

Black Cat Syndicate Limited ("**Black Cat**" or "**the Company**") is pleased to provide an updated JORC 2012 Mineral Resource ("**Resource**") at Paulsens Underground, part of the 100% owned Paulsens Gold Operation ("**Paulsens**") in Western Australia.

## HIGHLIGHTS

- The high-grade Resource at Paulsens Underground increases by a further 25% to 322koz @ 10.1g/t
   Au including an increase to 58% Measured & Indicated:
  - The Resource is >360% higher than when Paulsens was acquired in June 2022.
  - The high-grade Gabbro Veins continue to grow, increasing by 55% to 133koz @ 9.2g/t Au.
  - During its operating life, the Resource at Paulsens averaged ~270koz which has now been surpassed after only six months of drilling.
- Significant opportunities remain to grow the Underground Resource within close proximity of the existing decline and include:
  - Apollo Extension;
  - Main Zone offset positions;
  - The Gabbro Veins; and
  - The Paulsens Repeat target and other potential new discoveries.
- Open pit and Underground Resources at Paulsens have more than doubled to 465koz @ 3.6g/t Au since acquisition in June 2022.
- Mine Restart Study is well advanced and a decision to restart operations is expected in mid-2023.
  - Detailed assessment of multiple prospective mining areas is underway as a result of successful drilling and Resource growth activities.
- Paulsens continues to be one of Australia's highest grade gold deposits. Together with the Coyote Gold Operation, Black Cat holds two of the highest-grade gold operations in Australia.

	0	Octomorry	Tonnes	Grade	Contained Au			
Paulsens Resource	Cut - On	Category	<b>'000</b> '	g/t Au	'000oz			
		Measured	129	11.5	48			
Underground	2.2g/t	Indicated	423	10.2	139			
		Inferred	441	9.6	135			
Total Resource			994	10.1	322			
Notes: Small discrepancies may occur due to rounding.								

Table 1: Paulsens Underground Resource

Black Cat's Managing Director, Gareth Solly, said: "The continued Resource growth at Paulsens demonstrates the significant value still in the ground at this operation and we see more upside to come. Paulsens produced over 900koz at a mined grade of 7.3g/t Au in the first 13 years of operations. During its operating life the Resource has averaged around 270koz which is the critical mass we have now firmly established in six months of drilling. The significant Resource growth we have achieved, coupled with the extensive existing surface and underground infrastructure, has delivered on the exciting opportunity we identified at Paulsens.

A decision to restart operations will be made mid-year, with an anticipated short ramp up time to first gold being poured."

BLACK CAT SYNDICATE LIMITED (ASX:BC8) | 0458 007 713 | admin@bc8.com.au | Level 3, 52 Kings Park Road, West Perth WA 6005 bc8.com.au | ABN 63 620 896 282 | Ordinary shares on issue: 267M | Market capitalisation: A\$135M

### SNAPSHOT – PAULSENS GOLD OPERATION

### Large Scale Area, 100% Owned by Black Cat

• >1,000km<sup>2</sup> of highly prospective ground, 100% owned by Black Cat.

### **Background**

- Paulsens underground is already one of Australia's highest-grade gold deposits with a current Resource of 322koz @ 10.1g/t Au (58% Measured & Indicated).
- Underground mining at Paulsens produced 907koz @ 7.3g/t Au at an average of 75koz pa and recovery of 92%.
- Over 12 years of production, the underground mine had a Resource high of 540koz and low of 125koz with an average Resource of ~270koz. This demonstrates the robust nature of the current Resource.
- Previous regional exploration largely involved surface activities with numerous gold and base metal anomalies identified but with only limited follow-up. Open pit and Underground Resources at Paulsens total 465koz @ 3.6g/t Au.

### Infrastructure in Place, Ready for a Low-Cost Restart

- On care and maintenance since 2018.
- Well maintained, 450ktpa processing facility requiring minimal restart capital.
- +110-person camp.
- Mine and advanced Resources on Mining Licences, minimal barriers to restart.
- Underground mine fully dewatered and ventilated.
- Excellent access with sealed road and gas pipeline within 7km.

### Significant Opportunities at All Stages – Multi-metal Potential

- Paulsens has multi-metal potential with numerous base-metal (Cu, Pb and Zn) targets, Australia's third largest antimony deposit at Mt Clement (along with Au, Cu, Pb and Ag Resource) and thermal coal at Kazput.
- Paulsens is an under-explored orogenic gold region with four main prospect areas the 15km long Paulsens Structural Corridor ("**PSC**"), the Northern Anticline, Mt Clement and Electric Dingo (Figure 1).
- The PSC is a complex zone of faults with the main structure through the PSC being the Hardey Fault. All gold mined at the Paulsens underground mine comes from where the Hardey Fault (and related fault splays) cut through the Paulsens Mine Gabbro. Finding similar faulted-off gabbros is a priority given the obvious grade and scale potential. This includes open pit potential at:
  - Belvedere, located within the PSC only 5km from the processing facility, is a Paulsens-style target with >2km of mineralised strike. Minimal drilling has identified a shallow Resource of 30koz @ 3.9g/t Au.
- Underground drilling in 2023 includes: new mining fronts located close to existing infrastructure being the Gabbro Veins and Apollo with potential for readily accessible ounces; and Paulsens Repeat located 200-300m from the decline and representing a large-scale, faulted-off gabbro targeting "another Paulsens".



Figure 1: Regional map of the Paulsens Gold Operation showing the location of Resources and large-scale fault architecture.

### **RESOURCE UPDATE**

Paulsens has a history of high-grade gold production with an endowment of >1Moz. Production has historically focused on two veins within the Main Zone with other areas, particularly the Gabbro Veins, generally left unmined.

The 7km of decline is fully dewatered and ventilation, power and services are active to the bottom of the mine. This extensive mine infrastructure represents a low capital start-up opportunity to access and mine the rapidly growing high-grade Resource for processing in the 450ktpa Paulsens processing plant which is currently on care and maintenance.



Figure 2: Plan view showing the location of the unmined, high-grade Gabbro Veins, the mined and unmined portions of the Main Zone, which produced ~1,000oz per vertical metre from narrow lodes. The 7km long dewatered decline provides ready access for mining. View is in mine grid

Since acquiring Paulsens in June 2022, Black Cat has been focused on growing high quality near mine Resources. This has been achieved by:

- Developing and refining the updated geology model;
- Remodelling areas of historic drilling; and
- Drilling for Resource extensions.

Black Cat's drilling has focused on the unmined footwall Gabbro Veins which are located adjacent to, and up to 200m from, the existing decline. The Gabbro Veins occur in the footwall over a 1.2km plunge length and can form as swarms over areas up to 4m wide. The Gabbro Veins represent a potential new, high-priority, start-up mining area.

The Paulsens Underground Resource has increased 25% to 322koz @ 10.1g/t Au including an increase to 58% Measured & Indicated. The new Resource including all assays from underground drilling received up to and including 5 May 2023. The Gabbro Veins Resource has grown from zero at time of acquisition to 133koz @ 9.2g/t Au.

This updated Resource will be incorporated into the Mine Restart Study to support a potential decision to restart the operation in mid-2023.

