ASX ANNOUNCEMENT ASX:MVL

30 October 2020

DRILLING CONFIRMS KARST TARGET AT LAKANFLA

Marvel Gold Limited (ASX: MVL) (**Marvel** or the **Company**) is pleased to provide an update on the current drilling program at its Lakanfla Gold Project (**Lakanfla**) located in western Mali.

The objectives of this first phase drilling program were to:

i. Prove the existence of the karst and outline the stratigraphy – successfully confirmed;

ii. Define the shape and depth of the karst – ongoing; and

iii. Identify the potentially mineralised areas of the karst – subject to assays.

Drilling commenced earlier this month, with 8 holes for 1,653m out of a planned total of approximately 3,800m completed to date. Due to the distance from the laboratory and the associated logistics of transporting the mass of samples collected during the program, the Company plans to despatch all samples at the conclusion of drilling (now expected to be mid-November). As such, the Company expects results to be reported throughout December.

Encouragingly, the majority of holes drilled to date have intercepted karst horizons. Karst horizons were found at various depths and thickness, some within the first 60 metres from surface and up to 60 metres thick. The presence of karsts (as a result of dissolution of carbonate rocks) explain the extensive gravity lows seen at Lakanfla and are an important proof of concept because the dissolution is thought to be responsible for upgrading lower level gold into a potentially economic supergene enrichment zone. More detailed descriptions of the geology are included in the technical section further below.

Executive Director Chris van Wijk, commenting on the drilling progress:

"We are encouraged that the rock types encountered by drilling to date have confirmed the presence of a karst at Lakanfla. This is the first critical step in the Lakanfla deposit model being pursued by Marvel. Our remaining holes are spaced around the 7km strike of gravity lows that we now know exist due to karst formation and carbonate rock dissolution processes. We await the assay results in December to confirm whether these extensive karst horizons are mineralised."

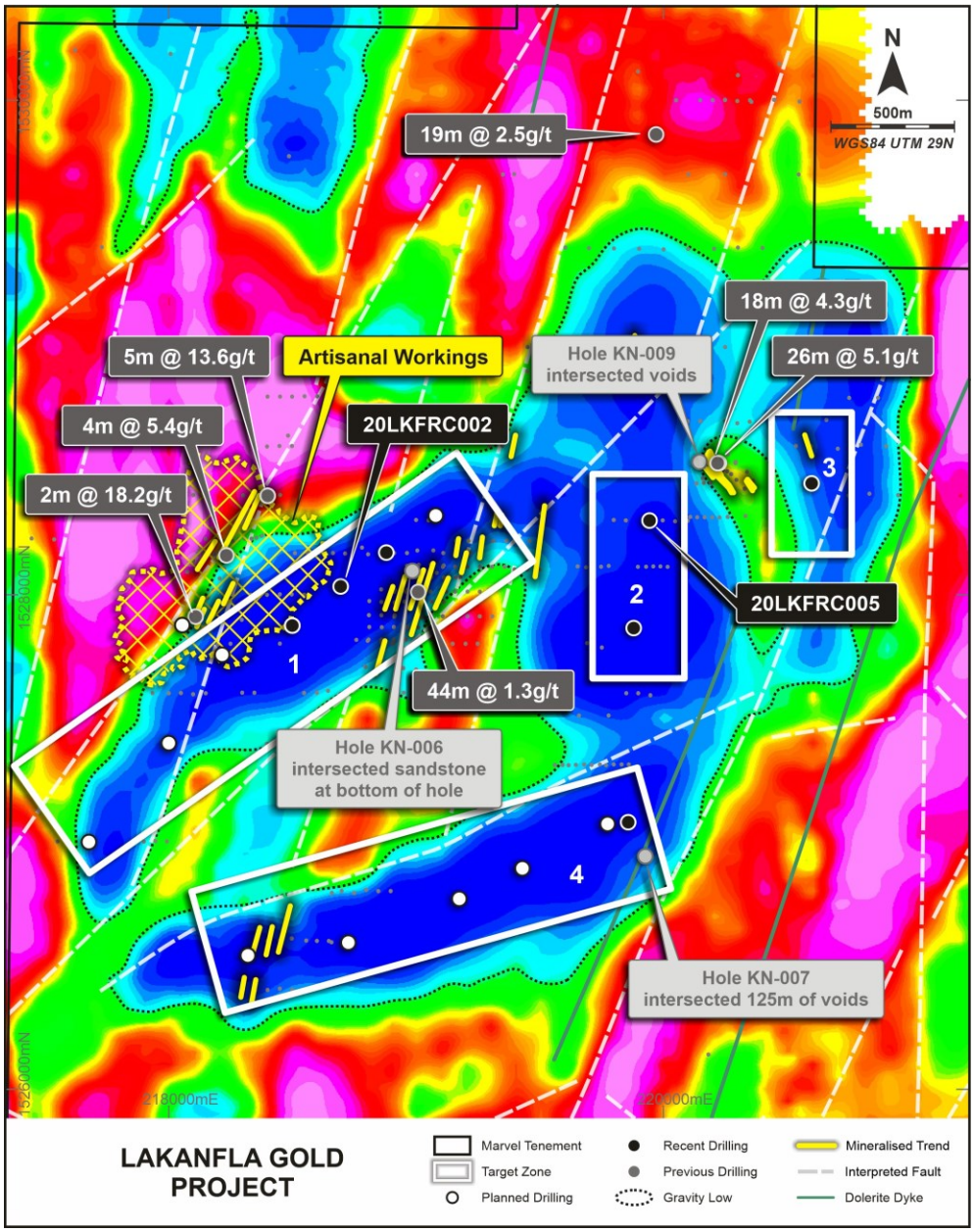
The next step is assays from the drill program to confirm if the karsts are mineralised. There are a number of reasons to be optimistic about the mineralisation potential at Lakanfla:

- It is located 6km from Sadiola, one of Mali's largest gold deposits;
- It is located on the Senegal Mali Shear Zone, a structure responsible for a substantial number of large-scale gold deposits;
- There are extensive artisanal workings targeting high-grade veinlets in metasediments to the north-west of Target Zone 1 (see Figure 4 further below); and
- The granite intrusion is mineralised, having been the focus area of historical drilling.

DRILL PROGRAM AND FINDINGS – TECHNICAL

Figure 1 below shows the location of the actual and planned drillholes including holes 20LKFRC005 and 20LKFRC002, which are described in more detail below.

Figure 1: Lakanfla drillhole locations*



**In relation to the exploration results shown in Figure 1, see ASX announcement 17 June 2020.*

Most holes drilled thus far have intercepted karst horizons which typically manifest as voids within a (carbonaceous) siltstone-mudstone unit that have been infilled with weakly consolidated to unconsolidated, compositionally and texturally immature sediments interbedded with clay-rich bands (collectively known as 'karst fill').

The karst fill is strongly weathered and oxidised, contrasting sharply with the in-situ bedrock. When drilling through the karsts, vast amounts of water have been encountered. The base of the karst typically consists of 'bleached' or saprolitic (carbonaceous) siltstone-mudstone, which freshens with depth. The top of the karst fill often has a ferruginous layer, whilst pisoliths have also been observed at depth (e.g. from 48-50m; hole 20LKFRC005). Pisoliths are exclusively formed in the near-surface environment and their occurrence at

depth is therefore considered irrefutable proof of karst fill. In the deeper portions of some holes, the in-situ (carbonaceous) siltstone-mudstone unit is weakly sericite altered and pyrite-bearing.

The karsts exist due to dissolution and collapse of carbonate-bearing units at Lakanfla which produces a halo of lower density material around the granodiorite intrusion, represented by the gravity lows observed in the data. As these rocks have dissolved and collapsed over time, the resulting voids have been infilled with transported sands and material shedding from the weathering of the intrusion.

The intrusion is thought to play a role in mineralisation, both as a source of metals and fluids which alter the country rocks. The dissolution of carbonates is thought to be one of the processes by which low-level gold introduced by these intrusions can be upgraded to potentially economic levels.

Figure 2 below shows the typical lithologies in drillhole 20LKFRC005. Note pisoliths in karst fill from 48-50m (see inset image). The karst is from approximately 36m – 114m (between the red lines), noting that this is not just one void, but a series of voids with some intervals of in situ siltstone, and some possible karst fill intervals after 114m.

