

## **DFS METALLURGICAL TESTWORK RETURNS HIGH GOLD RECOVERIES AT DIAMBA SUD**

### **EXCELLENT TESTWORK RESULTS CONFIRM HIGH GOLD RECOVERIES**

- **High gravity recoveries averaging 20% in oxide and 60% in fresh**
- **High overall gold recovery ~95% in oxide and between 93% and 95% in fresh**
- **Grind size increased to 106 µm from 75 µm** with expected positive implications for processing costs
- Waste rock geochemical characterisation testwork found that the waste rocks were either non-acid forming or acid consuming with very low elemental enrichment and that no special waste rock management systems would be required
- The dry season Environmental and Social Impact Assessment (ESIA) baseline field surveys found no major risks and the wet season survey has commenced
- Environmentally the Project is shaping up to be low impact which should also provide a significant positive impact to the local communities and to the government of Senegal

### **OTHER ACTIVITIES**

- Metallurgical testwork is continuing to look at leaching optimisation, mineralogical analysis, rheology, settling and variability testwork and will be reported when testwork results are available
- Area D mineral resource and Scoping Study updates for the larger resources have commenced and are expected to be completed during the current quarter
- Planning for the forthcoming resource and discovery drill program is underway with drilling expected to commence in November
- Reconnaissance exploration over the new Bondala tenement has commenced

**Chesser's MD and CEO Andrew Grove commented:** *"The metallurgical testwork results are excellent and consistent with or better than those used in the Scoping Study. The high gravity and overall recoveries, very soft oxide and coarser grind requirements should see low-cost CIL processing at Diamba Sud."*

**Chesser Resources Limited** ("Chesser" or "the Company" (ASX:CHZ)) is pleased to provide an update on activities from the Diamba Sud Gold Project in Senegal, West Africa.

This release reports on the Definitive Feasibility Study (DFS) results from Diamba Sud received to date.

## **METALLURGICAL TESTWORK RESULTS**

The DFS metallurgical testwork is being undertaken by ALS Metallurgy Pty Ltd in Perth, Western Australia under the supervision of Mintrex.

Extensive metallurgical sampling has been undertaken for the full DFS testwork program and includes:

- 61 diamond core sample intervals weighing 1.7 tonnes for DFS design testwork
- 34 diamond core sample intervals weighing 0.8 tonnes for the variability testwork

All samples are at ALS in Perth.

Samples were collected based on geographic distribution, grade, oxidation state and host rock lithology over the mineral resource areas of Areas A, D and D South (one hole) and Karakara (Figure 1 and 2).

This report details the results of the comminution and grind establishment testwork undertaken on the DFS metallurgical design samples. Metallurgical testwork is continuing on leaching optimisation, mineralogical analysis, rheology, settling tests and variability testwork.

