



Pinnacles Drilling Results

ASX Release 13 November 2025

Extension Drilling Delivers Further Shallow, Exceptional Silver Intercepts up to 1,013g/t AgEq at the Pinnacles Mine

Summary:

Broken Hill Mines Limited (ASX: **BHM**) is pleased to report further exceptional grade silver-lead-zinc intercepts from drilling at the Pinnacles Mine. Results include extension drilling in the Junction and Rope Shaft areas, delivering intercepts up to **4.4m at 1,013g/t AgEq from 39.1m**.

In addition, BHM continues to define a broad, shallow gold and copper mineralisation overprinting the Ag-Pb-Zn system, highlighted by **7.6m at 1.5g/t Au & 0.2% Cu from 62.4m**.

Pinnacles Phase 1 drilling (~5,800m drilled) is nearing completion, with ~65% of holes currently being processed and pending assay release.

Results will advance BHM's strategy of near term open pit operations at Pinnacles, which are targeted to supply high grade ore for processing at the Company's operating Rasp Mine processing plant, located ~15km away.

BHM has also initiated drilling of a newly identified thick, high grade priority area of the underground Perseverance target, with assays pending on drilling proximal to outstanding historical intercepts including **19.5m at 1,026g/t AgEq from 192.5m**.

BHM will launch its Phase 2 (25,000m) program in Q1 2026, the largest single drilling program ever undertaken at Pinnacles, focused on a significant uplift in overall resource size and grade.

Highlights:

- **~6,000m of Pinnacles drilled core (BHM & historical drilling) being processed with assays pending, targeted for sequential ASX release over the next 3 to 4 months**
- **Assays received from a further 7 holes, including extensions to the silver-lead rich zone of Junction & Rope Shaft areas and in zinc rich zone of Consols South**
- **Exceptional shallow metal equivalent intercepts along strike from recently reported high grade results, as highlighted below (see Figures 1-4)¹:**
 - **4.4m @ 36.5% ZnEq, 1,013g/t AgEq** (763g/t Ag, 9.4% Pb, 1.2% Zn, 0.2g/t Au) from 39.1m – BPD0040
 - **4.8m @ 19.4% ZnEq, 537g/t AgEq** (364g/t Ag, 5.9% Pb, 1.5% Zn, 0.1g/t Au) from 46.5m – BDP0042
 - **4.9m @ 19.2% ZnEq, 532g/t AgEq** (328g/t Ag, 6.1% Pb, 2.5% Zn, 0.1g/t Au) from 29.8m – BPD0043

¹ ZnEq reported using the equation: $ZnEq\% = Zn\% + (Ag\ g/t \times 0.0362) + (Pb\% \times 0.755) + (Cu\% \times 2.51) + (Au\ g/t \times 3.05)$. AgEq reported using the equation: $AgEq\% = Ag\ g/t + (Pb\% \times 20.9) + (Zn\% \times 27.6) + (Cu\% \times 69.3) + (Au\ g/t \times 84.2)$. Metal price & (recovery) assumptions: Zn - US\$2,650/t (88.4%); Pb - US\$2,000/t (88.3%); Ag - US\$35/Oz (75.0%), Cu - US\$9,000/t (65%), Au - US\$3,400/oz (65%). All elements in the calculation have a reasonable potential to be recovered and sold.

- **Continued significant gold & copper mineralisation overprint of the Ag-Pb-Zn system:**
 - **3.5m @ 3.4g/t Au & 0.2% Cu** from 150.1m – BPD0003
 - **7.6m @ 1.5g/t Au & 0.2% Cu** from 62.4m – BPD0034
 - **12.6m @ 0.4g/t Au & 0.3% Cu** from 51.4m – BPD0028
- **BHM's maiden Perseverance drilling has intersected mineralisation (assays pending) in proximity to thick high grade historical intercepts (see below), presenting a new priority target area for follow up high grade underground resource expansion²:**
 - **19.5m @ 37.1% ZnEq, 1,026g/t AgEq** (721g/t Ag, 12.7% Pb, 0.8% Zn, 0.2g/t Au) from 192.5m – PN273
 - **10.7m @ 33.0% ZnEq, 916g/t AgEq** (647g/t Ag, 8.9% Pb, 2.3% Zn, 0.2g/t Au) from 205.6m – PN133
 - **5.2m @ 19.3% ZnEq, 534g/t AgEq** (81g/t Ag, 1.6% Pb, 11.1% Zn, 0.2% Cu, 1.2g/t Au) from 251.7m – PN273
 - **7.9m @ 15.5% ZnEq, 430g/t AgEq** (14g/t Ag, 0.2% Pb, 10.1% Zn, 0.1% Cu, 1.5g/t Au) from 235.8m – PN133

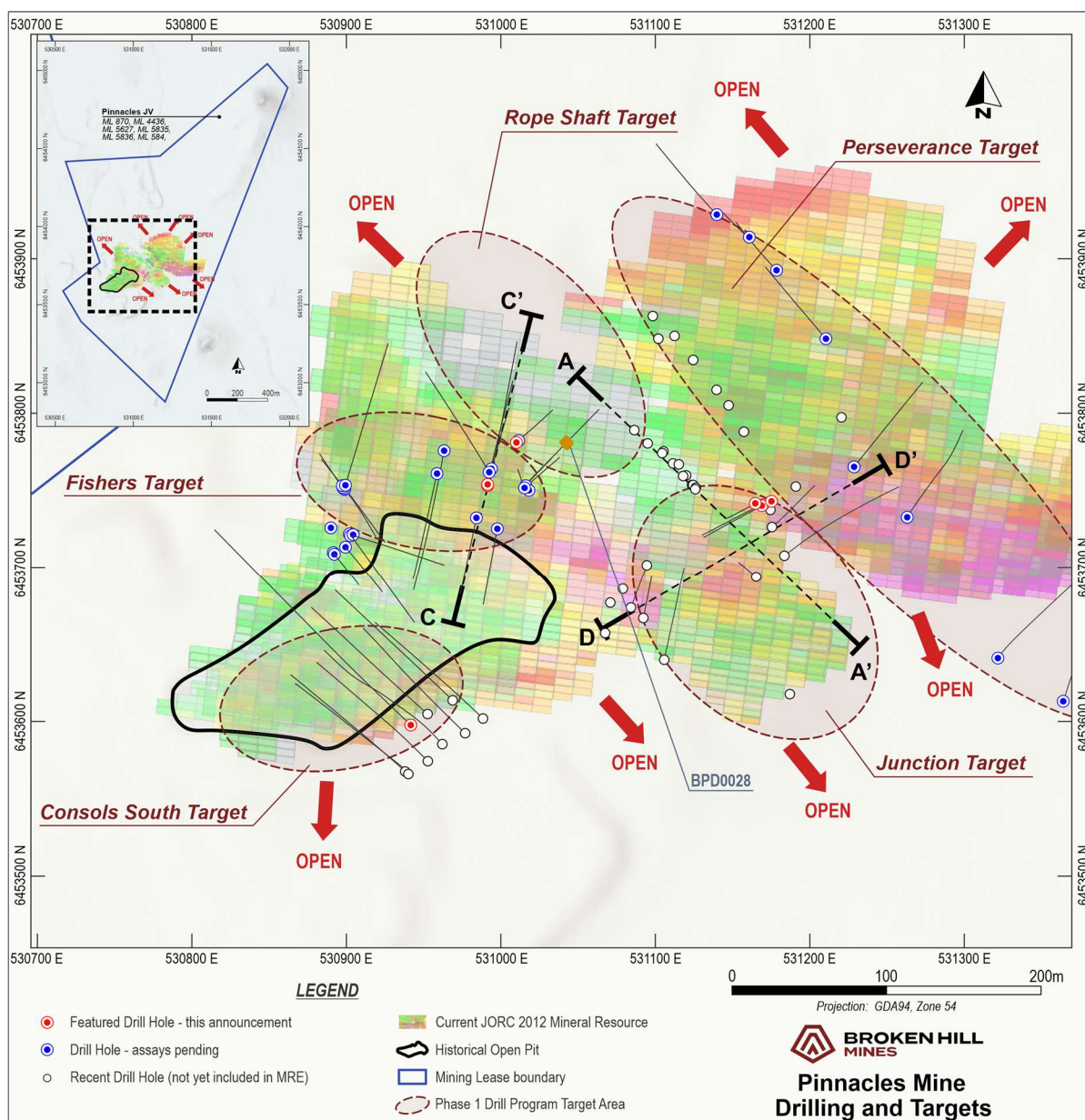


Figure 1 – Pinnacles Mine plan view showing BHM's phase 1 FY26 drilling target areas

² Historical Pinnacles assay results included within the current Mineral Resource Estimate, released to the ASX 2 June 2025 in the BHM Replacement Prospectus

