

**ASX Announcement** 

# INITIAL METALLURGICAL TEST WORK FROM HOPES HILL DELIVERS EXCEPTIONAL RECOVERIES

## **Highlights:**

- Indictive metallurgical gold recoveries from Hopes Hill mineralisation average **96.7%** and range from 93.8% to 99.3%.
- The initial metallurgical test work consisted of eleven (11) composite samples from RC drilling providing a clear indication of potential process recoveries.
- Samples were selected from across the full 1.3km long Hopes Hill historic pit length from fresh mineralisation.
- Planned diamond core drilling, expected to commence in coming months, will provide core samples for comminution (grindability) test work in coming months.

### Golden Horse Managing Director, Nicholas Anderson said:

"The results of the indicative metallurgical recoveries for the Hopes Hill mineralisation are highly encouraging. The average of around 97% gold recovery indicates the potential for using the standard CIL/CIP treatment route, as available in the district. The Hopes Hill gold project continues to impress with another hurdle jumped as the project moves from a good to firm track. Further test work will be undertaken as part of the project development process to confirm expected plant recoveries – but these results are a great start."

Golden Horse Minerals Limited (ASX: GHM) (Golden Horse or Company) is pleased to announce highly encouraging initial metallurgical recoveries from drill samples at their flagship Hopes Hill gold project at Southern Cross in Western Australia, reigning in the risk of the project.

Leach Test	Gravity Leach Feed	Head Grade	BLEG Au (g/t)			
#	Ρ <sub>80</sub> (μm)	(Au - g/t)	Au Extracted	Au Residue	Au Recovery %	Calc.Head
LT01	Pulverised	4.29	4.40	0.19	95.97	4.59
LT02	Pulverised	9.06	9.44	0.26	97.32	9.70
LT03	Pulverised	2.67	2.44	0.16	93.85	2.60
LT04	Pulverised	7.38	6.93	0.07	99.00	7.00
LT05	Pulverised	3.71	3.13	0.12	96.46	3.25
LT06	Pulverised	3.34	4.23	0.03	99.30	4.26
LT07	Pulverised	2.83	2.34	0.10	96.10	2.44
LT08	Pulverised	2.85	2.47	0.14	94.82	2.61
LT09	Pulverised	3.18	3.33	0.13	96.38	3.46
LT10	Pulverised	3.56	4.08	0.16	96.23	4.24
LT11	Pulverised	10.31	11.9	0.17	98.63	12.07

Table 1: BLEG Bottle Roll Results.



### **Metallurgical Test Work**

Bottle roll test work (**BLEG**) was completed by Bureau Veritas Minerals at its Perth laboratory. Eleven (11) sample intervals were selected from five (5) recent reverse circulation (**RC**) drill holes. The intervals were combined proportionately by weight into the eleven (11) approximately 500g composite samples (LT01-LT11).

The Stage 1 leach work testing involved bottle rolling the pulverised samples for 24 hours using the reagents, NaCN (sodium cyanide), NaOH (sodium hydroxide) and Leachwell. The leach solutions were assayed for gold by ICP and the residue tails in duplicate by fire assay.

The leach results are shown in Table 1, drill hole composites and original head grade calculation in Table 2 and location shown in Figure 1.



Figure 1: Hopes Hill Cross section displaying location and Recovery of samples taken.

Sample	Drill Hole	From	То	Original Assay <sup>1</sup>	Calc. Head Grade
LT001	GHHHRC0001	89	95	4.39	4.59
LT002	GHHHRC0001	105	108	8.95	9.70
LT003	GHHHRC0001	129	133	2.57	2.60
LT004	GHHHRC0001	143	153	6.15	7.00
LT005	GHHHRC0016	120	130	3.07	3.25
LT006	GHHHRC0011	134	143	3.21	4.26
LT007	GHHHRC0007	144	155	2.56	2.44
LT008	GHHHRC0007	158	168	2.74	2.61
LT009	GHHHRC0019	103	117	3.28	3.46
LT010	GHHHRC0019	120	127	4.15	4.24
LT011	GHHHRC0019	131	142	10.22	12.07
Table 2: BLEG Test work Drill Hole Details and Composite Calculated Head Grades.					

<sup>1</sup> Calculated from original gold assay results (as reported previously).



### **Hopes Hill Project**

Reverse Circulation (**RC**) drilling commenced in late January 2025, targeting shallow high-grade mineralisation below the historical Hopes Hill open pit. The initial aim was to confirm historical drill data and test the potential of the mineralisation immediately below the old pit floor and to determine the continuity along strike. The original pit depth was limited by tenement boundary constraints (now removed) which severely restricted drill pad location to test the mineralisation immediately below the pit floor. There has been minimal drilling since mining ceased in the mid 1990's.

Golden Horse has completed 41 RC drill holes for over 8,100m since January 2025. Drilling is planned to continue in coming months aimed at providing sufficient data to complete a JORC compliant mineral resource estimate.