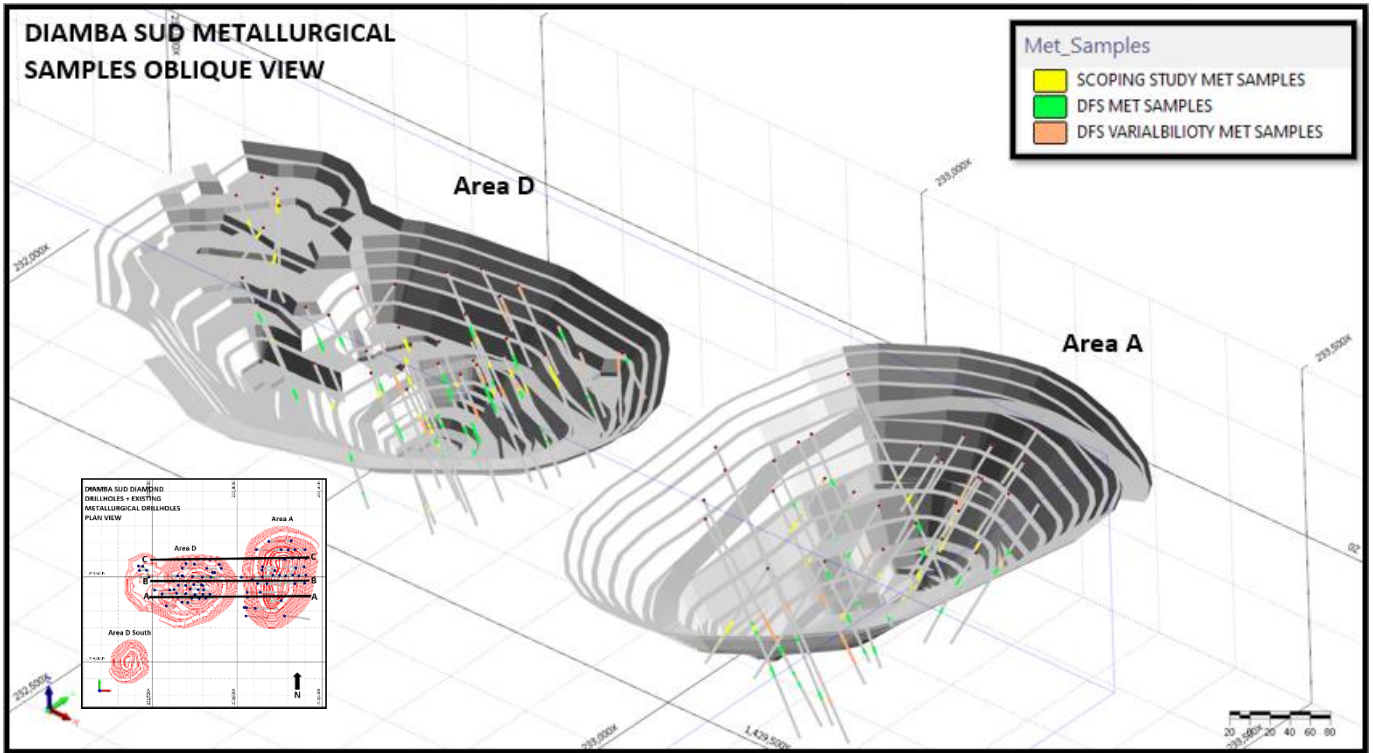


Figure 1: Areas A and D 3D view showing metallurgical sample locations.

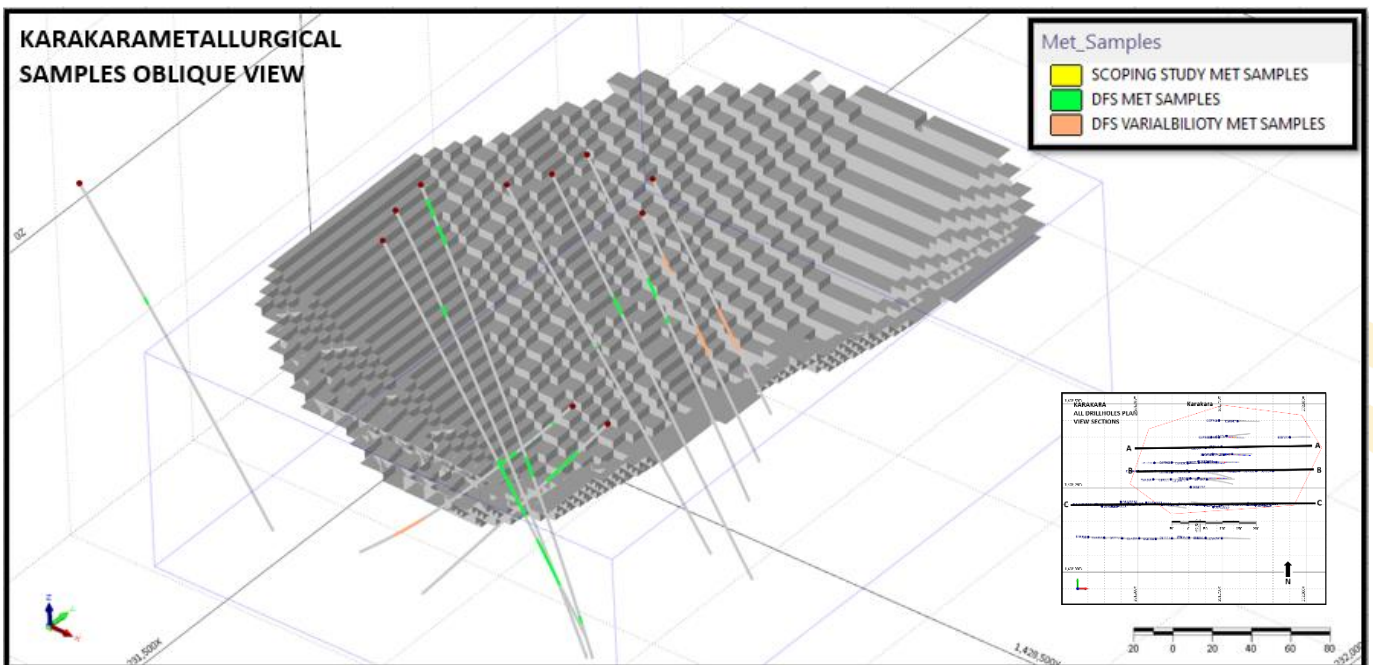


Figure 2: Karakara 3D view showing metallurgical sample locations.

**COMMINUTION**

Samples were selected from Areas A and D and Karakara. Sample ID's are identified by their area of origin, section, and ore domain e.g. AB Fresh-1 comes from section B of Area A, and made up of samples from the fresh ore domain. Each sample has been tested for Bond Ball Mill (BWi), Abrasion (Ai) and Crushing Work (CWi) indices as well as SMC testwork. The results of these tests are shown in Table 1.