### **Future Growth Potential**

Near-mine exploration drilling will be ongoing, testing several Resource extension and geophysical targets, including:

- Follow up drilling targeting the Paulsens Repeat<sup>1</sup>, which is a ~1,250m long interpreted structure located ~200-300m below the current mine workings. Paulsens Repeat was identified in a \$2M, 3D seismic survey from 2018. Downhole EM is being investigated as a tool to further refine drill targeting in this area with a trial survey planned for mid-2023.
- Further extensional drilling for additional Gabbro Veins mineralisation further into the Paulsens Mine Gabbro, and extensional drilling of identified Gabbro Veins along plunge.
- Testing the Paulsens Offset target on the other side of the post-mineralisation fault at the bottom of the current workings.

<sup>&</sup>lt;sup>1</sup> Refer to ASX Announcement 09 February 2023

• Testing along strike and up dip extensions of the Apollo Lode to the north of the main Paulsens underground workings<sup>2</sup>.

### **PAULSENS UNDERGROUND RESOURCE – SUPPORTING INFORMATION**

### **Geology and Geological Interpretation**

Paulsens is located on the northern limb of the Wyloo Dome. The geology is characterised by rocks comprising the Hardey Formation of the lower Fortescue Group sequence. The Hardey Formation has been informally subdivided into five members termed the Horsewell Sandstones, Melrose Argillite, Madang Clastics, Tin Hut Basalt and the Beaghy Sandstones. These members are defined as a predominately sedimentary succession of siliclastics with minor mafic flows which have been intruded by doleritic to gabbroic dyke swarms and sills of varying ages.

The prominent structural grain is defined by the trend of the regional dome, where local stratigraphy plunges 30° towards the northwest. A penetrative south-dipping axial planar fabric is typically present and is locally overprinted by a steeper, sub-parallel fabric which develops discrete and narrow shear zones with undefinitive origins. Towards the east of the project area, a regional brittle fault termed the "Hardey Fault" offsets stratigraphy.

Locally, the mine area is dominated by the Paulsens Mine Gabbro (40-60m in width) that has intruded the sediments prior to mineralising events. This Gabbro has been offset by normal faulting, causing a plunging 'tear' in the unit at ~30° towards the northwest. This tear has been filled with a massive and barren quartz vein that was host to the historically mined mineralisation. Late-stage diorite dykes cross-cut the geology and mineralisation.

### Mineralisation

Mineralisation is generally concentrated on, or close to, the margins of the massive, quartz vein that fills the tear within the offset Mine Gabbro. Mineralisation is also found within the Mine Gabbro itself, forming narrower, high-nugget quartz/sulphide veins. The various mineralised veins plunge from outcropping at surface towards WNW at around -30° and are mostly constrained to either within the quartz or Gabbro.



Figure 3: Typical cross-section of the Paulsens underground deposit showing workings, geology, and mineralisation. Significant veining within the gabbro is undeveloped.

### **Historical Resource and Life of Mine**

Paulsens was mined from 2005 to 2009 by Intrepid Mines Ltd ("**Intrepid**") and then by Northern Star Resources Ltd ("**NST**") until 2017 when the operation was put on care and maintenance. A total of 4.2Mt @ 7.3g/t Au for 907koz was produced during this time at an average of 75,000oz pa (Table 2). Throughout the life of the operation the Resource averaged ~270koz which has now been surpassed after only six months of drilling. As with many high-grade underground mines, mine life is determined by an ongoing commitment to underground drilling to regularly replenish Resources rather than a given Resource at a point in time (Chart 1).

Financial Year	Operator	Ore tonnes	Grade g/t Au	Recovery %	Gold oz (rec)
2005	Intrepid	24	10.1	93.8	7,358
2006	Intrepid	301	8.6	94.5	78,848
2007	Intrepid	324	6.6	93.2	64,408
2008	Intrepid	326	8.3	93.8	81,172

2009	Intrepid	335	7.4	94.1	73,368
2010	NST	224	6.8	91.4	48,587
2011	NST	287	10.0	94.1	86,522
2012	NST	336	6.6	94.0	67,206
2013	NST	412	7.2	91.9	88,603
2014	NST	434	7.4	90.1	100,041
2015	NST	456	5.4	89.3	74,999
2016	NST	387	7.2	89.9	80,742
2017	NST	340	4.6	87.7	55,490
Total		4,186	7.3	92.0	907,344

Table 2: Annual production from Paulsens Gold Operation 2005-2017



Chart 1: Annual published Resource compared to published production from Paulsens Gold Operation 2005-current. Refer BC8 ASX announcement 19 April 2022, NST annual reports 2010-2020, Intrepid annual reports 2005-2009.

### **Drilling Techniques**

In the upper areas, both RC and diamond drilling from surface was completed by the original owner, Taipan Resources NL. Subsequently, underground diamond drilling and face sampling have been the dominant methods and the basis for most of the Resource.

### Sampling and Sub-Sampling Techniques

LTK 60 is generally whole-core sampled. NQ2 core is generally half-core sampled. If not whole-core sampled, then core is cut in half with a diamond core saw and half-core sampled. The right half is sampled for intervals defined by the logging geologist along geological boundaries. The left half is archived.

Historically, all major mineralised zones are sampled, plus ~5m either side within associated visibly barren material.

Generally, quartz veins >0.3m outside the known mineralised zone and ±1m on either side are also sampled.

Ideally, sample intervals are 1m in length, though range from 0.3-1.0m in length. Total weight of each sample generally does not exceed 5kg.

All samples are oven-dried overnight, jaw crushed to <6mm, and split to <3kg in a static riffle splitter. The coarse reject is then discarded. The remainder is pulverised in an LM5 to >85% passing 75µm (Tyler 200 mesh) and bagged. The analytical sample is further reduced to a 30g charge weight using a spatula and the pulp packet is stored.

Post-2013, samples have been crushed to 90% passing 3mm before a rotary split to 2.5kg, all of which were then pulverised to 90% passing 75 microns. For older core, pre-NST, best practice is assumed.

The QAQC protocols used for all drill samples include the following:

During operation under NST, underground face samples were processed by an in-house laboratory. These samples were pulverised, and a sub-sample tablet was assayed by acid digest and finished with Atomic Absorption Spectroscopy. Routine check samples of these onsite grade control samples were sent for fire assay at a commercial lab for QAQC purposes.

- Site sourced coarse blanks are inserted at an incidence of 1 in 40 samples. From April 2013, commercial blanks have been used.
- Commercially prepared certified reference materials are inserted at an incidence of 1 in 40 samples.
- NST's blanks and standards data was assessed on import to the database and reported monthly, quarterly and yearly.
- The primary laboratory QAQC protocols used for all drill samples include the following:
  - Repeat of pulps at a rate of 5%.
  - Screen tests (percentage of pulverised sample passing a 75µm mesh) are undertaken on 1 in 100 samples.
  - The laboratory and geology department report QAQC data monthly.

- Failed standards are followed up by re-assaying a second 30g pulp sample of the failed standard ±10 samples either side by the same method at the primary laboratory.
- One standard is inserted with every face sampling submission to assess site laboratory performance.
- Both the accuracy component (CRM's and umpire checks) and the precision component (duplicates and repeats) are deemed acceptable.
- QAQC protocols for surface RC and diamond drilling by previous operators is unknown, assumed to be industry standard.

To date, an acceptable level of precision and accuracy has been observed.

### Criteria Used for Resource Estimation

The Resource is currently classified as Measured, Indicated and Inferred. Significant drilling has occurred over the history of the mine.

Measured Resource classification is where the estimate is supported by data less than 10m apart and/or within 5-7m of development.

