PANTORO

ASX Announcement
25 September 2020

Halls Creek Project Mineral Resource & Ore Reserve Update

Growth at Wagtail underpins mine life at Halls Creek

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to provide its annual Mineral Resource and Ore Reserve statement for the Halls Creek Project as at 31 May 2020.

Mineral Resources and Ore Reserves for the Norseman Gold Project will be reported separately in a release to the ASX as part of the Definitive Feasibility Study currently being finalised.

Key Highlights

- The total Halls Creek Project Mineral Resource now stands at 1,602,000 tonnes @ 6.6 g/t for 339,000 ounces, maintaining the inventory in line with the previous year's result after mining depletion.
- The total Halls Creek Project Ore Reserve now stands at 1,023,000 tonnes @ 4.6 g/t for 150,000 ounces.
- Underground Ore Reserves of 111,000 ounces maintains the rolling three year underground Ore Reserve life that the project has maintained since the first development in 2015.
- Outstanding growth at Wagtail resulting from high grade infill and extension drilling with results including:
- **Rowdies Lode**
  - » 5.35m @ 13.97 g/t Au.
  - » 4.30 m @ 16.40 g/t Au.
  - » 4.26 m @ 15.90 g/t Au.
  - » 3.30 m @ 17.80 g/t Au.
  - » 2.80 m @ 18.10 g/t Au.
- **New Splay – REV**
  - » 6.00 m @ 20.24 g/t Au.
  - » 3.23 m @ 12.76 g/t Au.
  - » 2.05 m @ 13.27 g/t Au.
  - » 0.4 m @ 101 g/t Au.
  - » 2.28 m @ 11.74 g/t Au.
- **Wagtail North Lode**
  - » 2.52 m @ 12.30 g/t Au.
  - » 1.50 m @ 10.41 g/t Au.
  - » 1.30 m @ 20.30 g/t Au.
- The Wagtail Ore Reserve has been extended to 260 metres below surface, with the Inferred Mineral Resource extending to approximately 300 metres below surface. Drilling programs are ongoing to continue the extension of the resource down plunge.

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Commenting on the Mineral Resource and Ore Reserve upgrade, Managing Director Paul Cmrlec said:

> "The Nicolsons project at Halls Creek continues to produce real cashflows which rival many much larger operations throughout the industry. Pantoro will continue to focus on maximising cashflow from Halls Creek to support the company's growth plans as a priority above all else.
>
> Halls Creek has been a great area for Pantoro since we first developed Nicolsons mine in 2015. Over the five years of operation, Ore Reserves inclusive of mine depletion have grown by over 400%, and this latest update sets the scene for continued growth into the future.

Mineral Resource and Ore Reserve Update

Key Mineral Resource details are set out in the table below:

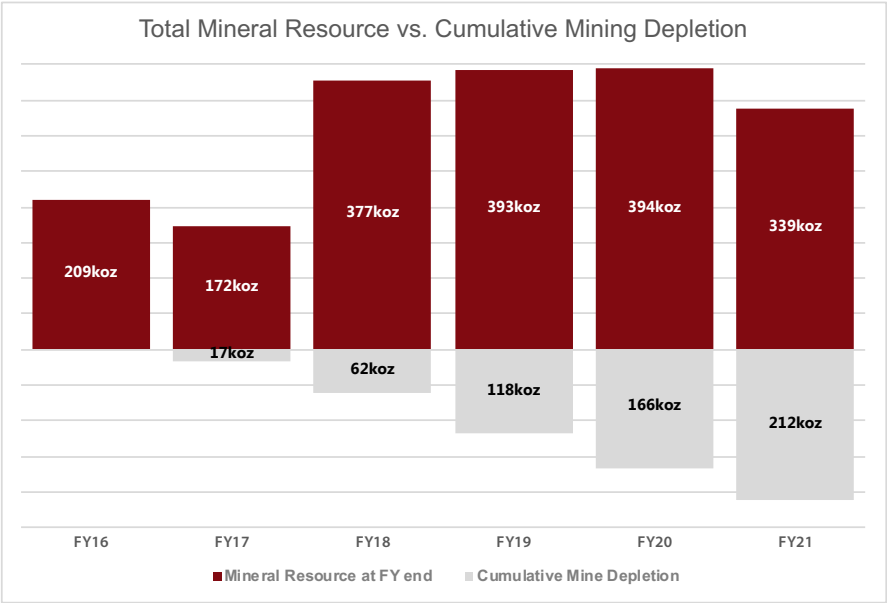
	Measured			Indicated			Inferred			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Nicolsons	194	11.8	74	359	6.2	71	106	8.2	28	660	8.2	173
Wagtail	103	8.7	29	420	6.5	88	135	6.7	29	657	6.9	146
Grants Creek	-	-	-	-	-	-	179	2.4	14	179	2.4	14
Stockpiles	106	1.8	6	-	-	-	-	-	-	106	1.8	6
Total	**404**	**8.4**	**109**	**779**	**6.4**	**160**	**420**	**5.3**	**71**	**1,602**	**6.6**	**339**

Key Ore Reserve details are set out in the table below:

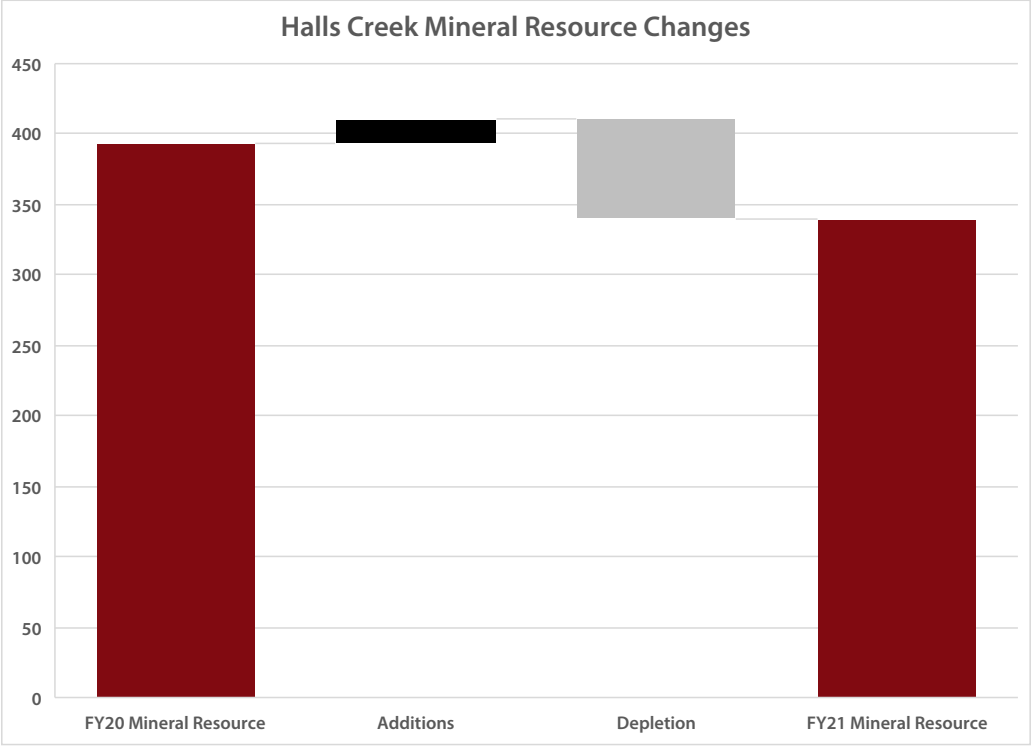
	Proven			Probable			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Nicolsons Underground	67	8.9	19	133	4.7	20	200	6.1	39
Nicolsons Open Pits	39	9.9	12	52	4.2	7	91	6.5	19
Wagtail Underground	99	4.4	14	432	4.2	58	531	4.2	72
Wagtail Open Pits	-	-	-	95	4.3	13	95	4.3	13
Stockpiles	106	1.8	6	-	-	-	106	1.8	6
Total	**312**	**5.2**	**52**	**711**	**4.3**	**98**	**1,023**	**4.6**	**150**

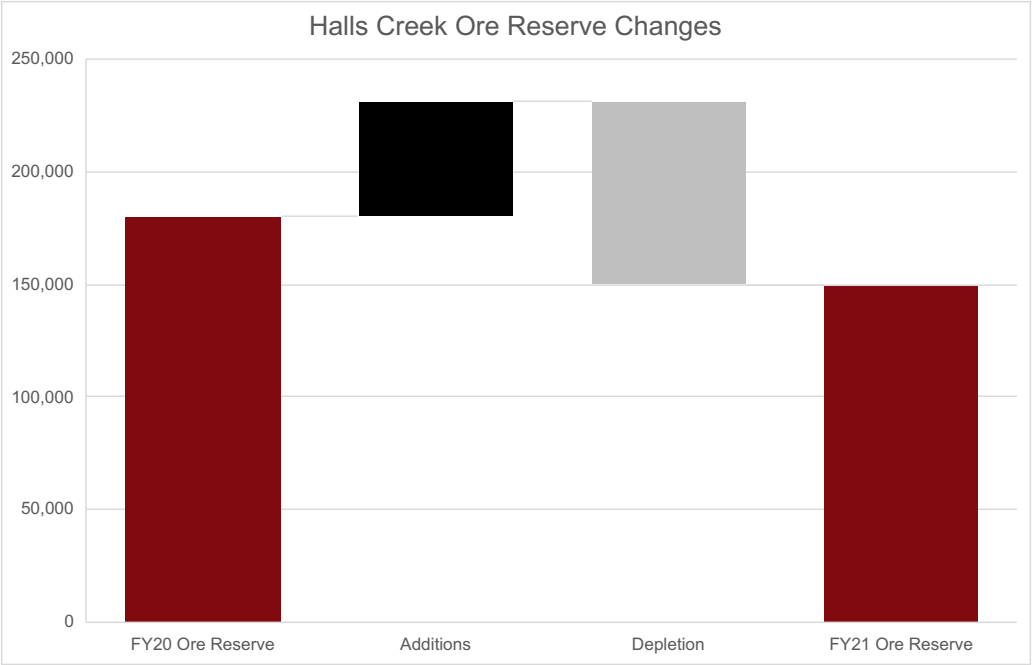
Notes: Nicolsons Underground (3.0 g/t cut-off grade applied to stoping, 1.0 g/t cut-off grade applied to development).
Wagtail Underground (2.0 g/t cut-off grade applied to stoping, 1.0 g/t cut-off grade applied to development).
Open Pits (0.6 g/t cut-off grade applied).

The Mineral Resource and Ore Reserves for Halls Creek remained consistent with the 2019 report after accounting for mine depletion during FY20. The project has consistently reported Mineral Resources in excess of 300,000 ounces of gold for the last four years while mine depletion has exceeded ~200,000 ounces since the commencement of operations. This pleasing result provides Pantoro with confidence it will continue to replenish the Mineral Resource inventory at Halls Creek and provide a platform for continued Ore Reserve growth.



The current Mineral Resource and Ore Reserve estimate is calculated as at the 31 May 2020. A comparison with the previous Mineral Resource and Ore Reserve estimate including mining depletion is provided below.





The Mineral Resource was compiled in accordance with JORC 2012 by Pantoro Geologists under the supervision and review of the Competent Person. The Ore Reserve was compiled in accordance with JORC 2012 by Pantoro Mining Engineers under the supervision and review of the Competent Person. The Mineral Resource and Ore Reserve inventory has been adjusted for depletion.

Ore Reserve – Wagtail

The Wagtail Ore Reserve increased to 626,000 tonnes @ 4.2 g/t for 85,000 ounces, a 16% increase from the prior year estimate and a 36% increase when accounting for mine depletion over this period. The Ore Reserve extends to ~250 metres below surface with Inferred Mineral Resource extending a further 50 metres below the base of the Ore Reserve. The Mineral Resource remains open at depth across all three lodes, Wagtail North, Wagtail South and Rowdies lodes.