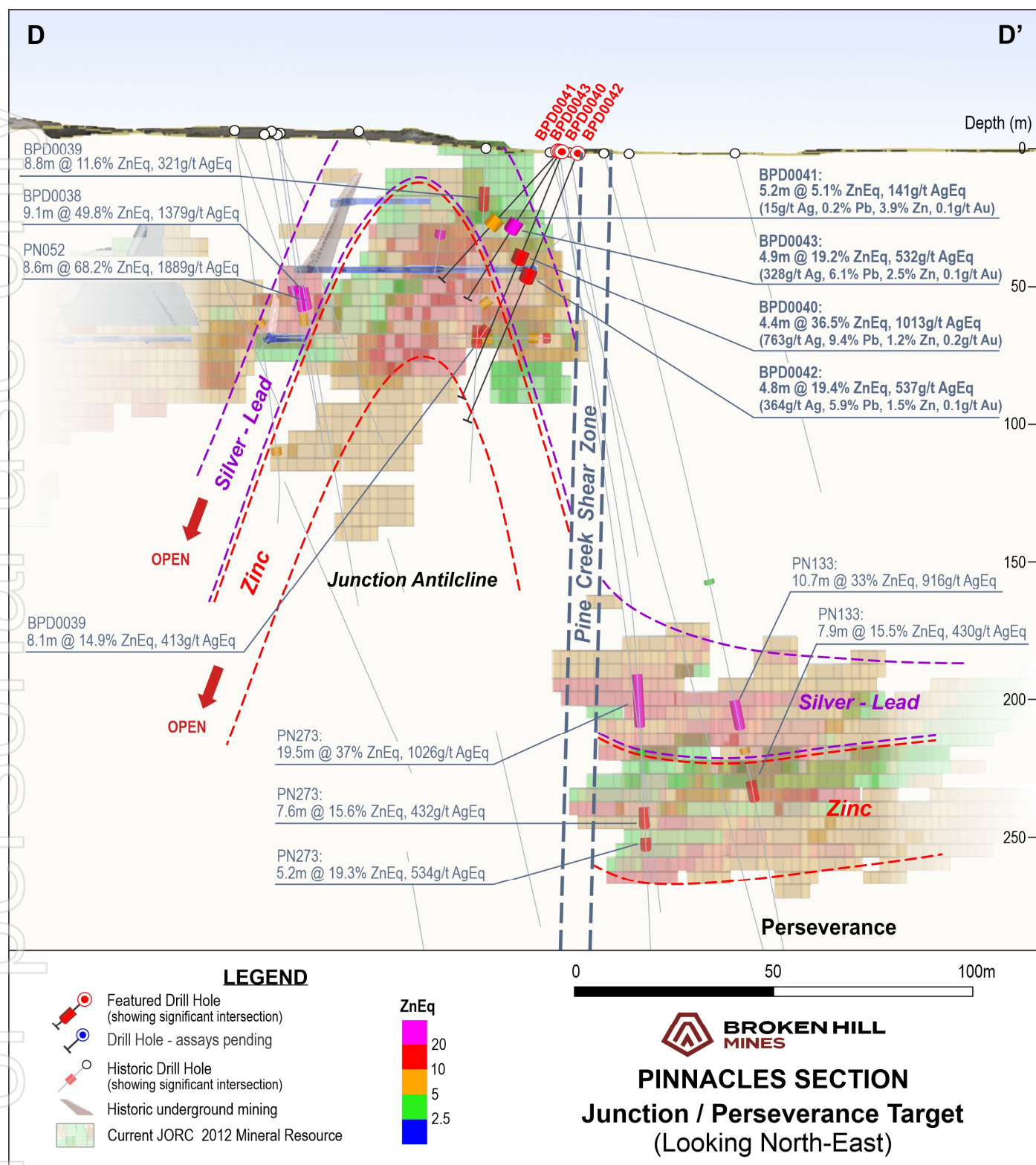


Figure 2 - Pinnacles Section view D-D' (see Figure 1). Displaying new drilling intercepts only, 4.0% cutoff and 2m internal dilution. Historic drillholes are represented in the JORC 2012 MRE Block Model colored by grade ZnEq%.

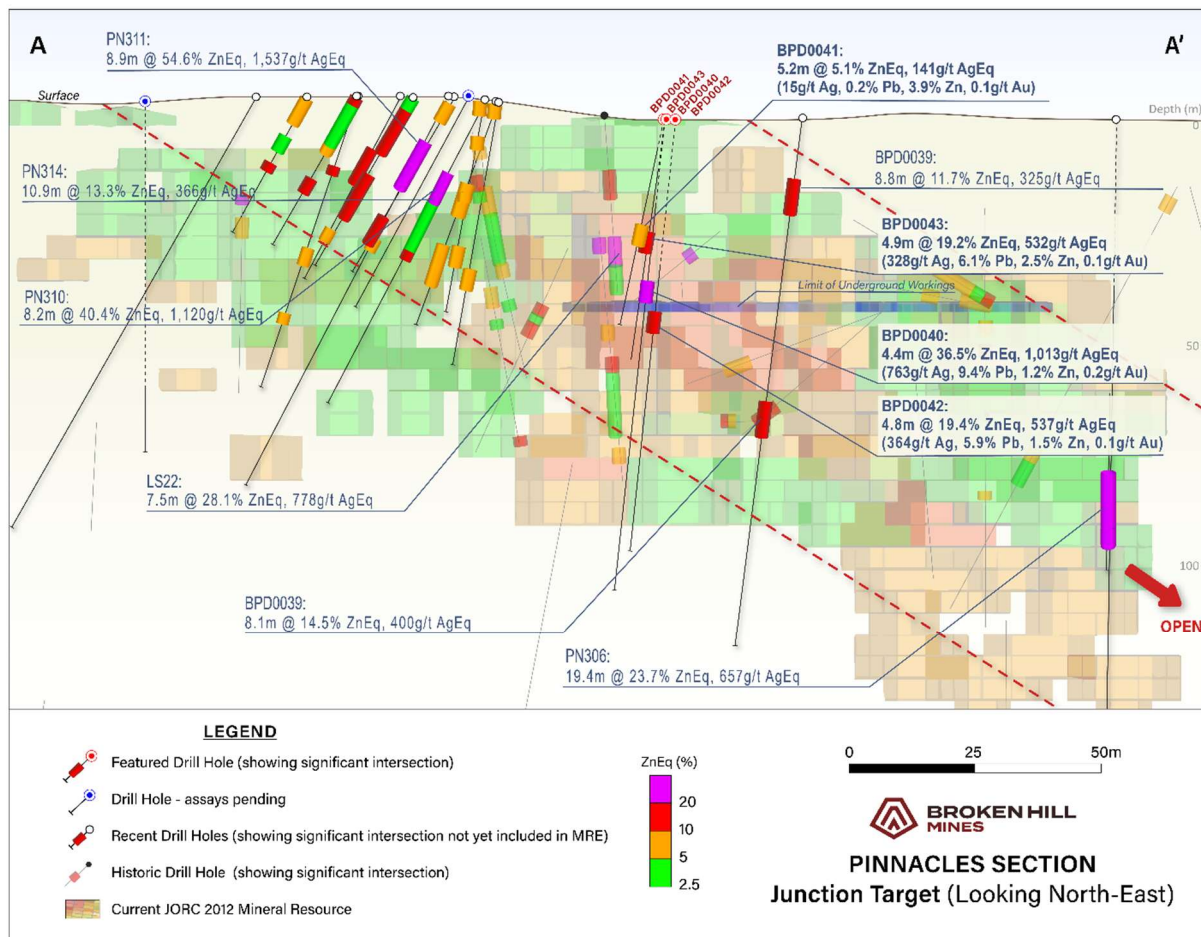


Figure 3 – Pinnacles Section view A-A' (see Figure 1). Drilling intercepts 4.0% cutoff & 2m internal dilution