**Table 1: Comminution Testwork Results**

Sample ID	CWi (kWh/t)	BWi (kWh/t)	Ai	A x b
AA FRESH-1	15.1	14.9	0.12	29.50
AB FRESH-1	4.5	15.7	0.23	31.10
AB FRESH-2	6.3	17.0	0.15	30.70
AB FRESH-4	5.7	16.7	0.17	40.00
AC FRESH-1	4.4	16.6	0.23	33.10
AC FRESH-2	5.3	19.5	0.33	30.20
AC FRESH-3	5.9	17.0	0.18	29.80
DA FRESH-1	6.8	19.3	0.16	32.70
DA FRESH-2	5.6	12.1	0.06	43.50
DA FRESH-3	4.0	12.6	0.04	40.10
DB FRESH-1	4.4	10.4	0.07	44.20
DB FRESH-2	7.6	13.6	0.23	33.70
DC FRESH-1	6.6	14.9	0.28	27.00
KARA FRESH-1	6.1	13.4	0.22	43.70
KARB FRESH-1	6.3	14.8	0.11	34.50
KARB FRESH-2	7.3	15.8	0.28	30.00
KARB FRESH-3	4.2	16.2	0.12	32.90
KARC FRESH-1	6.4	22.1	0.26	38.60
KARC FRESH-2	6.0	17.0	0.23	34.20
<b>AVERAGE</b>	<b>4.7</b>	<b>16.3</b>	<b>0.17</b>	<b>34.6</b>

The oxide material (about 41% of the current Scoping Study ore feed and 30% of the mineral resources) was found to be very soft and friable compared to the fresh ore and was thus difficult to test for hardness. The fresh ore has been used as the basis for comminution circuit design as they make up most of the resource and will be treated separately (no blending).

The fresh ore is moderately hard and abrasive, with relatively low energy required for crushing.

Three samples returned higher BWi results (greater than 19kWh/t), and all included a portion of mineralised granite lithology which represents <10% of the potential ore feed.

Comminution modelling by Orway Mineral Consultants has been undertaken with the assumption that the plant will treat oxide material in the first 12 to 18 months followed by fresh material for the rest of the mine life. A SAG mill-recycle-crusher-ball mill (SABC) circuit

has been identified as the optimum comminution flowsheet for treating the resource, as this will suit both the early low-energy oxide feed and the later harder fresh ore.

### GRIND ESTABLISHMENT

A number of samples were selected for use in grind establishment testwork. The samples were ground to four particle sizes (180 µm, 150 µm, 106 µm and 75 µm), and the gravity and leach gold recoveries were measured for each. The results are shown in Table 2

The oxide has an average gravity gold component of ~20%, and an overall recovery of ~95% after a 24-hour leach. The fresh ore has an average gravity gold component of ~60% and an average 93-95% overall recovery dependent on grind size.

One fresh sample DC-FRESH-1 (DSDD019 interval 60-73.4m and 120-125m) returned lower recoveries at ~75%. The sample interval only contained narrow mineralised intervals within low-grade material and falls on the margin or outside the main mineralised domains (Figure 3) and only represents a small component of the resource, further investigation is underway.

An economic analysis was undertaken using the results of this testwork and the comminution modelling and on this basis a grind size of 106 µm was selected for the SABC circuit, coarser than the 75 µm selected during the Scoping Study. This outcome is expected to have a positive impact on costs in the DFS. An indicative SABC flowsheet as shown in Figure 4.

**Table 2: Grind Optimisation Testwork Results**

Sample ID	Particle Size (µm)	Meas. Head Grade, Gold (g/t)	Gravity Gold Recovery (%)	Leach Gold Recovery (%) at 24h	Total Overall Gold Recovery (%) at 24h
DA OXIDE-1	150	3.81	8.3	94.5	94.9
	106		8.2	92.4	93.0
	75		8.7	92.4	93.1
DB OXIDE-2	150	6.22	33.9	95.0	96.7
	106		35.0	94.9	96.7
	75		24.2	97.0	97.7
DC-FRESH-1	180	1.01	33.9	49.4	66.5
	150		35.1	56.5	71.8
	106		34.4	60.7	74.2
	75		35.1	67.8	79.1
AB-FRESH-1	180	1.28	64.9	84.2	94.4
	150		63.5	85.7	94.8
	106		65.6	88.3	96.0
	75		63.4	87.0	95.2
AC-FRESH-1	180	1.48	62.5	91.9	97.0
	150		60.9	90.4	96.2
	106		63.2	95.0	98.2
	75		62.5	95.1	98.2
KARA-FRESH-1	180	4.62	73.3	90.8	97.5



Sample ID	Particle Size (µm)	Meas. Head Grade, Gold (g/t)	Gravity Gold Recovery (%)	Leach Gold Recovery (%) at 24h	Total Overall Gold Recovery (%) at 24h
	150		71.6	87.7	96.5
	106		68.7	94.1	98.1
	75		72.2	94.3	98.4
KARB-FRESH-2	180	3.07	61.7	84.7	94.1
	150		61.8	88.2	95.5
	106		61.9	90.9	96.5
	75		61.7	93.5	97.5
KAR-C-FRESH-2	180	3.23	57.3	91.3	96.3
	150		56.7	93.3	97.1
	106		58.2	93.4	97.3
	75		58.0	95.9	98.3