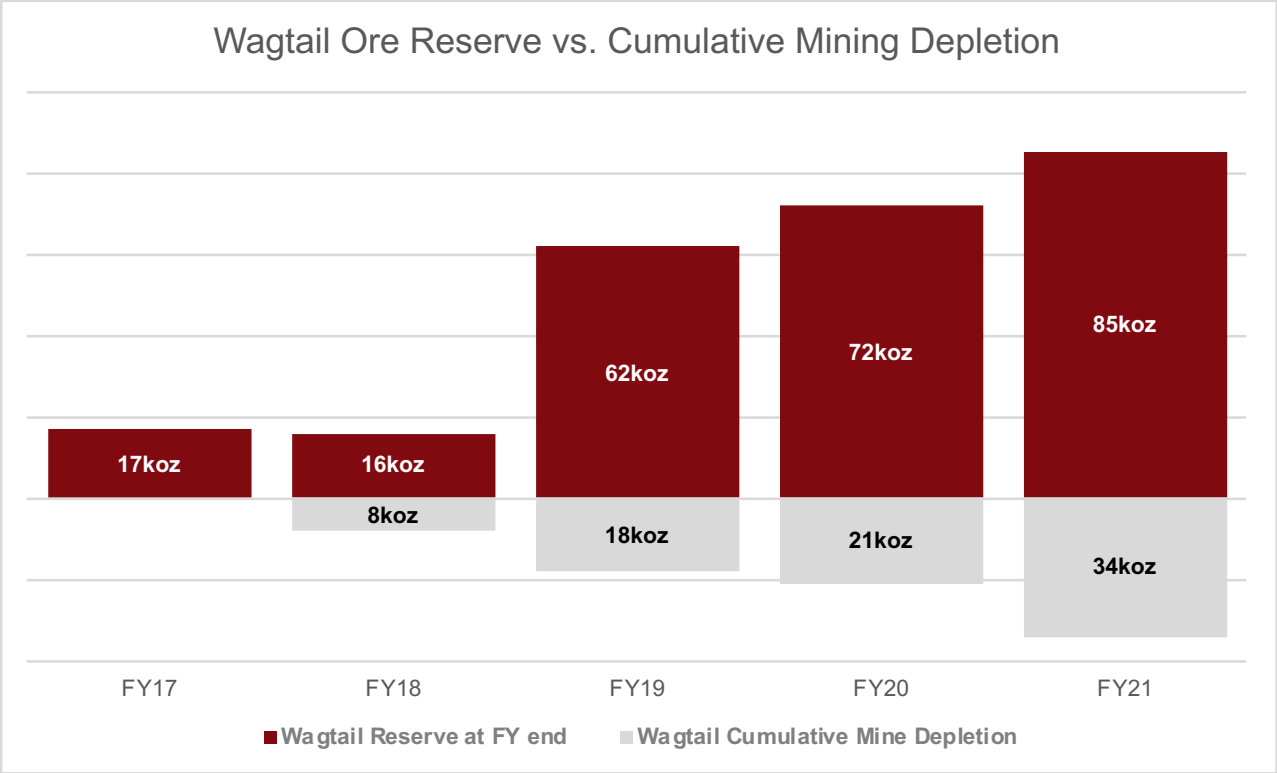
Open pit Ore Reserves of 95,000 tonnes @ 4.3 g/t for 13,000 ounces for the Rowdies lode are also being reported for the first time. This planned open pit recovers the shallow oxidized and transitional portion of the Mineral Resource above the underground workings.

	Proven			Probable			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Wagtail Underground	99	4.4	14	432	4.2	58	531	4.2	72
Wagtail Open Pits	-	-	-	95	4.3	13	95	4.3	13
Total	**99**	**4.4**	**14**	**527**	**4.2**	**71**	**626**	**4.2**	**85**

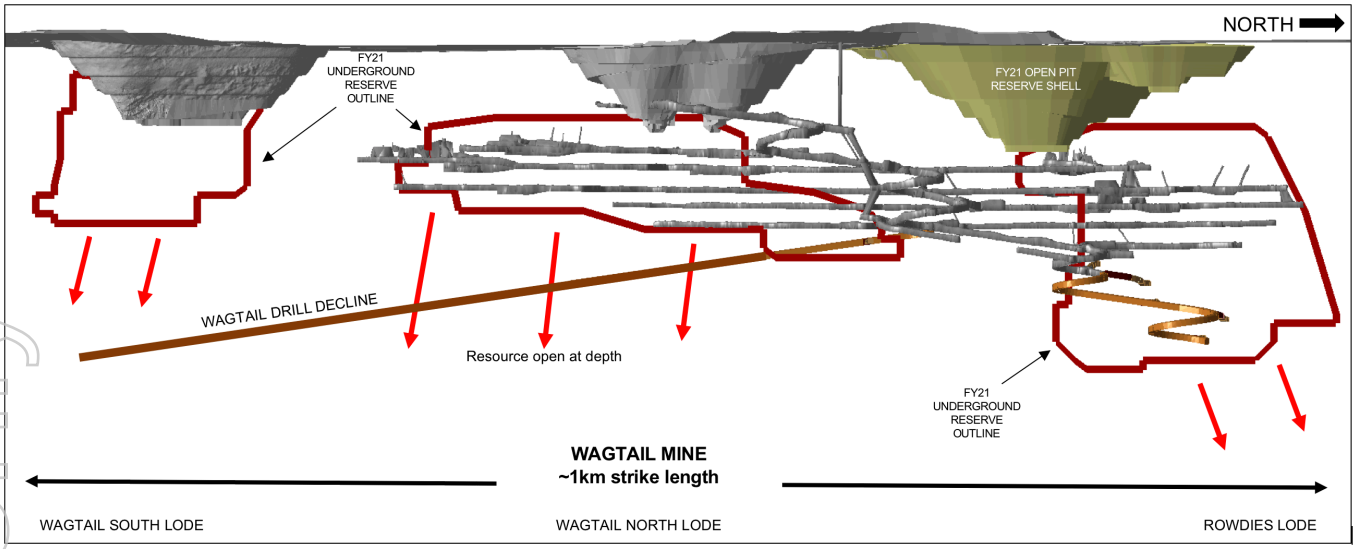
Key changes in the Ore Reserve Estimate include:

- The Wagtail Ore Reserve has increased by 13,000 ounces to 85,000 ounces.
- The Wagtail Ore Reserve has been depleted of ore mined up to 31 May 2020.
- The Wagtail Ore Reserve has been re-estimated to account for updates to the Wagtail Mineral Resource.
- The addition of the Rowdies Open Pit Ore Reserve based on optimisation of the Mineral Resource utilising the benchmarked Nicolsons open pit mining costs database and a A$2,200 gold price.

As the production profile increasingly shifts toward the Wagtail Mine, focus will be on growing the Ore Reserve at depth and along strike as has successfully been done over the last four years.



Development of the Wagtail footwall drill decline is the planned during the current year as part of the systematic plan to continue to expand the Mineral Resource and Ore Reserve. While the focus to date has been to extend the high-grade Rowdies lode down plunge, the development of the footwall drill decline will allow for the drill testing of the Wagtail North and Wagtail South lodes at depth. The footwall decline will provide an access to the high-grade Wagtail South deposit which currently has ~20,000 ounces in Ore Reserve and is planned to be mined in the coming years.



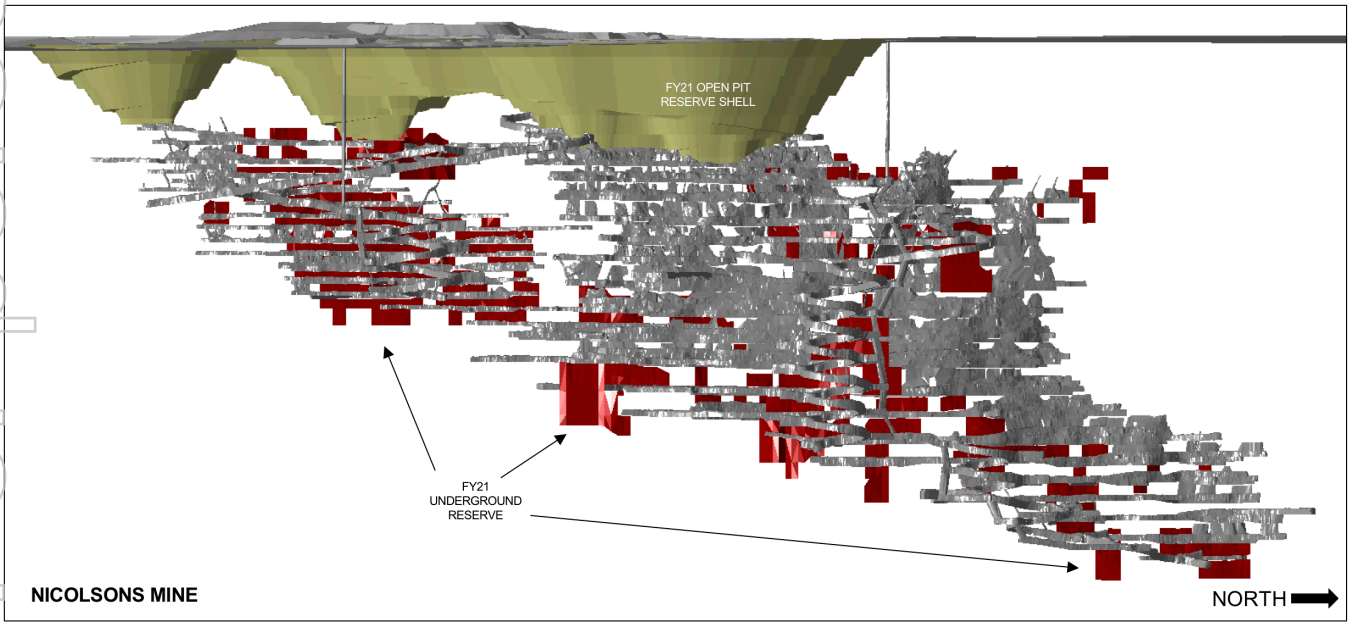
Ore Reserve – Nicolsons

The Nicolsons Ore Reserve is estimated at 291,000 tonnes @ 6.3 g/t for 59,000 ounces, with the reduction in total Ore Reserve driven by mining depletion. The Ore Reserve is split between 200,000 tonnes @ 6.1 g/t for 39,000 ounces to be recovered from underground and 91,000 tonnes @ 6.5 g/t for 19,000 ounces to be recovered from open pit.

	Proven			Probable			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Nicolsons Underground	67	8.9	19	133	4.7	20	200	6.1	39
Nicolsons Open Pits	39	9.9	12	52	4.2	7	91	6.5	19
Total	**107**	**9.3**	**32**	**185**	**4.5**	**27**	**291**	**6.3**	**59**

Key changes in the Ore Reserve Estimate include:

- The Nicolsons Ore Reserve has decreased by 43,000 ounces to 59,000 ounces.
- The Nicolsons Ore Reserve has been depleted of ore mined up to 31 May 2020.
- The Nicolsons Ore Reserve has been re-estimated on account of updates to the Nicolsons Mineral Resource.



Mineral Resource – Wagtail

The Wagtail Mineral Resource was re-estimated for the Wagtail North and Rowdies lodes following underground mine development and diamond drilling completed during FY20. The Wagtail South lode was depleted for open pit mining that was completed during FY20 but was not re-estimated.

	Measured			Indicated			Inferred			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Wagtail	103	8.7	29	420	6.5	88	135	6.7	29	657	6.9	146

Key changes in the Mineral Resource Estimate include:

- The Wagtail Mineral Resource has increased by 1,000 ounces to 146,000 ounces.
- The Wagtail Mineral Resource has been depleted of ore mined up to 31 May 2020.
- The Wagtail Mineral Resource has been updated on account of development and grade control drilling programs completed since the previous Mineral Resource update.

Mineral Resource – Nicolsons

The Nicolsons Mineral Resource was re-estimated following underground mine development and diamond drilling completed during FY20.

	Measured			Indicated			Inferred			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Nicolsons	194	11.8	74	359	6.2	71	106	8.2	28	660	8.2	173

Key changes in the Mineral Resource Estimate include:

- The Nicolsons Mineral Resource has decreased by 55,000 ounces to 173,000 ounces.
- The Nicolsons Mineral Resource has been depleted of ore mined up to 31 May 2020.
- The Nicolsons Mineral Resource has been updated on account of development and grade control drilling programs since the previous Mineral Resource update.

Mineral Resource – Grants Creek

The Grants Creek Mineral Resource remains unchanged from FY20. The Grants Creek Mineral Resource encompasses the Perseverance and Star of Kimberley deposits which were drilled over 2 campaigns in 2018 and 2019 field seasons.

Exploration and resource development drilling is planned to recommence at Grants Creek and Mary River early in the second quarter for FY21. This work will focus on building the Mineral Resource inventory with a view to establishing an Ore Reserve.

	Measured			Indicated			Inferred			Total		
	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz	kT	Grade	kOz
Grants Creek	-	-	-	-	-	-	179	2.4	14	179	2.4	14

Material Summary – Wagtail Open Pit Ore Reserve

Material information summary as required under ASX Listing Rule 5.9 and JORC 2012 reporting guidelines.

Material Assumptions for Ore Reserves

A Pre-Feasibility level study was undertaken using realised mining, processing and administration costs achieved during previous open pit mining campaigns at the project to assess the economic viability of the Wagtail open pit.

Criteria Used for Classification

Mineral Resources were converted to Ore Reserves in line with JORC 2012 guidelines. Specifically in this instance, Indicated Resource was converted to Probable Ore Reserve.

Mining Methods and Mining Assumptions

The Wagtail open pit is planned to be mined using conventional open pit mining methods. Ore recovery of is estimated at 100%, and dilution was estimated at 15%.

Processing Method

Ore will be treated using a standard Carbon in Pulp process at the existing Nicolsons processing plant. This metallurgical process is well tested and commonly used for gold bearing orebodies and has been used to treat the Wagtail orebodies successfully for a number of years.

There are no deleterious elements identified

The current and estimated future average recoveries for the Wagtail orebody are expected to be 97% for gold.

Cut-off Grade

A cut-off grades of 0.6 g/t gold has been applied when estimating the Wagtail open pit Ore Reserve. The cut-off grade was estimated using a gold price of $2,200 per ounce.

Ore Reserves Estimation Methodology

Mineral Resources were optimized using whittle 4D software along with realised mining, processing and administration costs achieved during previous open pit mining campaigns. The pit shell generated through this optimization process that aligned with the forecast gold price of $2,200 per ounce was selected as the basis for detailed design using Surpac software. Mining dilution of 20% and recovery of 90% was applied when estimating the Ore Reserve within the pit shell.

Material Modifying Factors

The required Environmental Studies are complete. A Mining Proposal will be required to be submitted prior to commencement of open pit mining. It is expected that all approvals will be in place as required for project commencement.

