

## Excellent Metallurgical Recoveries from Bottle Roll Testing of the Neta Lodes Gold Discovery

### 1.0 Neta Lodes Metallurgical Testing – Bottle Rolls

Gibb River Diamonds Limited ('GIB' or the 'Company') is pleased to announce that initial metallurgical testing of the recently discovered Neta Lodes Gold Prospect at the Edjudina Gold Project has produced excellent gold recoveries of 92.6% in 48 hours.

These results are a first pass and not optimised, further test work, including gravity, is underway and will be reported once results have been received and assessed.

This metallurgical work was undertaken by the Perth based Nagrom laboratory that is an industry recognised specialist in gold metallurgical assessments. The metallurgical sample was composited from the Phase 1 Neta Lodes aircore drilling program, using a weighted average for grade.

The metallurgical sample was drawn from samples taken from the Phase 1 aircore drill samples taken from between 8m and 55m in depth (downhole) and is considered to be representative of the style of mineralisation found at Neta Lodes above the Base of Oxidation<sup>3</sup>. All of the samples used had been bagged, in plastic cyclone bags, during the drilling program to ensure there was no contamination.

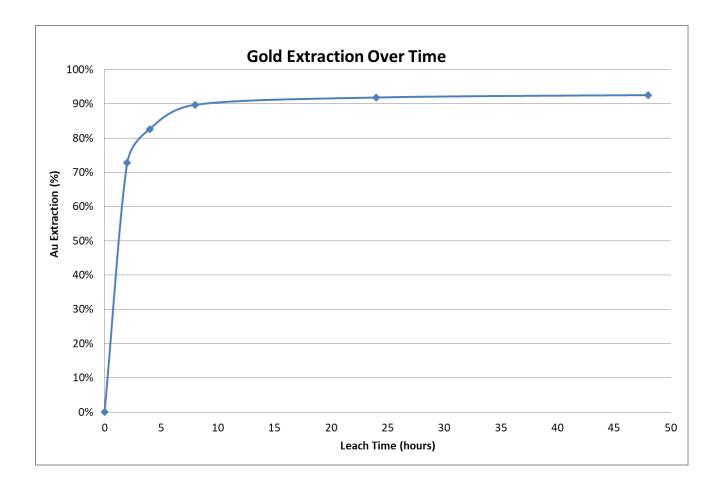
The 48 hour bottle roll cyanide leach test was conducted with a 500g sample with a head assay of 2.198ppm Au. This material had been ground to a P80 of 75 microns (80% of the particles are smaller than 75 microns). The initial cyanide dose was 500ppm.

The Gold extraction results from this process were as follows:

Extraction (%)			
Time	Au		
0 Hours	0.0%		
2 Hours	72.8%		
4 Hours	82.7%		
8 Hours	89.7%		
24 Hours	91.8%		
48 Hours	92.6%		

### Table 1: Percentage Gold extraction from 24 Hour Cyanide Bottle Rolls





Cyanide consumption was 0.11kg/tonne and lime addition was 1.20kg/tonne, which is considered a low consumption of reagents.

#### 1.1 Metallurgical Results Conclusion

The Board considers the recoveries, residence times and reagent consumption rates for this initial work to be an excellent outcome.

There is also considerable scope to optimise these results with further testing by changing variables including grind size, residence time, reagent concentrations, regrinds etc and these will be looked at as the project progresses.

Additional metallurgical work will also be required when deeper drilling is conducted at Neta which is planned for early next year.

#### 2.0 Phase 2 Aircore Drilling Program Update

The Phase 2 aircore drilling program has experienced two rig breakdowns which has delayed completion of the planned program. Drilling is currently underway and results will be announced once all assays have been received and assessed.



#### 3.0 Summary

The Board is very pleased with these excellent first pass metallurgical recoveries, which give a good indication as to what can be expected from the oxidised areas of the Neta Gold discovery at Edjudina.

The Company is looking forward to reporting the gold gravity metallurgical recovery data and the important assay results from the ongoing Phase 2 aircore drilling program as these results become available and are assessed.

