas when there is high drill density.
	Nature of the data used and of any assumptions made. The effect, if any, of	Drillhole data has been used to create the geological domains Alternative interpretations have not been considered.
	alternative interpretations on Mineral Resource estimation.	
	The use of geology in guiding and controlling Mineral Resource estimation.	As stated, the geologically interpretation was based around quartz content forming the Iris Zone. This zone of mineralisation is bounded by two discrete structures evident from diamond drill core. Quartz zones and anomalous gold grades were evident outside of the iris zone



Criteria	JORC Code explanation	
		however their continuity could not be established and they were therefore ignored from the estimate.
-	The factors affecting continuity both of grade and geology.	Gold grades were highly variable through the Iris Zone which is no uncommonly in Central Victorian orogenic gold deposits. Therefore, the mineralised zone is interpreted to be a discrete body of quartz with gold grades determined by the gold assays within the interpretation. Given the variability of gold grades and drill spacing of 50m, it i anticipated that further drilling will affect the grade distribution through the mineralised zone. At this time, it is unclear whether thi will be positively or negatively affected.
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 mineralised zone is 400m in length, 1.5 – 5 m wide and ranges from 15m to 45m in the dip direction. The plunge is shallow (<10 degrees) to the south. To the north, the most shallow portion of the estimate i ~215m from surface while at the southern extremity the deepest par is 320m from surface.
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 estimation was compiled using Maptek' Vulcan <sup>™</sup> software. The grade estimation was interpolated using ordinary kriging with check estimates using Inverse Distance weighter (power of 2) and nearest neighbour techniques. The dataset was assessed for outlier (extreme) metal grades by use of log probability plots, disintegration of data structure, and other statistical methods such of CV (coefficient of variation). This suggester an appropriate top cut of 250 g/t gold was necessary. The estimate used a three-pass system where the first pass was the range of the variogram. The minimum / maximum samples were determined from a kriging neighbourhood analysis resulting in the first and second passes using between 8 and 30 samples with a maximum of 4 samples from any hole. The third pass used between 2 and 8 sample (no limit per hole). The orientation of the search pass was determined from the attitude of the mineralised domain and also the variography.
-	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	This estimate is the maiden Mineral Resource for the project Therefore, there are no previous estimates or mine production data The estimate which was interpolated by Ordinary Kriging was checked and validated using Nearest Neighbour estimates.
	The assumptions made regarding recovery of by- products.	No assumptions have been made regarding recovery of by-products The model contains estimated values for gold only.
	Estimation of deleterious elements or other non-grade	No deleterious elements have been estimated.



Criteria	JORC Code explanation	
	significance (e.g. sulphur for acid mine drainage characterisation).	
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A kriging neighbourhood analysis resulted in an optimum block size of 5 mE x 10 mN x 5 mRL. These block dimensions were optimised from a kriging neighbourhood analysis using kriging efficiencies, slope of regression and negative kriging weights. To better define the boundaries against the edge of the domain, a sub- block size 0.5 mE x 0.5 mN x 0.5 mRL was used with sub-blocks being assigned the same grade as the parent block.
	Any assumptions behind modelling of selective mining units.	The estimate is considered a global Mineral Resource and therefore there are no assumptions with respect to selective mining units. It is anticipated that further drilling (infill drilling) will be required to produce an estimation a local scale and this will provide information important to mine planning and scale of the operation.
	Any assumptions about correlation between variables.	There were no assumptions as only gold was estimated.
	Description of how the geological interpretation was used to control the resource estimates.	The interpretation of the mineralised zone was used as a hard boundary to constrain all samples within it. There was no estimation outside of the mineralised zone.
	Discussion of basis for using or not using grade cutting or capping.	The mineralised domain was reviewed by log probability plots, the disintegration method and other statistical methods such as CV. These determined that there were outlier values in the dataset and that grade capping at 250 g/t gold was appropriate. This was the 99.34 <sup>th</sup> percentile meaning very little metal was removed by grade cutting.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	A comparison of the drill hole grades to the block model grades were made. The swathe plots in the x,y and z directions show an acceptable level of comparative data. A visual check of the block model and drillhole grades also shows an acceptable comparison. In addition, the average grade of the composites used were approximate to the average grade of the block model. As mentioned above, addition estimation checks were carried out also with acceptable comparisons.
		Mining has not commenced so reconciliation data is not available. It was these checks that identified that a previous model required changes to the estimation parameters, which used a first pass range of $1/3^{rd}$ the variogram range and a second and third pass range equal to the range of the variogram. The number of samples were between 8 – 30 for passes 1 and 2 and between 2 – 8 for pass 3. This model had a lower-than-expected gold grade from the first pass and a higher-than- expected gold grade from the third pass with an overall higher-than- expected gold grade.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of	The tonnages reported are dry metric tonnes.
	determination of the moisture content.	
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	A 5 g/t gold block cut off has been used to define the Mineral Resources.



Criteria		JORC Code explanation	
Mining factors assumptions	or	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 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.	The Iris Zone is preliminary in nature and hence has been classified as an Inferred Resource. There have been no definitive assumptions made for possible mining methods or internal or external dilution.
Metallurgical factors assumptions	or	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects	Metallurgical studies have not been completed directly for the Iris Zone, but for nearby Boyd's Dam there were two studies completed in 2017 and 2022 by AMML. In summary, the total recovered gold is expected to be greater than 96% One analysis did report the occurrence of "spotty" gold content for the samples submitted. This resulted in a lower-than-expected calculated head grade. If the gravity concentrate grade was higher than the reported value than the overall recovery would increase as well. Given the style and nature of mineralisation, these results are within expectations.