Figure 2: RC chips from Hole 20LKFRC005

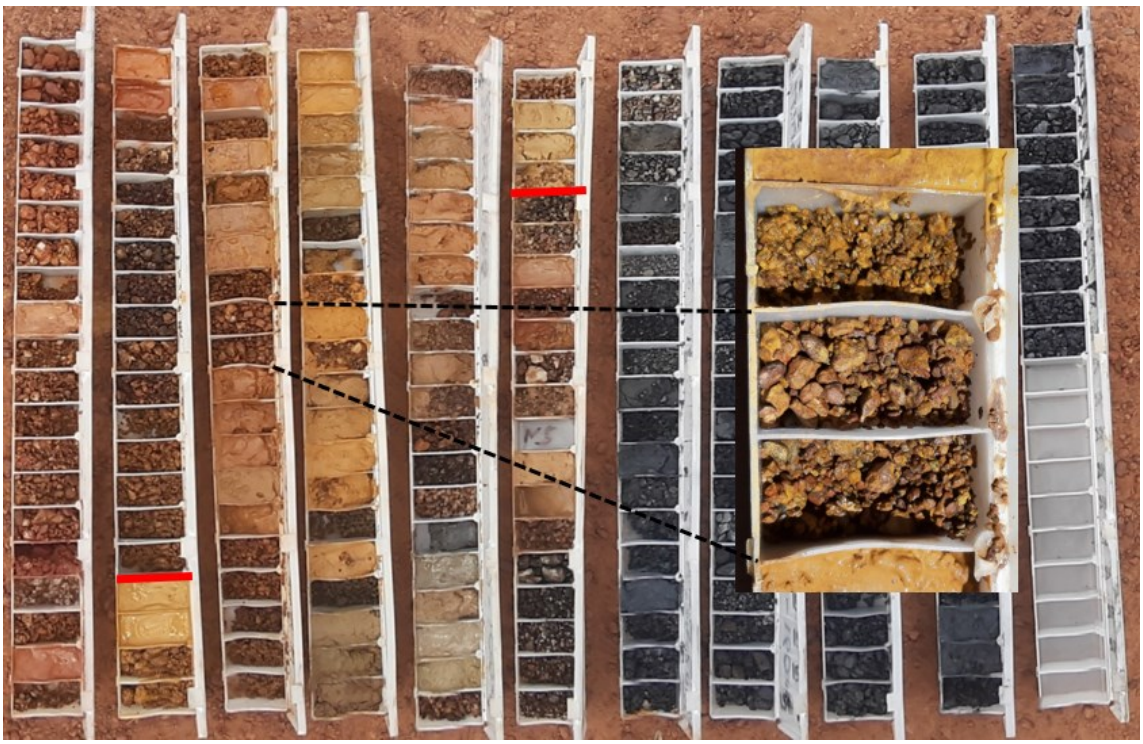


Figure 3 below shows hole 20LKFRC002 from 120-180m. Karst fill is interpreted from 128-165m. Note how 128-129m is highly ferruginous (which is frequently observed in other drilling) and that the top of the in situ sediment is strongly bleached, gradually passing into fresher rock. Karst fill consists of clay intervals and granite-derived detrital quartz grains; these are interpreted to have been washed into the karsts as locally-sourced colluvium and weathered in situ. No fresh granite has yet been intersected by the drilling.

