



**MINERAL RESERVES
STATEMENT**

Period ended June 30th 2019

Summary

The reporting of Mineral Resources and Mineral Reserves for Farafina Gold Group SA (“Company” or “Group”) operations is conducted in accordance with the principles and guidelines contained in the the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, also known as the [JORC Code](http://www.jorc.org) (<http://www.jorc.org>)

In the course of a 5-year exploration programme, which Farafina commenced in 2013, the Group carried out exploration works on a territory extending over 500 square miles.

Aerial photography was carried out with detailed mapping of the territory. Areas of active prospector development were identified, including historically exhausted mines. Gold-mining industry in medieval Mali, which extends through the present territory of Guinea, was the world's most developed at the time, and to this day [King Musa I is considered the richest man in the history of civilization¹](#).

Surface mining and its traces are clear indicators of underground reserves, which were not accessible to prospectors and medieval tools.

The Group prospected the mineralization zones in prospective areas with subsoil geochemical sampling, pit and trench sampling, and their subsequent analysis.

Deep drilling of the crystalline basement included RC (reverse circulation) and DD (diamond) drilling and allowed the Company to estimate the resources of the explored deposits (about 40 tons or 1,250 th. ounces) and their potential resources at not less than 120 tons of gold (or 5,000 th. ounces).

Based on the results of the exploration programme, the Company identified approximately 3 tons of high-grade reserves (about 100,000 ounces) and obtained two mining licenses. At the Kanguela East property, the Company conducted pilot deep pit mining, which confirmed the results of the geological exploration and allowed it to refine the estimates of the reserves prepared to mining.

The Company continues to explore promising horizons within the largest known auriferous Birimian Siguiri Basin and is situated within a mining region in which most of the gold mines of Guinea are located, such as Siguiri (Ashanti Goldfields) and Lefa (Nordgold) in the north and Kiniero in the southwest.

Integrated Mineral Resource Management

FGG combines the most modern methods of geological exploration, including digital orthophotography and mapping, creation of a three-dimensional dynamic model of the deposit with resource estimation based on the [Micromine expert system](https://www.micromain.com/cmms-software/) (<https://www.micromain.com/cmms-software/>). This enables management to correct the work plan in real time, concentrate on high-potential areas and refine drilling depths (the FGG drilling complex provides for drilling up to the depth of 200-250 m).

The availability of a modern [Retsch](http://www.retsch.com) (<http://www.retsch.com>) sample preparation laboratory, in concert with on-line processing of results within the model of the explored orebodies enables the management to drastically shorten the decision-making cycle based on the sample analysis results, and to refine the exploration activity plan within a week timeframe (whereas traditionally it can take from three to six months, and even more).

Data on gold grade is formed on the basis of [SGS](http://www.sgs.com) (<http://www.sgs.com>) laboratory analysis. SGS is a Swiss-based internationally certified laboratory. The regional representative office is located in Bamako (Mali).

¹ https://en.wikipedia.org/wiki/Musa_I_of_Mali,
https://ru.wikipedia.org/wiki/%D0%9C%D0%B0%D0%BD%D1%81%D0%B0_%D0%9C%D1%83%D1%81%D0%B0

An analogous approach is used in the course of preparation and implementation of mining programmes.

The FGG mineral resources management (MRM) function is to grow mineral assets in terms of both Resources and Reserves, and to unlock value through a constant search for optimal extraction plans which yield returns in line with the corporate and business objectives.

The main objective of the MRM function is to add value to the organization, through:

- Appropriate investigation, study and understanding of the orebodies,
- Accurate and reconcilable Mineral Resource and Reserve estimates,
- Integrated and credible short-, medium- and long-term plans,
- Measured and managed outputs,
- Sound management information systems,

The following figure represents the key stages of the MRM process:

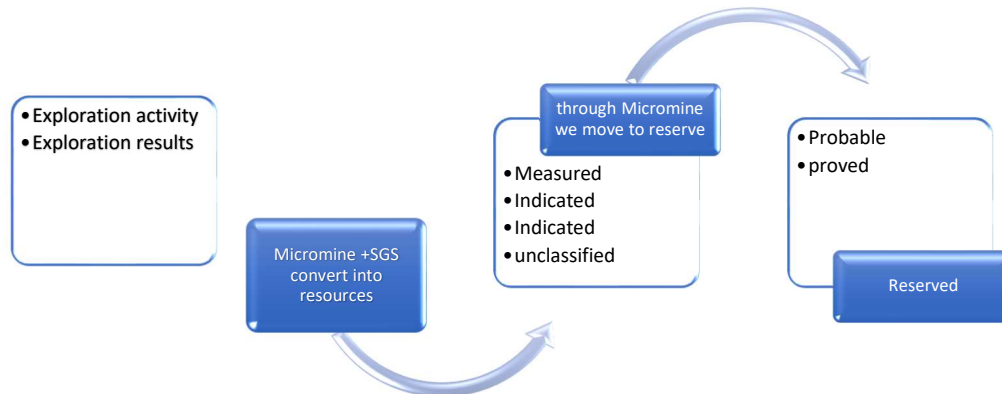


Figure 1: Key stages of FGG MRM process

Specific focus is given to standardization and the development of protocols to govern the MRM function. The Group accordingly remains committed to:

- The legislative regime that governs mineral rights ownership
- The transparent, responsible disclosure of Mineral Resources and Mineral Reserves in line with the prescribed codes, SAMREC and JORC, giving due cognizance to materiality and competency.

Geological exploration strategy

The Group exploration strategy remained essentially unchanged from the previous year - i.e. focused on the refinement of the quality of the data about the discovered reserves and preparation for mining operations.

A brand-new type of activity pursued by the Group was exploration mining at the Kanguela East property, based on the semi-industrial mining license that was recently obtained. In concert with intensive additional reconnaissance activities, this process enabled management to isolate the initial zone for the commencement of mining activities and develop a precise financial model thereof.

The mineral resource estimates were carried out by wireframe and block modeling methods of ore zones using Micromine software and have been classified according to the JORC Code. A sample of the results is presented below:

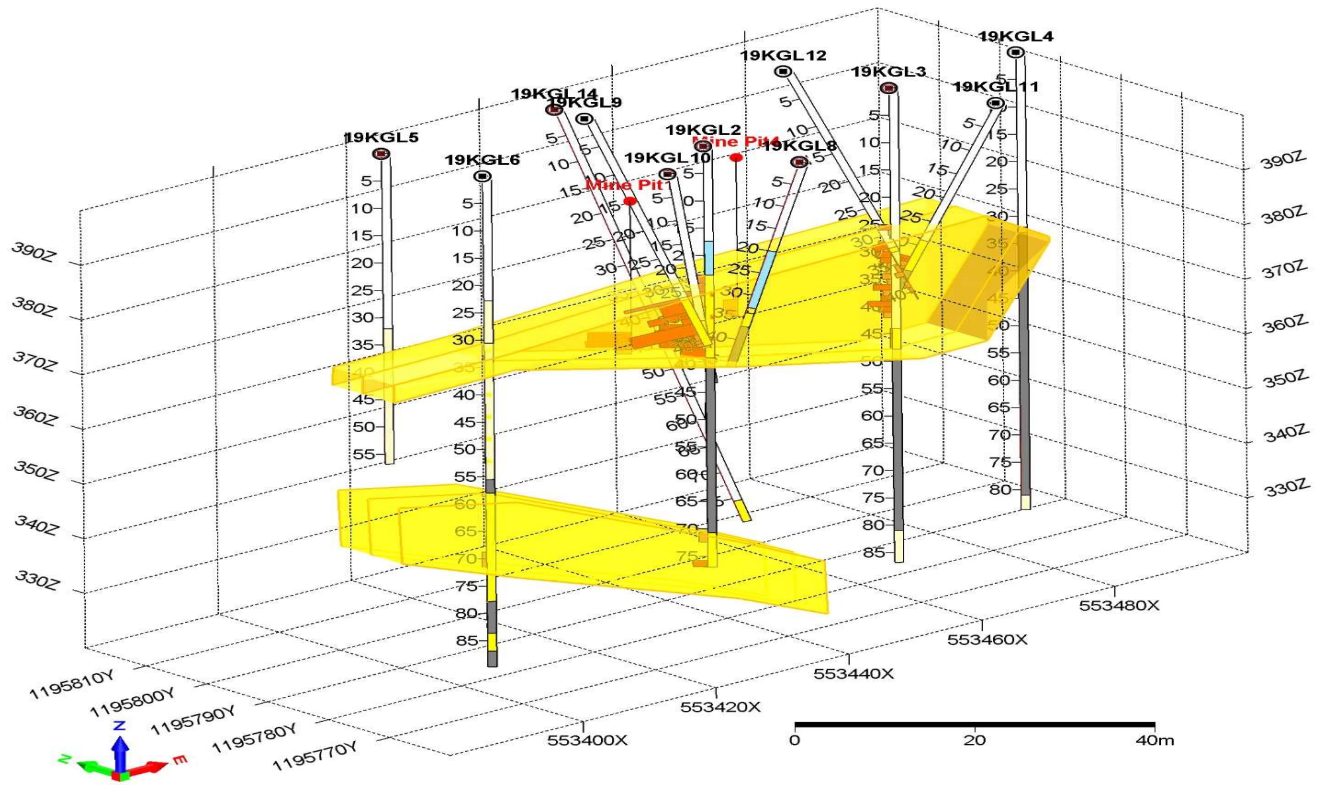


Figure 2: Wireframe model for the Gressifalani / Kanguela East ore zones (2019).
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

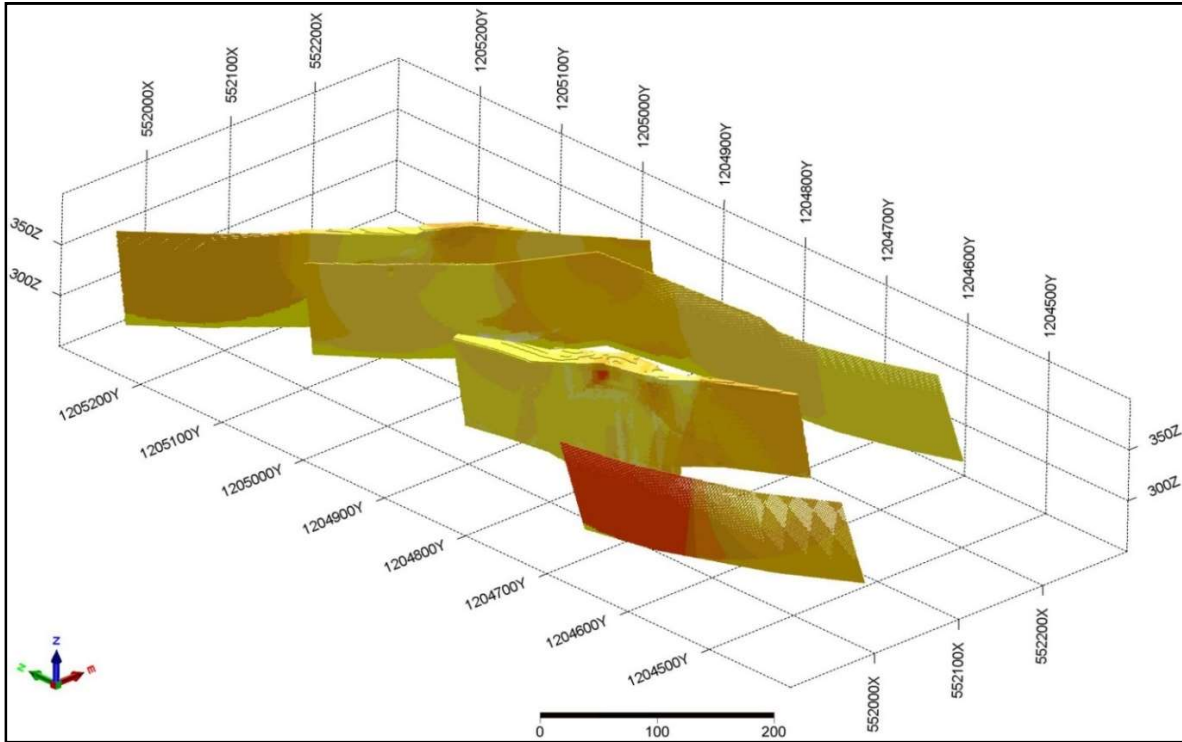


Figure 3: Block model for Wodokodoni / Kanguela East site ore zones (3D-visualization)
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