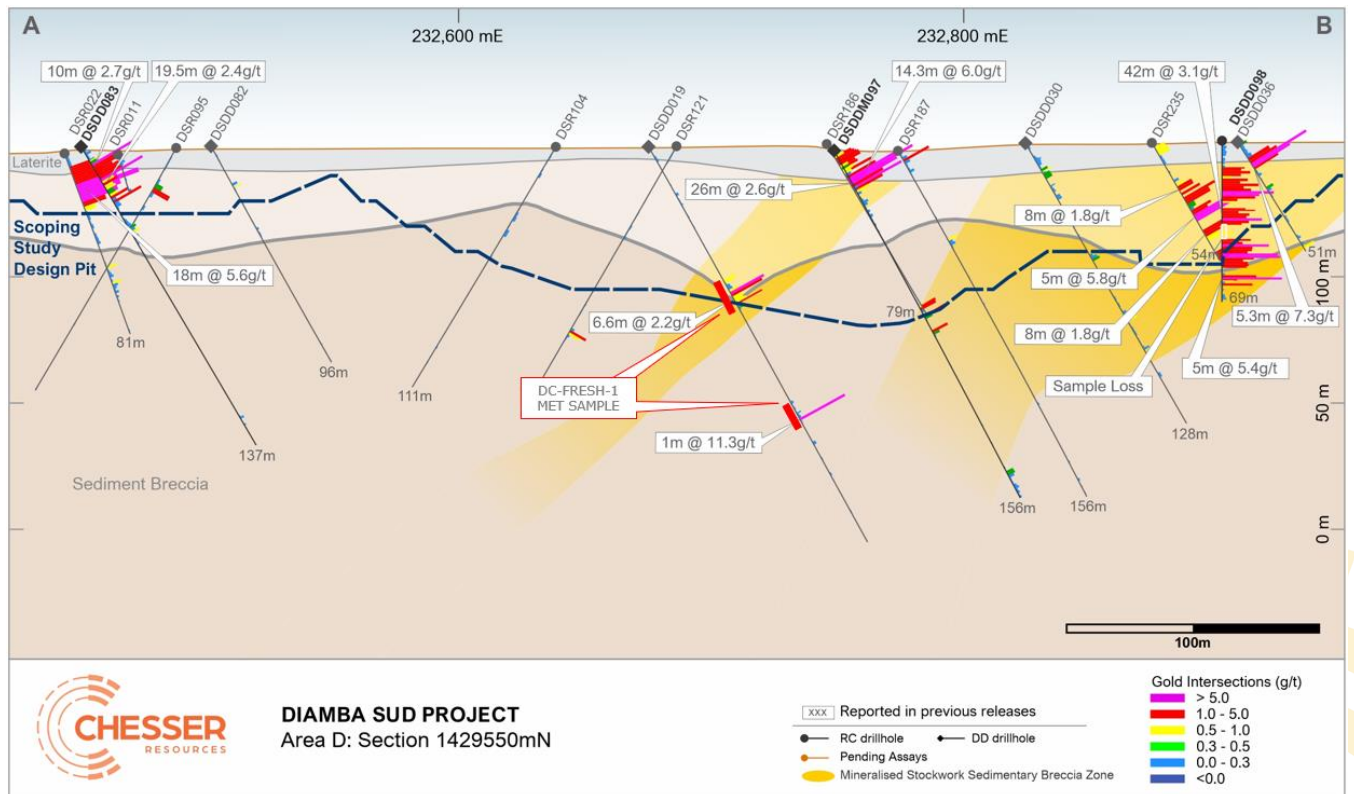
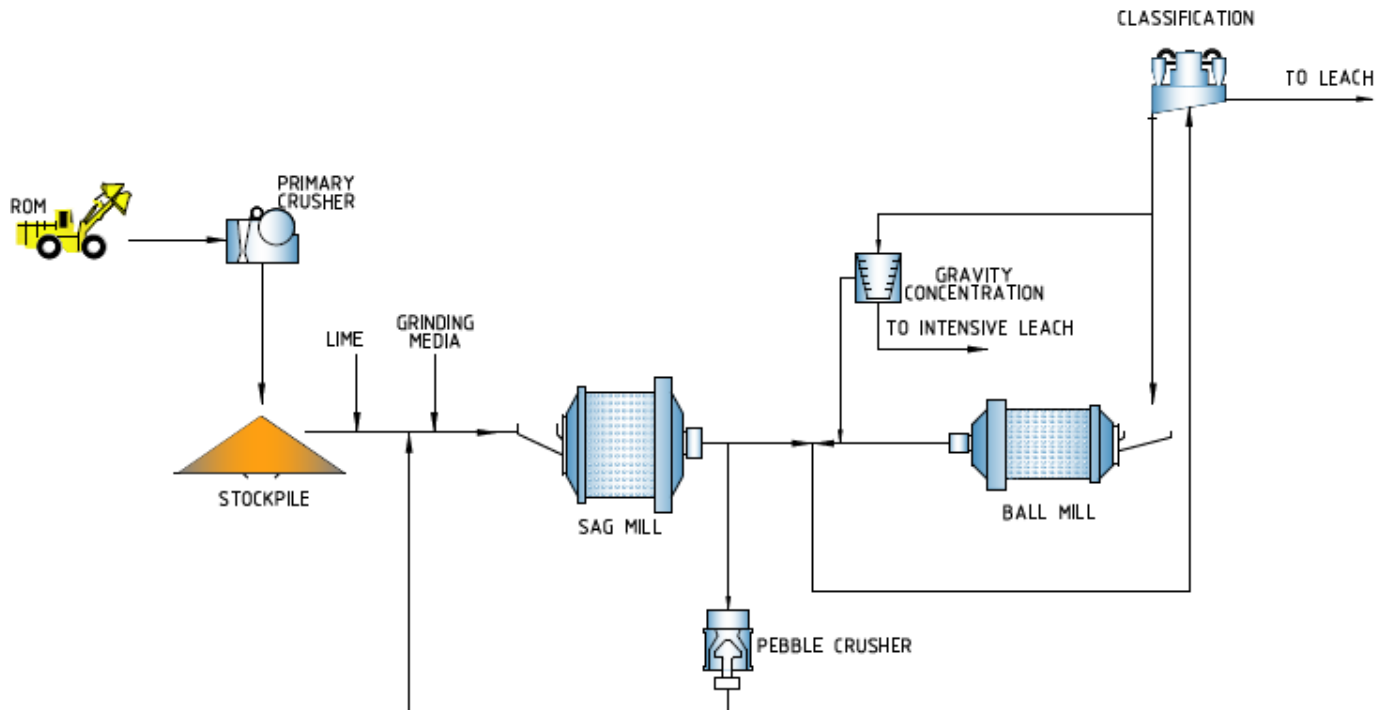