Enquiries

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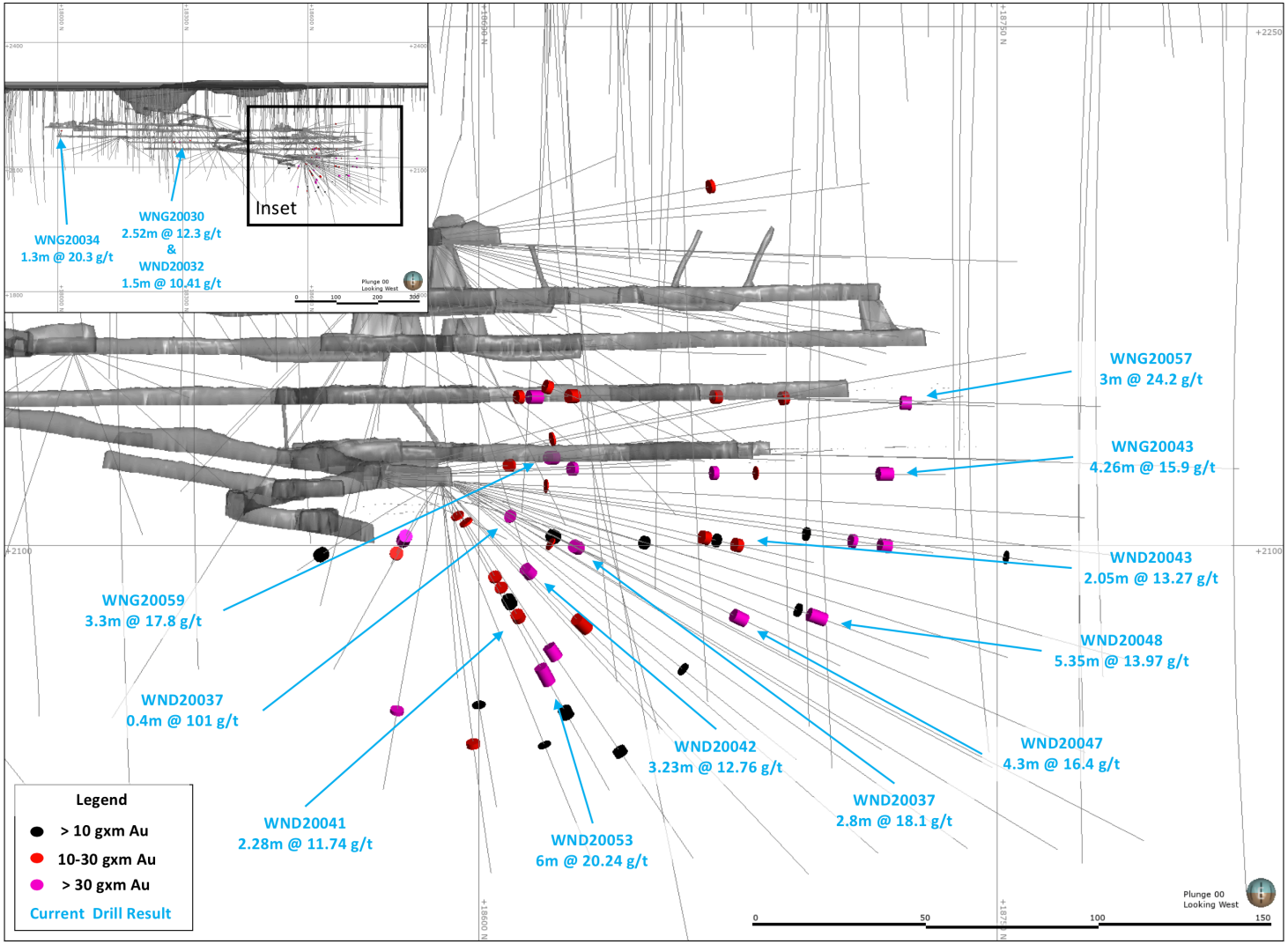
This announcement was authorised for release by Paul Cmrlec, Managing Director.

Appendix 1 – Table of Drill Results

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)	True Width
WND19070	18587	9945	2190	17	315	77	11.92	13.4	1.48	2.59	0.8
WND20007	18147	9923	2171	-28.5	217	93.2	39.5	40.4	0.9	1.35	0.5
WND20015	18155	9923	2171	-33.6	339	120	43.3	44.6	1.3	5.58	0.5
WND20015	18155	9923	2171	-33.6	339	120	61.4	62.2	0.8	4.08	0.3
WND20015	18155	9923	2171	-33.6	339	120	68.4	68.9	0.5	3.16	0.2
WND20015	18155	9923	2171	-33.6	339	120	76.9	77.5	0.6	1.72	0.2
WND20022	18588	9946	2189	9.5	330	121.7	91.15	92.4	1.25	14.60	0.7
WND20026	18386	9966	2147	-46.7	245	105	31.9	32.2	0.3	10.10	0.2
WND20027	18385	9966	2147	-36.9	219	125	38.28	39.23	0.95	6.51	0.5
WND20029	18384	9966	2147	-18.1	201	106.8	71.15	71.75	0.6	1.73	0.2
WND20030	18386	9965	2147	-48.2	286	105	29.3	29.7	0.4	7.63	0.4
WND20031	18248	9955	2233	-44.2	325	130.7	97.4	98.1	0.7	3.18	0.4
WND20031	18248	9955	2233	-43.9	325	130.7	111.75	112.2	0.45	3.63	0.2
WND20032	18667	9947	2128	20.9	152	71.9	55.4	57.3	1.9	15.10	1.3
WND20034	18623	9936	2128	32.1	166	57.8	35.8	36.8	1	2.20	0.9
WND20035	18589	9997	2118	-14.1	242	101.7	6.2	7.3	1.1	1.26	0.9
WND20035	18589	9997	2118	-14.1	242	101.7	81.8	84.5	2.7	1.09	2.3
WND20036	18589	9997	2118	-15.5	258	89.4	57.8	63.6	5.8	6.72	5.5
WND20036	18589	9997	2118	-15.5	258	89.4	76.8	77.6	0.8	12.90	0.8
WND20037	18589	9997	2118	-13.9	299	95.8	23.2	24.1	0.9	2.15	0.8
WND20037	18589	9997	2118	-13.9	299	95.8	41.7	42.1	0.4	101.00	0.4
WND20037	18589	9997	2118	-13.9	299	95.8	65.3	67.65	2.35	3.32	2.1
WND20037	18589	9997	2118	-13.9	299	95.8	78	80.8	2.8	18.10	0.5
WND20038	18589	9997	2118	-11.7	313	110.9	6.9	7.4	0.5	2.91	0.4
WND20038	18589	9997	2118	-11.7	313	110.9	38.7	39.1	0.4	19.40	0.3
WND20038	18589	9997	2118	-11.7	313	110.9	78.9	79.3	0.4	9.36	0.3
WND20038	18589	9997	2118	-11.7	313	110.9	86.2	87.25	1.05	2.27	0.8

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)	True Width
WND20039	18589	9997	2118	-34.2	248	98.8	6	8.95	1.95	4.39	1.7
WND20040	18589	9997	2118	-36.2	271	95.7	8.52	8.82	0.3	3.92	0.3
WND20041	18589	9997	2118	-34.2	292	97.1	47.27	48.25	0.98	17.18	0.9
WND20041	18589	9997	2118	-34.2	292	97.1	53	53.63	0.63	24.30	0.6
WND20041	18589	9997	2118	-34.2	292	97.1	59.1	62.1	3	1.44	2.8
WND20041	18589	9997	2118	-34.2	292	97.1	67.12	69.4	2.28	11.74	2.1
WND20041	18589	9997	2118	-34.2	292	97.1	78.7	79.2	0.5	8.88	0.5
WND20042	18589	9997	2118	-31.6	307	103	39.3	39.9	0.6	3.82	0.5
WND20042	18589	9997	2118	-31.6	307	103	47.57	50.8	3.23	12.76	2.7
WND20042	18589	9997	2118	-31.6	307	103	75.4	81	5.6	4.43	4.6
WND20043	18593	10000	2118	-9.3	322	133	36.15	36.4	0.25	13.10	0.2
WND20043	18593	10000	2118	-9.3	322	133	91.37	93.75	2.38	4.25	1.6
WND20043	18593	10000	2118	-9.3	322	133	96.6	97.4	0.8	6.99	0.5
WND20043	18593	10000	2118	-9.3	322	133	103.55	105.6	2.05	13.27	1.4
WND20044	18593	10000	2119	-7.6	331	158.8	29.5	32	2.5	3.28	1.4
WND20044	18593	10000	2119	-7.6	331	158.8	116.35	117.15	0.8	1.94	0.4
WND20044	18593	10000	2119	-7.6	331	158.8	131.4	132.85	1.45	24.10	0.8
WND20044	18593	10000	2119	-7.6	331	158.8	141.05	144.38	3.33	18.00	1.9
WND20045	18593	10000	2118	-6.4	337	182.5	123.05	123.33	0.28	4.41	0.1
WND20045	18593	10000	2118	-6.4	337	182.5	173.7	174	0.3	3.54	0.1
WND20046	18593	10000	2119	-5.6	340	205	147.6	148.35	0.75	9.52	0.3
WND20046	18593	10000	2119	-5.6	340	205	150.4	150.95	0.55	3.23	0.2
WND20046	18593	10000	2119	-5.6	340	205	156.9	157.7	0.8	1.54	0.3
WND20047	18593	10000	2118	-21.3	328	139	101.7	106	4.3	16.40	2.6
WND20048	18593	10000	2118	-18.2	335	158	114.6	115.6	1	4.49	0.5
WND20048	18593	10000	2118	-18.2	335	158	118.65	124	5.35	13.97	2.7
WND20051	18589	9997	2118	-55.7	253	107	11.1	11.9	0.8	4.78	0.6
WND20051	18589	9997	2118	-55.7	253	107	34.5	35	0.5	4.38	0.4

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)	True Width
WND20051	18589	9997	2118	-55.7	253	107	79.3	80.5	1.2	30.19	0.9
WND20052	18589	9997	2118	-56	284	113.8	77.8	78.2	0.4	4.50	0.3
WND20053	18589	9997	2118	-49.7	310	116.8	12.4	13	0.6	24.90	0.4
WND20053	18589	9997	2118	-49.7	310	116.8	61.7	62.25	0.55	5.34	0.4
WND20053	18589	9997	2118	-49.7	310	116.8	70	76	6	20.24	4.3
WND20053	18589	9997	2118	-49.7	310	116.8	85.9	88.76	2.46	3.49	1.7
WND20053	18589	9997	2118	-49.7	310	116.8	95.3	96.45	1.15	1.40	0.8
WND20055	18589	9997	2118	-61.7	282	125	12.05	12.45	0.4	13.00	0.3
WND20055	18589	9997	2118	-61.7	282	125	84.2	85.85	1.65	8.03	1.3
WND20056	18589	9997	2118	-57.4	307	130.4	12	13.5	1.5	6.16	1.0
WND20056	18589	9997	2118	-57.4	307	130.4	89.8	90.3	0.5	6.95	0.3
WND20057	18589	9997	2118	-51.3	325	140.8	14.6	15.3	0.7	19.00	0.4
WND20057	18589	9997	2118	-51.3	325	140.8	61.2	65.6	4.4	14.08	2.4
WND20057	18589	9997	2118	-51.3	325	140.8	99.55	101.65	2.1	4.62	1.1
WND20059	18592	10000	2118	-35.2	329	138.2	18.8	19.3	0.5	8.03	0.3
WND20059	18592	10000	2118	-35.2	329	138.2	93.65	94.3	0.65	9.39	0.3
WND20060	18593	10000	2118	-30.2	336	155.6	35.3	35.8	0.5	39.30	0.2
WND20060	18593	10000	2118	-30.2	336	155.6	39.3	39.5	0.2	36.96	0.1



Wagtail Long Section showing drill results

Appendix 2 – JORC Code 2012 Edition – Table 1 – Wagtail

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• This report relates to the annual update of the Mineral Resource and Ore Reserve statement for the Wagtail South, Wagtail North and Rowdies deposits at the Nicolsons gold project. • The Wagtail and Rowdies deposits has been sampled by RC, Surface Diamond underground diamond and underground face sampling. • All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with one side assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology. • Core is aligned,measured and marked up in metre intervals referenced back to downhole core blocks . • Diamond drilling is completed to industry standard and various sample intervals based on geology (0.3m-1.2m) are selected based on geology. • Diamond core are dispatched to an external accredited laboratory where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). Face samples 2-3kg samples are prepared at the onsite laboratory and 500g pulp (P90 75 micron) is delivered to an accredited laboratory in Perth for fire assay (40g charge) • RC – Rig-mounted static splitter used, with sample falling though a riffle splitter, splitting the sample in 87.5/12.5 ratio sampled every 1m. Pre-collars were sampled on 2m composites. • RC samples 2-4kg samples are dispatched to an external accredited laboratory where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). • For underground development face chip samples, Samples of approximately 2.0 kg are assayed at the onsite lab with a 500g pulverized pulp (P90 75 micron) assay by BLEG (bulk leach extractable gold) methodology following procedures established by an external accredited laboratory. This method determines cyanide recoverable gold only. Routinely any samples with assays returning greater than 1g/t have pulps dispatched to external accredited laboratory where sizing checks are completed to establish sample preparation is to standard and then fire assayed (40g charge). • Visible gold is encountered and where observed during logging, Screen Fire Assays are conducted