Figure 3: RC chips from Hole 20LKFRC002

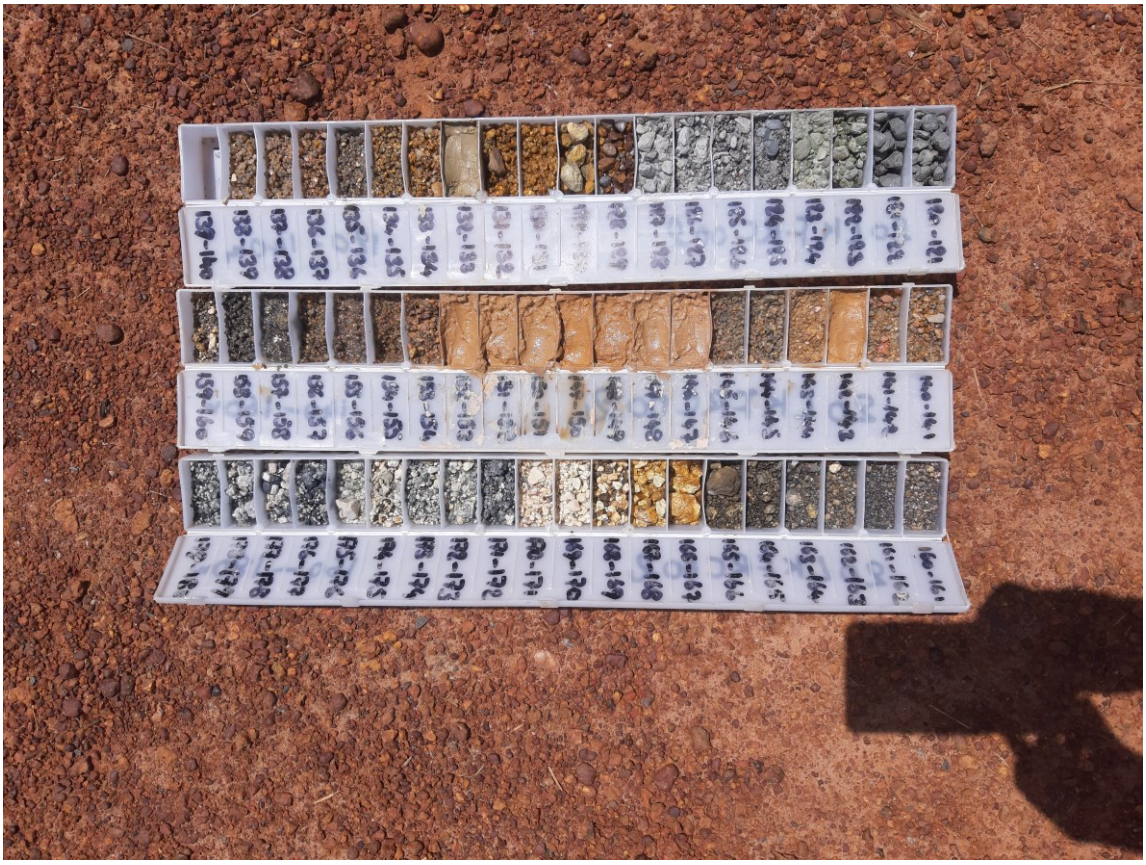
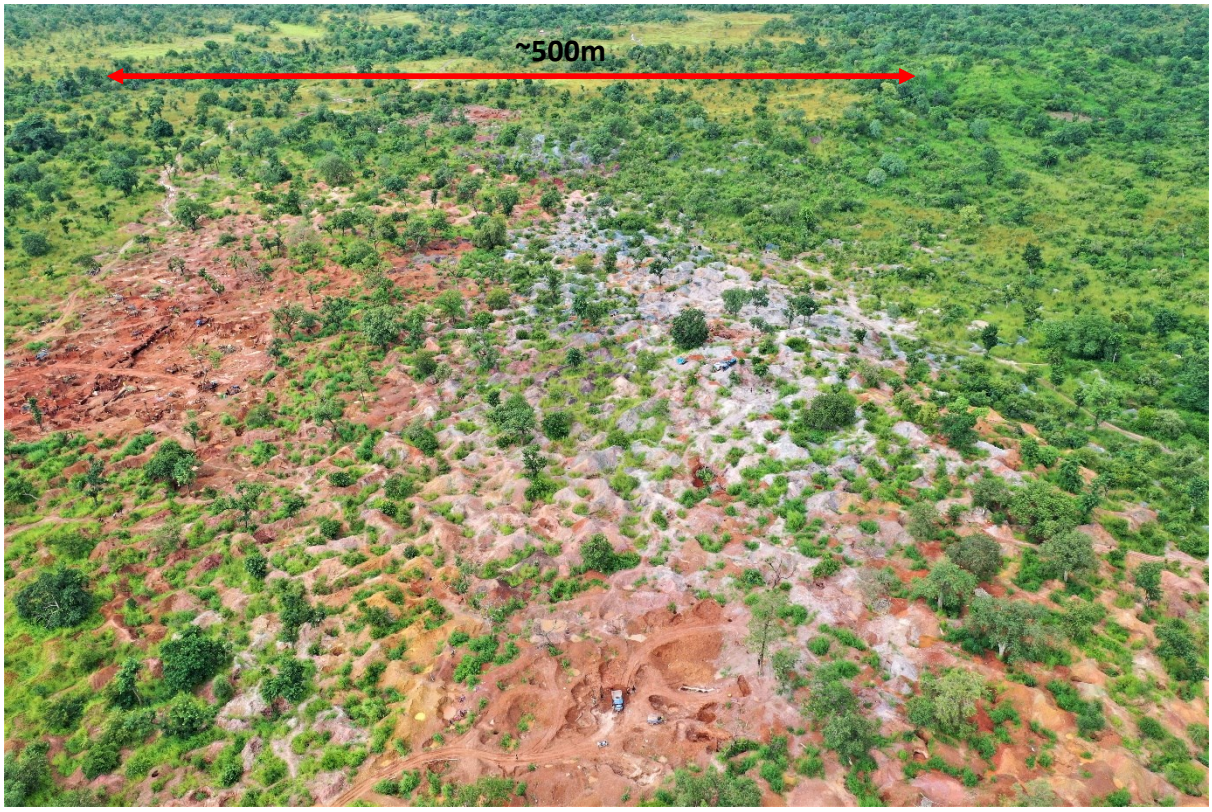