Jim Richards Executive Chairman

Enquiries To: Mr Jim Richards +61 (0)408 902 314

For various Table 1's and associated supporting technical data regarding the original drilling and exploration at Neta, refer to the references below:

#### References:

<sup>1</sup>GIB Acquires Option to Purchase the Historic and High Grade Edjudina Gold Project in the Eastern Goldfields of WA; GIB ASX Release dated 16 July 2020

<sup>2</sup>Triumph Project Exploration Report; Nexus Minerals Limited dated 15 August 2019

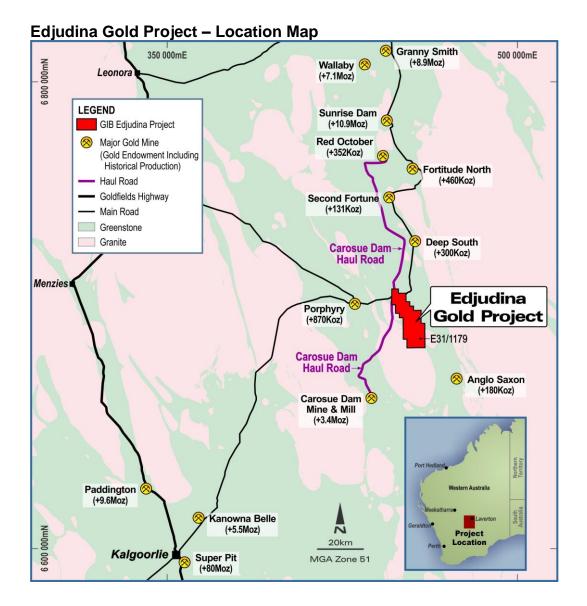
<sup>3</sup>Major Drilling Discovery at Edjudina Gold Project, WA includes 36 metres at 4.0 g/t Au from 4 metres; GIB ASX Release dated 8 October 2020

For a further list of references used in previous releases refer to GIB ASX Announcement dated 25 August 2020

#### **Competent Persons Statement**

The information in this report that relates to exploration results, sampling and testwork is based on information compiled by Mr. Jim Richards who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr. Richards is a Director of Gibb River Diamonds Limited. Mr. Richards has sufficient experience which is relevant to the style of mineralisation, type of deposit and type of testwork 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. Richards consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.





## Appendix 1: Summary of drill holes utilised for reported metallurgical testwork

HoleID	mE	mN	mRL	Dip	Azimuth	From m	To m	Au ppm	Weight
	MGAz51	MGAz51		deg	deg				kg
GAC010	449391	6707216	378	-60	231	8	9	3.31	3.0
GAC010	449391	6707216	378	-60	231	9	10	1.30	5.6
GAC011	449408	6707229	378	-60	231	28	29	2.27	5.8
GAC011	449408	6707229	378	-60	231	29	30	2.12	7.8
GAC011	449408	6707229	378	-60	231	34	35	2.75	11.9
GAC011	449408	6707229	378	-60	231	37	38	3.76	8.5
GAC014	449383	6707227	378	-60	231	39	40	2.75	12.4
GAC014	449383	6707227	378	-60	231	42	43	2.03	9.3
GAC014	449383	6707227	378	-60	231	48	49	1.91	9.0
GAC014	449383	6707227	378	-60	231	51	52	1.28	11.9
GAC014	449383	6707227	378	-60	231	54	55	1.80	9.3

# JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</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 (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.</li> </ul>	<ul> <li>Materials used in the metallurgical sampling of the Neta lodes Prospect was collected from an Aircore (AC) drill program conducted from 3-15 Sept 2020<sup>3</sup>. A total of 66 holes were drilled for 2,755 metres.</li> <li>Metallurgical samples collected from this program were from 8m and 55m in depth (downhole) and are considered to be representative of the style of mineralisation found at Neta Lodes above the Base of Oxidation. The samples were selected using the boundaries of the initial gold assaying at one metre individual sample intervals and selected to cover broader mineralised zones.</li> <li>The metallurgical sample was composited by GIB staff using metre intervals identified by GIB geologist Mr Michael Denny and supervised by Mr Jim Richards. The aim was to generate a representative grade for the selected mineralisation at Neta Lodes. The total weight of this sample was 90.36kg. The sample was homogenized prior to analysis and processing.</li> <li>The individual one metre drill samples used for metallurgical sampling (samples used for splits assay were treated in a different manner<sup>3</sup>) were collected and assayed as follows:</li> <li>All samples were riffle split to 87.5 : 12.5.</li> <li>The 87.5% component went into a green cyclone bag and was placed on the ground.</li> <li>Samples were composited (as above) and submitted to Nagrom (Perth) or Jinning (Kalgoorlie) for pulverisation of appx 3kg to nominal 85% &lt;75 micron; to generate a 30g charge for fire assay analysis.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Topdrive Drillers AC Rig 1, 85mm rod string with AC bit; Slimline RC hammer used where ground condition required.</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>	<ul> <li>Sample recovery visually assessed on a metre-by-metre basis.</li> <li>Driller directed to use the minimum necessary air pressure to minimise loss of fine component.</li> <li>All samples riffle split to ensure a representative sample distribution.</li> <li>No sample bias is known or expected due to preferential loss/gain of fine/coarse material.</li> </ul>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate	<ul> <li>All drill spoil from all holes was quantitatively geologically logged in detail on a metre-by-metre basis to a level of detail to support</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>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> <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 sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	<ul> <li>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>The 87.5% split from three drillholes was bagged on a metre-bymetre basis for metallurgical studies.</li> <li>Metallurgical Samples</li> <li>The composited sample at Nagrom was sample stage crushed to a P100 of 3.35mm prior to size by assay analysis</li> <li>The bottle roll sample were pulverised to a P80 of 75 microns prior to the bottle roll.</li> <li>The 30g charge fire assay was conducted in duplicate.</li> <li>Prepared sample was fused in a flux to digest. The melt was cooled to collect the precious metals in a lead button. The lead was removed by cupellation and the precious metal bead is digested in aqua regia.</li> <li>The digest solution was analysed by ICP.</li> </ul>
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Fire assay fluxes are designed to optimise gold recovery for each</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 (eg 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 following gold standards were used, OXC152 STD, OXL159 STD and were run with blanks.</li> <li>fire assays were conducted in duplicate</li> <li>GIB deems an acceptable level of accuracy and precision have been established</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>	<ul> <li>GIB Drill Samples</li> <li>Two laboratories were used. At the time of writing, no samples have been sent to other labs for cross-checking. Significant intersections have been verified by multiple GIB personnel.</li> <li>No twinned holes were used.</li> <li>Drilling, sampling, primary data, and data verification procedures were drawn up prior to fieldwork and are stored on the GIB server.</li> <li>Physical copies of all data are stored in the GIB office.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Duplicate/repeat samples (samples with multiple assays) were averaged to calculate the gold value for those samples. No other adjustments were made to assay data.</li> </ul>
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>Once drilled, drillhole collars were recorded by hand-held GPS. Datum is MGA94 zone 51.</li> <li>In addition to GPS, LiDAR and high-definition drone imagery was used to site drillholes.</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> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drillholes were spaced on nominal 20 x 20 or 10 x 10 grids with local adjustments due to ground conditions.</li> <li>No Mineral Resource or Ore Reserve procedures or classifications have been applied.</li> <li>Sample compositing has been applied only to duplicate/repeat samples.</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>With one exception all drillholes were oriented 60° towards 231. Local foliation is ~75° towards 051. As such these drillholes are oriented approximately perpendicular to foliation.</li> <li>To the best of GIB's current knowledge there is no sampling bias in this AC drilling program.</li> <li>Chip channel samples were collected perpendicular to foliation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected by GIB personnel in real time during drilling. Calico bags containing composite samples or 1m splits were placed in green cyclone bags and cable tied closed, and collected in a safe location until lab delivery.</li> <li>Samples were delivered and offloaded at the lab by GIB staff, where they were placed in Bulka containers prior to processing.</li> <li>After delivery, samples were kept at the fenced Lab compound. Lab personnel are on site during work hours and all access points are closed and locked overnight.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>An internal review of sampling techniques and data deemed GIB's processes to be compatible with JORC 2012 requirements.</li> </ul>