Criteria	JORC Code explanation	
Criteria 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	Catalyst Metals have had a number of technical studies conducted t assist the preparation of the Exploration Work Plan for a planne exploration tunnel. These technical studies, including geotechnica flora & fauna, hydrology and cultural heritage are summarised in Tabl 3.1. The findings of these technical studies confirmed that there are in matters which are deemed terminal to the development of the exploration tunnel. Additional Flora & Fauna studies are bein completed in Spring 2022, to determine the approvals pathways within the Victorian Mining & Exploration regulator, Earth Resource Regulation. Although these approvals are for an exploration decline an development, they demonstrate these approval processes are we advanced for a project at this stage. They do not take into consideratio full mine scale production and processing facilities however it considered too early in the project's life to determine an optimal min operation plan e.g. on-site processing or off-site toll treatment.
Bulk density	determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry,	The specific gravity was determined by the Archimedes method usir shrink wrap to prevent water infiltration.
	the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and	The method above uses dried core samples that have been shrir wrapped to account for porosity or vughs. In addition, the SG have bee split between the oxide, transitional and fresh rock and applied to th corresponding zone within the resource model.



Criteria	JORC Code explanation	
	rock and alteration zones within the deposit.	
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	An SG value of 2.6 was used for the estimate. This is based on 163 samples from the nearby Boyd's Dam prospect and further afield Tomorrow zone, both with similar geological features. SG measurements were taken from holes drilled into the Iris Zone howeve only 25 samples were within the mineralised zone. The average of these samples was 2.65 however further work is required to refine the SG data.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The entire Mineral Resource is classified as an Inferred Resource. Due to the erratic distribution of gold grade, diamond drilling on 50n sections and a relatively small number of holes used in the estimate there were no Measured or Indicated Resources.
	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).	See above
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The results appropriately reflect the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The process of the Mineral Resource estimate has not been reviewe or audited by any third party.
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	The Mineral Resource estimate has been classified in accordance to th JORC Code 2012. The accuracy of the Mineral Resources is deeme appropriate by the Competent person. Many factors are taken int consideration, as discussed previously, however geostatistical method were not appropriate due to the small number of holes used in th estimate. The structural complexity and ultimately the distribution of gold extremely complex. It is likely further drilling will provide both upsid and downside to the current known Mineral Resources as well as area outside the stated Mineral Resource most noticeable along strike to th north and south and up and down- dip.
	procedures to quantify the relative accuracy of the resource within stated confidence limits, or,	



Criteria	JORC Code explanation	
	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 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 is considered to be a global estimate of gold. Further infill drilling will be required to classify Measured and Indicated Resources and for mine planning purposes.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	There is no production data available



# Appendix 2 – Holes excluded from the MRE

# Boyd's Dam

Hole ID	Hole_Type	Deposit	East	North	RL	Max Depth	Reason
FERC226	RC	Boyd's Dam	245,436.49	5989356.17	96.546	109	Drilled downdip - potential to bias estimate
FERC003	RC	Boyd's Dam	245,431.05	5989367.28	96.47	50.5	Doesn't protrude very far into min zone and stops in HG
FERC001	RC	Boyd's Dam	245,430.00	5989370	96.5	52	Doesn't protrude very far into min zone and stops in LG
FERC227	RC	Boyd's Dam	245,446.51	5989453.99	96.506	151	Drilled down dip, conflicts will hole drilled to east
FERC213	RC	Boyd's Dam	245,456.68	5989554.7	96.631	151	Drilled down dip, potentially throwing hg along strike
FERC212	RC	Boyd's Dam	245,441.13	5989554.3	96.516	127	Drilled down dip
FERC277	RC	Boyd's Dam	245,412.69	5989548.89	96.442	77	Drilled down dip, stops in min zone
FERC200	RC	Boyd's Dam	245,425.01	5989706.19	96.413	121	Drilled down dip
FERC201	RC	Boyd's Dam	245,441.85	5989705.56	96.428	156	Drilled down dip
FEDD027	Diamond	Boyd's Dam	245,428.68	5989734.41	96.632	110	Significant core loss in ore zone
FERC242	RC	Boyd's Dam	245,349.55	5989780.13	96.064	75	Doesn't protrude very far into min zone and stops in HG
FEDD009	Diamond	Boyd's Dam	245,393.12	5989780.51	96.335	327.7	Significant core loss in ore zone
FERC290	RC	Boyd's Dam	245,401.90	5989833.23	96.372	162	No info to 84m
FERC172	RC	Boyd's Dam	245,293.31	5990203.26	96.59	156	Check surveys
FEDD126	Diamond	Boyd's Dam	245,360.00	5989980	96	53.5	No assays
FEDD075	Diamond	Boyd's Dam	245,427.48	5989423.27	96.543	114.7	No assays
FEDD003	Diamond	Boyd's Dam	245,445.24	5989269.13	96.46	110	Just skims hw structure - no grade
FEDD004	Diamond	Boyd's Dam	245,469.42	5989269.13	96.49	60	No assays
FEDD030	Diamond	Boyd's Dam	245,453.07	5989274.32	96.493	307.45	No assays where Boyd shear intersects

#### Iris Zone

Hole ID	Hole_Type	Deposit	East	North	RL	Max Depth	Reason
FEDD143W1	Diamond	Iris	245,192.98	5990221.057	96.665	293.1	wedge drilled very close to original intersection