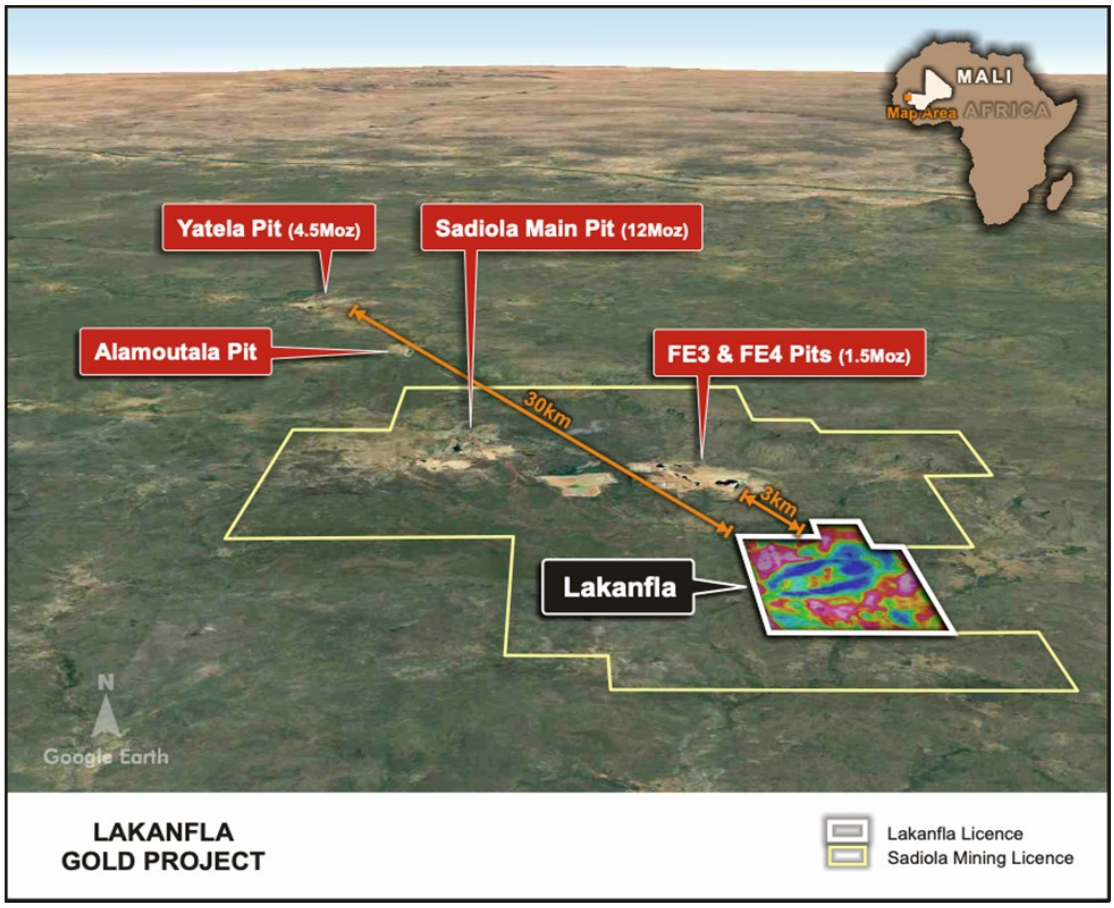
Figure 4: Extensive artisanal workings to the NW of Target Zone 1 (drone view)



ABOUT LAKANFLA

The Lakanfla Gold Project is located in the Kenieba inlier of western Mali, adjacent to the northern section of the gold-rich Senegal Mali Shear Zone. The project lies 6km to the south-east of the tier 1 Sadiola gold mine (13.5Moz production historically) and 35km south-east of the Yatela gold mine (4.5Moz production historically).

Figure 5: Location of Lakanfla Project



Lakanfla hosts a significant number of active and historic artisanal gold workings which are coincident with major geochemical and gravity anomalies. Significantly, there is evidence of ground collapse at surface, as well as extensive voids and anomalous stratigraphy in drilling which are indicative of karst style dissolution at depth within mapped carbonate rock units.

Karstification occurs when soluble carbonate bearing units, for example limestones, dolomites or marbles are dissolved. The residuum left behind may be comparatively upgraded in certain insoluble minerals, in this case, the element of interest being gold. This is one of the processes of supergene enrichment.

