

# 99.7% GOLD RECOVERY IN SECOND ROUND OF METALLURGICAL TESTING AT MULGA BILL

## HIGHLIGHTS

- New metallurgical test results show 99.7% recovery of gold in a sample from Mulga Bill
- Increased cyanide dosage lifted overall recovery by 12% compared to the previous test
- Gravity recovery was consistent at 62.1%
- Diamond drilling at Mulga Bill is ongoing and RC drilling is scheduled to recommence in the first week of April

Great Boulder Resources (“**Great Boulder**” or the “**Company**”) (ASX: **GBR**) is pleased to announce results from further metallurgical tests conducted on a sample of high-grade drill chips from the Mulga Bill prospect at the Side Well Gold Project (“**Side Well**”) in Western Australia.

As announced to the ASX on 10 March 2022 a series of three leach tests examined the effect of various grind sizes over a 48-hour period. All three tests achieved similar recoveries in the range of 87.2% to 88.0%, indicating that gold recovery is not affected by grind size.

A fourth leach test completed this week increased overall gold recovery to 99.7% by increasing the cyanide concentration, resulting in a residue or tails grade of 0.1g/t Au. Gravity recovery in this test was consistent with the previous three tests at 62.1%.

### **Great Boulder’s Managing Director, Andrew Paterson commented:**

*“This is a fantastic result. Achieving an overall gold recovery of 99.7% on a high-grade sample is excellent, but only leaving 0.1g/t in the tail is sensational.”*

*“For this test IMO increased the maintained cyanide level from 300ppm to 400ppm and used a coarse grind size of 150 µm, which was enough to improve gold recovery from 87.7% to 99.7%.”*

*“This is another step in our understanding of Mulga Bill, and we will be doing more comprehensive metallurgical studies on other mineralised zones and on drill core over the next few months.”*

The three leach tests completed previously by Independent Metallurgical Operations Pty Ltd (IMO) were conducted at grind sizes of 150 µm, 106 µm and 75 µm. All three tests had an initial cyanide concentration of 500ppm NaCN, maintained at 300ppm NaCN over 48 hours. Overall gold recovery was 87.7%, 88.0% and 87.2% respectively, which resulted in a residue grade of over 4.3g/t Au in each case. The sample composite was selected from two high-grade RC intersections. Both were in the transitional zone just above the fresh rock interface, from 91m and 101m downhole respectively.

For the fourth test IMO used a grind size of 150 µm and an initial cyanide concentration of 750ppm NaCN, maintained at 400ppm NaCN over 48 hours. This resulted in an overall recovery of 99.7% and a residue grade of 0.1g/t Au.

Future testing will examine the metallurgical characteristics of other styles of mineralisation at Mulga Bill, including lower-grade zones and areas with significant chalcopyrite (copper) and associated gold mineralisation in order to build up a more comprehensive understanding of the overall metallurgy. Mineralised samples from drill core will also enable physical testing of the crushing and grinding parameters of different mineralisation styles.