# Section 2 Reporting of Exploration Results

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>E31/1179 is held by CoxsRocks (10%) and Nexus Mt Celia Pty Ltd (90%).</li> <li>As detailed in GIB's ASX release dated 16th July 2020, GIB acquired an Option to purchase 100% of E31/1179 for \$110k with no private royalties or encumbrances. The Option deal is for six months and can be exercised at any time in that period for the payment of \$330,000 (plus GST), plus 5.5m GIB shares and 5.5m GIB options.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>GIB is compiling a database of historic mining and exploration activity. A brief chronology is included below:</li> <li>The main period of mining activity on the Edjudina line of workings (the 'Edjudina Line') occurred between 1897 and 1921.</li> <li>Government Geologist Andrew Gibb Maitland made the first documented description of the Edjudina Line in 1903, which was followed up by reports in 1903 and 1905 by State Government Mining Engineer Alexander Montgomery. These reports described a number of private batteries being run on the Edjudina Line at this time, with some ore also carted to the nearby State Battery at Yarri.</li> <li>A minor revival in mining took place from 1936-1939, which was curtailed by the start of World War 2.</li> <li>In 1974-75 Australian Anglo American Ltd explored the Edjudina line, followed by United Nickel Exploration, Cambrian Exploration, Penzoil of Australia Ltd (1979-81) and Paget Gold Mining (1983-1989)</li> <li>In 1993 Pancontinental picked up the ground and conducted drilling operations, relinquishing the ground in 1995. Little exploration work was conducted over the next 14 years with the exception of Gutnick Resources who are reported as having completed some wide spaced drilling during this time, however a complete dataset for this work is still being sourced.</li> <li>From 2010 to 2014 CoxsRocks Pty Ltd, a WA based private company, conducted a ground magnetic survey, auger soil geochemistry and limited aircore drilling.</li> <li>The Edjudina Gold Project has been held by Nexus Mt Celia Pty Ltd from 2014 to present with one limited RC drilling program conducted in that time.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Historic reports describe mineralisation as occurring within silicified, boudinaged stromatolites which were mineralised and then deformed during diagenesis and regional deformation. In this situation gold is stratabound and almost entirely hosted within the quartz boudins.</li> </ul>

Criteria	JORC Code explanation	Commentary
		• At this very early stage of exploration GIB believes there may also have been a broader hydrothermal alteration event at Neta in which Au mineralisation is associated with Si-Fe alteration and possibly with porphyry intrusion. No sulphides were observed at the Neta Lodes
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> <li>hole length.</li> </ul> </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>	<ul> <li>See Appendix B (Drill Collar Locations).</li> </ul>
Data aggregatio n methods	<ul> <li>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.</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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Duplicates and repeats were averaged for samples with multiple assays to calculate a final grade</li> <li>No other changes were made to geochemical data.</li> </ul>
Relationshi p between mineralisati on 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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>With one exception all drillholes were oriented 60° towards 231. Local foliation is ~75° towards 051. As such these drillholes are oriented approximately perpendicular to foliation.</li> <li>Historic reports describe mineralisation as occurring within silicified, boudinaged stromatolites which were mineralised and then boudinaged during diagenesis and regional deformation. In this situation gold is stratabound and almost entirely hosted within the quartz boudins.</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>	• See Maps, Tables and Figuresin body of previous announcement and table 1 released to ASX on 8 October 2020 for comprehensive reporting of all exploration results.

Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>n/a – see body of previous announcement and table 1 released to ASX on 8 October 2020 for comprehensive reporting of all exploration results.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	• While historical drillhole information exists in some areas it is, in aggregate, not possible to report this drilling to JORC 2012 standards. In most cases the only data available to GIB is drillhole collar locations (local grid) and gold analyses.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Given the extremely encouraging results from GIB's maiden drilling campaign the Company is planning deeper drilling at the Neta Lodes discovery and this is planned to include further metallurgical work.</li> </ul>

End