With the recent Western Australian Government's Exploration Incentive Scheme funding grant for deeper drilling at Hopes Hill, the Company is planning on mobilising a diamond coring rig to site in the coming month to complete both deeper drilling and to provide enhanced geological structural knowledge of the mineralisation.

#### For and on behalf of the Board

Nicholas Anderson Managing Director & CEO

This announcement was approved for release by the Board of Golden Horse Minerals Limited.

For more information contact: Nicholas Anderson Managing Director & CEO Email: nicholas.anderson@goldenhorseminerals.com.au

Josh Conner Chief Operating Officer Email: josh.conner@goldenhorseminerals.com.au

Media David Tasker Chapter One Advisors Email: dtasker@chapteroneadvisors.com.au +61 433 112 936

#### **About Golden Horse Minerals**

Golden Horse Minerals Limited (ASX: GHM) is a gold exploration company in Western Australia's Southern Cross region. The Company has consolidated in excess of 1,800km<sup>2</sup> of tenure within the Southern Cross Greenstone Belt, a prolific gold producing region of Western Australia supported by the mining town of Southern Cross. The Company is exploring for extensions at a series of historic gold mines in addition to developing new high-priority prospects which are yet to be tested with the drill bit.

For further information, please visit the Golden Horse Minerals website: https://goldenhorseminerals.com/.



#### Disclaimer

This announcement has been prepared by Golden Horse Minerals Limited based on information from its own and third-party sources and is not a disclosure document. No party other than the Company has authorised or caused the issue, lodgement, submission, despatch or provision of this announcement, or takes any responsibility for, or makes or purports to make any statements, representations or undertakings in this announcement. Except for any liability that cannot be excluded by law, the Company and its related bodies corporate, directors, employees, servants, advisers and agents disclaim and accept no responsibility or liability for any expenses, losses, damages or costs incurred by you relating in any way to this announcement including, without limitation, the information contained in or provided in connection with it, any errors or omissions from it however caused, lack of accuracy, completeness, currency or reliability or you or any other person placing any reliance on this announcement, its accuracy, completeness, currency or reliability. Information in this announcement which is attributed to a third-party source may not have been checked or verified by the Company. This announcement is not a prospectus, disclosure document or other offering document under Australian law or under any other law. It is provided for information purposes and is not an invitation nor offer of securities or recommendation for subscription, purchase or sale in any jurisdiction. This announcement does not purport to contain all the information that a prospective investor may require in connection with any potential investment in the Company. It should be read in conjunction with, and full review made of, the Company's disclosures and releases lodged with the Australian Securities Exchange (ASX) and available at www.asx.com.au. Each recipient must make its own independent assessment of the Company before acquiring any securities in the Company.

All dollar values are in Australian dollars (A\$ or AUD) unless otherwise stated.

#### **Forward looking information**

This announcement contains forward-looking statements. Wherever possible, words such as "intends", "expects", "scheduled", "estimates", "anticipates", "believes", and similar expressions or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, have been used to identify these forward-looking statements. Although the forward-looking statements contained in this ASX announcement reflect management's current beliefs based upon information currently available to management and based upon what management believes to be reasonable assumptions, the Company cannot be certain that actual results will be consistent with these forward-looking statements.

A number of factors could cause events and achievements to differ materially from the results expressed or implied in the forward-looking statements. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements.

Forward-looking statements necessarily involve significant known and unknown risks, assumptions and uncertainties that may cause the Company's actual results, events, prospects and opportunities to differ materially from those expressed or implied by such forward-looking statements. Although the Company has attempted to identify important risks and factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements (refer in particular to the "Risks and Uncertainties" section of the MD&A lodged with ASX on 28 March 2025 and the "Risk Factors" section of the Company's prospectus dated 5 November 2024), there may be other factors and risks that cause actions, events or results not to be anticipated, estimated or intended, including those risk factors discussed in the Company's public filings. There can be no assurance that the forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, prospective investors should not place undue reliance on forward looking statements. Any forward-looking statements are made as of the date of this announcement, and the Company assumes no obligation to update or revise them to reflect new events or circumstances, unless otherwise required by law.

This announcement may contain certain forward-looking statements and projections regarding timing of receipt of exploration results, planned capital requirements and planned strategies and corporate objectives. Such forward-looking statements/projections are estimates for discussion purposes only and should not be relied upon. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of the Company. The forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. The Company does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projections based on new information, future events or otherwise except to the extent required by applicable laws.



#### **Competent Person's Statement**

The information in this announcement relating to the assay results for the Hopes Hill project received as part of the drilling program announced to ASX on 3 February 2025 is based on, and fairly represents, information and supporting documentation prepared by Mr Jonathan Lea, a member of the Australian Institute of Mining and Metallurgy (AusIMM) and a Qualified Person as defined by National Instrument 43-101. Mr. Lea is the Principal Geologist for Golden Horse Minerals and also holds securities in Golden Horse Minerals. Mr Lea has sufficient experience that is relevant to the styles of mineralisation and type of deposits under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**). Mr Lea consents to the inclusion of the matters based on his information in the form and context in which they appear in this announcement.