**This announcement has been approved by the Great Boulder Board.**

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**TABLE 1: SUMMARY STATISTICS FROM ALL LEACH TESTS (AU ONLY)**

		Gold Summary			
		LT1	LT2	LT3	LT4
<b>Grind Size</b>	µm	150	106	75	150
<b>CN Conc</b>	ppm	500/300	500/300	500/300	750/400
<b>Gravity Recovery</b>	%	62.3	62.7	62.4	62.1
2 Hour Recovery	%	66.6	67.6	68.1	69.8
4 Hour Recovery	%	71.9	71.3	69.8	78.2
8 Hour Recovery	%	77.8	77.2	75.1	89.4
24 Hour Recovery	%	83.8	82.4	80.8	99.8
<b>48 Hour Recovery</b>	%	87.7	88.0	87.2	99.7
Calculated Head Grade	g/t	35.95	35.84	36.17	36.14
Assayed Head Grade	g/t	39.47	39.47	39.47	39.47
<b>Residue Grade</b>	g/t	4.41	4.31	4.64	0.10
Gravity Recovery	%	62.3	62.7	62.4	62.1
Gravity Recovery	g/t	22.40	22.48	22.58	22.43
Leach Recovery	g/t	9.13	9.05	8.95	13.60
Total Recovery	g/t	31.54	31.53	31.53	36.04
24 Hour Cyanide Cons	kg/t	0.82	0.79	1.05	1.56
48 Hour Cyanide Cons	kg/t	0.94	0.94	1.05	1.61
24 Hour Lime Cons	kg/t	0.24	0.15	0.20	0.15
48 Hour Lime Cons	kg/t	0.24	0.15	0.20	0.15

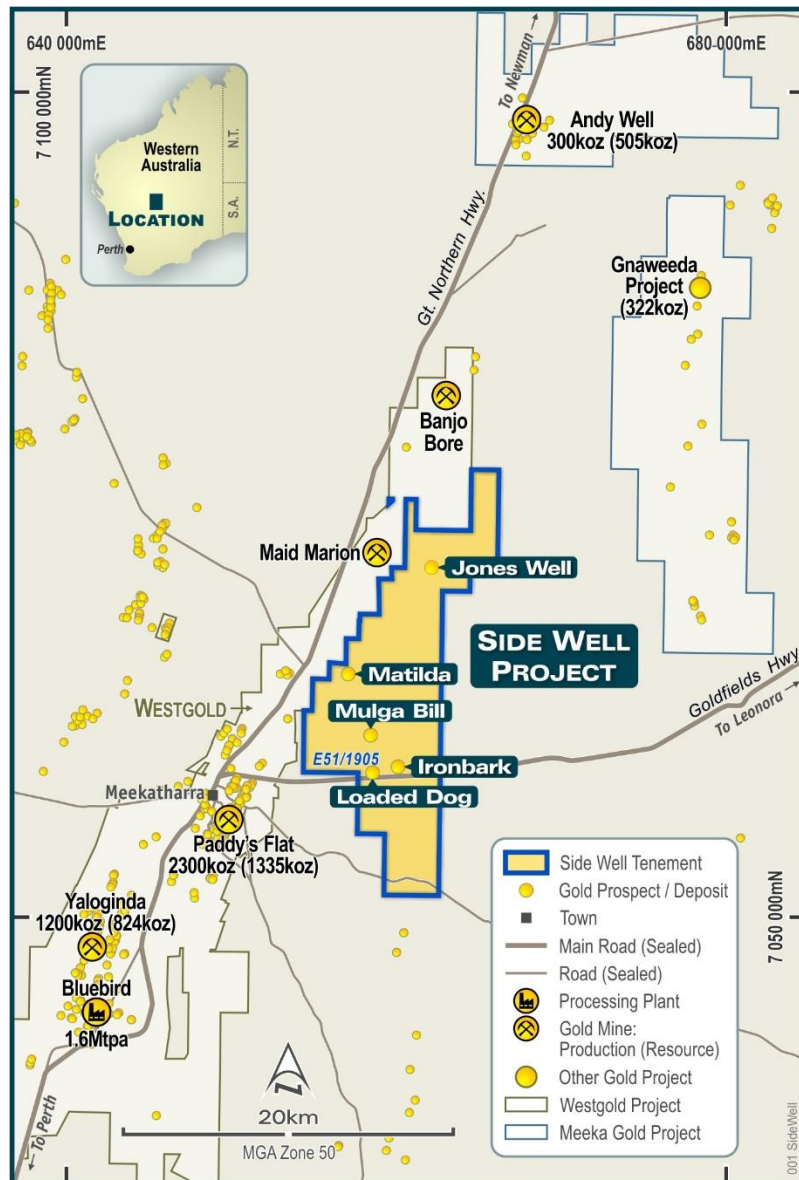
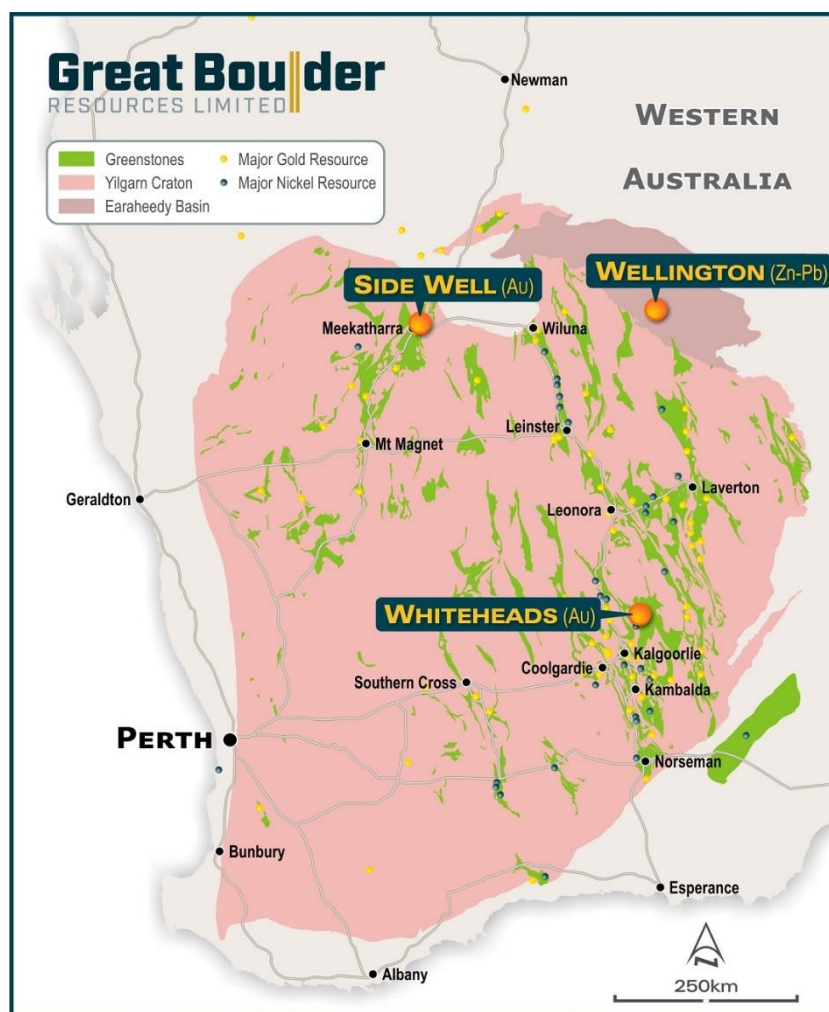