Indicated Resource classification is where the mineralisation has been sufficiently defined by a drill spacing of 20-25m x 20-25m or better.

Inferred Resource is based, in addition to the above, on a maximum search distance of 50m from last sample point and high angle drill intercepts.

Mineralisation outside these parameters has been categorised as unclassified and is not reported.

The area has also been previously externally estimated by Ordinary Kriging (Hellman and Schofield 2007-2010), Inverse Distance Squared (ResEval Pty Ltd) 2004-2006, Conditional Simulation and Ordinary Kriging (Golders) 2002.

Currently all estimated mineralisation utilises Ordinary Kriging methodology.

### **Estimation Methodology**

The interpretation of the deposit was carried out using a systematic approach to ensure continuity of the geology and the Resource. The confidence in the geological interpretation is high with all the information and ~13 years of operation. All available geological data was used in the interpretation and creation of 3D wireframes of geology and mineralisation, including: mapping, drilling, face mapping/sampling, photos and structures.

Drill hole data has been composited downhole to 1m within respective mineralisation domains using hard boundaries.

Estimation domains with high COV (>2) or extreme outliers were investigated with extreme grade limitation techniques to manage their impact on the Ordinary Kriging estimate. Top cuts were used during estimation to globally cap a grade at a certain value for the entire domain. Top cut values were determined via geostatistical analysis and only utilised where deemed necessary, ranging from 3.5 to 200 g/t Au.

The block model is constructed in Leapfrog EDGE with block sizes of  $10m \times 2m \times 10m (x, y, z \text{ directions})$ . Parent block size was based off drill hole spacing, with sub-blocks allowed down to  $1.25m \times 0.25m \times 1.25m$  to honour domain volumes. Estimation of the mineralised domains is completed using Ordinary Kriging into the parent blocks.

Bulk density values were assigned based off extensive measurements of previous diamond core.

Validation steps of the Resource included the comparison of input assay data against the modelled grades. This was completed by checking the global averages of each domain, visually checking the spatial distributions, and visually comparing the estimated grades to the composited values.

### **Cut-Off Grades**

The Resource is depleted using the final survey pickup, along with standoff buffers for both the decline (7.5m) existing stopes (5m).

The Resource is reported within Mining Stope Optimiser ("MSO") blocks based off preliminary mining parameters. Individual MSO blocks are visually assessed for 'mineability' and confidence, prior to being classified and reported. Those shapes with low confidence or 'mineability' are categorised as Unclassified. The MSO was run using a minimum mining width of 1.5m and a diluted cut-off grade of 2.2g/t Au.

The final Resource is reported within the selected MSO blocks at a cut-off grade of 2.2g/t Au. It is reported as an undiluted model, with dilution skins removed.

	0	Cotomore	Tonnes	Grade	Contained Au			
Paulsens Resource	Cut - Off	Category	ʻ000	g/t Au	'000oz			
		Measured	129	11.5	48			
Underground	2.2g/t	Indicated	423	10.2	139			
		Inferred	441	9.6	135			
Total Resource			994	10.1	322			
lotes: Small discrepancies may occur due to rounding.								

For more detail please refer to the Resource table at the end of the announcem

Table 3: Paulsens Underground Resource



Figure 4: Plan image showing MSO constrained Resource classification (red = Measured, green = Indicated, blue =Inferred, grey=Unclassified) for Paulsens underground.

### **Mining and Metallurgical Parameters**

Standard sub-level retreat mining methods have been predominantly used historically. Past mining and reconciliation data have been taken into consideration but without affecting wire frame interpretation. The total model has been coded to identify previously mined areas and only reports in-situ mineralisation.

While an MSO was run during the reporting of the Resource, this only used preliminary mining parameters based off other deposits of similar style. Actual mining methods to be employed, along with minimum mining width, geotechnical considerations, and cut-off grades will continue to be investigated and refined during the ongoing economic study period.

The reported Resource is undiluted and represents all material above a 2.2g/t Au cut-off within the MSO blocks. Dilution will be incorporated into the ongoing economic study.

Historic production results from Paulsens (Life of Mine over ~13 years for 91.5% recovery) show that the ore is free milling with an average hardness (BWI15-16) and with no significant refractory component. There are few deleterious elements and any impact of the footwall graphitic shales on recovery is managed by an appropriate blending strategy. Similarly, pyrrhotite and chalcopyrite can also affect recovery and have historically been managed by blending the ROM feed to the crusher prior to milling.

### Relevant Previous ASX Announcements for Paulsens Resource

Date	Announcement	Significance
19/04/2022	Funded Acquisition of Coyote & Paulsens Gold Operations	Acquisition Announcement
19/04/2022	Acquisition of Coyote & Paulsens - Supporting Information	Reporting of representative selection of historical holes
15/06/2022	Completion of Coyote and Paulsens Acquisitions	Completion of purchase
14/10/2022	Program to Find "Another Paulsens" Begins	Drill plan outlined
03/11/2022	Drilling Commences at Paulsens	Drilling commences at Paulsens
14/11/2022	Visible Gold in First Holes into Gabbro Veins - Paulsens	Drilling update
22/12/2022	High-Grade Initial Gabbro Vein Results - Paulsens	22PGRD010, 016, 018, 019
13/01/2023	Gabbro Vein Results Continue to Deliver - Paulsens	22PGRD006-009, 011-015, 017
06/02/2023	Gabbro Veins continue to swarm - 3.42m @ 16.21g/t Au	22PGRD001-003, 005, 020-023, 025-026, 027
13/03/2023	Paulsens Underground Resource Triples to 258koz@10.8g/t Au	Mineral Resource
28/02/2023	High-grades Continue to Elevate Paulsens	22PGRD004, 024-025, 027, 029-039
14/03/2023	Near-surface Drilling Adds to Paulsens Growth	22PGRD040-047
23/03/2023	Gabbro Veins Continue to Extend Up Plunge	PGRD23001-006
17/04/2023	Numerous Mineralised Veins in Paulsens Main Zone	PGRD23007-009, 014-028, 047-049. 054-057
28/04/2023	High-Grade Gabbro Veins Continue to Grow	PGRD23074-077, 112-115
02/05/2023	High grades up to 197g/t gold in the Paulsens Main Zone	PGRD23059-071, 101-106
08/05/2023	Double Digit Gold Grades Continue in Gabbro Veins	PGRD23042-045, 051,052,072,073,083,084,116, 117, 119-121, 123-125

## 2023 PLANNED ACTIVITIES

9-11 May 2023:	RIU Resources Roundup - Sydney
Ongoing 2023:	Ongoing underground drilling results - Paulsens
Jun 2023:	Regional exploration program - Coyote
Jun - Jul 2023:	Paulsens Repeat Drilling
Mid-2023:	Potential Paulsens restart decision
19-21 Jul 2023:	Noosa Mining Investment Conference - Noosa
Aug - Sep 2023:	Apollo Drilling
7-9 Aug 2023:	Diggers and Dealers Mining Forum - Kalgoorlie
Sep - Nov 2023:	Paulsens Regional Drilling

For further information, please contact:

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This announcement has been approved for release by the Board of Black Cat Syndicate Limited.