The information in this announcement relating to historical exploration results was previously announced to the ASX by Golden Horse in the prospectus issued in connection with Golden Horse's ASX listing dated 12 December 2024 (**Prospectus**). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus.

#### **Qualified Person's Statement**

Mr Jonathan Lea, a member of the Australian Institute of Mining and Metallurgy (AusIMM) and a Qualified Person as defined by National Instrument 43-101, is responsible for the preparation of the technical content regarding the Southern Cross Project contained in this announcement. Mr. Lea is the Principal Geologist for Golden Horse Minerals and also holds securities in Golden Horse Minerals. Mr Lea has reviewed and approved the technical disclosure in this announcement.



# JORC Code, 2012 Edition:

# Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Metallurgical Samples selected from RC samples already at the Bureau Veritas (BV) Laboratory in Perth.</li> <li>The individual samples had all been assayed for gold as reported to the ASX by Golden Horse previously.</li> <li>The selected intervals for Metallurgical testing were identified and then proportionately sampled by BV personnel from the coarse one metre samples stored at the laboratory to make up an approximately 500g composite sample.</li> <li>The composite samples were pulverised prior to BLEG testing.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>RC samples used from drilling previously reported by Golden Horse to the ASX.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling reported in this announcement.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	No drilling reported in this announcement.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise samples representivity.</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>Sample preparation for the metallurgical testing involved proportional sampling (by weight) by BV personnel from the one metre samples stored at the laboratory to make up an</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>approximately 500g composite sample.</li> <li>The composite samples were pulverised to a nominal 95% minus 75 microns.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The bottle roll (BLEG) testing was standard in nature with the 500g composite samples leached in 500ml Perth tap water for 24 hours after the addition of 1% NaCl and 0.1% NaOH/Leachwell.</li> <li>The leach solutions were assayed by ICP for gold and the solid residues assayed in duplicate for gold by fire assay.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	• The close comparison between the average composite grade (from the previous fire assay) and the calculated BLEG head grades (Table 2 in the report) supports the validity of the sampling process.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>Hole positions and details previously reported to the ASX by Golden Horse.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>Hole positions and details previously reported to the ASX by Golden Horse.</li> <li>Holes selected from the length of the Hopes Hill mineralisation.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>Hole positions and details previously reported to the ASX by Golden Horse.</li> </ul>
Sample security	• The measures taken to ensure sample security.	• Samples had been stored at the BV Laboratory in Perth, prior to sub- sampling for metallurgical testing.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or formal reviews of sampling techniques undertaken.

7



# **Section 2: Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Hopes Hill is located approximately 8km north of Southern Cross.</li> <li>Drilling confined to granted tenements M77/1296, E77/2658 &amp; M77/551.</li> <li>Tenements in good standing with no known impediments.</li> </ul>
Exploration done by other parties.	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>No significant work completed in the past 20 years. Prior to that several companies completed drilling in and around the workings including Broken Hill Metals.</li> <li>The main historic mine at Hopes Hill is a 1.3km long 90m deep mined in the 1980/90's.</li> <li>Refer to Independent Technical Assessment Report in Golden Horse's prospectus for its ASX listing, released by ASX on 12 December 2024, for further information historical exploration activities.</li> <li>No previous metallurgical test work completed for primary mineralisation.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The geological target is a typical structurally hosted orogenic gold mineralisation zone proximal to lithological contacts between volcanics and sediments.</li> <li>Mineralisation is associated with quartz veining and alteration (e.g. sericite, silica).</li> </ul>
Drill hole Information	<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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>RC drill hole samples used for metallurgical testing, previously reported to the ASX by Golden Horse.</li> <li>Sample intervals used for metallurgical test work shown in Table 2.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>hole length.</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>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or</li> <li>minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> </ul>	<ul> <li>No data aggregation applied.</li> <li>Results for the composite metallurgical tests reported individually (see Table1 in body of announcement).</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Metallurgical test results reported as point data from the mineralised envelope of Hopes Hill.</li> <li>The mineralisation dips steeply west over a 1.3km strike length and has a maximum horizontal width of approximately 40m.</li> <li>Initial sample intervals selected from average grade intercepts over the length of the mineralisation below the base of oxidation – ie in fresh material.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Plans section and diagrams included in the announcement.</li> <li>The data has been presented using appropriate scales and using standard aggregating techniques.</li> <li>Geological and mineralisation interpretations are based on current knowledge and will change with further exploration.</li> </ul>
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.	<ul> <li>This announcement adequately summarises work completed, historical work and future developments.</li> <li>Balanced reporting undertaken.</li> </ul>
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	<ul> <li>No other material data collected in the metallurgical testing.</li> <li>Previous work at the project is summarized in Golden Horse's Prospectus for listing on the ASX - released by ASX on 12 December</li> </ul>



Criteria	JORC Code explanation	Commentary
	substances.	2024.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further metallurgical testing     planned to confirm these     preliminary results.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul> <li>Comminution test work likely using drill core later in 2025.</li> <li>Further testing will increase the sample density to test the entire mineralised body at a closer</li> </ul>
		spacing and at increasing deptil.