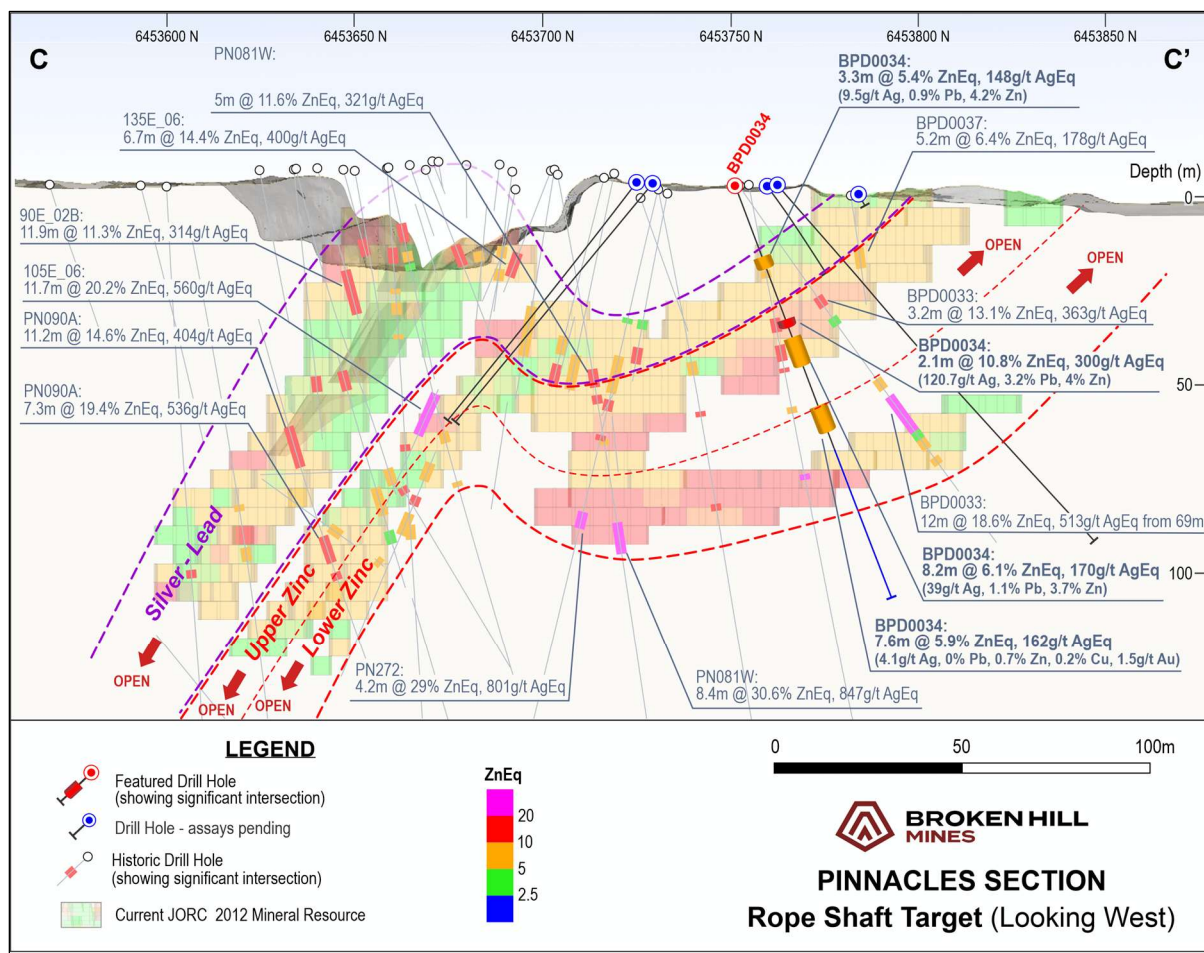


Figure 4 – Pinnacles oblique view C-C' (see Figure 1). Drilling intercepts 4.0% cutoff & 2m internal dilution

- **Next steps:**

- BHM's phase 1 program continues, remaining on schedule for completion in Q4 CY2025.
- Results pending for 45 holes within both the underground Perseverance area, and further shallow targets around the historical open pit (Fishers, Rope Shaft & Junction).
- Updated Pinnacles Mineral Resource Estimate (**MRE**) on target for 1H CY2026 to assist with near term open pit mining decision and development options analysis.
- Planning underway for Phase 2 (25,000m) drilling program at Pinnacles, targeted to be launched in early 2026.

Shallow, Very High Grade Intercepts Within the Junction Target Silver – Lead Zone

BHM has received assays for its first drill holes in the Junction area on the Pinnacles Mine, with spectacular intercepts received up to 1,013g/t AgEq and 36.5% ZnEq (see Figures 2 and 3).

These further 4 holes are in proximity to shallow old workings and extend down-dip from the previously released high grade results from drilling under the current mill (see ASX release 22 September 2025).

The Junction area is interpreted as the down plunge extension of the same ore body, forming an anticlinal fold dipping to the south. Previous small-scale mining within this area was via underground drives, however the shallow nature of portions of the mineralisation extent are being assessed for targeted high grade open pit operations.

Results from the 4 (of 9) Junction holes reported in this announcement have delivered very high-grade silver down dip from the previously released drilling results in the mill area, demonstrating the potential for continuity over an extended area:

- **4.4m @ 36.5% ZnEq, 1,013g/t AgEq** (763g/t Ag, 9.4% Pb, 1.2% Zn, 0.2g/t Au) from 39.1m – BPD0040
- **4.8m @ 19.4% ZnEq, 537g/t AgEq** (364g/t Ag, 5.9% Pb, 1.5% Zn, 0.1g/t Au) from 46.5m – BDP0042
- **4.9m @ 19.2% ZnEq, 532g/t AgEq** (328g/t Ag, 6.1% Pb, 2.5% Zn, 0.1g/t Au) from 29.8m – BPD0043
- **1.0m @ 7.6% ZnEq, 210g/t AgEq** (11g/t Ag, 0.2% Pb, 2.5% Zn, 0.1% Cu, 1.5g/t Au) from 32.5m – BPD0041

BHM drilling in the Junction area builds on historical results for unmined mineralisation in proximity to the intersections above, as highlighted below:

- **19.4m @ 23.7% ZnEq, 657g/t AgEq** (443g/t Ag, 8.3% Pb, 0.7% Zn, 0.3g/t Au) from 95.1m – PN306
 - Incl. **11.0m @ 30.5% ZnEq, 846g/t AgEq** (584g/t Ag, 10.9% Pb, 0.4% Zn, 0.3g/t Au) from 98m
- **7.5m @ 28.1% ZnEq, 778g/t AgEq** (605g/t Ag, 7.2% Pb, 0.4% Zn, 0.1g/t Au) from 33.2m – LS22

BHM expects the remaining results for the Junction area to be released in early 2026.

Rope Shaft Drilling Delineates Broad Intercepts of Gold & Copper

Drilling within the Rope Shaft area continues to return consistent high-grade mineralisation, comprising shallow Ag-Pb zones underlain by a lower Zn-rich zone which includes widespread Au and Cu overprinting (see Figure 4).

BHM is particularly encouraged by the substantial widths of shallow gold and copper mineralisation, which include internal high-grade intervals. Results of 2 (of 16, with 12 pending assay) Rope Shaft holes are summarised below:

- **1.0m @ 11.3% ZnEq, 312g/t AgEq** (235g/t Ag, 3.2% Pb, 0.3% Zn) from 29m – BPD0028
- **2.1m @ 10.8% ZnEq, 300g/t AgEq** (120.7g/t Ag, 3.2% Pb, 4% Zn) from 38.1m – BPD00034
- **1.0m @ 10.0% ZnEq, 277g/t AgEq** (5g/t Ag, 0.1% Pb, 1% Zn, 0.1% Cu, 2.8g/t Au) from 51.4m – BPD0028
- **4.3m @ 8.1% ZnEq, 223g/t AgEq** (32.4g/t Ag, 0.4% Pb, 3.7% Zn, 0.6% Cu, 0.5g/t Au) from 58.9m – BPD0028
- **7.6m @ 5.9% ZnEq, 162g/t AgEq** (4.1g/t Ag, 0.7% Zn, 0.2% Cu, 1.5g/t Au) from 62.4m – BPD00034

BHM drilling in the Rope Shaft area builds on historical results connecting south to the Fishers and Consols Target areas to the intersections above, as highlighted below:

- **8.4m @ 30.6% ZnEq, 847g/t AgEq** (184g/t Ag, 5.0% Pb, 16.8% Zn, 0.1% Cu, 1.1g/t Au) from 93.8m – PN081W
- **4.2m @ 29.0% ZnEq, 801g/t AgEq** (200g/t Ag, 5.5% Pb, 14.4% Zn, 0.1% Cu, 1.0g/t Au) from 89.9m – PN272
- **11.7m @ 20.2% ZnEq, 560g/t AgEq** (69g/t Ag, 2.4% Pb, 15% Zn, 0.1% Cu, 0.3g/t Au) from 68.2m – 105E_06
- **7.3m @ 19.4% ZnEq, 536g/t AgEq** (24g/t Ag, 0.7% Pb, 3.5% Zn, 0.1% Cu, 4.6g/t Au) from 103.1m – PN090A
- **11.2m @ 14.6% ZnEq, 404g/t AgEq** (226g/t Ag, 3.9% Pb, 3.2% Zn, 0.1g/t Au) from 71.3m – PN090A
- **6.7m @ 14.4% ZnEq, 400g/t AgEq** (161g/t Ag, 5.1% Pb, 4.4% Zn, 0.1% Cu, 0.1g/t Au) from 25.8m – 135E_06

Results for the majority of the remaining 12 holes of the Rope Shaft area are targeted for December 2025. The area continues to demonstrate strong potential to contribute to early open-pit mining options.

Consols South Drilling Defines Strong Zinc & Copper-Gold Zone

BHM has received the final hole assay (of 9 total) for the Consols South target area drilling (see Figure 1). Consols South drilling targets extensions of the zinc rich zone adjacent to and below the existing open pit at Pinnacles. There has been no mining of the zinc rich zone in this section of the Pinnacles Mine. Portions of the silver-lead rich zone in the Consols South area have been mined historically and BHM's drilling has intersected a combination of open mined voids and remnant mineralisation of the silver-lead rich zone and mineralisation in the upper and lower zinc zones. Recently received assays include:

- **3.5m @ 12.6% ZnEq, 349g/t AgEq** (40.3g/t Ag, 0.4% Pb, 0.1% Zn, 0.2% Cu, 3.4g/t Au) from 150.1m – BPD003

The newly reported hole confirmed the broad zones of mineralisation containing high-grade internal intervals, including consistent gold near end of hole which supports the presence of a lower gold-copper zone.

These results will be incorporated into an upcoming update of the Pinnacles MRE, which will support an accelerated assessment of open-pit development options and near-term mining opportunities at Pinnacles.