## ABOUT BLACK CAT SYNDICATE (ASX: BC8)

Key pillars are in place for Black Cat to become a multi operation gold producer at its three 100% owned operations. The three operations are:

**Paulsens Gold Operation:** Paulsens is located 180km west of Paraburdoo in WA. Paulsens consists of an underground mine, 450,000tpa processing facility, +110 person camp, numerous potential open pits and other related infrastructure. The operation is currently on care and maintenance, has a Resource of 4.0Mt @ 3.6g/t Au for 465koz and significant exploration and growth potential.

**Coyote Gold Operation:** Coyote is located in Northern Australia, ~20km on the WA side of the WA/NT border, on the Tanami Highway. There is a well-maintained airstrip on site that is widely used by government and private enterprises. Coyote consists of an open pit and an underground mine, 300,000tpa processing facility, +180 person camp and other related infrastructure. The operation is currently on care and maintenance and has a Resource of 3.7Mt @ 5.5g/t Au for 645koz with numerous high-grade targets in the surrounding area.

**Kal East Gold Project:** comprises ~1,015km<sup>2</sup> of highly prospective ground to the east of the world class mining centre of Kalgoorlie, WA. Kal East contains a Resource of 18.8Mt @ 2.1g/t Au for 1,294koz, including a preliminary JORC 2012 Reserve of 3.7Mt @ 2.0 g/t Au for 243koz.

Black Cat plans to construct a central processing facility near the Majestic Mining Centre, ~50km east of Kalgoorlie. The 800,000tpa processing facility will be a traditional carbon-in-leach gold plant which is ideally suited to Black Cat's Resources as well as to third party free milling ores located around Kalgoorlie.



### **COMPETENT PERSON'S STATEMENT**

The information in this announcement that relates to geology, exploration results, planning and Resources was compiled by Mr. Iain Levy, who is a Member of the AIG and an employee, shareholder and option/rights holder of the Company. Mr. Levy has sufficient experience which 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. Levy consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

Where the Company refers to Resources and Reserves in this report (referencing previous releases made to the ASX), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the Resource estimate with that announcement continue to apply and have not materially changed.

## APPENDIX A - JORC 2012 GOLD RESOURCE TABLE - BLACK CAT (100% OWNED)

Mining Contro		Measured Resource		Indicated Resource			Inferred Resource			Total Resource			
	Jennie	Tonnes ('000)	Grade (g/t Au)	Metal ('000 oz)	Tonnes ('000)	Grade (g/t Au)	Metal ('000 oz)	Tonnes ('000)	Grade (g/t Au)	Metal ('000 oz)	Tonnes ('000)	Grade (g/t Au)	Metal ('000 oz)
Kal East													
	Open Pit	-	-	-	1,000	2.7	86	1,380	1.8	79	2,380	2.1	164
Bulong	Underground	-	-	-	230	4.6	34	937	3.5	107	1,167	3.8	141
	Sub Total	-	-	-	1,230	3.0	120	2,316	2.5	185	3,546	2.7	305
	Open Pit	13	3.2	1	7,198	1.8	407	6,044	1.5	291	13,253	1.6	699
Mt Monger	Underground	-	-	-	1,178	4.5	169	710	4.6	104	1,888	4.5	274
	Sub Total	-	-	-	8,375	2.1	576	6,754	1.8	395	15,142	2.0	972
Rowes Find	Open Pit	-	-	-	-	-	-	148	3.6	17	148	3.6	17
Kal East Resource		13	3.2	1	9,605	2.3	696	9,219	2.0	597	18,836	2.1	1,294

### **Coyote Gold Operation**

	Open Pit	-	-	-	608	2.8	55	203	3.0	19	811	2.9	75
Coyote Central	Underground	-	-	-	240	23.4	181	516	10.5	175	757	14.6	356
	Sub Total	-	-	-	849	8.7	236	719	8.4	194	1,568	8.5	430
	Open Pit	-	-	-	560	2.8	51	613	3.2	63	1,174	3.0	114
Bald Hill	Underground	-	-	-	34	2.7	3	513	5.0	82	547	4.8	84
	Sub Total	-	-	-	594	2.8	54	1,126	4.0	145	1,721	3.6	198
Stockpiles		-	-	-	375	1.4	17	-	-	-	375	1.4	17
Coyote Resource		-	-	-	1,818	5.3	307	1,845	5.7	339	3,664	5.5	645

### Paulsens Gold Operation

	Underground	129	11.5	48	423	10.2	139	441	9.6	135	994	10.1	322
Paulsens	Stockpile	11	1.6	1	-	-	-	-	-	-	11	1.6	1
	Sub Total	140	10.8	49	423	10.2	139	441	9.5	135	1,005	10.0	323
	Open Pit	-	-	-	-	-	-	1,249	1.5	61	1,249	1.5	61
Mt Clement	Underground	-	-	-	-	-	-	492	0.3	5	492	0.3	5
	Sub Total	-	-	-	-	-	-	1,741	1.2	66	1,741	1.2	66
Belvedere	Open Pit	-	-	-	129	3.1	13	111	4.8	17	240	3.9	30
Northern Anticline	Open Pit	-	-	-	-	-	-	523	1.4	24	523	1.4	24
Electric Dingo	Open Pit	-	-	-	98	1.6	5	444	1.2	17	542	1.3	22
Paulsens Resourc	e	140	10.8	49	650	7.5	157	3,260	2.5	259	4,051	3.6	465
TOTAL Resourc	e	153	10.1	50	12,073	3.0	1,160	14,324	2.6	1,196	26,551	2.8	2,405

#### Notes on Resources:

The preceding statements of Mineral Resources conforms to the 'Australasian Code for Reporting of Exploration Results Mineral Resources and Ore 1. Reserves (JORC Code) 2012 Edition'.

All tonnages reported are dry metric tonnes 2.

Data is rounded to thousands of tonnes and thousands of ounces gold. Discrepancies in totals may occur due to rounding. 3.

4. Resources have been reported as both open pit and underground with varying cut-offs based off several factors discussed in the corresponding Table 1 which can be found with the original ASX announcements for each Resource

5. Resources are reported inclusive of any Reserves

Paulsens Inferred Resource includes Mt Clement Eastern Zone Au of 7koz @ 0.3g/t Au accounting for lower grades reported 6.

The announcements containing the Table 1 Checklists of Assessment and Reporting Criteria relating for the 2012 JORC compliant Resources are:

- Kal East: 1.
  - Boundary Black Cat ASX announcement on 9 October 2020 "Strong Resource Growth Continues including 53% Increase at Fingals Fortune" 0
  - Trump Black Cat ASX announcement on 9 October 2020 "Strong Resource Growth Continues including 53% Increase at Fingals Fortune" 0
  - Myhree Black Cat ASX announcement on 9 October 2020 "Strong Resource Growth Continues including 53% Increase at Fingals Fortune" 0 Strathfield - Black Cat ASX announcement on 31 March 2020 "Bulong Resource Jumps by 21% to 294,000 oz"
  - 0 Majestic - Black Cat ASX announcement on 25 January 2022 "Majestic Resource Growth and Works Approval Granted"
  - Sovereign Black Cat ASX announcement on 11 March 2021 "1 Million Oz in Resource & New Gold Targets'

  - Imperial Black Cat ASX announcement on 11 March 2021 "1 Million Oz in Resource & New Gold Targets" Jones Find Black Cat ASX announcement 04 March 2022 "Resource Growth Continues at Jones Find"