Criteria	JORC Code explanation	Commentary
		• Face Sampling,, each development face / round is mapped geologically and chip sampled perpendicular to mineralisation. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled • Historical holes - RC and aircore drilling was used to obtain 1 m samples from which 2 - 3 kg was crushed and sub-split to yield 250 for pulverisation and then a 40 g aliquot for fire assay. Upper portions of deeper holes were composited to 3m sample intervals and sub-split to 1 m intervals for further assay if an anomalous composite assay result was returned. For later drilling programs all intervals were assayed.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• RC drilling was completed with several rigs. All RC rigs used face sampling hammers with bit size of 13 and 5/3/4 inch drill bit diameter. • Underground diamond drilling is LTK60 core is drilled with an Atlas Copco carrier mounted U8 DH Rig With Rod Handler and wire line. • NQ and HQ Diamond drilling was conducted for all surface diamond drilling drilled from an RC pre-collar. Diamond holes were oriented using a Reflex orientation tool. Diamond holes were geologically and geotechnical logged. • Underground face samples, were chipped from the desired domain(rock type) using an geological hammer. A number of chips were taken between knee and head height from the geological domain to obtain a representative sample. The chips are put in a pre numbered sample bags.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• All holes were logged at site by an experienced geologist or logging was supervised by an experienced geologist. Recovery and sample quality were visually observed and recorded. • RC- recoveries are monitored by visual inspection of split reject and lab weight samples are recorded and reviewed. • RC drilling by previous operators to industry standard at the time • DD – No significant core loss has been noted in holes drilled
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• Geological logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments. • All drill chips were logged on 1 m increments, the minimum sample size. A subset of all chip samples is kept on site for reference. • diamond holes were logged to geological boundaries and is considered quantitative. Core was photographed. • All Development faces are mapped by a geologist and routinely photographed • All drilling has been logged.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Core samples were sawn in half utilising an Almonte core-saw, with one half used for assaying and the other half retained in core trays on site for future analysis. • For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory. • Core was cut under the supervision of an experienced geologist, was routinely cut on the orientation line. • All mineralised zones are sampled as well as material considered barren either side of the mineralised interval • Half core is considered appropriate for diamond drill samples.RC drill chip samples were collected on 1m sample intervals with either a three- tier, rotary or stationary cone splitter depending on the drill rig used • All RC sample splitting was to 12.5 % of original sample size or 2 – 3 kg, typical of standard industry practice • Face Chips samples are nominally chipped perpendicular to mineralisation across the face from left to right, and sub-set via geological features as appropriate. For face samples, the face was separated into sample intervals and separately bagged for analysis at site lab and the certified laboratory. • Sample sizes are considered appropriate • Field duplicates were taken in previous programs with results reviewed and not considered a risk to estimation of the Mineral Resource • RC drilling and sampling practices by previous operators were to industry standard
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. • 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. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Assays were completed in a certified laboratory in Perth WA. • Gold assays are determined using fire assay with 40g charge and AAS finish. Other elements were assayed using acid digest with ICP-MS finish. Screen fire assays consists of screening 500g of the sample to 106 microns. The plus fraction is fire assayed for gold and a duplicate assay is performed on the minus fraction. The size fraction weights, coarse and fine fraction gold content and total gold content are reported. The methods used approach total mineral consumption and are typical of industry standard practice. • No geophysical logging of drilling was performed. This is not relevant to the style of mineralisation under exploration.

Criteria	JORC Code explanation	Commentary
		• For underground development face chip samples, Samples of approximately 2.0 kg are assayed at the onsite lab with a 500g pulverized pulp (P90 75 micron) assay by BLEG (bulk leach extractable gold) methodology following procedures established by an external accredited laboratory. This method determines cyanide recoverable gold only. Routinely any samples with assays returning greater than 1g/t have pulps dispatched to external accredited laboratory where sizing checks are completed to establish sample preparation is to standard and then fire assayed (40g charge). The methods used approach total mineral consumption and are typical of industry standard practice. Results are compared for any variations outside of the limitations of the respective methods. • Blind submission of Certified Reference Materials (CRM) was undertaken as well as blank samples submitted, blanks and repeats are included as part of the QAQC system. In addition the laboratory had its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification. • Analysis of drilling undertaken in 2019 showed a negative bias with several of the external certified standards. • RC and AC drill samples from previous owners is assumed to be fire assay with AAS finish. Review of historic records of received assays confirms this.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Significant intersections are noted in logging and checked with assay results by company personnel. Some significant intersections have been resampled and assayed to validate results. • No hole twins are included • All primary data is logged on paper and later entered into the SQL database. Data is visually checked for errors before being sent to an external database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept onsite. • No adjustments have been made to assay data.

Criteria	JORC Code explanation	Commentary
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Drilling is surveyed using conventional survey. Downhole surveys are conducted during drilling using a Reflex survey tool. All holes are surveyed down the hole at 15m, 30m and every 30m thereafter. When the hole is completed, multishots are taken every 6m from EOH when tripping rods. • All underground development is routinely picked up by conventional survey methods and faces referenced to this by measuring from underground survey stations prior to entry into the database • The project lies in MGA 94, zone 52. Local coordinates are derived by conversion: GDA94_EAST =NIC_EAST * 0.9983364 + NIC_NORTH * 0.05607807 + 315269.176 GDA94_NORTH = NIC_EAST * (-0.05607807) + NIC_NORTH * 0.9983364 + 7944798.421 GDA94_RL =NIC-RL + 101.799 • Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied.	• Drill hole spacing underground is variable due to the nature of drilling fans from suitable underground drilling platforms. • Recent drillig infrom ing the current MRE is based on spacing of centres nominally between 25 m by 25 m with in the current Rowdies estimate and up to 40 by 40m on the margins. • Face samples are taken on the basis of the length of the development rounds being approximately a 2m spacing along strike • Drill hole spacing at Wagtail North, South and Rowdies for previous surface drilling is on a nominal 30m x 30m spacing to a depth of 120m. • The Competent Person is of the view that the drill spacing, geological interpretation and grade continuity of the data supports the resource categories assigned. • No sample compositing was undertaken.
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. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Drilling is generally perpendicular to the orebody other than the limitations introduced by the need to drill fans . All intervals are reviewed relative to the understanding of the geology and true widths calculated and reported in the tables attached in the body of the report. • No bias of sampling is believed to exist through the drilling orientation • Underground face and development sampling is nominally undertaken normal to the various orebodies

Criteria	JORC Code explanation	Commentary
Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by Pantoro employees and consultants. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth. Samples are tracked during shipping.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Review of the current data has been undertaken by Pantoro personnel as part of the current MRE. • A review of the historic sampling techniques was carried out by an independent consultancy in relation to prior Mineral Resource estimation in 2011/12 on behalf of the previous owners. No significant issues were noted.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Tenements containing Mineral Resource estimates and Ore Reserves are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. Tenements with Mineral Resources and Ore Reserves are: M80/503 and M80/362. The tenements lie on a pastoral lease with access and mining agreements and predate native title claims. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The deposits were discovered by prospectors in the early 1990s. After an 8,500 m RC program, Precious Metals Australia mined 23 koz at an estimated 7.7g/t Au from Nicolson's Pit in 1995/96 before ceasing the operation. Rewah mined the Wagtail and Rowdy pits (5 koz at 2.7g/t Au) in 2002/3 before Terra Gold Mines (TGM) acquired the project, carried out 12,000 m of RC drilling and produced a 100 koz Mineral Resource estimate for the Nicolsons Find deposit. GBS Gold acquired TGM and drilled 4,000 m before being placed in administration. Bulletin Resources Ltd acquired the project from administrators and conducted exploration work focused on Nicolsons and the Wagtail Deposits and completed regional exploration drilling and evaluation and completed a Mining Study in 2012 prior to entering into a JV with PNR in 2014.Review of available reports show work to follow acceptable to standard industry practices.
Geology	• Deposit type, geological setting and style of mineralisation.	• Gold mineralisation in the Project area is structurally controlled within the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone (NFSZ) and is hosted within folded and metamorphosed turbiditic greywackes, felsic volcaniclastics, mafic volcanics and laminated siltstones and mudstones. This zone forms part of a regional NE-trending strike slip fault system developed across the Halls Creek Orogen (HCO). • The NFSZ comprises a NNE-trending anastomosing system of brittle-ductile shears, characterised by a predominantly dextral sense of movement. The principal shear structures trend NNE to N-S and are linked by NW, and to a lesser extent, by NE shears. Individual shears extend up to 500m along strike and overprint the earlier folding and penetrative cleavage of the HCO.

Criteria	JORC Code explanation	Commentary
		• The overall geometry of the system is characterized by right step-overs and bends/jogs in the shear traces, reflecting refraction of the shears about the granite contact, mineralisation in Wagtail North is predominantly hosted in the granite within the shear. Within this system, the NW-striking shears are interpreted as compressional structures and the NE-striking shears formed within extensional windows. • Mineralisation is primarily focussed along NNE trending anastomosing systems of NNE-SSW, NW-SE and NE-SW oriented shears and splays. The NNE shears dip moderately to the east, while the NW set dips moderately to steeply to the NE. Both sets display variations in dip, with flattening and steepening which result in a complex pattern of shear intersections. • Mineralisation is strongly correlated with discontinuous quartz veining and with Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are associated with broad zones of silicification and thicker quartz veining (typically white, massive quartz with less fracturing and brecciation); however, these are typically poorly mineralized. The NW-trending shears are mineralized and often host bonanza gold grades with associated increases in base metal content, with the lodes most likely related to high fluid pressures with over-pressuring and failure leading to vein formation. Although the NE structures formed within the same shear system, the quartz veining is of a different generation to the mineralized veins. • Individual shears within the system display an increase in strain towards their centres and comprise an anastomosing shear fabric reminiscent of the pattern on a larger scale.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: » easting and northing of the drill hole collar » elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar » dip and azimuth of the hole » 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 case.	• Tables containing the drill hole data pertaining to this release is attached. • All material drill holes related to the context of this announcement with results available from the last public announcement are reported.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Reported drill results are uncut • All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept. • No metal equivalents are reported.
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. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Drilling from the underground is drilled from locations which mean there are variable dips and azimuths due to access limitations • Downhole lengths are reported and true widths are calculated in both the section and plan view utilising a formulae in excel. • True widths are calculated and reported for drill intersections which intersect the lodes obliquely.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Appropriate diagrams are included in the report.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• All holes available since the last report are included in the tables • Diagrams show the location and tenor of both high and low grade samples.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• No other meaningful data to report.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Mining and processing of this ore is ongoing at the Wagtail and Rowdies deposits. • Drilling is ongoing from the underground to evaluate further extensions to the orebodies.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data input has been governed by lookup tables and programmed import of assay data from lab into database. The database has been checked against the original assay certificates and survey records for completeness and accuracy. • Data was validated by the geologist after input. Data validation checks were carried out by an external database manager in liaison with Pantoro personnel. An extensive review of the data base was undertaken when Pantoro acquired the project, and external data review is ongoing.
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.	• The Competent Person conducts regular visits to the site and has a good appreciation of the mineralisation styles comprising the Mineral Resource.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Confidence in the geological interpretation is moderate to high given the increased drill density additional to previous Mineral Resource estimate. Surface and historic pit floor mapping confirms the orientation data for the main mineralised structures. • Interpreted wireframes created utilizing Leapfrog™ were utilised to constrain the Mineral Resource estimate, These are based on coding of mineralised drilling intersections and geological constraints. All Wireframes have been conducted to a 0.5 ppm Au cut –off grade for inclusion based on the above parameters. • The mineralisation is consistent with narrow high grade gold lodes and drill intercepts clearly define mineralisation and lode position. In general the interpretation of the mineralised structures is clear, however short strike splay structures are found to be present in the course of mining and can contain localised bonanza grades. • In general the controls on mineralisation and grade continuity is constrained by quartz veining within the NFSZ and based on learning outcomes from Nicolsons Find underground development are relatively straightforward and as such no alternate interpretations have been considered. • Geological interpretation of the data was used as a basis for the wireframes for individual lodes which were then constrained by cut-off grades.
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 Rowdies and Wagtail deposits occur over a strike length of approximately 1200m. Mineralised widths in plan vary between 0.5m and 4.5m and mineralisation extends from surface to 285 metres below surface and has not been closed off.