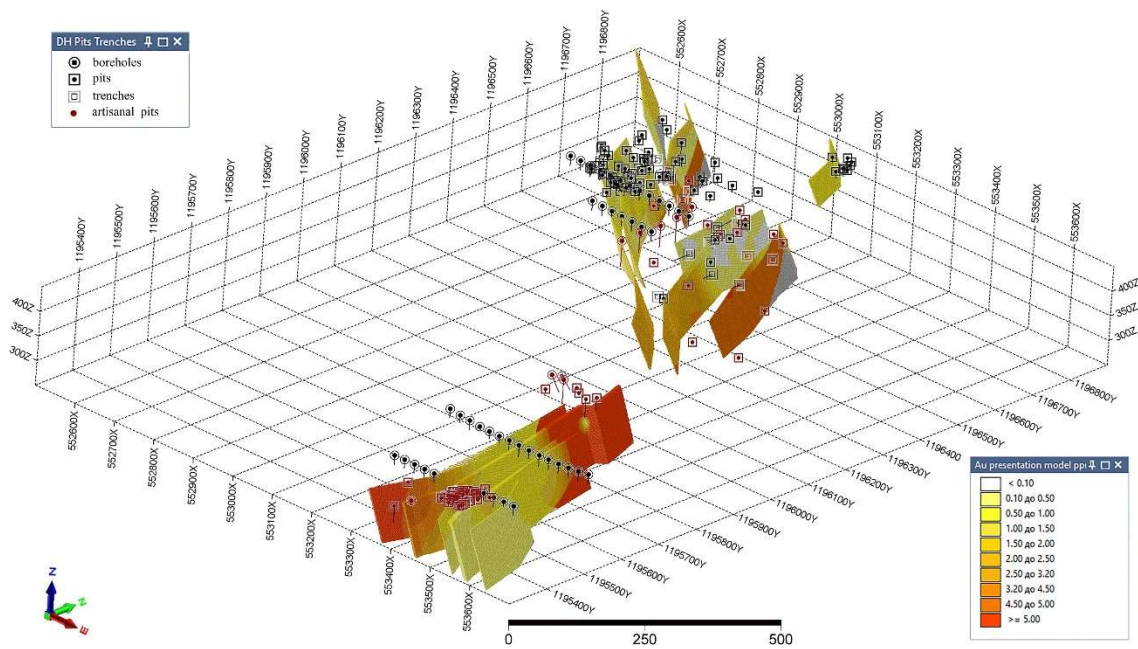


Figure 4: Block model for the Gressifalani / Kanguela East deposit ore zones (3D-visualization)
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

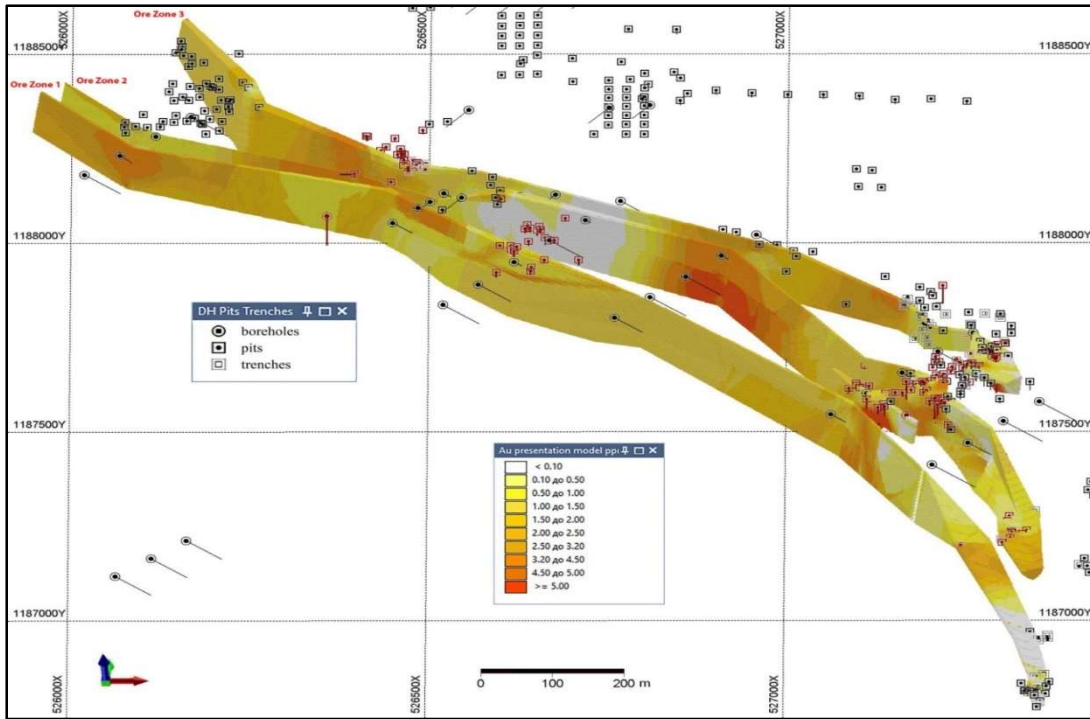


Figure 5: Block model for the Nzima / Kanguela East deposit ore zones (3D-visualization)
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