Maiden BHM drilling into Perseverance Target

BHM has drilled 3 holes into the southern edge of the Perseverance Target, nearby to exceptional high grade silver – lead – zinc mineralisation, with grades up to 721g/t Ag over 19.5m.

This area adjacent to the Pine Creek Shear represents some of the widest and highest grade historic assay results at the Pinnacles Mine.

Further drilling of Perseverance will be included in the phase 2 program in early 2026 (planned 25,000m), with this early drilling to help inform strategy and targeting. Historic drilling in this area of Perseverance has delivered assays including;

- **19.5m @ 37.1% ZnEq, 1,026g/t AgEq** (721g/t Ag, 12.7% Pb, 0.8% Zn, 0.2g/t Au) from 192.5m – PN273
- **10.7m @ 33.0% ZnEq, 916g/t AgEq** (647g/t Ag, 8.9% Pb, 2.3% Zn, 0.2g/t Au) from 205.6m – PN133
- **5.2m @ 19.3% ZnEq, 534g/t AgEq** (81g/t Ag, 1.6% Pb, 11.1% Zn, 0.2% Cu, 1.2g/t Au) from 251.7m – PN273
- **7.9m @ 15.5% ZnEq, 430g/t AgEq** (14g/t Ag, 0.2% Pb, 10.1% Zn, 0.1% Cu, 1.5g/t Au) from 235.8m – PN133

The Board of Directors of Broken Hill Mines Limited authorised the release of this announcement.

Further Information

Patrick Walta

Executive Chair

info@brokenhillmines.com

Table 1 – BHM drilled diamond holes and historical unassayed holes at the Pinnacles Mine

HOLE_ID	Depth	Easting	Northing	RL	Dip	Azi_Grid	Status
BPD0001	160.7	530,952	6,453,604	253.4	-51	315	Assays Released (14/10/25)
BPD0002	165.6	530,969	6,453,613	253.5	-50	315	Assays Released (14/10/25)
BPD0003	270.4	530,942	6,453,597	253.5	-51	315	This Announcement
BPD0004	150.3	530,977	6,453,592	252.1	-51	315	Assays Released (14/10/25)
BPD0005	150.4	530,962	6,453,585	252.6	-52	315	Assays Released (14/10/25)
BPD0006	150.6	530,988	6,453,602	252.2	-52	315	Assays Released (14/10/25)
BPD0007	81	530,998	6,453,725	253.8	-51	191	Assays Pending
BPD0008	82.6	530,984	6,453,732	253.6	-51	193	Assays Pending
BPD0009	103	530,958	6,453,751	254	-54	192.8	Assays Pending
BPD0010	112	530,959	6,453,761	252.7	-50	192	Assays Pending
BPD0011	124.6	530,963	6,453,776	252.8	-50	192	Assays Pending
BPD0017	156.5	530,952	6,453,575	253.2	-55	315	Assays Released (22/09/25)
BPD0018	150.4	530,940	6,453,568	252.9	-50	311	Assays Released (22/09/25)
BPD0019	159.4	530,940	6,453,567	252.9	-59	310	Assays Released (22/09/25)
BPD0020	67.3	530,899	6,453,750	252.3	-50	143	Assays Pending
BPD0021	120.5	530,898	6,453,751	253.1	-72	143	Assays Pending
BPD0022	126.7	530,898	6,453,752	253.2	-81	322	Assays Pending
BPD0023	54.5	530,897	6,453,753	253.2	-61	323	Assays Pending
BPD0024	153.4	530,899	6,453,753	253.1	-50	17	Assays Pending
BPD0028	105.2	531,016	6,453,753	247.8	-48	44	This Announcement
BPD0029	75.8	531,018	6,453,750	248.3	-78	337	Assays Pending
BPD0031	105.7	531,015	6,453,752	248.4	-73	49	Assays Pending
BPD0032	115	530,992	6,453,762	252.9	-47	330	Assays Pending
BPD0033	90	530,992	6,453,754	253.0	-54	12	Assays Released (14/10/25)
BPD0034	117.3	530,991	6,453,753	253.0	-69	13	This Announcement
BPD0035	50	530,994	6,453,764	253.2	-48	12	Assays Pending
BPD0036	45.4	531,011	6,453,782	250.6	-47	49	Assays Pending
BPD0037	30	531,010	6,453,781	250.4	-80	48	Assays Released (14/10/25)
BPD0038	118.2	531,092	6,453,667	249.3	-77	10	Assays Released (14/10/25)
BPD0039	120.9	531,165	6,453,694	244.8	-81	309	Assays Released (14/10/25)
BPD0040	100	531,171	6,453,740	245.0	-69	245	This Announcement
BPD0041	70	531,171	6,453,740	245.0	-47	241	This Announcement
BPD0042	105	531,176	6,453,743	245.0	-69	241	This Announcement
BPD0043	63.7	531,169	6,453,740	243.8	-58	242	This Announcement
BPD0044	54.7	531,122	6,453,756	250	-62	319	Assays Pending
BPD0045	48.8	530,899	6,453,714	254.8	-81	142	Assays Pending
BPD0046	64.5	530,899	6,453,714	254.8	-54	141	Assays Pending
BPD0047	90.8	530,902	6,453,723	254	-83	143	Assays Pending
BPD0048	60.5	530,902	6,453,722	254	-65	143	Assays Pending
BPD0049	108.6	530,903	6,453,721	254.1	-51	143	Assays Pending
BPD0050	102.7	530,902	6,453,722	253.9	-65	84	Assays Pending
BPD0051	96.5	530,904	6,453,722	254	-50	109	Assays Pending
BPD0052	49	530,891	6,453,710	255.3	-84	143	Assays Pending
BPD0053	48.6	530,892	6,453,709	255.3	-58	142	Assays Pending
BPD0054	92	530,956	6,453,740	254	-50	193	Assays Pending
BPD0055	125	531,106	6,453,639	247.2	-60	11	Assays Pending
BPD0056	125	531,108	6,453,673	249.4	-77	20	Assays Pending
BPD0058	333.7	531184	6453707	244	-75	49	Assays Pending
BPD0059	280.0	531175	6453726	244	-80	11	Assays Pending
BPD0060	103.0	531006	6453789	254	-47	48	Assays Pending
BPD0061	107.0	531006	6453789	254	-85	51	Assays Pending
BPD0062	103.0	531019	6453775	254	-50	68	Assays Pending
BPD0063	45.0	531019	6453775	254	-85	49	Assays Pending
BPD0064	105.0	531000	6453797	254	-63	48	Assays Pending
BPD0065	36.0	531000	6453797	254	-76	48	Assays Pending
BPD0066	250.0	531163	6453741	244	-80	49	Assays Pending
PN328	296.4	531229	6453771	252	-76	40	Assays Pending
PN329	330	531261	6453733	252	-76	40	Assays Pending

PN332	524	531321.8	6453640.8	242	-74	48.5	Assays Pending
PN333	533.8	531364.1	6453612.8	242	-77	48.5	Assays Pending
PN337	149.6	531139.9	6453928.4	243	-62	320.64	Assays Pending
PN338	102	531160.9	6453913.8	243	-74	317.16	Assays Pending
PN339	185.5	531178.5	6453892.5	243	-77	322.7	Assays Pending
PN341	234	531210.6	6453848.1	243	-74	323.24	Assays Pending

Table 2 – Significant BHM drilling results (4% ZnEq cut-off with 2m max internal dilution and intervals not less than 1m)

Hole_ID	Interval (m)	ZnEq%	AgEq g/t	Ag g/t	Pb%	Zn%	Cu%	Au g/t	from (m)
BPD0003	4.77	4.5	125.5	2.8	0.1	1.9	0.1	0.7	99.23
BPD0003	3.5	12.6	348.5	40.3	0.4	0.1	0.2	3.4	150.15
BPD0028	1	11.2	311.4	158	4.8	1.2	0	0.2	18.5
BPD0028	1	11.3	312.1	235	3.2	0.3	0	0	29
BPD0028	1.16	8.8	243.6	160	3.5	0.3	0	0	40
BPD0028	1	10	276.9	5	0.1	1	0.1	2.8	51.43
BPD0028	1.03	9.4	260.6	13	0.2	8.3	0.1	0.1	54.47
BPD0028	4.29	8.1	223	32.4	0.4	3.7	0.6	0.5	58.91
BPD0034	3.25	5.4	148.2	9.5	0.9	4.2	0	0	20.22
BPD0034	2.07	10.8	300.1	120.7	3.2	4	0	0	38.07
BPD0034	8.22	6.1	169.8	39	1.1	3.7	0	0	43
BPD0034	7.6	5.9	162	4.1	0	0.7	0.2	1.5	62.4
BPD0040	4.42	36.5	1013.3	762.7	9.4	1.2	0	0.2	39.1
BPD0040	1	6.6	182.7	6	0	0.1	0.1	2	57.5
BPD0041	1	7.6	210.4	11	0.2	2.5	0.1	1.5	28.05
BPD0041	5.2	5.1	140.7	15	0.2	3.9	0	0.1	32.5
BPD0042	4.8	19.4	536.6	363.8	5.9	1.5	0	0.1	46.5
BPD0043	4.86	19.2	531.6	328.3	6.1	2.5	0	0.1	29.79
BPD0043	1.05	8	221.4	10	0	0.3	0.5	2	55.25
BPD0039	8.1	14.5	400	41	0.7	11.2	0.2	0.3	65.0