  - Fingals Fortune Black Cat ASX announcement on 02 September 2021 "Maiden Resources Grow Kal East to 1.2Moz" Fingals Fortune Black Cat ASX announcement on 23 November 2021 "Upgraded Resource Delivers More Gold at Fingals Fortune"
  - Fingals East Black Cat ASX announcement on 31 May 2021 "Strong Resource Growth Continues at Fingals"
  - Trojan Black Cat ASX announcement on 7 October 2020 "Black Cat Acquisition adds 115,000oz to the Fingals Gold Project".
  - Queen Margaret Black Cat ASX announcement on 18 February 2019 "Robust Maiden Mineral Resource Estimate at Bulong"
  - Melbourne United Black Cat ASX announcement on 18 February 2019 "Robust Maiden Mineral Resource Estimate at Bulong"
  - Anomaly 38 Black Cat ASX announcement on 31 March 2020 "Bulong Resource Jumps by 21% to 294,000 oz" Wombola Dam - Black Cat ASX announcement on 28 May 2020 "Significant Increase in Resources - Strategic Transaction with Silver Lake"

- Hammer and Tap Black Cat ASX announcement on 10 July 2020 "JORC 2004 Resources Converted to JORC 2012 Resources"
  - Rowe's Find Black Cat ASX announcement on 10 July 2020 "JORC 2004 Resources Converted to JORC 2012 Resources"

#### 2. Coyote Gold Operation

- Coyote OP&UG Black Cat ASX announcement on 16 January 2022 "Coyote Underground Resource increases to 356koz @ 14.6g/t Au One of the highest-grade deposits in Australia"
- Sandpiper OP&UG Black Cat ASX announcement on 25 May 2022 "Coyote & Paulsens High-Grade JORC Resources Confirmed"
- Kookaburra OP Black Cat ASX announcement on 25 May 2022 "Coyoté & Paulsens High-Grade JORC Resources Confirmed"
- Pebbles OP Black Cat ASX announcement on 25 May 2022 "Coyote & Paulsens High-Grade JORC Resources Confirmed"
   Stockpiles SP (Coyote) Black Cat ASX announcement on 25 May 2022 "Coyote & Paulsens High-Grade JORC Resources Confirmed"

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- Paulsens Gold Operation:
   Paulsens UG Black Cat ASX announcement on 10 May 2023 "Paulsens Resource continues to grow"
- Paulsens SP Black Cat ASX announcement on 19 April 2022 "Funded Acquisition of Coyote & Paulsens Gold Operations Supporting Documents"
- Belvedere OP Black Cat ASX announcement on 19 April 2022 "Funded Acquisition of Coyote & Paulsens Gold Operations Supporting Documents"
- Mt Clement Black Cat ASX announcement on 24 November 2022 "High-Grade Au-Cu-Sb-Ag-Pb Resource at Paulsens"

Merlin – Black Cat ASX announcement on 25 May 2022 "Coyote & Paulsens High-Grade JORC Resources Confirmed"

Electric Dingo – Black Cat ASX announcement on 25 May 2022 "Coyote & Paulsens High-Grade JORC Resources Confirmed

### APPENDIX B - JORC 2012 POLYMETALLIC RESOURCES - BLACK CAT (100% OWNED)

The current in-situ, drill-defined polymetallic Resources for Black Cat Syndicate are listed below.

		_			Grade				Co	ntained M	etal	
Deposit	Category	(,000 t)	Au (g/t)	Cu (%)	Sb (%)	Ag (g/t)	Pb (%)	Au (koz)	Cu (kt)	Sb (kt)	Ag (koz)	Pb (kt)
Western	Inferred	415	-	0.4	0.2	76.9	-	*	1.6	0.7	1,026	-
T	Total	415	-	0.4	0.2	76.9	-	*	1.6	0.7	1,026	-
Control	Inferred	532	-	-	-	-	-	*	-	-	-	-
Central	Total	532	-	-	-	-	-	*	-	-	-	-
Fostern	Inferred	794	-	-	1.7	17.0	2.4	*	-	13.2	434	18.7
Eastern	Total	794	-	-	1.7	17.0	2.4	*	-	13.2	434	18.7
Total		1,741	-	-	-	-	-	*	1.6	13.9	1,460	18.7

Notes on Resources:

1. The preceding statements of Mineral Resources conforms to the 'Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves (JORC Code) 2012 Edition'.

2. All tonnages reported are dry metric tonnes.

3. Data is rounded to thousands of tonnes and thousands of ounces/tonnes for copper, antimony, silver, and lead, . Discrepancies in totals may occur due to rounding.

 Resources have been reported as both open pit and underground with varying cut-offs based off several factors discussed in the corresponding Table 1 which can be found with the original ASX announcements for each Resource
 Resources are reported inclusive of any Reserves

5. Resources are reported inclusive of any Reserves

6. Gold is reported in the previous table for Mt Clement, and so is not reported here. A total of 66koz of gold is contained within the Mt Clement Resource

The announcements containing the Table 1 Checklists of Assessment and Reporting Criteria relating for the 2012 JORC compliant Resources are: 1. Paulsens Gold Operation:

1. Mt Clement – Black Cat ASX announcement on 24 November 2022 "High-Grade Au-Cu-Sb-Ag-Pb Resource at Paulsens"

## APPENDIX C - JORC 2012 GOLD RESERVE TABLE - BLACK CAT (100% OWNED)

The current in-situ, drill-defined Reserves for the Kal East Gold Project are listed below.

	Р	roven Reserv	ve	Pro	obable Rese	rve	Total Reserve			
	Tonnes ('000s)	Grade (g/t Au)	Metal ('000s oz)	Tonnes ('000s)	Grade (g/t Au)	Metal ('000s oz)	Tonnes ('000s)	Grade (g/t Au)	Metal ('000s oz)	
Open Pit Reserves	-	-	-	3,288	1.8	193	3,288	1.8	193	
Underground Reserves	-	-	-	437	3.6	50	437	3.6	50	
TOTAL Resource	-	-	-	3,725	2.0	243	3,725	2.0	243	

Notes on Reserve:

1. The preceding statements of Mineral Reserves conforms to the 'Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves (JORC Code) 2012 Edition'.

- 2. All tonnages reported are dry metric tonnes.
- 3. Data is rounded to thousands of tonnes and thousands of ounces gold. Discrepancies in totals may occur due to rounding.
- 4. Cut-off Grade:

1. Open Pit - The Ore Reserves are based upon an internal cut-off grade greater than or equal to the break-even cut-off grade.

2. Underground - The Ore Reserves are based upon an internal cut-off grade greater than the break-even cut-off grade.

- 5. The commodity price used for the Revenue calculations was AUD \$2,300 per ounce.
- 6. The Ore Reserves are based upon a State Royalty of 2.5% and a refining charge of 0.2%.