Criteria	JORC Code explanation	Commentary
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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic 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. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Drillholes used in the Mineral Resource estimate update for Wagtail North and Rowdies included, in addition to data used in prior estimates, an additional 19 RC and 173 underground diamond holes for a total of 17,110 m of drilling, and 5,241 m of underground face samples from 1,790 individual faces within the resource wireframes • The block models used primary block sizes of 5m Y X 2.5m X X 2.5m Z on Wagtail South deposits. Primary block sizes of 10m Y X 1m X and 10m Z were used on Wagtail North and Rowdies. Sub-celling was employed at domain boundaries to allow adequate representation of the domain geometry and volume. Block size was determined primarily with the assumption of a relatively selective mining approach for both open pit and underground operations. • Only gold has been estimated. Drill hole data was composited utilizing domain codes with all data composited to 1m. • Grade distribution statistics were used to generate top cuts by domain, along with the analysis of distribution graphs and disintegration analysis in order to limit the influence of outliers in the estimate. • A two-dimensional (2D) Ordinary Kriging (OK) interpolation approach was selected to address some of the main issues encountered when estimating narrow vein mineralisation, such as: » Additivity issues due to non-uniform support and resulting grade bias. Instances of highly variable individual intercepts (e.g. 0.3 m to 5.0 m) which would be difficult to incorporate and represent statistically using downhole composites of equal lengths (e.g. 0.5, 1.0 or 2.0 m); » Varying mineralisation geometry across lode, down dip, and along strike; and » Block size required for adequate volume fill of narrow geometry is generally too small, introducing conditional bias to the MRE outcome. • Drillholes were composited for the full width of the domain intercept, followed by trigonometric calculation of true width (TW) using the orientations of the drill hole intercept and ore domain defined by a digitised reference (centreline) surface. A gold accumulation variable was then calculated by multiplication of intercept grade by true width. • Composited sample data was transformed (grid rotation removed) before being pressed onto a cartographic plane and statistical analysis undertaken on accumulation, width, and grade variables, to assist with determining estimation search parameters, top-cuts etc. • Assessment and application of top-cutting for the 2D estimate was undertaken on the gold accumulation variable within individual domains. Top cuts, where appropriate, were applied on an individual domain basis.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques		• Variography analysis of individual domains was undertaken on gold accumulation variables in 2D space, followed by Qualitative Kriging Neighbourhood Analysis to assist with determining appropriate search parameters. • The 2D block models for interpolation were created using a block size of 10 mN x 10 mRL x 1 mE with no sub-celling. Block size was determined primarily with the assumption of a relatively selective mining approach for both open pit and underground operations. • Block estimation used 2 passes. The 1st pass used a search radius equal to the variogram range of 37m with a minimum of 4 and maximum of 14 samples. The search radius was increased to 74m for the second (and final) pass.Third pass was 111m. • Post estimate. Gold ppm values for each block were calculated by dividing interpolated gold accumulation by interpolated TW, whereby for each block: • Block Gold ppm = Block Gold Accumulation Value / Block TW Value • Back calculated gold ppm values for each block were transformed from 2D to 3D space and pressed across the full width of the corresponding domain in the final host 3D compilation model. • Check estimates were carried out in 3D using Inverse Distance Squared. Both accumulation and horizontal width were estimated before back calculation of the check estimate gold grade. • Validation of the gold accumulation, TW estimations and gold ppm back-calculation was completed by global and local bias analysis, statistical and visual inspections in 2D and 3D space.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	• Tonnage was estimated on a dry basis. • The tonnages of material on stockpiles are quoted on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied	• The Mineral Resource cut-off grade for reporting of gold resources was at a • 2.0 g/t gold cut-off for underground and the open pit for Rowdies was reported above a $AUD2,200 optimised pit shell. This was based upon economic parameters currently utilized at Wagtail, and the nearby Nicolsons, operations, where deposits of the same style, commodity, comparable size and mining methodology are being extracted.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and 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 MRE extends nominally 285 m below surface. Pantoro considers material at this depth suitable to have a reasonable prospect of eventual economic extraction within an underground mining framework.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Metallurgical test work has shown acceptable (> 93%) gold recovery using CIP technology and is confirmed with calculated recoveries from the current processing of the material from the Mineral Resource. No metallurgical factors from the have been applied to the estimates as this will be addressed during the application of modifying factors during Ore Reserve conversion.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The deposits are on granted mining leases with existing mining disturbance and infrastructure present to support the reasonable prospects for economic extraction.
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 bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density measurements of ore and waste were adopted from historical testwork from drill core using the water displacement method and data from historical mining. Pit data provided 29 samples and drilling provided 91 samples. • Bulk density estimates used for Wagtail and Rowdies (mineralized) were: » Oxide All: 2.0 t/m3. Transitional All: 2.4t/m3 » Fresh Wagtail North: 2.9t/m3. Fresh Wagtail South and Rowdies: 2.7t/m3 • Bulk density estimates for Rowdies 'un-mineralised' material was: » Backfill: 2.0 t/m3, Oxide: 2.3 t/m3, Trans: 2.7 t/m3, Fresh: 2.9 t/m3
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • 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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• Resources were classified utilising a combination of various estimation derived parameters, input data and geological/mining knowledge and depleted to the mined surface as of 30 May 2020 for the mined voids. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit • Measured Mineral Resources were defined where a high level of geological confidence in geometry, continuity, and grade was demonstrated, and were identified as areas where: » Good support from drilling and full exposure by underground development – where a level was fully developed top and bottom (15m Level intervals and 2m spaced faces samples).

Criteria	JORC Code explanation	Commentary
		• Indicated Mineral Resources were defined where a moderate level of geological confidence in geometry, continuity, and grade was demonstrated, and were identified as areas where: » Good support from drilling – where drilling was within 20 m of a block estimate; and estimation quality was considered reasonable, as delineated by a conditional bias slope above 0.6. • Inferred Mineral Resources were defined where a low level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where: » Drill spacing was averaging a nominal 50 m or less, or where drilling was within 40 m of the block estimate; and estimation quality was considered low, as delineated by a conditional bias slope between 0.2 – 0.6.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates	• Previous estimates were compiled by independent consultancy Entech. No other external review has been undertaken. • The current Mineral Resources has been reviewed internally and results are considered acceptable with reconciled production results.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The Mineral Resource statement relates to global tonnage and grade estimates. No formal confidence intervals nor recoverable resources were undertaken or derived. • Production figures from current mining activity have been reconciled to the Mineral Resource estimate. Current recovered Au ounce estimates are higher (7% for FY20 and 11% within Q3 and Q4 of FY20) than reconciled production from underground operations. Variances are considered during construction of consecutive MRE's and are considered to be within acceptable limits for the classification of the Mineral Resource.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ore Reserve estimate is based on the Mineral Resource estimate at 31st May 2020. • The Mineral Resource is reported inclusive of the Ore Reserve.
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.	• The Competent Person makes regular visits to the site and is involved in operational forward planning which is the basis for the Ore Reserve.

Criteria	JORC Code explanation	Commentary
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Halls Creek is an established site with all major mining, processing and support infrastructure in place. There are currently no changes planned to existing infrastructure at the time of this Ore Reserve estimate being compiled. • Mining factors and costs used to generate this Ore Reserve estimate are in line with those currently being achieved at the project and were deemed appropriate by the Competent Person for use in generating the Ore Reserve estimate.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	**Underground** • Three cut-off grades are used to generate the Ore Reserve estimate. • A fully costed cut-off grade, 5.00g/t, which includes all capital and operating costs and is used to define the first pass Ore Reserve. • An incremental operating cut-off grade, 2.00g/t, which only considers mining and mill operating costs is then applied to include ore that is developed as a consequence of extracting the fully costed reserves. • An incremental mill cut-off grade, 1.00g/t, which only considers mill operating costs is applied to ore that is necessarily trucked to surface as part of the development process. **Open Pit** • Open pits have a 0.6g/t cut-off grade applied.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	**Underground** • Ore development is performed by single boom jumbo (profile: 3.0m wide x 3.8m high) or airleg miner (profile: 2.4m wide x 2.8m high). Ore drive development has 15% dilution applied at zero grade. • Production is by longhole and airleg stoping methods, both with and without fill, which have been used historically and are suitable for the geotechnical conditions encountered at the mine. • Stope strike length is generally limited to 10m prior to placement of fill or a pillar to maintain geotechnical control. The typical level interval is 15m. • In undeveloped stoping blocks, mineable stope shapes were created using the Datamine Software, Mineable Shape Optimiser (MSO). In locations where ore development has been completed, stope shapes were created manually using the same assumptions as the MSO optimisation. • A minimum mining width of 1.0m was applied to the stope design process. • An additional stope dilution of 0.5m footwall and 0.5m hanging wall dilution was applied in the MSO shape parameters to account for unplanned dilution. • Stope shapes were created using gold grade as the MSO optimisation field with an incremental cut-off grade applied. • Mining recoveries were set at 100% for development activities, and 95% for stoping where backfill is employed (avoca stoping) and 85% for open stoping.

Criteria	JORC Code explanation	Commentary
		• Inferred Mineral Resources are included in the mine plan and economic analysis for the site, however Inferred Mineral Resources are not included in any Ore Reserve estimate. • All mining, processing and support infrastructure is established and in place at the site. **Open Pit** • Mineral Resources were optimized using whittle 4D software using A$2,200/oz gold price, followed by detailed open pit design using Surpac software. • Key parameters used in optimisation were sourced from prevailing site prices (fuel and consumables, milling cost and administration cost), contract rates (mining) and prevailing market rates for general items. • Final overall pit slopes are 43 degrees, in line with geotechnical recommendation's by the geotechnical consultant. • Mining dilution of 15% and 100% recovery of diluted ore was utilised.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• The existing processing plant at Nicolsons uses a conventional CIP circuit, which is appropriate for the style of mineralization, and has achieved approximately 92% recovery during the past year. • The CIP process is the conventional gold processing method in Western Australia and is well tested and proven. • The site is an operating mine with recovery of 92% at usual operating condition. The site has undertaken ongoing testing of new ore samples, with similar results achieved in the laboratory. • There are not any know deleterious elements • The 92% recovery is consistent with calculated recoveries from the current operating period from the Nicolsons underground mine • Not applicable • A Steinert multi-sensor ore sorter is installed at the project. While the ore sorter is beneficial to site production and lower production costs, the benefits of the ore sorter use have not been factored into the Ore Reserve calculation.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Mining and processing operations are conducted wholly within granted Mining Leases. • A Ground Water Extraction License is in place for the project and allows for the extraction and use of water for mining and processing operations. • Waste dumps and tailings disposal facilities are in place and operated under requisite statutory approvals. • The waste rock comprises oxidised sediments and felsic igneous rocks containing only traces of sulphides and is non-acid forming.

Criteria	JORC Code explanation	Commentary
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Nicolsons site has been in production since September 2015, and all infrastructure and services necessary to operate the mine are in place and functioning.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• Sustaining capital estimates are based on market pricing. • Capital and operating costs for are based on the board approved budgets for the site and life-of-mine forward planning. • Budget costs are estimated using reasonable equipment productivity and maintenance assumptions, current labour costs and consumable price inputs from suppliers that the Company has supply agreements in place with. • The costs used to derive this Ore Reserve estimate are aligned with historical unit costs achieved by site. • There are no known deleterious elements, as such no allowances have been made. • All costs were estimated in Australian dollars. • Transport charges are based on pricing supplied to the Company by the service provider. • The ad valorem value-based state government royalty of 2.5% is applied during the economic analysis for the Ore Reserve estimate. No other royalties are applicable to the project.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• Underground Ore Reserve estimates were generated using a gold price assumption of $2,400 per ounce. • Open Pit Ore Reserve estimates were generated using a gold price assumption of $2,200 per ounce. • The gold price assumption used to generate this Ore Reserve estimate is an average gold price projection from a sample group of banks and financial industry analysts surveyed by Ernst and Young.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Gold sold at spot price.

Criteria	JORC Code explanation	Commentary
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• Wagtail is an operating mine. The Ore Reserve estimate is derived from financial modelling that includes all projected operating and capital costs attributable to the mine. These costs align with historical costs achieved by the mine. • The mine is managed from a cashflow perspective, with operational performance measured by the mines ability to generate positive cashflow.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Ore Reserve is located on granted mining leases and the company has an access agreement with the pastoral lease owner who is also the local aboriginal corporation.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• The Company has 100% ownership of the Project.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The Ore Reserve estimate has been derived from Measured and Indicated Resource. The Inferred Mineral Resource has been excluded from the Ore Reserve. • Proven Ore Reserves are derived from Measured Mineral Resources. Probable Ore Reserves are derived from Indicated Mineral Resources. • It is the Competent Person's view that the classification used for this Ore Reserve estimate are appropriate.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• This Ore Reserve has been reviewed internally by site based personnel and senior corporate management, each with sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• In the opinion of the Competent Person, the modifying factors and cost assumptions used in generating this Ore Reserve estimate are reasonable, and that both cost and production projections are supported by historical performance of the mine. • No statistical procedures were carried out to quantify the accuracy of the Ore Reserve estimate.

Appendix 3 – JORC Code 2012 Edition – Table 1 – Nicolsons

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• This report relates to the annual update of the Mineral Resource and Ore Reserve statement for Nicolsons Find (Nicolsons) deposit at the Nicolsons gold project. • The Nicolson's deposit has been sampled by RC, underground diamond, historical earth saw lines within the existing open pit, underground face sampling, minor Kempe Diamond drilling and minor historical RAB about the Nicolson's open pit area. • For RC drilling, measures taken to ensure sample representivity include the presence of a geologist at the rig whilst drilling, cleaning of the splitter at the end of every 3 m drill string, confirmation that drill depths match the accompanying sample interval with the drilling crew and the use of duplicate and lab/blank standards in the drilling programme. • Face Sampling,, each development face / round is chip sampled perpendicular to mineralisation. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled • For surface diamond drilling, measures taken include regular survey of drill holes, cutting of core along the orientation line where possible, and half core is submitted to an accredited laboratory. Industry standard blanks and standards are also submitted and reported by the laboratory. Drilling is completed in HQ3 or NQ2. HQ3 or NQ2 core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with one side assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1m, with shorter intervals utilised according to geology. • For underground diamond drilling, measures taken include regular survey of drill holes, cutting of core along the orientation line where possible, and half core is submitted to an accredited laboratory. Industry standard blanks and standards are also submitted and reported by the laboratory. Drilling is completed in LTK 60 • LTK 60 core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with one side assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1m, with shorter intervals utilised according to geology. • Kempe Diamond drill core (LTK48 diameter) was hole core sampled ie all of the core was sampled and assayed.