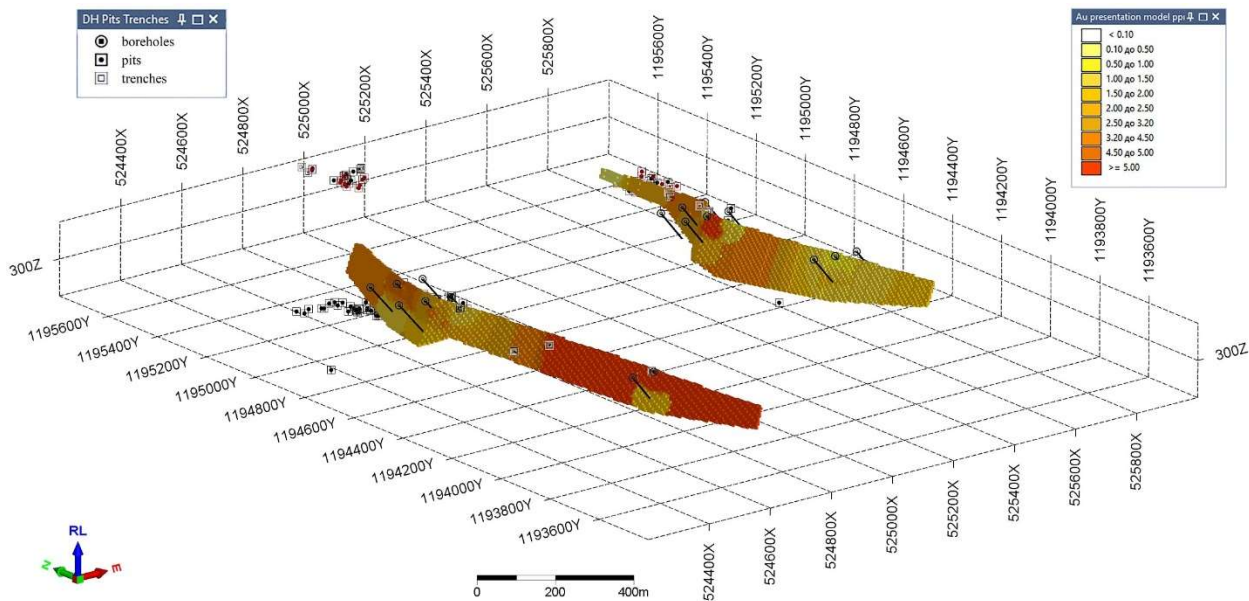


Figure 6: Block model for the Faralako North deposit ore zones (3D-visualization)
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