The announcements containing the Table 1 Checklists of Assessment and Reporting Criteria relating for the 2012 JORC compliant Reserves are: 1. Kal East:

1. Black Cat ASX announcement on 03 June 2022 "Robust Base Case Production Plan of 302koz for Kal East"

<sup>.</sup> Paulsens Gold Operation:

## APPENDIX D – PAULSENS DRILLING UNDERGROUND- JORC TABLE 1

	Section 1: Sampling Techniqu	es and Data	
	Criteria	JORC Code Explanation	Commentary
>		Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Diamond core is sampled based on geological logging of mineralised intervals. Samples range in width from 0.20m to 1.20m. Adequate buffers of surrounding non-mineralised rock are sampled around primary samples of between 1 and 5m depending on the nature of the interval to characterise the mineralised boundaries as "hard" or "soft". Samples are collected on half NQ2 core with cutting off the orientation line (where available) and half core routinely selected to sample the same side of the cut line to avoid bias. Historically, core samples were collected from whole core for resource definition holes and half-core, similar to what is outlined above, for exploration holes.
	Sampling techniques	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core is aligned and measured by tape, comparing back to down hole core blocks consistent with industry practice. For the current drill program, downhole orientation of the core is done via True Core and hole orientation is measured downhole using a Devi Gyro.
D N D N D		Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond core is sampled on intervals ranging from 0.20 to 1.20m depending on the nature of the logged interval. Core is half-cut along a cut line just off the orientation line (where available) and core from the same side of the cut line is submitted for assay to avoid human bias of sample selection. Samples are crushed and pulverised at a commercial lab to produce an ~200g pulp sub sample to use in the assay process. Samples are analysed via fire assay using a 40g charge. Visible gold has been reported in recent and historic logging.
Ū	Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Current core drilling is via NQ2 core size. Core is currently oriented using a True Core tool, which is a commercially available product. Historic diamond drilling was a mixture of NQ2 and LTK48 core sizes.
	)	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond drill recoveries are recorded as a percentage calculated from measured core versus drilled intervals. Achieving >95% recovery. Greater than 0.2 metre discrepancies are resolved with the drill supervisor.
Ŋ	Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Standard diamond drilling practice results in high recovery due to competent nature of the ground.
D	)	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.	There is no known relationship between sample recovery and grade, sample recovery is very high.
$\bigcirc$		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.	Core logging is carried out by company and contract geologists. Holes are routinely logged for lithology, alteration and mineralisation and, where oriented, appropriate structural measurements are collected. Geotechnical logging is limited to recording RQD data for exploration holes.
	Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is qualitative and all core is photographed. Visual estimates are made of sulphide, quartz and alteration percentages.
		The total length and percentage of the relevant intersections logged.	100% of the drill core is logged.
		If core, whether cut or sawn and whether quarter, half or all core taken.	Current sampling is via half core, which is cut using an Almonte diamond core saw with the right half consistently sampled to intervals delineated by the logging geologist. The left half is archived. All major mineralised zones are sampled plus associated visibly barren host rock between 1 and 5m depending on the thickness of the primary sample interval. Sample intervals range from 0.2 to 1.2m in length. Historic sampling was a mixture of whole core and half core sampling as above.
	Sub-sampling techniques and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Current drilling is only via diamond coring.
		For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is conducted at a commercial laboratory to an acceptable standard. Blank samples are routinely submitted to assess the preparation QAQC.
		Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	For drill core the external labs coarse duplicates are used. CRM standards are inserted into the sample stream on a 1:20 ratio in addition to internal laboratory CRMs. Blanks are inserted into the sample stream routinely to assess the QAQC of the sample preparation stage.

	Section 1: Sampling Techniqu	on 1: Sampling Techniques and Data			
	Criteria	JORC Code Explanation	Commentary		
		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.	Field duplicates are not utilised in the current drill program. Routine other half core sampling is not undertaken, but half core is archived for re-sampling if deemed necessary.		
		Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate.		
	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 all drill core samples, gold concentration is determined by fire assay using the lead collection technique with a 40 gram sample charge weight. An AAS finish is used, considered to be total gold.		
>		For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No other sources of data reported.		
5			The QAQC protocols used include the following for all drill samples: Commercial coarse blanks are inserted at an incidence of 1 in 40 samples or after intervals of significant visual mineralisation. Commercially prepared certified reference materials are inserted at an incidence of 1 in 20 samples. The CRM used is not identifiable to the laboratory.		
りの		Nature of quality control procedures adopted (e.g. standards, blanks,	The primary laboratory QAQC protocols used include the following for all drill samples:		
		duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Repeat of pulps at a rate of 5%. Screen tests (percentage of pulverised sample passing a 75µm mesh) are undertaken on 1 in 100 samples. Failed standards are followed up by re-assaying a second 40 g pulp sample of the failed standard ± 10 samples either side by the same method at the primary laboratory.		
5			Both the accuracy component (CRM's and umpire checks) and the precision component (duplicates and repeats) are deemed acceptable.		
		The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts have been reviewed by the competent person as part of the due diligence process		
D		The use of twinned holes.	No twinned holes have been drilled as part of this drill program.		
	Verification of sampling and assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Current logging is done via a protected Excel spreadsheet and uploaded into an external Access database at the completion of each drillhole. The original logs are archived.		
C			Black Cat logging is captured in an excel spreadsheet and uploaded to an acquire database.		
		Discuss any adjustment to assay data.	No adjustments to assay data have been made.		
D	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.	Drill hole collar positions are picked up by survey using a calibrated total station Leica 1203+ instrument. Drill hole, downhole surveys are recorded at the collar and then every 50m downhole using a Devi Gyro, north-seeking tool with the Paulsens Local Grid transformation pre-loaded.		
)			Black Cat drillholes are positioned using a collar marked up with Leica 1203+ surveying jigger. Collar set up alignments are measured with a north seeking gyro Devico azimuth aligner tool. Downhole surveys are taken at 3m intervals and referenced to the azimuth aligner. The azimuth aligner and Deviflex tool are offset to measure in Paulsens Mine Grid.		
5		Specification of the grid system used.	A local grid system (Paulsen Mine Grid) is used. It is rotated 41.7 degrees to the west of GDA94 – MGA zone 50 grid. Local origin is 50,000N and 10,000E Conversion. MGA E = (East_LOC*0.75107808+North_LOC*0.659680194+381644.16) MGA N = (North_LOC*0.75107808-East_LOC*0.659680194+7571963.75) MGA RL = mRL_LOC-1000		
		Quality and adequacy of topographic control.	Topographic control is not relevant to the underground mine. For general use, an airborne survey was flown in 2022. Resolution is +/- 0.5m.		
	Data spacing and distribution	Data spacing for reporting of Exploration Results.	Exploration result data spacing can be highly variable, up to 100m and down to 10m.		
		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.	Measured data spacing is better than 10m x 10m and restricted to areas in immediate proximity to mined development. Data spacing for indicated material is approximately, or better than, 25m x 25m. All other areas where sample data is greater than 20m x 20m, or where intercept angle is low, is classified as inferred.		
	Orientation of data in relation to geological structure	Whether sample compositing has been applied.	Core sampling is conducted on geologic intervals and is not field-composited. Assay data is composited using a 1g/t cut-off with up to 2m internal dilution and 1m continuous dilution.		
		Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling is designed to be as close to perpendicular to the known mineralised trend being tested as achievable given drill collar location constraints. Core is routinely oriented and structural measurements taken of significant mineralisation zones to calculate true thickness during Resource Estimation.		