Figure 3: Area D Section 1429550mN showing historical drilling, selected significant results<sup>1</sup>, Scoping Study pit designs, interpreted geology and metallurgical sample locations.

<sup>3</sup> Refer to ASX announcements on 25 March 19, 10 April 19, 3 September 19, 2 March 20, 16 December 20, 2 March 21, 31 May 21 and 17 August 22 for drilling results. The Company is not aware of any new information or data that materially affects the information contained in those announcements.



**Figure 4: SABC Circuit Flowsheet**

## **WASTE ROCK GEOCHEMICAL CHARACTERISATION**

Knight Piésold (KP) was engaged by Chesser to conduct geochemical characterisation of the waste rock which will be produced from the development of the Diamba Sud Gold Project as part of the DFS.

The assessment comprises the following testing:

- Acid base accounting screening suite on 57 samples
- Multi-element screening analysis of 58 samples

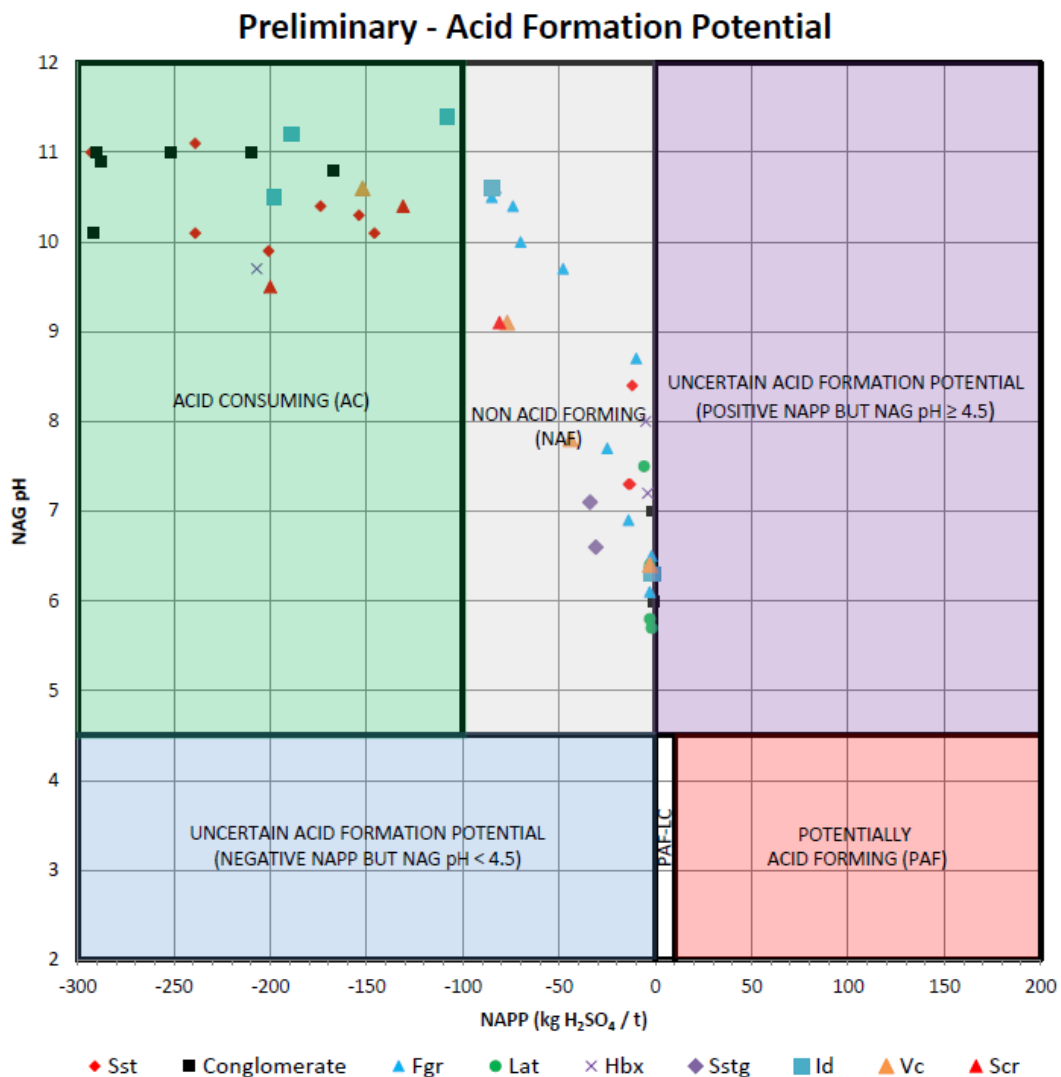
Samples were selected to be broadly representative of the main lithologies expected to be encountered within the pits at the proposed project.