FIGURE 1: SIDE WELL PROJECT LOCATION PLAN.

**About Great Boulder Resources**

Great Boulder is a mineral exploration company with a portfolio of highly prospective gold and base metals assets ranging from greenfields through to advanced exploration located in Western Australia. The Company’s core focus is advancing the Whiteheads and Side Well gold projects while progressing initial exploration at the earlier stage Wellington Base Metal Project located in an emerging MVT province. With a portfolio of highly prospective assets plus the backing of a strong technical team, the Company is well positioned for future success.



**FIGURE 2: GREAT BOULDER'S PROJECTS**

### Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Mr Andrew Paterson who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Paterson has sufficient experience that is 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' (JORC Code). Mr Paterson is an employee of Great Boulder Resources and consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

**APPENDIX 1 - JORC CODE, 2012 EDITION TABLE 1****Section 1 Sampling Techniques and Data**

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

<b>Criteria</b>	<b>Commentary</b>
<b><i>Sampling techniques</i></b>	Samples used in the metallurgical test work were taken from selected RC intervals by spear sampling individual metre samples to form a composite bulk sample. The sample intervals were taken from 21MBRC034 91 to 96m and 21MBRC050 101 to 104m. Additional JORC Table 1 information is contained in GBR ASX announcements of 2 September 2021 and 25 October 2021.
<b><i>Drilling techniques</i></b>	Drilling was reverse circulation (RC) undertaken by KTE Drilling during the 2021 Phase 4 RC program.
<b><i>Drill sample recovery</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Logging</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Sub-sampling techniques and sample preparation</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Quality of assay data and laboratory tests</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Verification of sampling and assaying</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Data spacing and distribution</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Orientation of data in relation to geological structure</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Sample security</i></b>	Not applicable – this announcement refers to metallurgical test work only. For specific information relating to AC, RC and diamond drill sampling please refer to individual ASX drilling result announcements from 2020 through to present.
<b><i>Audits or reviews</i></b>	The metallurgical results and conclusions have been peer-reviewed within the organization responsible for conducting them.



## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	Side Well tenement E51/1905 is a 48-block exploration license covering an area of 131.8km <sup>2</sup> immediately east and northeast of Meekatharra in the Murchison province. The tenement is a 75:25 joint venture between Great Boulder and Zebina Minerals Pty Ltd.
<b>Exploration done by other parties</b>	Tenement E51/1905 has a protracted exploration history but is relatively unexplored compared to other regions surrounding Meekatharra.
<b>Geology</b>	<p>The Side Well tenement group covers a portion of the Meekatharra-Wydege Greenstone Belt north of Meekatharra, WA. The north-northeasterly trending Archaean Meekatharra-Wydege Greenstone Belt, comprises a succession of metamorphosed mafic to ultramafic and felsic and sedimentary rocks belonging to the Luke Creek and Mount Farmer Groups.</p> <p>Over the northern extensions of the belt, sediments belonging to the Proterozoic Yerrida Basin unconformably overlie Archaean granite-greenstone terrain. Structurally, the belt takes the form of a syncline known as the Polelle syncline. Younger Archaean granitoids have intrusive contacts with the greenstone succession and have intersected several zones particularly in the Side Well area.</p> <p>Within the Side Well tenement group, a largely concealed portion of the north-north-easterly trending Greenstone Belt is defined, on the basis of drilling and airborne magnetic data, to underlie the area. The greenstone succession is interpreted to be tightly folded into a south plunging syncline and is cut by easterly trending Proterozoic dolerite dykes.</p> <p>There is little to no rock exposure at the Side Well prospect. This area is covered by alluvium and lacustrine clays, commonly up to 60 metres thick.</p>
<b>Drill hole information</b>	Drill hole coordinates, orientations and intersection details have been previously released in drilling updates by Great Boulder Resources from 2020 to present.
<b>Data aggregation methods</b>	<p>Data has not been aggregated within the context of this announcement. The data relates to three gravity recovery and cyanide leach tests, as detailed in Table 1 of the body of the announcement.</p> <p>No metal equivalents are used.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	The orientation of structures and mineralisation is not known with certainty, but majority of the drilling was conducted using appropriate perpendicular orientations for interpreted mineralisation. Diamond drilling has confirmed a mineralised intrusive body at Side Well has a near vertical dip and trends broadly north-south. Due to the wide spacing of drill lines exact orientation is not clear.
<b>Diagrams</b>	Not applicable – this announcement refers to metallurgical test work only.
<b>Balanced reporting</b>	It is not practical to report all historical exploration results from the Side Well project. Selected historical intercepts have been re-reported by GBR to highlight the prospectivity of the region. Full drillhole details can be found in publicly available historical annual reports.
<b>Other substantive exploration data</b>	Subsequent to Doray Minerals Limited exiting the project in 2015, private companies have held the ground with no significant work being undertaken.
<b>Further work</b>	Further work is discussed in the document.