Rasp Mine Overview & History

Background

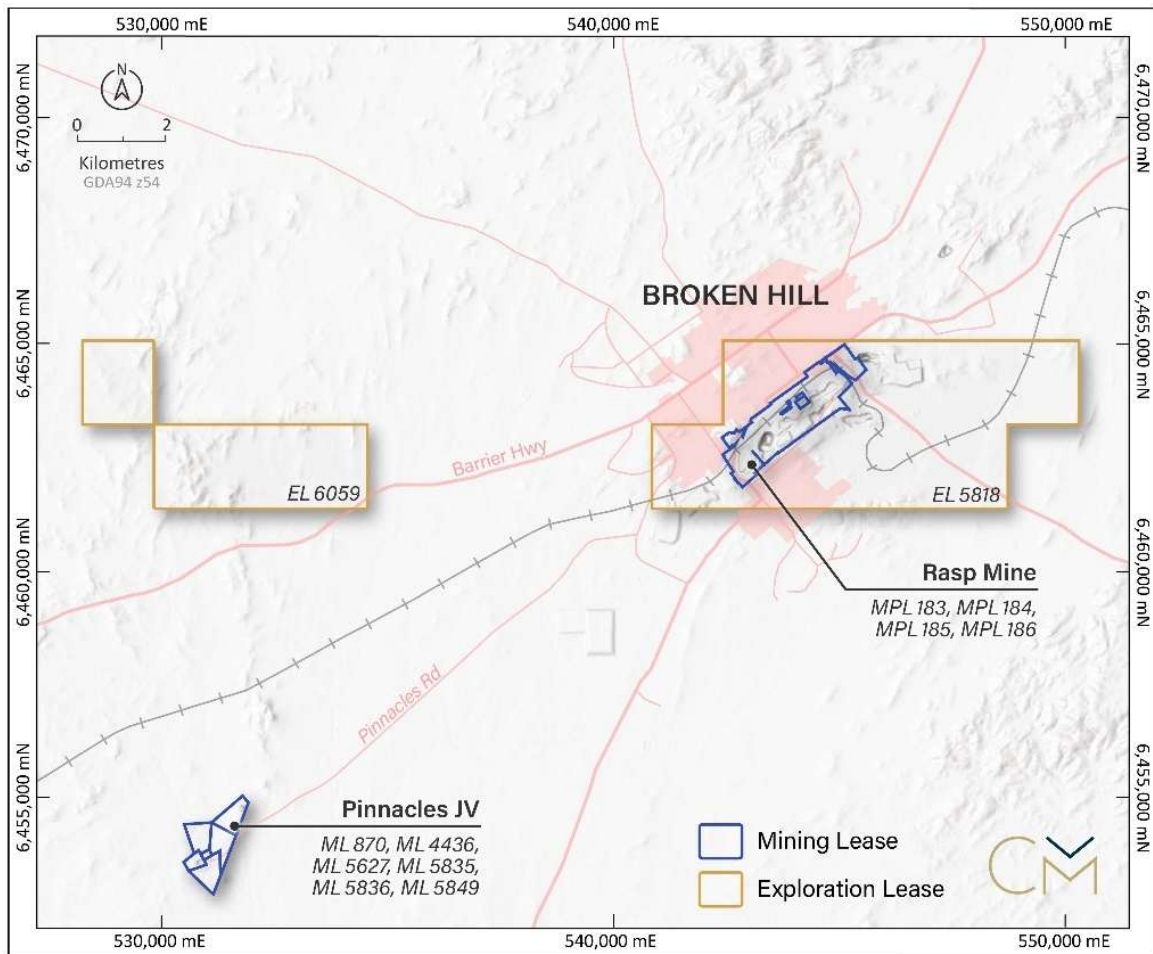


Figure 5 - Location of the Pinnacles Mine and Rasp Mine

The Pinnacles Mine is a stratiform silver rich Broken Hill Type sulphide deposit which lies approximately 15km south-west of the main Broken Hill Lode (**Rasp Mine**). The Pinnacles ore body was discovered in 1886 and has been mined intermittently from underground and open cut.

More recent drilling (2000's) has resulted in discovery of the high-grade Perseverance lode, adding significantly to the high-grade resource.

Pinnacles Operating Joint Venture

BHM holds a binding joint venture agreement (**HOA**) for mining operations at the Pinnacles Mine. Under the terms of the HOA, BHM is the exclusive operator of the Pinnacles Mine, with mined ore to be transported and processed at BHM's Rasp Mine processing plant, located approximately 15km away.

Profits from operations at the Pinnacles Mine are shared approximately 70% BHM / 30% Pinnacles via an agreed net smelter return calculation with applicable deductions.

Competent Persons Statement

The information in this document that relates to exploration results is based on information compiled by David Ward BSc, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AUSIMM), (Member 228604). David Ward is an employee and shareholder of Broken Hill Mines Limited. David Ward has over 25 years of experience in metallic minerals mining, exploration and development and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a 'Competent Person' as defined under the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Ward consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The Exploration Targets for the Pinnacles Mine contained in this announcement are based on, and fairly represents, information compiled by Mr David Larsen who is a Member of The Australian Institute of Geoscientists (MAIG) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Larsen is an Independent Consultant and he consents to the inclusion in the announcement of the Exploration Targets in the form and context in which they appear.

The Mineral Resource estimate for the Pinnacles Mine contained in this announcement is based on, and fairly represents, information compiled by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Tear is a Director of H&S Consultants Pty Ltd and he consents to the inclusion in the report of the Mineral Resource estimate in the form and context in which they appear.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i>	- Diamond drilling was used to obtain drill core ranging from PQ, HQ size to NQ size core samples. - Drill core was cut and sampled using an electric Almonte Core Saw. - Core samples predominantly consisted of NQ drill core, with some HQ, PQ core size samples. - Drill core sampling is by sawn in half PQ, HQ and NQ core. Sample intervals range from 1.3m with smaller intervals ranging down to 0.3m. - Samples were then placed into calico bags that were pre-numbered using a unique sample identifier. - All samples were submitted to On Site Laboratory Services, Broken Hill for preparation and assay. - Half core was dried, crushed using to 70% passing 2mm, rotary split to 1 kg which was pulverised to 90% passing 75 microns. - Certified reference material (CRM) were inserted randomly at a rate of one every 23 submitted samples. - Random duplicate sampling was conducted by the laboratory one every 23 submitted samples. - Base metals were determined by a Aqua Regia digest (see note below), Met 1, of 0.5 gram of prepared sample. Overlimit triggers for Silver, Lead, Zinc and Copper (Ag >1000 ppm, Pb >9.99 %, Zn >39.9 % and Cu >9.99 %) were determined using Aqua Regia method Met 2. - Note: Aqua regia digestion offers cost effective methodology to determine Base Metals and does ensure no loss of volatile fluorides during digestion. It will not digest silicates or refractory minerals such as zircon,

Criteria	JORC Code explanation	Commentary
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).	cassiterite, columbite-tantalite, ilmenite, xenotime rutile, barite and wolframite. - Gold (Au) was determined by 350g photon assay with a detection limit of approximately 0.01ppm - Diamond core drilling was completed using PQ and HQ core in some drillholes but predominately NQ coring for most of the 9 drillholes.
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.	- Diamond drill core recovery recorded against intervals drilled as part of geotechnical logging to determine recovery. Recoveries are greater than 97%. - Diamond drilling utilising triple tube drilling and short drilling runs employed to maximise core recovery. - There is no known relationship between sample recovery and grade. Where samples recoveries are less than 97% there is no relationship observed between grade and sample recovery. Relationships between sample recovery and grade are not considered significant where recoveries exceeded 97% in fresh rock. - Three (3) Consols South holes intersected voids associated with historic underground mining BPD0003 – 58.9-60.8m, BPD0004 – 78.9-81.4m, BPD0005 – 81.9-83.0m. Post intersection of the voids initial PQ was reduced to HQ to continue past the void.
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	- A total of 67 drill holes have been drilled. Assay Results have been received for 19 holes with Assays for the remaining 48 drill holes pending. - Drill core was then prepared, cut, sampled and transported to On Site Laboratory Services, Broken Hill for analysis. - Core was logged using the logging techniques below: - Core trays were meter marked and orientated using