Testing was conducted at a National Association of Testing Authorities (NATA) accredited laboratory using industry standard methods for acid base accounting and multi-element analysis with the following test work undertaken:

- Total sulfur, total carbon and sulfate sulfur
- Siderite modified acid neutralising capacity
- Net Acid Generation
- Paste pH

- Aqua regia digest followed by ICP analysis of elements

Of the waste rock samples analysed, 55% of samples were classified as Non-Acid Forming (NAF) and 45% as Acid Consuming (AC). No Potentially Acid Forming (PAF) material was observed in the samples and all samples had very low sulfur contents. Based on these findings no treatment or special handling of the waste will be required to manage the potential for acidification at the site.



**Figure 5: Diamba Sud acid forming potential testwork results by rock type**

The results of the multi-element analysis and comparison to average crustal abundance indicates that the samples have a low number of enrichments which was limited to a small proportion of samples. The most common significantly enriched elements were Silver, Arsenic, Molybdenum and Antimony but were only enriched in less than 5% of samples.

Based on the concentration of metals in the samples, application of a benign growth medium over the waste dumps will be all that is required to cover the waste dumps on closure.



The results of the testing indicate that the deposit has a very low geochemical risk and at present the risk profile appear to be sufficiently low to not require additional testing.

Geochemical characterisation testwork has been scheduled to be undertaken on the mineralised rock material when samples become available from the metallurgical testwork.

### **ESIA BASELINE SURVEY**

Dry season fieldwork completed in April and May 2022 by Earth Systems and sub-consultants included:

- Socioeconomic, land and water use baseline surveys, including land cover ground-truthing within the Permit area
- Archaeology and cultural heritage baseline survey
- Dry season terrestrial biodiversity and ecology survey
- Aquatic ecology and resource use survey
- Surface water and groundwater baseline monitoring
- Air quality, noise and vibration baseline monitoring and modelling

Finalisation of the analysis and reporting of these surveys is ongoing however no major risks have been identified to date.

**Socioeconomic surveys** undertaken in the villages/hamlets of Gamba Gamba, Kharakhena, Lingueya, Ousmaneya, Kourdiakhouma and Sontigna as part of the ESIA studies.

**Fauna:** The study focused on large and medium-sized terrestrial fauna (mammals, reptiles and birds) and found a total of 95 species (Table 3).

**Table 3: Overview of the different classes at Diamba Sud Project Development Area**

Classes	Number	
	Families	Species
Mammals	10	11
Reptiles	2	2
Birds	39	78
<b>Total</b>	<b>51</b>	<b>95</b>

All mammal species observed directly or indirectly are of only minor concern according to the International Union for Conservation of Nature (IUCN) Red List. However, according to the Senegalese hunting code, *Orycteropus afer* (Aardvark) is fully protected. The following mammal species are partially protected; *Tragelaphus scriptus*, *Ourebia ourebi*, *Felis silvestris*, *Mungos mungo*, *Mellivora capensis* and *Canis adustus*.

Among of the bird species observed, only the Savannah Boatman (*Terathopius ecaudatus*) of the family Accipitridae is considered threatened on the IUCN Red List.

**Flora:** The characterisation of the reference situation of the Diamba Sud project has identified 158 species. This flora is dominated by species from the Fabaceae family (21.5%), Malvaceae (10.1%), Combretaceae (7.6%), Poaceae (6.3%), Anacardiaceae (4.4%) and Rubiaceae (4.4%). These six families together represent more than 50% of the total species richness of the site.

Five species are represented in almost all the sites and are said to be constant. These are the following species: *Anogeissus leiocarpa*, *Terminalia macroptera*, *Diospyros mespiliformis*, *Pterocarpus erinaceus* and *Sarcocephalus latifolius*.

The flora degradation factors are natural and anthropogenic. However, anthropogenic activities are the main causes of biodiversity degradation (overexploitation of biological resources, bushfires, artisanal gold mining, etc.).