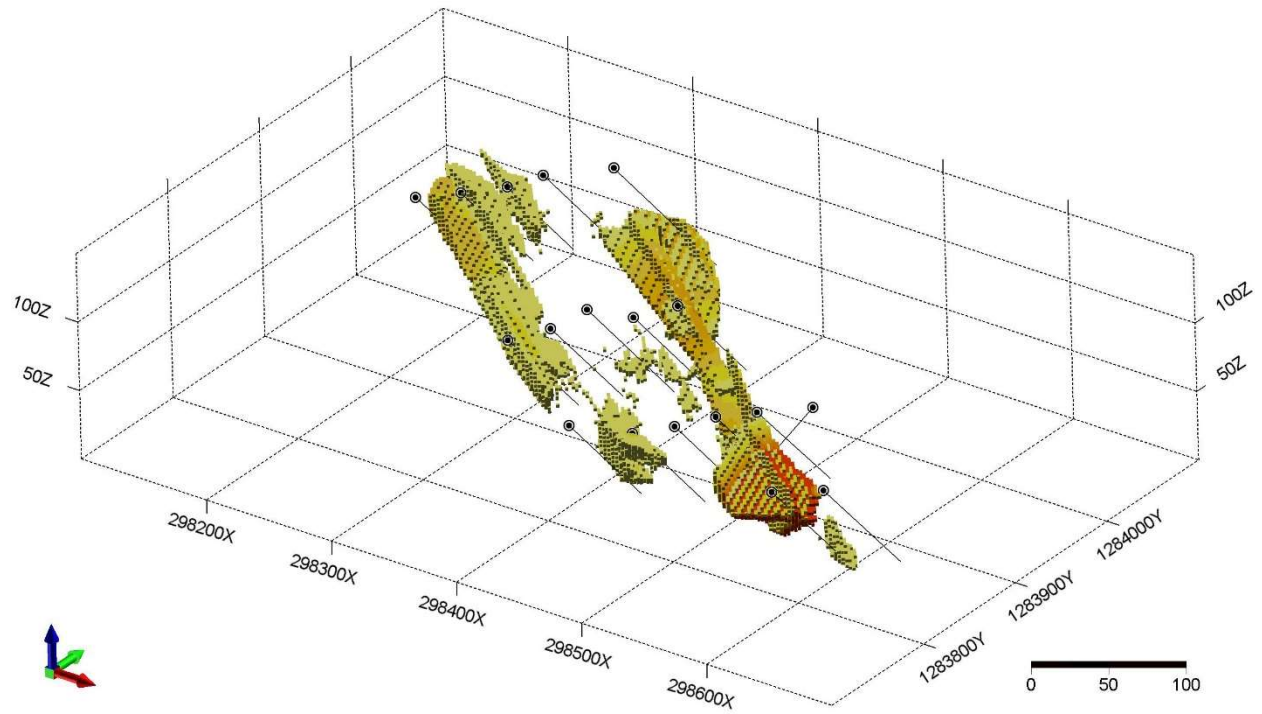


Figure 7: Block model for the Paramangui North deposit ore zones (3D-visualization)
 Legend: N-North (green arrow), E-East (red arrow), Z-height above sea level (blue arrow)

Attributable Mineral Resources

Table 1 Attributable Mineral Resources as of 3th June 2019:

	Category	Tonnes (000s)	Grade (ppm)	Attributable Ounces (000s)
Nzima	Measured	-		
	Indicated	1,755	2.3	130
	Inferred	3,619	2	199
	Unclassified	3,482	2	224
	Total	8,856	2	553
Kanguela East	Measured	25	46.5	38
	Indicated	506	1.2	45
	Inferred	2,270	4.8	283
	Unclassified	3,226	2.6	322
	Total	6,027	3.6	688
Faralako North	Measured	-	-	-
	Indicated	132	6.6	28
	Inferred	1,546	2.9	142
	Unclassified	2,675	4.8	416
	Total	4,353	4.3	586
Paramangui	Measured	-	-	-
	Indicated	-	-	-
	Inferred	-	-	-
	Unclassified	3,000	1	125
	Total	3,000	1	125
ALL	TOTAL	22,236	1	1,952

As illustrated in the table above, deep exploration increased resources in both Kanguela East by 253,000 ounces (two hundred and fifty-two thousand ounces) and Faralako North by 470,000 ounces (four hundred and seventy thousand ounces) during the six-month period.

Table 1: Attributable Mineral Resources as of 30th June 2019:

Site	Category	Tonnes (000s)	Grade (ppm)	Attributable Ounces (000s)
Nzima	Probable	1,116	2	77
Kanguela	Proved and Probable	16	44	48
	TOTAL	1453	2.68	125

Note:

- Attributable Mineral Resources as expressed in tonnes; gold ounces are based on the Farafina Gold Group SA equity interests
- These are summary estimates; any possible inaccuracies are derived from the rounding of numbers
- The mineral reserves are located within quartz veins and vein zones of mineralization in meta-sedimentary rocks and weathering crusts.

Indicated, inferred and unclassified resources are based on extensive drilling, sampling, mine modeling and metallurgical testing. Metallurgical recovery rates vary depending on the metallurgical properties of each deposit and the production process used. The cut-off grade, or lowest grade of mineralization considered economic to process, varies with material type, price, operating costs and co- or by-product credits.

The indicated, inferred and unclassified mineral properties figures presented herein are estimates based on information available at the time of calculation. Mineral properties estimates may require revision based on actual production. Market fluctuations in the price of gold as well as increased production costs or reduced metallurgical recovery rates, could render certain mineral properties containing higher cost resources uneconomic to exploit and might result in a reduction of mineral assets.

Table 3: Dynamic Changes from December 31, 2018 to June 30, 2019

	Category	Dec. 31, 2018		June 30, 2019	
		Tonnes (000s)	Attributable Ounces (000s)	Tonnes (000s)	Attributable Ounces (000s)
Nzima	Measured			-	
	Indicated	1,755	130	1,755	130
	Inferred	3,619	199	3,619	199
	Unclassified	3,482	224	3,482	224
	Total	8,856	553	8,856	553
Kanguela East	Measured			25	38
	Indicated	466	18	506	45
	Inferred	2,532	160	2,270	283
	Unclassified	3,000	258	3,226	322
	Total	5,998	435	6,027	688
Faralako North	Measured			-	-
	Indicated	-	-	132	28
	Inferred	-	-	1,546	142
	Unclassified	1,800	116	2,675	416
	Total	1,800	116	4,353	586
Paramangui	Measured	-	-	-	-
	Indicated	-	-	-	-
	Inferred	3,000	125	-	-
	Unclassified			3,000	125
	Total	3,000	125	3,000	125
ALL	TOTAL	19,654	1,229	22,236	1,952