Criteria	JORC Code explanation	Commentary
	<i>intersections logged.</i>	orientation lines where possible. - Density (specific gravity) was measured across differing geological units, increased number of samples in intervals in and around lead-zin-silver mineralisation. - Lithological units and associated alteration assemblages were logged and noted. Units were bulk logged according to changes in lithologies. - Mineralisation was logged in percentages (%) within sample intervals. - Structural measurements were obtained where important geological boundaries, veining, mineralised lodes, general rock characteristics, and structures were encountered. - Geotechnical data was measured and obtained from each drill run highlighted from core blocks. - Fracture Frequency was measured in 1m intervals, and where rubble zones of intense fracturing occurred, 5 fractures were measured every 10cm, allowing for no more than a maximum of 50 fractures per meter. - Rock hardness was noted and analysed using a tungsten scribe. - Orientation intervals were noted where orientation lines were present. Orientation line confidence was determined from whether previously drilled runs and orientation lines were able to be connected down-hole/up-hole, or in some cases, structural measurements using foliation and bedding planes were proven to be consistent throughout a drillhole. - Tray intervals were noted using the start and end meter for each tray. - Photographs of all core trays were obtained in both WET and DRY conditions using a digital camera. • Both qualitative and quantitative data is collected. Half core

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.	(HQ) & half core (NQ) samples are retained in trays for future reference. All core photographed both dry and wet prior to cutting. • All core was geologically and geotechnically logged. • Certified Reference Material (CRM) were inserted approximately every 20 samples to assess the accuracy and reproducibility of the drill core results. The results from CRMs are within acceptable limits. • Blanks were inserted at the beginning of each drill hole to determine if pre-examined samples were potentially contaminating future samples. Results were within acceptable limits. • Half core samples were cut using a Clipper Core Saw. Core samples predominantly consisted of NQ drill core, with some HQ core being prepared for lab analysis. Samples were then placed into calico bags that were pre-numbered using a unique sample identifier. • Blank samples consisted of a limestone carbonate – calcium carbonate and were submitted at the beginning of every drillhole. • Certified reference materials were obtained from OREAS sample list register, and a total of 5 standard ID's were issued and used for QAQC purposes. • Core samples were dried crushed and pulverised to 95% passing 75 microns. • No field duplicates were taken for core samples. ½ core was retained for future reference. • Standard assay procedures performed by a reputable assay lab, (On Site Laboratory Services, Broken Hill), were undertaken. Gold (Au) was determined by Chrysos Photon Assay on 300g-350g pulverised sample for holes with a "BPD" prefix, historic drillholes gold (Au) was determined by 50g fire assay (method
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	

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	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. - 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.	Au-AA26) with a detection limit 0.01ppm - Base metals were determined by a Aqua Regia digest Met 1, of 0.5 gram of prepared sample. Overlimit triggers for Silver, Lead, Zinc and Copper (Ag >1000 ppm, Pb >9.99 %, Zn >39.9 % and Cu >9.99 %) were determined using Aqua Regia method Met 2. - Drill Hole Data including: collar data, lithological, mineral, structure, survey, sampling, and geotechnical data was collected and stored electronically. When completed were loaded into a master database. Assay data was provided by On Site Laboratory Services, Broken Hill via .csv spreadsheets. The data was validated using the results received from the known certified reference material. - Assay data is not adjusted. - Hole BPD0038 was designed to twin historic hole PN052 for verification purposes as PN052 was drilled by a third party over 30 years prior, results between the holes was comparable.
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.	- Final collar coordinates were obtained using DGPS ($\pm 0.1m$ accuracy) or RTK-GPS ($\pm 0.2m$ accuracy) - All coordinates are based on Map Grid Australia Zone 54, Geodetic Datum of Australia 1994. - Downhole surveys were collected on the drillholes using a north seeking gyro (Champ gyro) by Axis mining technology.
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.	- Data spacing is variable. Drilling used variable downhole dip angles, some holes have similar collar locations with varied dips and azimuths in order to gain a better understanding of complex folding. - Recent drilling results are within the previously reported Mineral Resource Estimate (MRE) area but have not been used to update the MRE.

Criteria	JORC Code explanation	Commentary
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.	- Sample compositing was applied in zones considered to have low levels of mineralisation. - Drilling was designed to intersect perpendicular to the known orientation of mineralisation as possible but due to the complex folding, several holes will have intersected oblique to the mineralisation. True widths of mineralisation are unknown. There is no known sample bias due to drilling orientation.
Sample security	The measures taken to ensure sample security.	Sample chain of custody has been managed by the employees of Broken Hill Mines, who analysed and processed samples onsite and transported them to the assay laboratory. All samples are bagged in tied numbered calico bags, grouped and placed in a stillage crate and transported to On Site Laboratory Services, Broken Hill by Broken Hill Mines personnel. All sample submissions are documented via On Site Laboratory Services, Broken Hill tracking system and all assays are reported via email. Sample pulps are returned to site and stored for an appropriate length of time. The Company has in place protocols to ensure data security.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Data and sampling techniques have not been reviewed or audited by a third party.

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 license to operate in the area.	- Pinnacle Mines Pty Ltd currently holds 100% of 6 contiguous Mineral Leases covering a total area of 142.02 hectares. All six MLs currently have an expiry date of 20 June 2040. Tenement details are tabulated below:<table><tr><th>Tenement Number</th><th>Originally Granted</th><th>Latest Renewal</th><th>Expiry</th><th>Area (Ha)</th></tr><tr><td>ML870</td><td>27/08/1980</td><td>24/09/2019</td><td>20/06/2040</td><td>29.8</td></tr><tr><td>ML4436</td><td>25/05/1938</td><td>1/10/2019</td><td>20/06/2040</td><td>3.29</td></tr><tr><td>ML5627</td><td>25/05/1938</td><td>1/10/2019</td><td>20/06/2040</td><td>12.12</td></tr><tr><td>ML5835</td><td>16/08/1962</td><td>1/10/2019</td><td>20/06/2040</td><td>32.37</td></tr><tr><td>ML5836</td><td>13/08/1962</td><td>1/10/2019</td><td>20/06/2040</td><td>32.17</td></tr><tr><td>ML5849</td><td>16/08/1962</td><td>24/09/2019</td><td>20/06/2040</td><td>32.27</td></tr><tr><td>Total</td><td></td><td></td><td></td><td>142.02</td></tr></table> - Together the tenements are known as the Pinnacles Mine and are located approximately 15km southwest from the city of Broken Hill in Far-Western New South Wales, and only 11km southwest of the southern end of the Broken Hill Ore Body. - The area is subject to a Native Title Claim by the Wilyakali Group. Pinnacle Mines has a native title agreement with the Wilyakali for access. An Aboriginal Place was declared on 5/7/1996. The Aboriginal Place impacts part of ML5835 (Middle Pinnacle) and a strip of land adjacent to the eastern boundary of ML5836 and ML 5849. The reservation is restricted to a depth of 200m below surface. - The area is subject to a Native Title Claim by the Wilyakali Group. Pinnacle Mines has a native title agreement with the Wilyakali for access. An Aboriginal Place was declared on 5/7/1996. The Aboriginal Place impacts part of ML5835 (Middle Pinnacle) and a strip of land adjacent to the eastern boundary of ML5836 and ML 5849. The reservation is restricted to a depth of 200m below surface. - All mining and treatment operations are currently on Care	Tenement Number	Originally Granted	Latest Renewal	Expiry	Area (Ha)	ML870	27/08/1980	24/09/2019	20/06/2040	29.8	ML4436	25/05/1938	1/10/2019	20/06/2040	3.29	ML5627	25/05/1938	1/10/2019	20/06/2040	12.12	ML5835	16/08/1962	1/10/2019	20/06/2040	32.37	ML5836	13/08/1962	1/10/2019	20/06/2040	32.17	ML5849	16/08/1962	24/09/2019	20/06/2040	32.27	Total				142.02
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Criteria	JORC Code explanation	Commentary
		and Maintenance.
		- All tenements are in good standing. - The Pinnacles Mine is subject to a binding Heads of Agreement with Broken Hill Mines Pty Ltd (BHM) leading to a Standard Operating Agreement (SOA) establishing a 70/30 profit share arrangement for mining at Pinnacles with ore to be processed at the Rasp Mine (held by BHM).
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- Mining, prospecting and exploration have been conducted at the Pinnacles Mine and surrounding area since 1886, a period of 140 years. - Modern exploration including extensive diamond drilling and geophysics was undertaken under joint venture arrangements, most notably by CRAE in the period 1976-1986 and Pasminco Mining in the period 1992 to 1998. This work was all conducted and recorded in accordance with the typical procedures of the time. - Pinnacle Mines undertook a major resource drill out predominantly on the Consols Limb and exploration drilling on the Perseverance Limb, between 2001 and 2007. Industry standard QA/QC protocols were introduced for drilling from 2007.
Geology	Deposit type, geological setting and style of mineralisation.	- The Pinnacles Pb-Ag-Zn-Cu-Au deposit is silver rich Broken Hill Type sulphide deposit which lies approximately 15km southwest of the main Broken Hill Lode. - The deposit lies in the Proterozoic rocks of the Broken Hill Block which forms part of the Willyama Supergroup (Stevens et al., 1983; Willis et al., 1983). It is regarded as one of the largest Broken Hill-type orebodies in the area after the Broken Hill deposit itself. - Regionally the Pinnacles lodes are considered to lie stratigraphically below the main Broken Hill orebodies, hosted