The results of the survey with local communities showed that *Pterocarpus erinaceus* is the most widely used species in the area. The wood of this species, called Senegalese rosewood, is used for cabinet making.

**Aquatic ecology:** The study recorded 14 species of fish and 68 species of aquatic macroinvertebrates in the study area. The species richness remains very low at all the sampled sites. This low species richness could be due to the poor quality of the water, which is linked to the high level of artisanal gold mining activity in the study area. Indeed, the high turbidity of the water combined with the presence of dredging machines in the riverbed would have negative impacts on the aquatic fauna.

The analysis of fish tissues shows the presence of heavy metals with especially high concentrations of mercury and zinc in the species *Schilbe intermedius* and *Petrocephalus bovei* sampled. These concentrations are above the FAO/WHO and Canadian (2016) standards for fish consumption.

Fishing is for the most part considered a secondary activity due to the scarcity of the resource but also due to the poor quality of the water.

The wet season survey has commenced and will make up the balance of the baseline data required for environmental approvals.



**7 November 2022**  
**ASX Announcement**

## **NEXT STEPS**

- Metallurgical testwork is continuing looking at leaching optimisation, mineralogical analysis, rheology and settling and will be reported when all testwork results are available
- Area D mineral resource update and an updated Scoping Study for the broader project resources have commenced and are expected to be completed during the current quarter
- Planning for the forthcoming drill program is underway with drilling expected to commence in November
- Reconnaissance exploration over the new Bondala tenement has commenced

This release was authorised by the Board of Directors of Chesser Resources Limited.

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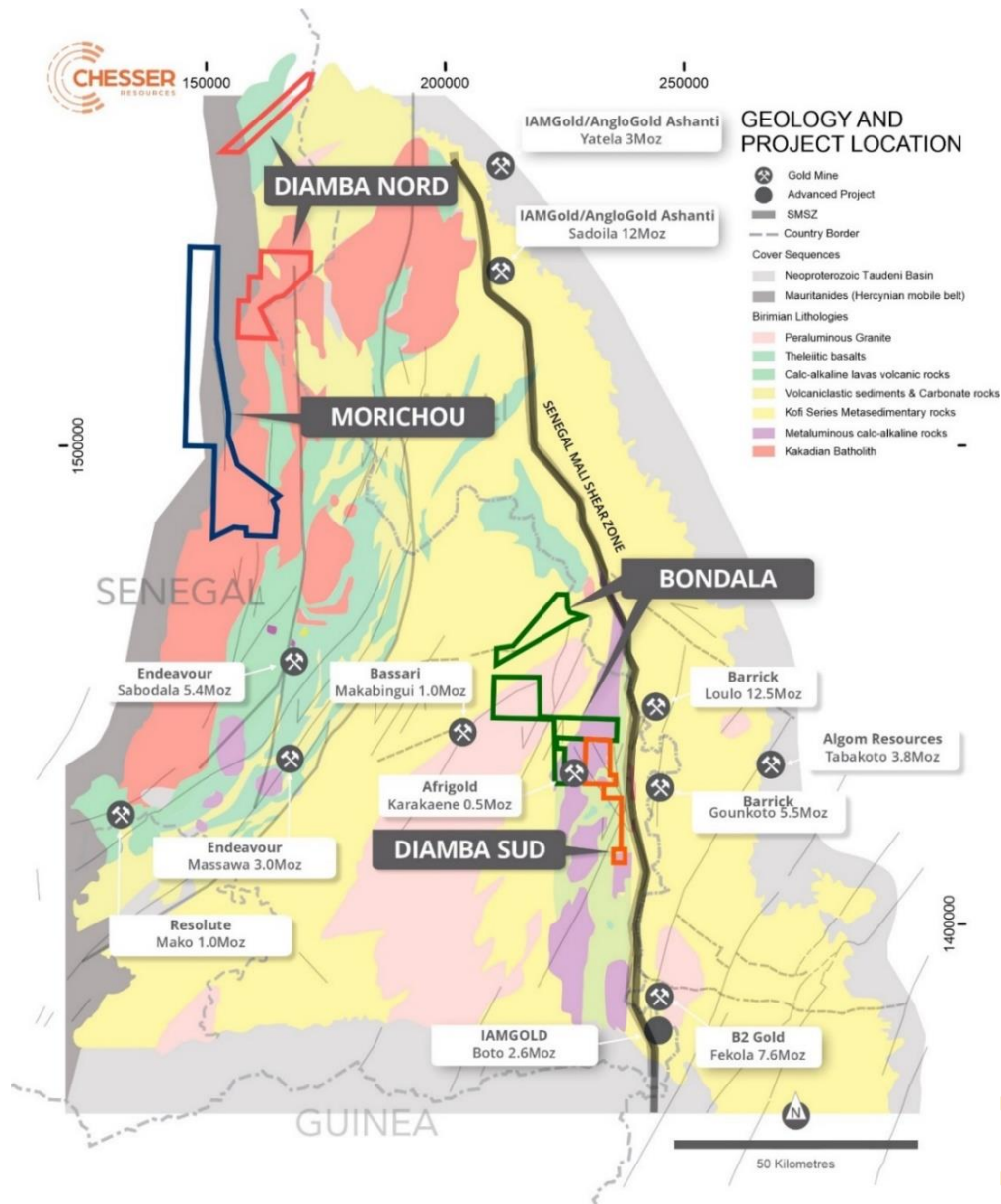
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**Figure 6: Schematic regional geology of eastern Senegal, showing Chesser's Project locations including the Diamba Sud Project and its proximity to both the SMSZ and the major gold operations and projects.**