Criteria	JORC Code explanation	Commentary
		• No information has been recorded for historic sampling of the earth saw trenches and RAB in terms of the sample sizes and method of splitting. The lack of the information is not considered material to the estimation. • Historical holes - RC and aircore drilling was used to obtain 1 m samples from which 2 - 3 kg was crushed and sub-split to yield 250 for pulverisation and then a 40 g aliquot for fire assay. Upper portions of deeper holes were composited to 3m sample intervals and sub-split to 1 m intervals for further assay if an anomalous composite assay result was returned. For later drilling programs all intervals were assayed.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• RC drilling was completed with several rigs. All RC rigs used face sampling hammers with bit size of 140 – 146mm. Historical holes used a 130 mm bit size). Aircore drilling was completed by the RC rig with an aircore bit assembly. • LTK60 core is drilled with both an Atlas Copco carrier mounted U8 and fixed U6 DH Rig With Rod Handler and wire line. • LTK48 is drilled using a Kempe U2 Rig air rig • Underground face samples, were chipped from the desired domain(rock type) using an Estwing geology hammer. A number of chips were taken between knee and head height from the geological domain to obtain a representative sample. The chips were put in a pre numbered sample bags. • Earth saw trenches were used to grade control the historic Nicolsons pit the trenches were sampled at meter intervals. No other information was recorded for the method.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and recorded. Recovery for older (pre 2011) holes is unknown. • All drilling was completed within rig capabilities. Surface Rigs used auxiliary air boosters when appropriate to maintain sample quality and representivity. Where aircore drilling could not provide sufficient penetration an RC drilling set-up was used. • There is no known relationship between recovery and grade. Diamond drilling of oxide and transitional material in previous campaigns noted high core loss in mineralised zones. No core loss was noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling programs.

Criteria	JORC Code explanation	Commentary
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• Geological logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments. • Underground development faces are mapped geologically. • Geotechnical logging of diamond holes included the recording of recovery, RQD, structure type, dip, dip direction, alpha and beta angles, shape, roughness and fill material of fractures • All drill chips were logged on 1 m increments, the minimum sample size. A subset of all chip samples is kept on site for reference. • Diamond drilling was logged to geological boundaries and is considered quantitative. Core was photographed. • All drilling has been logged apart from diamond drill pre-collars.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Core samples were sawn in half with one half used for assaying and the other half retained in core trays on site for future analysis. • RC drill chip samples were collected with either a three-tier, rotary or stationary cone splitter depending on the drill rig used. Aircore drill samples were subset using a 3 tier riffle splitter. Most (> 95%) of samples are recorded as being dry. • Face Chips samples are nominally chipped perpendicular to mineralisation across the face from left to right, and sub-set via geological features as appropriate • All RC and aircore sample splitting was to 12.5 % of original sample size or 2 – 3 kg, typical of standard industry practice. Samples greater than 3 kg were split on site before submission to the laboratory. • For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory. • The cyclone and splitter were cleaned every rod string and more frequently when requested by the geologist. In the case of spear sampling for re-splitting purposes, several spears through the entirety of the drill spoil bag were taken in a systematic manner to minimise bias. • Core was cut under the supervision of an experienced geologist, was routinely cut on the orientation line. • Duplicate samples were taken every 20 m from a second cut of the splitter in the case of a cone splitter, or from a reject split in the case of a riffle splitter. Certified standards were inserted into the sample batch at a rate of 1 in 20 throughout all drilling programmes.

Criteria	JORC Code explanation	Commentary
		• Gold at Hall's Creek is fine- to medium-grained and a sample size of 2 – 3 kg is considered appropriate. • Half core is considered appropriate for diamond drill samples.
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. • 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. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Assays are completed in a certified laboratory in Perth WA • Gold assays are determined using fire assay with 40g charge and AAS finish. Other elements were assayed using acid digest with ICP-MS finish. Screen fire assays consists of screening 500g of the sample to 106 microns. The plus fraction is fire assayed for gold and a duplicate assay is performed on the minus fraction. The size fraction weights, coarse and fine fraction gold content and total gold content are reported. The methods used approach total mineral consumption and are typical of industry standard practice. • Face samples are assayed in the site lab utilising Leachwell bottle roll methodology representing CN recoverable gold. Any samples over 2g/t Au are sent to a certified laboratory in Perth WA lab for confirmation fire assay. All underground face samples prior to March 2017 were fire assayed at an external laboratory. • No geophysical logging of drilling was performed. This is not relevant to the style of mineralisation under exploration. • Lab standards, blanks and repeats are included as part of the QAQC system. In addition the laboratory had its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification. QA/QC review on previous drilling shows a negative bias with several of the external certified standards.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Significant intersections are noted in logging and checked with assay results by company personnel. Some significant intersections have been resampled and assayed to validate results. Diamond drilling confirms the width of the mineralised intersections. • The current drill program includes holes testing the current resource and twinning existing RC holes as shown on announcement sections. • All primary data is logged on paper and later entered into the database. Data is visually checked for errors before being sent to an external database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept both onsite and in the Perth office. • No adjustments have been made to assay data.

Criteria	JORC Code explanation	Commentary
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Surface drilling is surveyed using DGPS with an accuracy of ± 0.3m. Underground Drilling is surveyed using a total station with an accuracy of ± 0.2m. Downhole surveys are conducted during drilling using single shot cameras at 10 m then every 30 m thereafter. Later drilling was downhole surveyed using a Reflex survey tool. Underground mine workings used in the Mineral Resource estimation are surveyed by company surveyors utilising standard underground survey equipment(Leica jiggers) and established survey controls.Mine workings (open pits) were surveyed by external surveyors using RTK survey equipment. A subset of historical holes was surveyed to validate collar coordinates. • The project lies in MGA 94, zone 52. Local coordinates are derived by conversion: GDA94_EAST =NIC_EAST * 0.9983364 + NIC_NORTH * 0.05607807 + 315269.176 GDA94_NORTH = NIC_EAST * (-0.05607807) + NIC_NORTH * 0.9983364 + 7944798.421 GDA94_RL =NIC-RL + 2101.799 • Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied.	• Drill hole spacing at Nicolson's is generally between 10 m by 10 m and 30 m x 30 m in the upper areas of the deposits and extends to 40 m x 40 m at depths greater than 200 m. • The Competent Person is of the view that the drill spacing, geological interpretation and grade continuity of the data supports the resource categories assigned. • Where used historically sample compositing to 3m occurred in holes above predicted mineralized zones. Composite samples were re-assayed in their 1 m increments if initial assay results were anomalous.
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. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Surface Drilling is predominantly at 270° to local grid at a dip of -60°. Local structures strike north-south on the local grid and dip at 60°E. No bias of sampling is believed to exist through the drilling orientation • Underground development sampling is nominally undertaken normal to the various orebodies. • Underground drill holes are designed to drill across geological structures i.e. not along geological structures.
Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by Pantoro employees and consultants. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth. Samples are tracked during shipping. Samples are reconciled at the assay lab.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• A review of the resource was carried out by an independent consultancy firm when the project was acquired from Bulletin. No significant issues were noted. • A review of the historic sampling techniques was carried out by an independent consultancy in relation to prior Mineral Resource estimation for Bulletin Resources in 2011/12 on behalf of the previous owners. No significant issues were noted in the 2007-2011 dataset.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Tenements containing Mineral Resources and Ore Reserves are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. This is: M80/359. The tenements lie on a pastoral lease with access and mining agreements and predate native title claims. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The deposits were discovered by prospectors in the early 1990s. After an 8,500 m RC program, Precious Metals Australia mined 23 koz at an estimated 7.7g/t Au from Nicolson's Pit in 1995/96 before ceasing the operation. Rewah mined the Wagtail and Rowdy pits (5 koz at 2.7g/t Au) in 2002/3 before Terra Gold Mines (TGM) acquired the project, carried out 12,000 m of RC drilling and produced a 100 koz Mineral Resource estimate for the Nicolsons Find deposit. GBS Gold acquired TGM and drilled 4,000 m before being placed in administration. Bulletin Resources Ltd acquired the project from administrators and conducted exploration work focused on Nicolsons and the Wagtail Deposits and completed regional exploration drilling and evaluation and completed a Mining Study in 2012 which included Mineral Resource and Ore Reserves completed by independent consultants prior to entering into a JV with PNR in 2014.Review of available reports show work to follow acceptable to standard industry practices.
Geology	• Deposit type, geological setting and style of mineralisation.	• Gold mineralisation in the Nicolson's Find area is structurally controlled within the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone (NFSZ) and is hosted within folded and metamorphosed tur-biditic greywackes, felsic volcaniclastics, mafic volcanics and laminated siltstones and mudstones. This zone forms part of a regional NE-trending strike slip fault system developed across the Halls Creek Orogen (HCO). • The NFSZ comprises a NNE-trending anastomosing system of brittle-ductile shears, characterised by a predominantly dextral sense of movement. The principal shear structures trend NNE to N-S and are linked by NW, and to a lesser extent, by NE shears. Individual shears extend up to 800m along strike and overprint the earlier folding and penetrative cleavage of the HCO.

Criteria	JORC Code explanation	Commentary
		• The overall geometry of the system is characterized by right step-overs and bends/jogs in the shear traces, re-flecting refraction of the shears about the granite contact. Within this system, the NW-striking shears are interpreted as compressional structures and the NE-striking shears formed within extensional windows. • Mineralisation is primarily focussed along NNE trending anastomosing systems of NNE-SSW, NW-SE and NE-SW oriented shears and splays. The NNE shears dip moderately to the east, while the NW set dips moderately to steeply to the NE. Both sets display variations in dip, with flattening and steepening which result in a complex pattern of shear intersections.. • Mineralisation is strongly correlated with discontinuous quartz veining and with Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are associated with broad zones of silicification and thicker quartz veining (typically white, massive quartz with less fracturing and brecciation); however, these are typically poorly mineralized. The NW-trending shears are mineralized, with the lodes most likely related to high fluid pressures with over-pressuring and failure leading to vein formation. Although the NE structures formed within the same shear system, the quartz veining is of a different generation to the mineralized veins. • Individual shears within the system display an increase in strain towards their centres and comprise an anastomosing shear fabric reminiscent of the pattern on a larger scale.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: » easting and northing of the drill hole collar » elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar » dip and azimuth of the hole » 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 case.	• No exploration results are reported as part of this release, results relating to the deposits have been previously released.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No exploration results are reported as part of this release, results relating to the deposit have been previously released.
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. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Drilling is predominantly at 270o to local grid at a dip of -60o. Local structures strike 0o to the local grid and dip at 60oE (i.e. having a 60o intersection angle to lode structures). Deeper holes have some drill hole deviation which decreases or increases the intersection angle, but not to a significant extent. • Face mapping data supports widths interpreted from drill holes • Downhole lengths are reported and true widths are approximately 60 – 90% of down-hole length. True widths are calculated and reported for any drill intersections > 1 ppm Au.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• No exploration results are reported as part of this release, and therefore no diagrams are included.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Results greater than 1 ppm Au have been previously reported for the recent drilling.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• No exploration results are reported as part of this release
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Underground diamond drilling is ongoing on a continuous shift basis and will continue to test for the extension of the deposit which remains open.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data input has been governed by lookup tables and programmed import of assay data from lab into database. The database has been checked against the original assay certificates and survey records for completeness and accuracy. • Data was validated by the geologist after input. Data validation checks were carried out by an external database manager in liaison with Pantoro personnel. The database was further validated by external resource consultants prior to resource modelling. An extensive review of the data base was undertaken when Pantoro acquired the project, and external data review is ongoing.
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.	• The Competent Person regularly visits the site and has a good appreciation of the mineralisation styles comprising the Mineral Resource.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Confidence in the geological interpretation is generally proportional to the drill density. UG mapping and oriented core confirms the orientation data for the main mineralised structures. • Data used for the geological interpretation includes surface and trench mapping and drill logging data. Underground face sampling, face geology and backs mapping were also utilized from close spaced level development is also used where available. • In general, the interpretation of the mineralised structures is clear. • Geological interpretation of the data was used as a basis for the lodes which were then constrained by cut-off grades. • Geology and grade continuity are constrained by quartz veining within the NFSZ and by parallel structures for the other prospects.
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 Nicolsons deposit is approximately 950 m in strike length and generally 0.5 to 2m wide and extends nominally 500 m metres below surface.