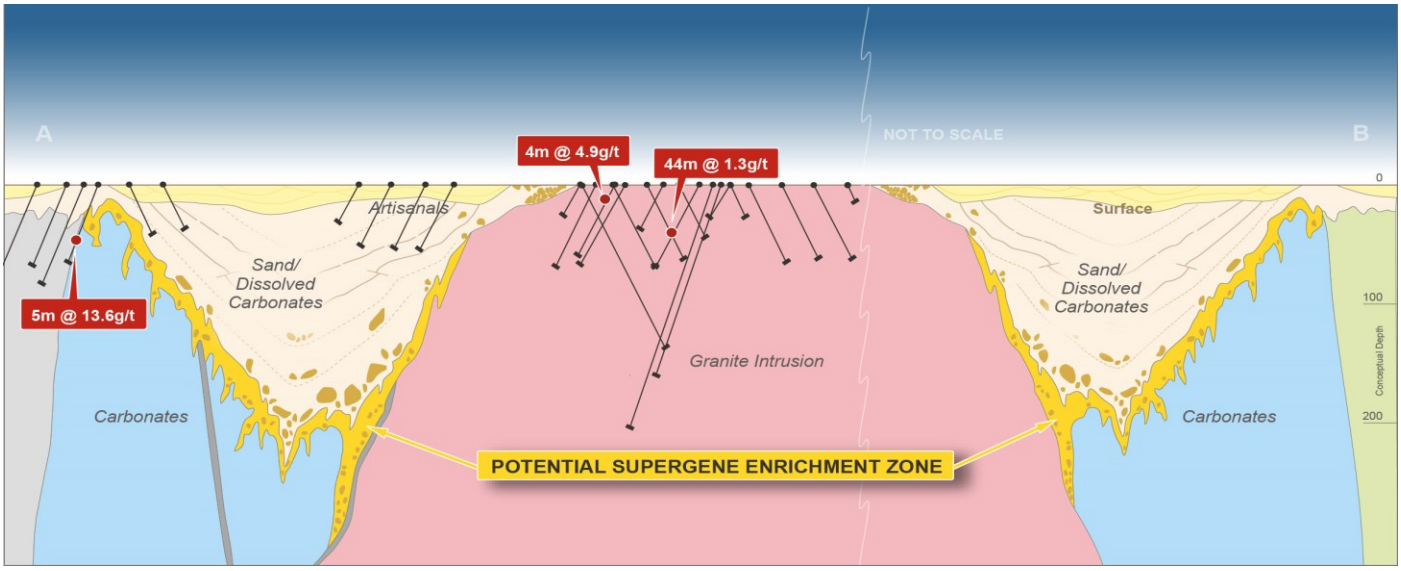
This model is geologically analogous to the 4.5Moz Yatela deposit some 35km to the north-west and also the Sadiola FE3 and FE4 pits which are around 3km to the north-west of the license boundary.

Historical drilling at Lakanfla has returned encouraging intersections including **26m at 5.1 g/t gold from 32m and 18m at 4.3 g/t gold from 34m** (ASX announcement 17 June 2020). In addition, several drillholes have intersected voids and unconsolidated sand at depths of up to 150m below surface. However, none of the priority gravity low targets have been systematically drill tested.

Of the historical drilling that has been undertaken at Lakanfla, 35 holes coincide with the priority targets, however the majority of these holes were drilled no deeper than 75m vertical depth and the exploration

target is expected to be below this stratigraphic level at the bedrock-weathering interface. In comparison with the nearby large scale Yatela deposit, which is a direct exploration analogue, mineralisation was encountered at depths up to 220m below surface and as such, the Company believes that a valid exploration target of this style exists at Lakanfla. Figure 6 below illustrates the potential location of the mineralisation within the karst target.

Figure 6: Schematic cross-section of Lakanfla geology and target zones



The Company understands that the Sadiola gold mine will require additional oxide feed in the relative near term. Given Lakanfla's proximity to the Sadiola processing plant, any discovery would be significant for the Company.

This announcement has been approved for release by the Board.