	Section 1: Sampling Techniques	s and Data	
	Criteria	JORC Code Explanation	Commentary
			Hanging-wall drill drives provide excellent intercept orientation to the geological structures used in the estimate.
	_		
_		If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The drill orientation to mineralised structures biases the number of samples per drill hole. It is not thought to make a material difference in the Resource estimation as opportunity arises, better angled holes are drilled with higher intersection angles.
	Sample security	The measures taken to ensure sample security.	All samples are selected, cut and bagged in tied pre-numbered calico bags, grouped in larger tied plastic bags, and placed in large bulka bags with a sample submission sheet. The bulka bags are transported via freight truck to Perth and Kalgoorlie, with consignment note and receipts. Sample pulp splits are returned to BC8 via return freight and stored in shelved containers on site. Pre BC8 operator sample security assumed to be similar and adequate.
D	Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Recent external review confirmed core and face sampling techniques are to industry standard. Data handling is considered adequate and was further improved recently with a new database. Pre BC8 data audits found less QAQC reports, though in line with industry standards at that time.
Φ			
ဟ	Section 2: Reporting of Explorat	tion Results	
Ď	Criteria	JORC Code Explanation	Commentary
al	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 nationa park and environmental settings.	Paulsens Gold Mine is located on tenements M08/99 and M08/196, both of which are held by Black Cat (Paulsens)Pty Ltd, a subsidiary of Black Cat Syndicate Ltd and are in good standing. All production is subject to a Western Australian state government Net Smelter Return ("NSR") royalty of 2.5%. There are several registered heritage sites on surface around the Paulsens Gold Mine, but they do not impact underground operations.
		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.	No known impediment to obtaining a licence to operate exists and the remainder of the tenements are in good standing.
S.	Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Extensive exploration and development have been conducted around Paulsens dating from the 1970s for various commodities, including gold and base metals. Several operators have conducted exploration, much of which is recorded digitally in the Black Cat database.
			Most recently, Paulsens was owned by Northern Star, who conducted significant underground and surface exploration, which Black Cat has in digital form. Work activities included:
r pe			<ul> <li>Extensive underground drilling and development work</li> <li>Surface RC and diamond drilling around Paulsens Gold Mine and on regional tenure</li> <li>Several campaigns of surface and underground bedrock mapping to constrain the local and district-scale structural architecture as an aid in exploration targeting</li> <li>Several rounds of geophysical acquisitions including airborne magnetics and radiometrics, surface gravity surveys, ground and airborne EM surveying and 2D and 3D seismic surveys over the Paulsens Gold Mine</li> </ul>
<u>О</u> Ц	Geology	Deposit type, geological setting and style of mineralisation.	Geology and Geological Interpretation         Paulsens is positioned along the north-eastern inflection point of the Wyloo anticline. The geology is characterised by rocks comprising the Hardey Formation of the lower Fortescue group sequence. The Hardey Formation has been informally subdivided into five members termed the Horsewell Sandstones, Melrose Argillite, Madang Clastics, Tin Hut Basalt and the Beaghy Sandstones. The members are defined as a predominately sedimentary succession of siliclastics with minor mafic flows which have been intruded by doleritic to gabbroic dyke swarms and sills of varying ages.         The prominent structural grain is defined by the trend of the regional dome, where local stratigraphy plunges 30° towards the northwest. A penetrative south-dipping axial planar fabric is typically present and is locally overprinted by a steeper, sub-parallel fabric which develops discrete and narrow shear zones with undefinitive origins. Towards the east of the project area, a regional brittle fault termed the "Hardey Fault" offsets stratigraphy.         Locally, the mine area is dominated by the Paulsens Mine Gabbro (40-60m in width) that has intruded the sediments prior to mineralising events. This Gabbro has been offset by normal faulting, causing a plunging 'tear' in the unit at ~30° towards the mineralisation. Late-stage diorite dykes cross-cut the geology and mineralisation.
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	Section 2: Reporting of Exploration	n Results	
	Criteria	JORC Code Explanation	Commentary
			Mineralisation is generally concentrated on, or close to, the margins of the massive, predominantly strata-bound, quartz vein that fills the tear within the offset Mine Gabbro. It is also found within the Mine Gabbro itself, forming narrower, high nugget quartz/sulphide veins.
			The various mineralised veins plunge from outcropping at surface towards WNW at around -30° and are mostly constrained to either within the quartz or Gabbro.
>		<ul> <li>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:</li> <li>easting and northing of the drill hole collar;</li> <li>elevation or Reduced Level ("RL") (elevation above sea level in metres) of the drill hole collar;</li> </ul>	
	Drill hole information	<ul> <li>dip and azimuth of the hole;</li> <li>down hole length and interception depth;</li> <li>hole length; and</li> <li>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.</li> </ul>	All drilling has been previously reported. A list of relevant announcement is detailed within the body of the announcement.
5		In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high-grades) and cut-off grades are usually Material and should be stated.	Composite assay results are reported using a 1g/t Au lower cut-off. No top-cut is applied to assay data for exploration.
σ	Data aggregation methods	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.	All composites are reported with a maximum total internal waste of 2m, with up to 1m of contiguous waste included between mineralised intervals. The minimum composite grade reported is 1g/t. Internal high grades are reported in the body of the text as "including" intervals. Typically, these high-grade sub-intervals are reported if they are more than 10x the composite grade
		The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable, as no metal equivalent values have been reported.
S S S S S S S S S S S S S S S S S S S	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	All intercepts are reported as downhole depths which is considered close to true width for most intercepts.
	 Diagrams	a clear statement to this effect (e.g. 'down hole length, true width not known'). 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 have been included in the body of the announcement.
0	Balanced reporting	Where comprehensive reporting of all Exploration. Results are not practicable, representative reporting of both low and high- grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All significant results have been tabulated in this release, including drillholes with no significant results
	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.	Geophysical surveys including aeromagnetic surveys and seismic have been carried out by previous owners to highlight and interpret prospective structures in the project area.
	Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Black Cat is continuing an exploration program which will target extension of mineralisation and regional targets within the Paulsens area.