Criteria	JORC Code explanation	Commentary
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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic 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. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • 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 block model was generated for the Nicolson's deposit. Individual mineralised structures were domained separately. Models contain grade estimates and attributes for blocks within each domain only. • Three domains were updated during the 2020 Nicolsons MRE, these being Domain 4 (Johnston Lode) Domain 47 (Forrest Lode) and Domain 49 (Anderson Lode), all other domains remain as per the 2019 Nicolsons MRE. • Geological interpretation generated in Leapfrog TM forms the basis for the mineralisation domain wireframes; these were oriented along trends of grade continuity and form hard boundaries during estimation. • A two-dimensional ("2D") Ordinary Kriging (OK) interpolation approach was selected to address some of the main issues encountered when estimating narrow vein mineralisation, such as: » Additivity issues due to non-uniform support and resulting grade bias. Instances of highly variable individual intercepts (e.g. 0.3 m to 5.0 m) which would be difficult to incorporate and represent statistically using downhole composites of equal lengths (e.g. 0.5, 1.0 or 2.0 m); » Varying mineralisation geometry across lode, down dip, and along strike; and » Block size required for adequate volume fill of narrow geometry is generally too small, introducing conditional bias to the MRE outcome. • Drillholes were composited for the full width of the domain intercept, followed by trigonometric calculation of true width ("TW") using the orientations of the drill hole intercept and ore domain defined by a digitized the Leapfrog reference (centerline) surface. A gold accumulation variable was then calculated by multiplication of intercept grade by true width. • Composited sample data was pressed onto a cartographic plane and statistical analysis undertaken on accumulation, width, and grade variables, to assist with determining estimation search parameters, top cuts etc. • Assessment and application of top-cutting for the 2D estimate was undertaken on the gold accumulation variable within individual domains. Top cuts, where appropriate, were applied on an individual domain basis. • Top cuts were applied to the gram-meter accumulation variable after statistical, spatial analysis and assessment of percentage of metal reduction within each mineralized domain with cut values being: • Domain 4 = 120 g/m Accumulation and a 12 % metal reduction, • Domain 47= 30 g/m Accumulation and a 28% metal reduction, • Domain 49 = 120 g/m Accumulation and a 11 % metal reduction. • Variography analysis of individual domains was undertaken on gold accumulation variables in 2D space, followed by Qualitative Kriging Neighbourhood Analysis to assist with determining appropriate search parameters.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques		• The 2D block models for interpolation were created using a block size of 10 mN x 10 mRL x 1 mE with no sub-celling. Block size was determined primarily with the assumption of a relatively selective mining approach for underground operations. • The search strategy was a maximum extrapolation distance of 120 m and 135 m over three search passes for Domains 4 , 47 and 49 respectively. The first pass search was equal to the variogram maximum range (40 m for Domain 4 , 40m for Domain 47 and 40 m for Domain 49) with the second pass search double the variogram range (80 m for Domain 4,80 m for Domain 47 and 80 m for Domain 49) and the third pass triple the variogram range (120 m for Domain 4 120 m for Domain 47 and 120 m for Domain 49). A constant minimum of 4 and maximum of 14 composites was maintained across the first and second search passes for all Domains, • , dropping to a minimum of 3 samples for the third pass. • A distance based high-grade limit function was applied to Domain 4, 47 and 49, limiting accumulation values above 30 gram-metres to half the variogram range (20 m). • Post estimate. Gold ppm values for each block were calculated by dividing interpolated gold accumulation by interpolated TW, whereby for each block: • Block Gold ppm = Block Gold Accumulation Value / Block TW Value • Back calculated gold ppm values for each block were transformed from 2D to 3D space and pressed across the full width of the corresponding domain in the final host 3D compilation model. • Check estimates for both domains were carried out in 2D using Inverse Distance Squared. Both accumulation and true width were estimated before back calculation of the check estimate gold grade. • Validation of the gold accumulation, TW estimations and gold ppm back-calculation was completed by global and local bias analysis, statistical and visual inspections in 2D and 3D space. • By products are not included in the resource estimate. • No deleterious elements have been estimated. Arsenic is known to be present, however metallurgical test work suggests that it does not adversely affect metallurgical recovery.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	• Tonnage was estimated on a dry basis. • The tonnages of material on stockpiles are quoted on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied	• The global gold Mineral Resource has been reported at a 2.0 g/t gold cut-off for Underground (greater than 100 m below topographic surface) resources and a • 0.6 g/t cutoff for Open Pit (within 100 m of topographic surface) resources and is based upon economic parameters currently utilised at the Nicolsons operations, where deposits of the same style, commodity, comparable size and mining methodology are currently being extracted.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and 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 MRE extends nominally 500 m below topographic surface and lies within 85 vertical metres of active level development. Pantoro considers material at this depth would fall within the definition of 'reasonable prospect of eventual economic extraction' within an underground mining framework.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Metallurgical test work has shown acceptable (> 92%) gold recovery using CIP technology and is consistent with calculated recoveries from the current operating period from the Nicolsons underground mine. No factors from the metallurgy have been applied to the estimates.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The deposits are on granted mining leases with existing mining disturbance and infrastructure present.
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 bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density measurements of ore were calculated from drill core and underground samples using the water displacement method and data from historical mining. • Bulk densities vary due to ore type and are assigned separately to each domain based on this work.

Criteria	JORC Code explanation	Commentary
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • 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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• This Mineral Resource Estimate has been classified as Measured, Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, recent and historical mining activity as well as metal distribution. Additional considerations were the stage of project assessment, amount of diamond drilling, current understanding of mineralisation controls and selectivity within an underground mining environment. The Nicolsons deposit has been mined continuously by Underground methods since mid-2015 with recent data from underground production supporting both grade and geological continuity. The bulk of the data utilised in the current Mineral Resource estimate is from recently acquired drilling and sampling with an additional 17,110 m drilling from 192 reverse circulation and diamond holes as well as 5,308 m of sampling from 1,845 underground production faces. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates	• The current Mineral Resource has been reviewed internally and results are consistent with reconciled production results.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The statement reflects a global estimate of tonnes and grade. • Production figures from current mining activity have been reconciled to the Mineral Resource estimate. Current recovered Au ounce estimates are higher (22% for FY20 and 6% within Q3 and Q4 of FY20) than reconciled production from underground operations. Variances are considered during construction of consecutive MRE's and are considered to be within acceptable limits for the classification of the Mineral Resource.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ore Reserve estimate is based on the Mineral Resource estimate at 31st May 2020. • The Mineral Resource is reported inclusive of the Ore Reserve.
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.	• The Competent Person makes regular visits to the site and is involved in operational forward planning which is the basis for the Ore Reserve.

Criteria	JORC Code explanation	Commentary
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Halls Creek is an established site with all major mining, processing and support infrastructure in place. There are currently no changes planned to existing infrastructure at the time of this Ore Reserve estimate being compiled. • Mining factors and costs used to generate this Ore Reserve estimate are in line with those currently being achieved at the project and were deemed appropriate by the Competent Person for use in generating the Ore Reserve estimate.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	**Underground** • Three cut-off grades are used to generate the Ore Reserve estimate. • A fully costed cut-off grade, 5.00g/t, which includes all capital and operating costs and is used to define the first pass Ore Reserve. • An incremental operating cut-off grade, 3.00g/t, which only considers mining and mill operating costs is then applied to include ore that is developed as a consequence of extracting the fully costed reserves. • An incremental mill cut-off grade, 1.00g/t, which only considers mill operating costs is applied to ore that is necessarily trucked to surface as part of the development process. **Open Pit** • Open pits have a 0.6g/t cut-off grade applied.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	**Underground** • Ore development is performed by single boom jumbo (profile: 3.0m wide x 3.8m high) or airleg miner (profile: 2.4m wide x 2.8m high). Ore drive development has 15% dilution applied at zero grade. • Production is by longhole and airleg stoping methods, both with and without fill, which have been used historically and are suitable for the geotechnical conditions encountered at the mine. • Stope strike length is generally limited to 10m prior to placement of fill or a pillar to maintain geotechnical control. The typical level interval is 15m. • In undeveloped stoping blocks, mineable stope shapes were created using the Datamine Software, Mineable Shape Optimiser (MSO). In locations where ore development has been completed, stope shapes were created manually using the same assumptions as the MSO optimisation. • A minimum mining width of 1.0m was applied to the stope design process. • An additional stope dilution of 0.5m footwall and 0.5m hanging wall dilution was applied in the MSO shape parameters to account for unplanned dilution. • Stope shapes were created using gold grade as the MSO optimisation field with an incremental cut-off grade applied. • Mining recoveries were set at 100% for development activities, and 95% for stoping where backfill is employed (avoca stoping) and 85% for open stoping.

Criteria	JORC Code explanation	Commentary
		• Inferred Mineral Resources are included in the mine plan and economic analysis for the site, however Inferred Mineral Resources are not included in any Ore Reserve estimate. • All mining, processing and support infrastructure is established and in place at the site. **Open Pit** • Mineral Resources were optimized using whittle 4D software using A$2,200/oz gold price, followed by detailed open pit design using Surpac software. • Key parameters used in optimisation were sourced from prevailing site prices (fuel and consumables, milling cost and administration cost), contract rates (mining) and prevailing market rates for general items. • Final overall pit slopes are 43 degrees, in line with geotechnical recommendation's by the geotechnical consultant. • Mining dilution of 15% and 100% recovery of diluted ore was utilised.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• The existing processing plant at Nicolsons uses a conventional CIP circuit, which is appropriate for the style of mineralization, and has achieved approximately 92% recovery during the past year. • The CIP process is the conventional gold processing method in Western Australia and is well tested and proven. • The site is an operating mine with recovery of 92% at usual operating condition. The site has undertaken ongoing testing of new ore samples, with similar results achieved in the laboratory. • There are not any know deleterious elements • The 92% recovery is consistent with calculated recoveries from the current operating period from the Nicolsons underground mine • Not applicable • A Steinert multi-sensor ore sorter is installed at the project. While the ore sorter is beneficial to site production and lower production costs, the benefits of the ore sorter use have not been factored into the Ore Reserve calculation.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Mining and processing operations are conducted wholly within granted Mining Leases. • A Ground Water Extraction License is in place for the project and allows for the extraction and use of water for mining and processing operations. • Waste dumps and tailings disposal facilities are in place and operated under requisite statutory approvals. • The waste rock comprises oxidised sediments and felsic igneous rocks containing only traces of sulphides and is non-acid forming.

Criteria	JORC Code explanation	Commentary
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Nicolsons site has been in production since September 2015, and all infrastructure and services necessary to operate the mine are in place and functioning.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• Sustaining capital estimates are based on market pricing. • Capital and operating costs for are based on the board approved budgets for the site and life-of-mine forward planning. • Budget costs are estimated using reasonable equipment productivity and maintenance assumptions, current labour costs and consumable price inputs from suppliers that the Company has supply agreements in place with. • The costs used to derive this Ore Reserve estimate are aligned with historical unit costs achieved by site. • There are no known deleterious elements, as such no allowances have been made. • All costs were estimated in Australian dollars. • Transport charges are based on pricing supplied to the Company by the service provider. • The ad valorem value-based state government royalty of 2.5% is applied during the economic analysis for the Ore Reserve estimate. No other royalties are applicable to the project.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• Underground Ore Reserve estimates were generated using a gold price assumption of $2,400 per ounce. • Open Pit Ore Reserve estimates were generated using a gold price assumption of $2,200 per ounce. • The gold price assumption used to generate this Ore Reserve estimate is an average gold price projection from a sample group of banks and financial industry analysts surveyed by Ernst and Young.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Gold sold at spot price.

Criteria	JORC Code explanation	Commentary
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• Nicolsons is an operating mine. The Ore Reserve estimate is derived from financial modelling that includes all projected operating and capital costs attributable to the mine. These costs align with historical costs achieved by the mine. • The mine is managed from a cashflow perspective, with operational performance measured by the mines ability to generate positive cashflow.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Ore Reserve is located on granted mining leases and the company has an access agreement with the pastoral lease owner who is also the local aboriginal corporation.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• The Company has 100% ownership of the Project.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The Ore Reserve estimate has been derived from Measured and Indicated Resource. The Inferred Mineral Resource has been excluded from the Ore Reserve. • Proven Ore Reserves are derived from Measured Mineral Resources. Probable Ore Reserves are derived from Indicated Mineral Resources. • It is the Competent Person's view that the classification used for this Ore Reserve estimate are appropriate.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• This Ore Reserve has been reviewed internally by site based personnel and senior corporate management, each with sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• In the opinion of the Competent Person, the modifying factors and cost assumptions used in generating this Ore Reserve estimate are reasonable, and that both cost and production projections are supported by historical performance of the mine. • No statistical procedures were carried out to quantify the accuracy of the Ore Reserve estimate.