PHIL HOSKINS
Managing Director

For further information, please contact:

Phil Hoskins – Managing Director
Tel: +61 8 9200 4960

Chris van Wijk – Executive Director, Exploration
Tel: +61 8 9200 4960

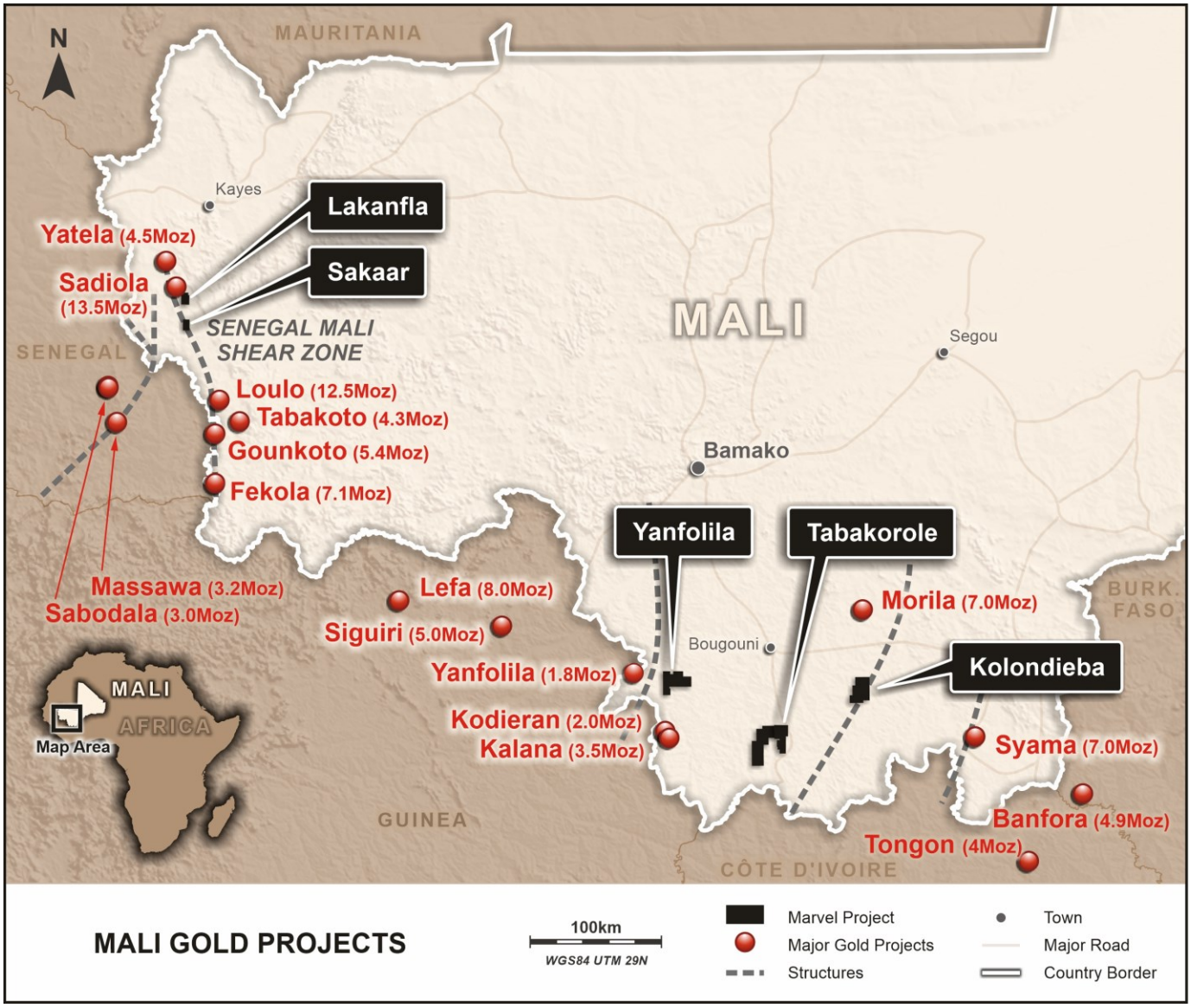
For more information, visit www.marvelgold.com.au.

About Marvel Gold

Marvel Gold Limited is an Australian resources company listed on the Australian Securities Exchange under stock code MVL. Marvel Gold is a Mali-focused gold explorer with advanced gold exploration projects and extensive landholdings in South and West Mali.

The Tabakorole Gold Project has a large existing resource with opportunities to expand along strike and via regional exploration. The Lakanfla Gold Project is a major untested gold target 6km from the Sadiola gold mine. Marvel Gold has an experienced board and management team with specific skills, and extensive experience, in African based exploration, project development and mining.

Figure 7: Marvel Gold, Location of Mali Projects



Reference to previous ASX announcements

The information in this announcement that relates to previously reported exploration results at Lakanfla was announced on 17 June 2020. Marvel confirms that it is not aware of any new information or data that materially affects the information included in that announcement.