	Section 3: Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)				
	Criteria	JORC Code Explanation	Commentary		
			Historic sampling transferred to GB data is loaded dir	and logging data collected by Northern Star Resources was entered into an OCRIS data capture system then IS database. There are checks in place to avoid duplicate holes and sample numbers. Where possible, raw ectly to the database from the laboratory.	
	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.	Northern Star dat Pre-Northern Sta	a has been transferred to an acquire database and merged with new Black Cat logging and sampling data. r Resources (NSR) data assumed correct, maintained by database administrators.	
$\geq$	)	Data validation procedures used.	Random checks through use of the data as well as database validations. Checks as part of reporting significant intersections and end of program completion reports are also completed. In addition to this, 5% of the underground drill holes, faces and sludge samples have been validated against the raw data collected. Maxwell Geo Services extensively validated the 2006 data compilation.		
N	Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The CP has visite geology with prev	The CP has visited the Paulsens site multiple times. This includes underground visits, review of core, and discussion on the geology with previous mine geologists.	
$\mathbf{O}$		If no site visits have been undertaken indicate why this is the case.			
Ð	Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The interpretation of the deposit was carried out using a systematic approach to ensure continuity of the geology and estimated mineral Resource. The confidence in the geological interpretation is high with all the information and ~13 years of operation.		
S		Nature of the data used and of any assumptions made.	All available geol	ogical data was used in the interpretation including mapping, drilling faces, photos, structures.	
		The effect, if any, of alternative interpretations on Mineral Resource estimation.	No substantially o	different, alternative interpretations have been completed or put forward.	
σ		The use of geology in guiding and controlling Mineral Resource estimation.	Grade continuity is related to the quartz and sulphide events within the boundaries of the gabbro extent. Mineralised veins are also within the gabbro.		
		The factors affecting continuity both of grade and geology.			
<b>r</b> SO	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.	Upper Paulsens: Voyager:	Strike length = 1,100m down plunge at 30-35deg to the west; Width = ~80m (though high-grade component ~ 5m wide); Depth = from ~130m below surface to ~550m below surface; Strike length = 1,850m down plunge, 25-30 deg to grid west; Width = ~190m; Depth = from	
Ð			Titan:	Depth = from 250m below surface to ~1, four below surface; Strike length = 350m down plunge, 25 degrees to grid west; Width = 50m; Depth = from 250 to 925m below surface;	
			Galileo:	Strike length = 360m down plunge, 10 degrees to grid west; Width = 50m; Depth = from 380 to 520m below surface;	
Ō			Gabbro Veins	Strike length = 800m down plunge at 20-30° down Gabbro intrusion Width= 220m of corridor (individual veins 0.2 – 0.8m)	
LL	I he nature ar key assumpti interpolation µ points. If a co description of Estimation and modelling techniques The availabili	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	Mineralisation domains were modelled to constrain the individual lodes. These were constrained by grade population, geologic continuity and orientation. Each domain is snapped to the selected drilling data to create a constrained mineralised volume. These domain wireframes are validated in 3D. Domains are treated as hard boundaries. Drillholes are selected within these domains and composited to 1m intervals. Residual lengths are distributed evenly when compositing. Composites are assessed for extreme values and top cuts applied where deemed necessary. Top cuts range from 3.5 to 200 g/t depending on domain. Top cuts are considered essential to mitigate the effect of extreme outliers are common in heavily skewed gold populations. Variograms are modelled for major domains where possible. Where acceptable variograms are unable to be modelled variograms from similar domains are applied. Search ellipsoids are orientated to the direction of the domain they are applied to. Ordinary Kriging is used to estimate all domains in the Paulsens Mineral Resource using Leapfrog EDGE.		
		records and whether the Mineral Resource estimate takes appropriate account of such data.			
			Recent reconcilia	nons of the area have been in line with Resource expectations.	

Section 3: Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)			section 2, also apply to this section.)
	Criteria	JORC Code Explanation	Commentary
		The assumptions made regarding recovery of by-products.	No assumptions are made, but silver is a by-product that makes up part of the refinery revenue. This is not in the model and only gold is defined for estimation.
		Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No deleterious elements estimated in the model.
			Block size is 10m x 2m x 10m, sub-blocked to 1.25m x 0.25m x 1.25m to suit the narrow east-west orientation of most of the domains.
>	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.		Average sample spacing is 3.5m in the case of face samples. Drillhole spacing is wide ranging from approximately 10 x 10m in measured and Indicated areas to 50 – 80m in Inferred areas. Search ellipsoids are 36×16×16 m to 95×32×10m, varying the minimum number of samples required on successive passes
		Any assumptions behind modelling of selective mining units.	No assumptions made around selective mining units.
р		Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates.	Mineralisation wireframes are created within the geological shapes based on drill core logs, mapping, and grade. Low grades can form part of an ore wireframe.
Φ		Discussion of basis for using or not using grade cutting or capping.	Top cuts were used based on statistical analysis undertaken in Leapfrog EDGE that ranges from 3.5 to 200 g/t on individual domains. Top cuts were considered necessary to mitigate the impact of extreme outliers within the dataset. Top cuts are set to incorporate approximately 97.5% of the available sample population for each domain.
S		The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation is through comparing the block model means vs composite means, log probability plots and visual comparison of composites and model grades in 3D for each domain.
	Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	Tonnages are estimated on a dry basis. Moisture content within the ore is low (~1-2 %).
nal	Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Resource is depleted using the final survey pickup. The Resource is reported within Mining Stope Optimiser ("MSO") blocks based off preliminary mining parameters. Individual MSO blocks are visually assessed for 'mineability' and confidence, prior to being classified and reported. Those shapes with low confidence or 'mineability' are categorised as Unclassified. The MSO was run using a minimum mining width of 1.5m and a diluted out off ared of 2.2mt Au
00			The final Resource is reported within the selected MSO blocks at a cut-off grade of 2.2g/t Au. It is reported as an undiluted model, with dilution skins removed.
50	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.	Standard sub-level retreat mining methods have been predominantly used historically. Past mining and reconciliation data have been taken into consideration but without affecting wire frame interpretation. The total model has been coded to identify previously mined areas and only reports in-situ mineralisation.
r p(			While an MSO was run during the reporting of the Resource, this only used preliminary mining parameters based off other deposits of similar style. Actual mining methods to be employed, along with minimum mining width, geotechnical considerations, and cut-off grades will continue to be investigated and refined during the ongoing economic study period.
0 L	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.	Historic production results from Paulsens (Life of Mine over ~13 years for 91.5% recovery) show that the ore is free milling with an average hardness (BWI15-16) and with no significant refractory component. There are few deleterious elements and any impact of the footwall graphitic shales on recovery is managed by an appropriate blending strategy. Similarly, pyrrhotite and chalcopyrite can also affect recovery and have historically been managed by blending the ROM feed to the crusher prior to milling.
	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.	Paulsens was recently an operating mine, currently on care and maintenance, with all permits and closure plans are in place. As with all unweathered, underground deposits, when mined, natural oxidation and weathering occurs, however, the ore and waste material mined at Paulsens has been reviewed multiple times by both independent and contracted consultants with the overall finding that there appears to be no major effects on the environment outside of the environmental conditions imposed with the granting of the initial mining Licence.

Criteria	JORC Code Explanation	Commentary
	Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Over 4,000 bulk density measurements from diamond drill holes have been taken from 647 mineralised and un-mineralised intervals within the project area. The bulk densities are derived from laboratory pycnometer readings, with some of the domain densities adjusted over time through mine tonnage reconciliations. Immersion method SG calculations are now routinely preformed to validate against the block model bulk density estimates. Black Cat routinely collects bulk density measurements and compares to the historical values. No significant discrepancies has been identified to date.
	adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	Minimal voids are encountered in the ore zones and underground environment.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Individual bulk densities are applied to geological units and ore zones.
	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).	The Resource is currently classified as Measured, Indicated and Inferred. Significant drilling has occurred over the history of the mine.
		Measured Resource classification is where the estimate is supported by data less than 10m apart and/or within 5-7m of development.
Classification Whether appropriate account has been to relative confidence in tonnage/grade esti confidence in continuity of geology and no distribution of the data). Whether the result appropriately reflects deposit.		Indicated Resource classification is where the mineralisation has been sufficiently defined by a drill spacing of 20-25m x 20-25n or better.
	Whether the result appropriately reflects the Competent Person's view of the	Inferred Resource is based in addition to the above to a maximum search distance of 50m from last sample point and high angl drill intercepts.
	deposit.	Mineralisation outside these parameters has been categorised as unclassified and is not reported.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Internal reviews of the Resource were completed as per Black Cats usual processes.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The 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.	This Resource is one in an iterative, evolutionary approach, attempting to increase confidence with each estimation. Taking account of all reconciliation, audits, mentor, and increased ore body knowledge the qualitative confidence improves with mining and drilling.
		This Resource report relates to the Upper Paulsens, Voyager, Titan and Galileo areas, and will show local variability. The globa assessment is more of a reflection of the average tonnes and grade estimate.
		The current Ordinary Kriging estimation methodology appears to perform sufficiently as an estimation technique for the Paulsen mineralisation. This technique is considered in line with industry standards for gold deposits.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	