Appendix 4 – JORC Code 2012 Edition – Table 1 – Grants Creek

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• This information in this release relates to a maiden Mineral Resource estimate for the Perseverance and Star of Kimberley prospect at the Grants Creek gold project. • RC – Rig-mounted static splitter used, with sample falling though a riffle splitter, splitting the sample in 87.5/12.5 ratio sampled every 1m • RC samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). • Diamond samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). • All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with RHS of cutting line assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology to a minimum interval of 15m where clearly defined mineralisation is evident. • Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks .
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• RC – Reverse circulation drilling was carried out using a face sampling hammer and a 130mm diameter bit • Surface DD – HQ and NQ2 diamond tails completed on 3m rock roller pre-collars, all core has orientations completed
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and weights recorded at the laboratory • RC- recoveries are monitored by visual inspection of split reject and lab weight samples are recorded and reviewed. • DD – No significant core loss has been noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling program.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• Geological logging is completed by a qualified geologist and logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments. • 100% of the drill holes are logged geologically

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• All RC holes are sampled on 1m intervals. • RC samples are taken off the rig splitter, no significant water is encountered and are typically dry • Core samples were sawn in half utilising an Almonte core-saw, with RHS of cutting line sent for assaying and the other half retained in core trays on site for future analysis. • For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory. • Core was cut under the supervision of an experienced geologist, it was routinely cut on the orientation line. • All mineralised zones are sampled as well as material considered barren either side of the mineralised interval • Field duplicates for RC samples were taken as part of this program. • Half core is considered appropriate for diamond drill samples. • Sample sizes are considered appropriate for the material being sampled and weights are recorded and monitored by project geologists.
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. • 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. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Assays are completed in a certified laboratory in Perth BVA. Gold assays are determined using fire assay with 40g charge. Where other elements are assayed using either AAS base metal suite or acid digest with ICP-MS finish. The methods used approach total mineral consumption and are typical of industry standard practice. • No geophysical logging of drilling was performed. • Lab standards, blanks and repeats are included as part of the QAQC system. In addition the laboratory has its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverizing at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification • RC drill samples from previous owners was fire assay with AAS finish. Review of historic records of received assays confirms this.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Significant intersections are noted in logging and checked with assay results by company personnel both on site and in Perth. • There were a number of holes which overlapped with historic drilling and results appear consistent based on preliminary review of the data. • All primary data is logged digitally on tablet or on paper and later entered into the SQL database. Data is visually checked for errors before being sent to an the companies database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept in onsite office. • Visual checks of the data re completed in Surpac mining software • No adjustments have been made to assay data unless in instances where standard tolerances are not met and reassay is ordered.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• RC/DD drilling is downhole surveyed utilizing surveyed electronic single shot survey tool at collar, 10 metres then 30m thereafter. No Gyro DH surveys were undertaken on this program. • Surface RC and Diamond drilling is marked out using GPS and final pickups using DGPS collar pickups. • The project lies in MGA 94, zone 52.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied.	• Surface diamond drilling in this initial phase bas been on a nominal 25-50m along strike spacing. • No compositing is applied to diamond drilling or RC sampling. • Core samples are both sampled to geology of between 0.15 and 1.2m intervals. • RC samples are at 1m interval.
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. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• No bias of sampling is believed to exist through the drilling orientation • Surface drilling is designed perpendicular to the interpreted orientation of the mineralisation.
Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth • Samples are tracked during shipping.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audit or reviews of sampling techniques have been undertaken however the data is managed by an database consultant who has internal checks/protocols in place.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• The Tenement related to this drilling are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. This is: E80/4952 • The tenement is in good standing and no known impediments exist.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Excluding the historical mining, the first systematic company based exploration in the region prior to 1980 was completed by Australian Mineral Ventures N.L. with regional mapping and selected rock chips from old workings. Southern ventures continued to explore with phases of more comprehensive regional soil sampling and the completion of 26 RC holes for 636 metres at the known workings • In 1991, Dominion Mining Limited ("Dominion") started work on the area as exploration license E80/1343, with a focus on the historical Kimberley Star mine workings. The company completed reconnaissance mapping, aerial photography, satellite imagery interpretation, rock chip/channel sampling and costeaning. Since 2002, Pacrim Energy Limited has held the tenure over the ground and again commenced work with a review of the historical data. From this work the company recommended that soil sampling, ground magnetic survey, geological mapping and rock- chip sampling be completed. • As JV Partner with Pacrim, Metminco undertook drilling in 2008 and completed 20 holes with 14 of them at the perseverance prospect. The remaining 6 tested other regional targets away from the main trend lines. No significant result was reported in the remaining six holes. • From 1994 - 1997 PMA Gold continued to explore the prospects of Perseverance (E80/1343), Star of Kimberley (M80/366) and Wilsons Reef (M80/233). They considered the mineralisation to be closely associated not only with the structural trends but also with basalts and metasediments of the Biscay Formation. PMA found gold in quartz reefs that occurred as discrete, steeply dipping segregations commonly associated with pyrite and base metal sulphides. • From 1994 - 1997 PMA Gold continued to explore the prospects of Perseverance (E80/1343), Star of Kimberley (M80/366) and Wilsons Reef (M Since 2002, Pacrim Energy Limited has held the tenure over the ground and again commenced work with a review of the historical data. From this work the company recommended that soil sampling, ground magnetic survey, geological mapping and rock- chip sampling be completed. • As JV Partner with Pacrim, Metminco undertook drilling in 2008 and completed 20 holes with 14 of them at the perseverance prospect. The remaining 6 tested other regional targets away from the main trend lines. • Limited work was undertaken by Firestrike up until 2014.80/233).

Criteria	JORC Code explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	• The local geology is summarised as gold hosting quartz reefs within deformed and folded metasedimentary and metavolcanic rocks of Proterozoic age. The oldest rocks of the complex were the Ding Dong Downs Volcanics and the Sophie Downs Granite separated from the overlying Halls Creek Group by an unconformity. • The project area also covers part of the Lower Proterozoic Halls Creek Group sediments and sub-volcanics of the Lamboo Complex whilst the Biscay and overlying Olympio Formations comprise the Upper Halls Creek Group. Overlying this Group, the White Water Volcanics Formation is also present to the east of the Halls Creek Fault Zone, a major structural feature that trends northeast across the Grants Creek leases. • The tenement covers an area of extensive carbonate alteration within greywacke sequences, felsic and mafic volcanics and arkosic arenites in the Halls Creek Mobile Zone. These Lower Proterozoic basic schists and metasediments are considered as the preferential hosts for auriferous quartz/ sulphide lode structures. The mineralized structures lie within an east- northeast trending link formation between two splays of the major regional north-east trending Halls Creek fault Zone. Gold mineralisation occurs in association with silver, lead, zinc and minor copper.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: » easting and northing of the drill hole collar » elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar » dip and azimuth of the hole » 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 case.	• No exploration results are reported as part of this release, results relating to the deposits have been previously released.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No exploration results are reported as part of this release, results relating to the deposit have been previously released.

Criteria	JORC Code explanation	Commentary
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. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Surface DD/RC drilling is perpendicular to the interpreted strike of the mineralisation. • Downhole lengths are reported. • Estimated true widths are not currently known due to the early stage of the drilling with orientations yet to be defined.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• No exploration results are reported as part of this release, and therefore no diagrams are included.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• No exploration results are reported as part of this release, results relating to the deposit have been previously released.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• No other meaningful data to report.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• The results of this maiden Inferred Mineral resource will guide additional infill drilling to guide further Mineral Resource estimates.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Recent Data input has been governed by lookup tables and programmed import of assay data from lab into database. The database has been checked against the original assay certificates and survey records for completeness and accuracy. • Data was validated by the geologist after input. Data validation checks were carried out by an external database manager in liaison with Pantoro personnel. • Historic drill collars have been picked up by DGPS and all data loaded for spatial validation and compared to metadata recovered from open file reports from previous operators.
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.	• The Competent Person, regularly visits the Grants Creek site, inclusive of Perseverance and Star of Kimberley deposits. The CP has a good appreciation of the mineralisation styles comprising Mineral Resources at the Project with regular inspections of drill rigs and drill core, chips during drill programmes, update of surface mapping and commissioning of structural studies.

Criteria	JORC Code explanation	Commentary
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Confidence in the geological interpretation is generally proportional to the drill density with surface mapping utilised to confirm key mineralisation controls, orientation and confidence for the primary mineralised structures. • Data used for the geological interpretation includes surface mapping and drill logging (Reverse Circulation and Diamond Drilling) data. • Alternative interpretations would be unlikely to vary in orientation, volume and width as the primary mineralisation structures are evident in surface outcrop and correlate well in downhole drill data. Thus are currently considered to maintain clear strike and dip continuity and a discrete mineralisation, host rock boundary. The orientation of high grade plunges within the deposits is not currently well understood at this stage of the project and thus an alternative interpretation, which may vary metal distribution locally would not be considered material to global gold content of Maiden Mineral Resources and stage of the Project. • Geological interpretation of the data, with quartz veining as a proxy for mineralisation, was used as a basis for domain interpretations. A nominal cut-off above 0.5 g/t gold was utilised, in combination with geology, for domaining mineralisation zones. • Weathering surfaces were interpreted by PNR geologists from drill logging and extended laterally beyond the limits of the Mineral Resource model. • Geology and grade continuity are constrained by quartz veining within the primary shear zone and parallel structures. At this stage of the project there appears a strong correlation between gold tenor and density of quartz veining.
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 Perseverance deposit is approximately 260m in strike length and generally • 0.5 to 3m wide extending nominally 110 metres below surface. • The Star of Kimberley deposit is approximately 160m in strike length and generally • 0.5 to 2m wide extending nominally 70 metres below surface. • Mineralisation within the model which did not satisfy the classification criteria for the MRE remained unclassified.

Criteria	JORC Code explanation	Commentary
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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic 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. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Separate block models were created for the Perseverance and Star of Kimberley deposits. Mineralised structures were domained separately. Models contain grade estimates and attributes for blocks within each domain only. • Geological interpretation forms the basis for the mineralisation domain wireframes; these were oriented along trends of grade continuity and form hard boundaries during estimation. • Perseverance deposit. Three domains representing the primary mineralisation structure (10) and two parallel mineralised structures (11, 12) were created. • Star of Kimberley. One mineralised domain was delineated for Star of Kimberley, representing the primary mineralisation structure at the deposit (40). • A Check Estimate was undertaken using Inverse Distance Squared (constrained by individual mineralisation domains). • There were no assumptions made with respect to by-products. • No estimation was made for deleterious elements or other non-grade variables. Preliminary gravity and cyanidation metallurgical test work suggests there are not any elements which adversely affect metallurgical recovery. • A 3D volume block model "3DBM" was utilised with all optimised and validated interpolation, density, domains, depletions, classification, and other information required for resource reporting and subsequent mine planning being interpolated and/or available for coding. • Block dimensions for interpolation were Y: 10 mN, X: 10 mE, Z: 10mRL with sub celling of Y: 0.3125 mN, X: 0.3125 mE, Z: 0.3125 mRL to provide adequate domain volume definition and honour wireframe geometry. Considerations relating to appropriate block size include: drill hole data spacing, conceptual mining method, variogram continuity ranges and search neighbourhood optimisation. • Diamond and reverse circulation data was utilised during the estimate. Average sample spacing was 25 metres, which was considered suitable for assessment as Inferred material within a JORC framework. • Minimum and maximum composites for all domains was 4 and 10 respectively. • The Search criteria used for the Perseverance deposit was (Isotropic) 41 m for all three domains, Star of Kimberley deposit was 45 m, with anisotropy ratio of 1.6 in the minor orientation.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques		• No selective mining units were assumed in this estimate. Both deposits were considered suitable for potential open pit mining given the grade, depth from surface, mill and comparisons against existing PNR open pit mining at Nicolsons. • No correlated variables have been investigated or estimated. • Apart from the check estimate, all domain estimates were based on mineralisation and geology with domain constraints constructed using a combination of geological logging and a nominal cut-off grade of 0.5 g/t gold. • The mineralisation constraints have been used as hard boundaries for grade estimation wherein only composite samples within that domain are used to estimate blocks coded as within that domain. • Assessment and application of top-cutting for the 3D estimate was undertaken on the gold variable within individual domains. Statistical (and spatial) top cuts were assessed and, where appropriate, were applied on an individual domain basis with one domain at Perseverance capped at 14 g/t gold (domain 10). The remaining two domains at Perseverance remained uncapped. • Statistical and spatial outliers were not identified at Star of Kimberley. No top cuts were applied for the Star of Kimberly mineralisation domain. • Validation of the gold estimate outcomes was completed by global and local bias analysis (swath plots), statistical and visual comparison (cross and long section) with input data.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	• Tonnage was estimated on a dry basis. • The tonnages of material on stockpiles are quoted on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied	• The global gold Inferred Mineral Resource has been reported at a 1.0 g/t gold cut-off and is based upon economic parameters currently utilised at the Nicolsons operations, where deposits of the same style, commodity, comparable size and mining methodology are currently being extracted.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and 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 Perseverance and Star of Kimberley MRE's extend nominally 100 m and 65 m, respectively, below topographic surface. Pantoro considers material at this depth would fall within the definition of 'reasonable prospect of eventual economic extraction' within an open pit framework.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Metallurgical test work has shown acceptable (92%) gold recovery using gravity and cyanidation methods which are industry accepted practices. No factors from the metallurgy have been applied to the estimates.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The deposits are located on granted exploration leases with existing historic mining disturbance.
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 bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density measurements of ore were calculated from drill using the water displacement method. • Bulk densities vary due to ore, weathering type and are assigned separately to each domain based on this work. • Reliable bulk density values are limited within the Grants Creek deposit at this stage of the project and this was taken into account for classification criteria of Mineral Resources. Additional density test work is planned with further drill programmes.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • 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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• This Mineral Resource Estimate has been classified as Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes and historical mining activity as well as metal distribution. Additional considerations were the stage of project assessment, amount of diamond drilling, current understanding of mineralisation controls and selectivity within an open pit mining environment. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates	• The current Mineral Resource has been reviewed internally. No reconciliation data exists for this project.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Given the early stage of the project no confidence levels were derived from the current MRE. The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The statement reflects a global estimate of tonnes and grade. • No production data is available for these deposits.

Exploration Targets, Exploration Results, Mineral Resources

The information in this report that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr Scott Huffadine (B.Sc. (Hons)), a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Huffadine is a Director and full time employee of the company. Mr Huffadine is eligible to participate in short and long term incentive plans of and holds shares and options in the Company as has been previously disclosed. Mr Huffadine has 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 Huffadine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by Mr Tim Davidson, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Davidson is a full time employee of the company. Mr Davidson is eligible to participate in short and long term incentive plans of and holds shares and options. Mr Davidson has 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 Davidson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Certain statements in this report relate to the future, including forward looking statements relating to Pantoro's financial position and strategy. These forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of Pantoro to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement and deviations are both normal and to be expected. Other than required by law, neither Pantoro, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward looking statements will actually occur. You are cautioned not to place undue reliance on those statements.