Criteria	JORC Code explanation	Commentary
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:	by the Cues Formation of the Thackaringa Group. The sequence is characterised by a set of upright southeast plunging folds and a series of subvertical retrograde shear zones. - The stratigraphy of the Pinnacles Mine Area comprises multiple lode horizons comprising garnet quartzite, blue quartz gahnite lode, pyritic biotite garnet lode, and magnetic iron formation (mif). All of these lodes are Pb, Zn, Ag, Cu and Au bearing. The lode horizons are hosted in intermediate composition sillimanite rich gneisses, quartzitic gneisses, and felspathic gneisses. Albite gneiss, amphibolite and granite gneiss occur as distinctive stratigraphic marker units. - The stratigraphy of the Pinnacles Mine Area comprises multiple lode horizons comprising garnet quartzite, blue quartz gahnite lode, pyritic biotite garnet lode, and magnetic iron formation (mif). All of these lodes are Pb, Zn, Ag, Cu and Au bearing. The lode horizons are hosted in intermediate composition sillimanite rich gneisses, quartzitic gneisses, and felspathic gneisses. Albite gneiss, amphibolite and granite gneiss occur as distinctive stratigraphic marker units. - The stratigraphy of the Pinnacles Mine Area comprises multiple lode horizons comprising garnet quartzite, blue quartz gahnite lode, pyritic biotite garnet lode, and magnetic iron formation (mif). All of these lodes are Pb, Zn, Ag, Cu and Au bearing. The lode horizons are hosted in intermediate composition sillimanite rich gneisses, quartzitic gneisses, and felspathic gneisses. Albite gneiss, amphibolite and granite gneiss occur as distinctive stratigraphic marker units. - See body of announcement. - All historic drillholes report to the Mineral Resource Estimate (MRE).

Criteria	JORC Code explanation	Commentary
	◦ easting and northing of the drill hole collar ◦ elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar ◦ dip and azimuth of the hole ◦ down hole length and interception depth ◦ hole length.	
Data aggregation methods	• 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. • 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.	• Grades of intercepts are calculated using length weighted average and reported intercepts are those >1m in length with a cutoff of 4.0% zinc equivalent (ZnEq) with a maximum internal dilution of 2m. • Gold-Copper intercept for BPD0033 was calculated using length weighted average and reported intercepts are those >2m in length with a cutoff of 0.3g/t gold with a maximum internal dilution of 2m. • $ZnEq\% = Zn\% + (Ag\text{ g/t} \times 0.036) + (Pb\% \times 0.755) + (Cu\% \times 2.509) + (Au\text{ g/t} \times 3.047)$. • $AgEq\% = Ag\text{ g/t} + (Pb\% \times 20.852) + (Zn\% \times 27.629) + (Cu\% \times 69.309) + (Au\text{ g/t} \times 84.190)$. • Metal price & (recovery) assumptions: Zn - US\$2,650/t (88.4%); Pb - US\$2,000/t (88.3%); Ag - US\$35/Oz (75.0%), Cu - US\$9,000/t (65%), Au - US\$3,400/oz (65%). • Drilling was designed to intersect perpendicular to the known orientation of mineralisation as much as possible but due to the complex folding, several holes will have intersected oblique to the mineralisation. True widths of mineralisation are unknown. There is no known sample bias due to drilling orientation.
Relationship between mineralisation widths and intercept	• 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	

Criteria	JORC Code explanation	Commentary
lengths	(eg 'down hole length, true width not known').	
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.	See body of announcement.
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.	- See body of announcement. - All drillholes are reported in the significant intercepts table.
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.	- In 1993–1994 Pasminco Exploration undertook a detailed channel sampling program on all available underground level development, utilising a jack hammer to generate 260 samples. - In 1993 Pasminco Exploration commissioned a high definition ground magnetic survey over the entire tenement area. - Sporadic excavation and geological mapping and sampling of costeans (trenches) culminated with a detailed surface mapping and sampling program by consultant Dr Tim Hopwood from 2004 to 2007. Hopwood also produced detailed geological maps of all four main levels of underground development for Pasminco in 1993.
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.	It is recommended that further drilling is undertaken to better define the high-grade mineralised lodes at Pinnacles with a focus on further developing the understanding of the structural complexity and adding to the existing MRE.

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.	- PMPL supplied the drillhole data for the deposit, which H&S accepted at the time in good faith as an accurate, reliable and complete representation of the available data. HSC reaffirm this acceptance. - All drilling information was supplied to H&S in a digital format by PMPL in 2007/8 as Excel and Word files. The data was compiled into a simple MSAccess database with indexed fields, which was maintained by H&S. Data for interpretive and resource estimation purposes was extracted from the database using a live link to the Surpac software. A series of queries by H&S removed many data entry errors, typos etc from the database. - PMPL had a data checking system whereby hardcopy collar, downhole surveys and assay data were entered into a set of Excel worksheets by office staff which was then checked off against the hardcopy data by experienced mine site personnel. Assay data was supplied as digital files by the laboratory which were loaded into the worksheet and were also hand-checked off against the cut sheet by mine staff. BHM are taking responsibility for all the Exploration Results used in the resource estimates being reported in this document. - Limited database checks completed by H&S included checking for duplicate entries, unusual assay values and missing data. Additional error checking was made using the Surpac database audit option for incorrect hole depth, sample/logging overlaps and missing downhole surveys. - There has been no validation of the historical geological data supplied by Hopwood. - HSC's assessment of the data confirms that it is suitable for

Criteria	JORC Code explanation	Commentary
Site visits	• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> • <i>If no site visits have been undertaken indicate why this is the case.</i>	resource estimation purposes. • Collar coordinates were in the Pinnacles Mine local grid. • Simon Tear of H&S visited the property for 4 days in 2007. The visit included inspection of drill core and assay results along with discussions with PMPL personnel.
Geological interpretation	• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> • <i>Nature of the data used and of any assumptions made.</i> • <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> • <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> • <i>The factors affecting continuity both of grade and geology.</i>	• The geological package related to mineralisation demonstrates considerable continuity and is the backdrop to the individual stratabound lode interpretations. The mineralised package consists of the Upper Lodes, separated by about 80m of barren material, from the Lower Lodes. The Upper Lodes comprise a 50m thick package containing the Siliceous Lead Lode (SLL), the Main Lead Lode (MLL), Immediate Footwall Zinc Lode (IFWZL) and the Main Zinc Lode (MZL) and the Main Zinc Lode B (MZLB). The Lower Lodes' package is also 50m thick and comprises the Lower Zinc Lode A (LZLA) and the Lower Zinc Lode B (LZLB) along with other smaller mineral lodes. • The lode interpretations are based on 15m spaced section lines for Consols, 25m spacing for Fisher and Pinnacles and 50m level slices for Perseverance. Digitisation of the shapes involved snapping to drillholes on the assay grade dividers or on logged lithology if no assays present. A 1% zinc or lead cut off was used with an allowance for minor internal dilution (generally <2m) on condition it made geological sense. The excellent underground mapping by Hopwood was also used to guide the design of the mineral lodes. In some minor instances the gold assays were used to aid the interpretation particularly for the zinc lodes, which tend to be more gold-rich. • The chosen cut off grade was used in an effort to establish geologically sensible domains and take into account the

Criteria

JORC Code explanation

Commentary

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.

likelihood of an open pit method of extraction. The mineralisation has relatively sharp boundaries that are visually discernible. The wireframes were used as constraints for the composite selection and grade interpolation.

- No oxidation surfaces were interpreted.
- The existing interpretation honours all the available data; an alternative interpretation is unlikely to have a significant impact on the resource estimates.
- Dimensions of the Mineral Resources are given in the table below. The strike and dip are plan measurements on account of the complexity of the folding, dipping beds and the depth is vertical depth below surface. Consols, Fisher and Pinnacles are exposed at surface. The top to Perseverance is approximately 30m below surface.

Deposit	Strike (m)	Dip (m)	Depth (m)
Consols	300	140	275
Fisher	225	190	310
Pinnacles	110-190	50-100	180
Perseverance	180	450	510

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.

- Estimated dip lengths to account for the folding suggest lode continuity for the MLL and MZL to be of the order of 1.3km.
- Surpac mining software was used for the geological interpretation, composite generation, block model creation and validation. Ordinary Kriging ("OK") via the H&S in-house GS3 software was used for the variography and grade interpolation with the mineral wireframes acting as hard boundaries.
- HSC considers OK to be an appropriate estimation technique

Criteria	JORC Code explanation	Commentary
	<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	for this type of mineralisation based on observations made on the drilling data and the outcomes from the summary statistical analysis for the composite data. In some instances there is insufficient data for OK in which case the Inverse Distance Squared method ("ID²") in the Surpac software was used. - Compositing of the drillhole samples was at 1m intervals from within the mineral wireframes. The residual composite lengths were limited to a minimum of 0.2 to 0.3m (depending on the dataset) and were discarded. The number of data points for all lodes is considered small, except for the MLL and MZL at Consuls. - In some cases the number of data points for individual lodes was very low and barely sufficient for meaningful data analysis and modelling. Another problem was the variable thickness of the lodes which hindered the production of sensible outcomes from the modelling work, particularly on grade continuity. In other instances overlong sample intervals, including weighted average composites, impacted negatively on the modelling. - Basic statistics for the lodes mostly indicated single lognormal populations for lead, silver, copper and gold. However it was observed that there appeared to be two populations for the zinc mineralisation for most of the lodes. It is unclear as to why this is the case but for the purposes of resource estimation the zinc data has been treated as a single population for each lode. - No grade top cutting was applied to the base metals and silver. The coefficients of variation (standard deviation/mean) for the relevant composite datasets suggest that the data is not sufficiently skewed or unstructured to warrant top cutting. Gold grades for the

different lodes exhibited more variance often with one or two extreme values having a disproportionate effect on the summary statistics. Variable top cuts in the range of 3 to 10g/t were applied to selected Consols, Fisher and Pinnacles lodes but was not considered necessary for the Perseverance lodes.