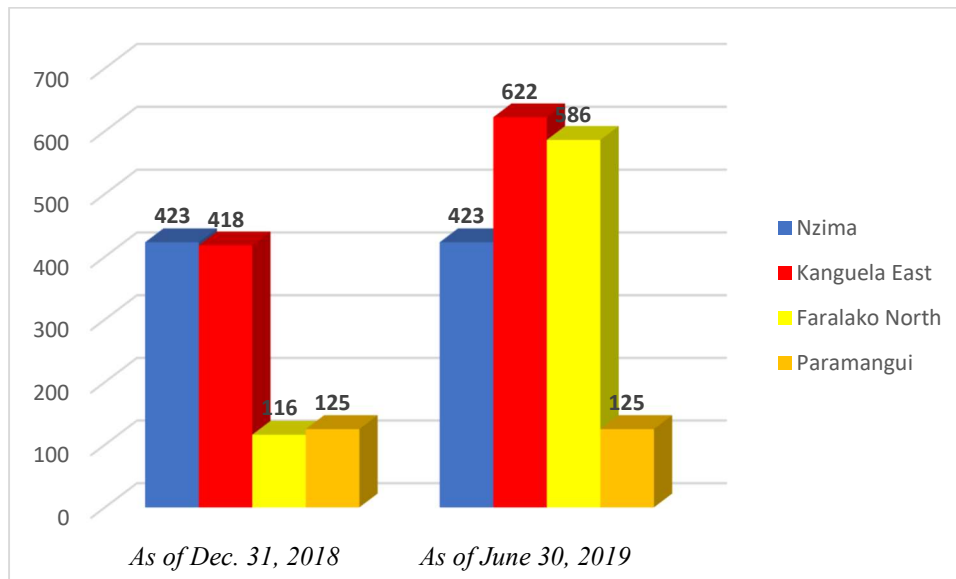


Figure 8: Change in resources from December 31, 2018 to June 30, 2019

As shown on the figure above, in the course of exploration activities pursued during the past 6 months on Kanguela East and Faralako North properties, the Group’s mineral assets value was significant.

The financial valuation of the Farafina Gold Group mineral assets is based on the academic paper [“What are in-situ gold resources worth? An empirical study”](https://docplayer.net/15169054-What-are-in-situ-gold-resources-worth-An-empirical-study.html) (<https://docplayer.net/15169054-What-are-in-situ-gold-resources-worth-an-empirical-study.html>), which provides the most realistic methodology for valuation of mineral reserves and complies with industry best practices.

The valuation presented herein is based on the market price assumption of approximately \$1,000 per ounce. The current market price is approximately \$1,500 per ounce, which implies a 50% discount. (In reality, the profitability of gold production operations is not linear with the market price of gold, since production margins are determined by the difference between the market price and the much lower average production cost. In a bullish gold market, mining margins of gold producers often turn from red to green.

Based on the referenced paper:

- Indicated resources are classified as medium-grade – more than 1 million ounces (1 000 000 ounces);
- Reserves are classified as low-grade (less than 3 g/t), based on a conservative estimate (high grade sites are evaluated separately, considering the mining plan and economic model);
- the region is considered high-risk

Based on the above assumptions, the Company gold reserves may be valued at approximately \$45 per ounce. Since the licensed territories, except for Paramangui, are located on neighboring tracts (some are directly linked), the following valuation parameters of Group resources are presumed to be accurate:

Economic Growth of Mineralized Assets

Table 4: Economic valuation changes from Dec. 31, 2018 to June 30, 2019

	Category	31.12.2018			30.06.2019		
		Ore, Tonnes (000s)	Au, Ounces (000s)	Value, USD (mln)	Ore, Tonnes (000s)	Au, Ounces (000s)	Value, USD (mln)
Nzima	Inferred	3 619	199	8	3 619	199	9
	Unclassified	3 482	224	9	3 482	224	10
	Total	7 101	423	19	7 101	423	19
Kanguela East	Inferred	2 532	160	7	2 270	300	14
	Unclassified	3 000	258	12	3 226	322	14
	Total	5 532	418	19	5 496	622	28
Faralako North	Indicated			0	132	28	1
	Inferred			0	1 546	142	6
	Unclassified	1 800	116	5	2 675	416	19
	Total	1 800	116	5	4 353	586	26
Paramangui	Unclassified	3 000	125	6	3 000	125	6
	Total	3 000	125	6	3 000	125	6
ALL	TOTAL	17 433	1 082	49	19 950	1 756	79

The main achievement of FGG in the first half of 2019 was the convert a part of the Group resources (about 38 thousand ounces) to highly reliable reserves, which, taking into account the economic justification, enables management to value them at gold price range of about \$700 per ounce to \$1,500 per ounce, which led to the estimated increase in company valuation of \$ 26 million.