### ABOUT CHESSER RESOURCES

Chesser Resources is an ASX listed gold exploration company with projects located in Senegal, West Africa. Chesser has discovered two high-grade gold Projects (Area A and Area D) at its flagship Diamba Sud project. The Company currently holds or has under application ~1,000km<sup>2</sup> of highly prospective ground in this underexplored world-class gold region. The Company has corporate offices located in Brisbane and Perth, Australia and a corporate and technical team based in Dakar, Senegal.

Diamba Sud, covers an area of 53.2km<sup>2</sup> and is located ~2km to the west of the Senegal Mali Shear Zone ("SMSZ"), a major regional structure that host numerous multimillion-ounce world class gold deposits including: B2Gold's 7.6Moz Fekola mine, Barrick's 18Moz Loulo-Goukoto complex and Allied Gold's Sadiola and Yatela mines. Diamba Sud lies just 7km to the west of Barrick's 5.5Moz Goukoto mine and to the immediate east of the privately owned 0.5Moz Karakaene mine.

### **Forward looking statements**

Statements relating to the estimated or expected future production, operating results, cash flows and costs and financial condition of Chesser Resources Limited's planned work at the Company's projects and the expected results of such work are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by words such as the following: expects, plans, anticipates, forecasts, believes, intends, estimates, projects, assumes, potential and similar expressions. Forward-looking statements also include reference to events or conditions that will, would, may, could or should occur. Information concerning exploration results and mineral reserve and resource estimates may also be deemed to be forward-looking statements, as it constitutes a prediction of what might be found to be present when and if a project is developed.

These forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable at the time they are made, are inherently subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements, including, without limitation: uncertainties related to raising sufficient financing to fund the planned work in a timely manner and on acceptable terms; changes in planned work resulting from logistical, technical or other factors; the possibility that results of work will not fulfil projections/expectations and realize the perceived potential of the Company's projects; uncertainties involved in the interpretation of drilling results and other tests and the estimation of gold reserves and resources; risk of accidents, equipment breakdowns and labour disputes or other unanticipated difficulties or interruptions; the possibility of environmental issues at the Company's projects; the possibility of cost overruns or unanticipated expenses in work programs; the need to obtain permits and comply with environmental laws and regulations and other government requirements; fluctuations in the price of gold and other risks and uncertainties.

### **Competent Person's Declarations**

The information in this report that relates to **Exploration Results** has been extracted from the referenced ASX Announcements filed by Chesser Resources Limited (Exploration Results Announcements) available to view at [www.chesserresources.com.au](http://www.chesserresources.com.au) and for which Competent Persons' consent were obtained. The Competent Persons' consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Exploration Results Announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Exploration Results Announcements.

The Information in this report that relates to the **Area A and Area D Mineral Resources, Bougouda Mineral Resource, and the Karakara Mineral Resources** has been extracted from the referenced ASX Announcements filed by Chesser Resources Limited (Mineral Resources Announcements) available to view at [www.chesserresources.com.au](http://www.chesserresources.com.au) and for which Competent Person's Consents were obtained. The Competent Persons' consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. Chesser confirms that it is not aware of any new information or data that materially affects the information included in the Mineral Resources Announcements. All material assumptions and technical parameters underpinning the estimates in the Mineral Resources Announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the Mineral Resources Announcements.

The Information in this report that relates to the **Scoping Study** was first reported in the announcement titled 'Chesser Scoping Study Confirms Robust, Low-Cost Gold Project' released to the Australian Securities Exchange (ASX) on 15 March 2022 (Scoping Study Announcement) as amended on 27 October 2022 and available to view at [www.chesserresources.com.au](http://www.chesserresources.com.au) and for which a Competent Persons' consent was obtained. The Company is not aware of any new information or data that materially affects the production targets and financial forecasts derived from the production targets in the referenced ASX announcements and confirms that all material assumptions and technical parameters underpinning those production targets and financial forecasts continue to apply and have not materially changed from the amended Scoping Study results contained in the ASX announcement dated 27 October 2022.

### **Non-IFRS financial information**

We supplement our financial information reporting determined under International Financial Reporting Standards ("IFRS") with certain non-IFRS financial measures, including All-In Sustaining Costs ("AISC") AISC is based on cash operating costs and adds items relevant to sustaining production. It includes some, but not all, of the components identified in World Gold Council's Guidance Note on Non-GAAP Metrics -All-In Sustaining Costs and All-In Costs (June 2013).