- Geostatistical studies were undertaken for zinc, lead, silver, copper and where appropriate, gold. 3D variography on the composites was performed for the various lodes with grade continuity being interpreted as weak to moderate in all three orthogonal directions. This poor continuity appears to reflect the nature of Broken Hill type deposits as noted by Lines et al (1987) "At the stope scale the ore lenses at ZC Mines are notable for the erratic nature of the internal grade variation from zero to as high as 40% Pb+Zn".
- Separate block models were created for each deposit with varying parent block sizes but with no sub-blocking. Block size was related to the areas of closer spaced drilling and likely open pit mining scenarios. Details of block sizes are included in the table below.

Deposit	X (m)	Y (m)	Z (m)
Consols	5	2.5	5
Fisher	25	5	5
Pinnacles	10	5	5
Perseverance	25	5	5

- For the grade interpolation, a single search ellipse was designed for each deposit to reflect the interpreted lode's geological continuity and the data distribution. This meant that different search ellipses were applied to all the lodes (see table below). The maximum extrapolation of the

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estimates is the Pass 3 search dimensions unless curtailed by the wireframe hard boundary.

Consuls	Pass No.1	Pass No.2	Pass No.3
X	20m	30m	30m
Y	20m	30m	30m
Z	10m	15m	15m
Min Data	12	12	6
Max Data	32	32	32
Octants	4	4	2

Fisher	Pass No.1	Pass No.2	Pass No.3
X	37.5m	50m	50m
Y	25m	33m	33m
Z	10m	15m	15m
Min Data	12	12	6
Max Data	32	32	32
Octants	4	4	2

Pinnacles	Pass No.1	Pass No.2	Pass No.3
X	25m	37.5m	37.5m
Y	25m	37.5m	37.5m
Z	10m	15m	15m
Min Data	12	12	6
Max Data	32	32	32
Octants	4	4	2

Perseverance	Pass No.1	Pass No.2	Pass No.3
X	100m	200m	200m
Y	50m	100m	100m
Z	10m	20m	20m
Min Data	6	6	3

Criteria	JORC Code explanation	Commentary			
		Max Data	32	32	32
		Octants	2	2	1
		- To account for the significant change in dip and strike for the Fisher lodes two search sub-domains were used, for Pinnacles several search ellipses were used and for Perseverance two search orientations were used reflecting a change in dip. - No separation on oxidation level was considered due to the relatively shallow weathering and its limited impact on the mineralisation plus the low composite sample numbers. - It is assumed that copper, gold and silver will be by-products via conventional processing techniques for base metal deposits. - No assessment has been made for deleterious elements and no waste rock characterisation has been completed. - A strong correlation between lead and silver is consistent for all lodes. Occasionally there is a weak correlation between lead and gold and lead and zinc in certain lodes. - Drillhole spacing for Consols was 15m by 15m, for Fisher the spacing was 25m on section and 50m between sections with the occasional clustering of mainly underground data. At the Pinnacles the drillhole spacing was quite varied between 10 and 50m both along section and between sections. At Perseverance the drillhole spacing was 50m by 200m with an occasional infill hole on section as well as between sections. Downhole sampling in all cases was generally at 1m intervals but in some instances the sampling consisted of one sample covering the whole mineral interval i.e. 4-5m. - Model validation has consisted of visual comparison of block grades and composite values and it was concluded that the block model fairly represents the zinc, lead and silver grades			

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		observed in the drill holes. HSC also validated the block model statistically using a variety of histograms and summary statistics. Validation confirmed the modelling strategy as acceptable with no significant issues. Previous mining has occurred at the Consols, Fisher and Pinnacles prospects but mainly for the lead lodes. There is no data for reconciliation and the depletion was not applied to the estimates as PMPL informed H&S that the stopes developed for the Fisher and Pinnacles Limb were backfilled with jig tailings that is purported to run at an average grade of 7% Pb and 200ppm Ag, much higher than average head grades of the Mineral Resources. For Consols some of the stopes (approx. 30%) were backfilled with low grade mine material.
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 weight basis and moisture content has not been determined
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	- The reported Mineral Resources are constrained to the mineral wireframe using the block centroid in/out method. The mineral wireframes have a nominal cut-off grade of 1% zinc (or lead). - PMPL advised HSC of the nominal cut off grades for reporting the Mineral Resources based on its previous mining experience.
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	Mining and processing at the Pinnacles Mine has been undertaken intermittently since 1884. Most recently mining of oxidized and fresh ore from Edwards Pit began in 2012 through to 2022 when it was placed on care and maintenance. Mining was conducted using traditional small scale open pit drill and blast method at a rate of about 10,000t per month in oxide ore, reduced to 2,000-3,000t per

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	<i>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.</i>	month in fresh ore. • Past underground mining has been completed at the Consols and Pinnacles lodes. • For the current MRE both open pit and underground mine scenarios are being considered Ore material would be trucked to a ROM pad for subsequent on-site processing using industry standard technologies and in line with recent and historic mining. • The model block sizes for the different deposits are effectively the minimum mining dimension for this estimate. Any internal dilution has been factored in with the modelling and as such is appropriate to the block size. • There are suitable areas for ROM pad and tailings dam construction within the general vicinity of the mine. • Oxide ore was direct shipped to the Port Pirie smelter for use as flux. • Fresh ore was processed on site in a floatation plant to produce Pb (-Ag) and Zn concentrates which were sold to different smelters in Australia and overseas. • This together with supporting metallurgical test work show that the ore recovery is typically 88% Pb and 75% Ag (to the Pb concentrate), and 88% Zn to the Zn concentrate.
Metallurgical factors or assumptions	• <i>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.</i>	
Environmental factors or assumptions	• <i>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</i>	• The area comprises undulating hills with broad water courses with no large river systems passing through the area. Climate is semi-arid consistent with other areas in remote western NSW, where annual rainfall is low. Vegetation is sparse and the current land use is open range cattle grazing. • The mineralisation comprises very limited amounts of pyrite and pyrrhotite. Preliminary test work has shown that waste

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	<i>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.</i>	material is not acid producing and many of the unmineralized host rocks have acid neutralizing capacity. Additional test work is strongly recommended as mining extends deeper into fresh rock. - It is currently assumed that all process residue and waste rock disposal will take place on site in purpose built and licensed facilities. - All waste rock and process residue disposal will be done in a responsible manner and in accordance with any mining license conditions.
Bulk density	<i>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.</i> <i>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.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	- Historically the collection of density data was not undertaken. From 2007 PMPL had in place a systematic process for collecting densities that produced >6200 half core samples, using the immersion in water technique of (weight in air) / (weight in air-weight in water method) – the Archimedes Principle. - Density for the block model was modelled for Consols, Pinnacles and Perseverance using the density sample data with the ID² method and search parameters that matched the geology for the relevant area. The Fisher lodes had a default density applied as advised by PMPL. - There is also a substantial amount of waste rock densities which were used in the ID² modelling. - The majority of fresh rock material was competent core with little to no visible vugs. - No separation was made for oxide and fresh rock zones. - The Mineral Resources have been classified using the estimation search pass category subject to assessment of other impacting factors such as drillhole spacing (variography), core handling and sampling procedures, sample recoveries, QAQC outcomes, density measurements and the geological model.
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity</i>	

Criteria	JORC Code explanation	Commentary
	<i>and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	• It is assumed that the deposits will be mined either by open pit method and/or underground. Search ellipse Pass 1 equals Measured, Pass 2 equals Indicated and Pass 3 equals Inferred. • There are a number of blocks within each wireframe where the modelling failed to assign a grade. This is due to a lack of data associated with the search ellipse within an individual lode shape. For the resource reporting these blocks are allocated the average grade of the deposit estimated from the grade interpolation and are allocated to the Inferred Category.
Audits or reviews	• <i>The results of any audits or reviews of Mineral Resource estimates.</i>	• There have been no audits or reviews of the Mineral Resource estimates. H&S had an internal peer review process which reviewed the Mineral Resources.
Discussion of relative accuracy/confidence	• <i>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.</i> • <i>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.</i> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	• No statistical or geostatistical procedures were used to quantify the relative accuracy of the resource. The Mineral Resource estimates are considered to be accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing and local geological complexities. • The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits and geology. • Block model validation via visual block grade/composite value has not indicated any issues. • As advised by PMPL significant historical mining of the Consols and Pinnacles deposits has taken place but the voids have been backfilled with mined or processed material

Criteria	JORC Code explanation	Commentary
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that generally is of a higher grade than the original production material. Recent mining by PMPL/BHM appears to have extracted a significant amount of Measured Resource from the Consols ULL but no production data is available for comparison.