Proved reserves at the Nzima deposit are high-grade – over 6 g/t and are estimated about \$ 60/OZ, which is about \$ 4,600,000.

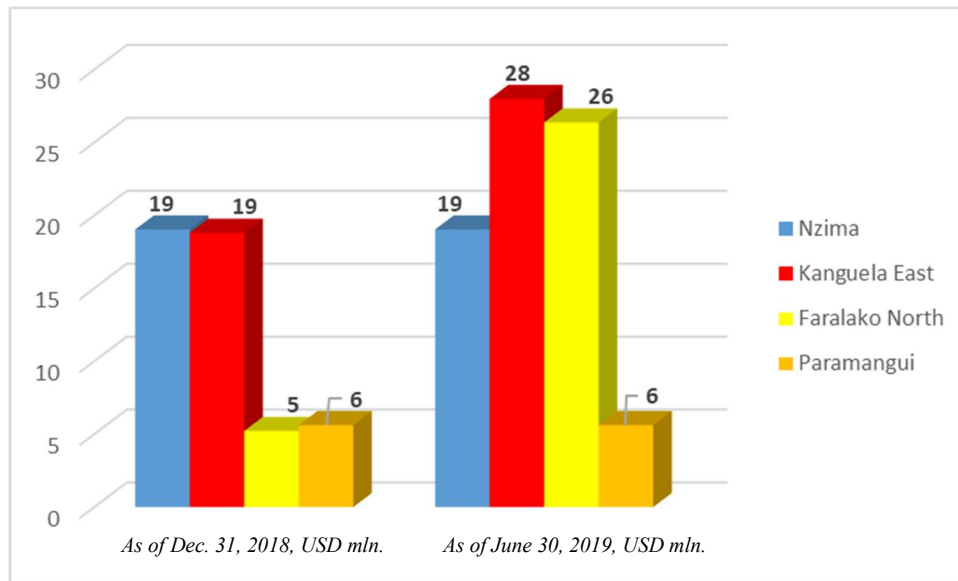


Figure 9: Dynamic Chart of changes from 31st December 2018 to 3th June 2019

Note

A *mineral reserve* is classified as economically mineable when part of a measured or indicated mineral resource is demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. Resources which are not reserves do not have demonstrated economic viability and therefore are not measured in this balance.

Determination:

The term “economically,” as used in the definition of reserve, means that profitable extraction or production has been established or analytically demonstrated in a feasibility study to be viable and justifiable under reasonable investment and market assumptions.

The term “legally,” as used in the definition of reserve, does not imply that all permits needed for mining and processing have been obtained or that other legal issues have been completely resolved. However, for a reserve to exist, the Group must have a justifiable expectation, based on applicable laws and regulations, that issuance of permits or resolution of legal issues necessary for mining and processing at a particular deposit will be accomplished in the ordinary course and in a timeframe consistent with the current mine plans.

The term “inferred mineral resources” means that part of mineral resource for which tonnage, quantity and grade or quality can be estimated on the basis of geological evidence, sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

The term “An indicated mineral resource” is that part of a mineral resource for which tonnage, quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

The term “proven reserves” means reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; (b) grade and/or quality are computed from the results of detailed sampling; and (c) the sites for inspection, sampling and measurements are spaced so closely and the geologic character is sufficiently defined that size, shape, depth and mineral content of reserves are well established.

The term “probable reserves” means reserves for which quantity and grade are computed from information similar to that used for proven reserves, but the sites for sampling are farther apart or are otherwise less closely spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation. FGG classifies all reserves as Probable on its development projects until a year of production has confirmed all assumptions made in the reserve estimates.

The term “cut-off grade” means the lowest grade of mineralized material considered economic to process. Cut-off grades vary between deposits depending upon prevailing economic conditions, mine ability of the deposit, by-products, amenability of the ore to gold extraction and type of milling or other facilities available.