Table 1: Drillhole Locations

HoleID	Easting	Northing	RL	Dip	Azi	EOH
20LKFRC002	218695	1528033	148	-60	145	239
20LKFRC005	219944	1528300	161	-60	270	210

Table 2. JORC Table 1 Reporting – Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling Techniques	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.	Reverse circulation samples are collected directly from the drill rig cyclone at 1 metre intervals. Samples were split with a cone splitter attached to the cyclone or a 4 tier riffle splitter to yield an assay sample of approximately five kilograms in weight. The sub-sample is marked and bagged on site.
	Aspects of the determination of mineralisation that are Material to the Public Report.	All samples are prepared by an independent laboratory, samples are crushed to -3mm, split and a 250g sub-sample is pulverised with gold determined by fire assay/AAS based on a 30g charge.
Drilling techniques	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).	RC drilling was completed using a face sampling bit to drill a hole of 125mm in diameter. Holes were drilled with a dip of between 60 degrees or vertical depending on the target.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	RC sample weights have been collected to monitor recovery but no recovery calculations for RC drilling have been completed.
	Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	RC sample weights were recorded and monitored in order to calculate sample recoveries. No relationship between sample weight and grade is known.
Logging	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.	All sample material is logged onsite by geologists to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is qualitative and records colour, grain size, texture, lithology, weathering, alteration, veining and sulphides. Chip trays are prepared by collecting representative material from each metre sample and photographed.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full.
Sub-Sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable – no core drilling conducted.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples have been sampled both wet and dry. Dry samples are riffle split off the cyclone. Wet samples are allowed to settle before being spear or channel sampled.

Criteria	Explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation consisted of jaw crushing to -3mm, splitting 500 grams and pulverizing to 95% passing 75µ. A sub-sample of 150-200g (pulp sample) is retained for analysis. The sample preparation procedures carried out are considered industry standard.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field duplicates, Blanks and CRM are inserted at a rate of 1:30 which is considered industry best practice.
	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.	Field Duplicates are the primary means of ensuring representativeness of sampling.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not Applicable – no assays being reported.
	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.	Not Applicable, no such work carried out.
	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.	Field duplicates, Blanks and CRM are inserted at a rate of 1:30 which is considered industry best practice.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No significant intersections reported.
	The use of twinned holes.	No twin holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All drill hole logging was completed on paper logging sheets and entered into spreadsheets.
	Discuss any adjustment to assay data.	No assay data is reported..
Location of data points	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.	Drill hole collars were located using handheld GPS with 3-5m accuracy and initial Dip and Azimuth determined using a handheld compass. A north-seeking Gyroscope has been used to record drill hole deviation information.
	Specification of the grid system used	Drill hole collars are recorded in WGS84 UTM Zone 29.
	Quality and adequacy of topographic control	Not Applicable.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing is variable as this is a reconnaissance drill program.
	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.	The drill hole spacing is not considered sufficient to establish the required degree of geological and grade continuity for the estimation of mineral resources.
	Whether sample compositing has been applied.	Samples have not been compositied.

Criteria	Explanation	Commentary
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drill holes are generally oriented perpendicular to the strike of geology and shallow dips of drilling are used to intersect the structures at a high angle.
	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.	No assays are being reported.
Sample Security	The measures taken to ensure sample security.	Samples are being stored on site. No sample despatch has occurred.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been conducted.

Section 2. Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	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.	• Legend Gold Mali SARL is the 100% owner of the Lakanfla licence. • The Lakanfla permit was granted under Arrêté N°2018-2734 on the 31st July 2018 and is due for its first renewal on the 31st of July 2021.
	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.	• The licences was confirmed to be in good standing as of the 20th of September 2019 via letter of Attestation from the Malian DNGM. Subsequent due diligence carried out by independent specialists engaged by the Company confirmed that the licence is in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Lakanfla project was initially covered by regional geochemical sampling by BRGM in the 1950's and followed up by Klockner and the DNGM between 1989 and 1991 which resulted in the definition of Sadiola and the FE3 and FE4 pits. The Sadiola license was redefined in 1998 and granted to Ambogo Consulting SARL between 2000 and 2009 when it was finally Joint Ventured to North Atlantic Resources. The majority of the work carried out subsequently has been by Legend Gold.
Geology	Deposit type, geological setting and style of mineralisation	• The Lakanfla license has a conceptual target defined by geophysics and based on extrapolation of the geology from the ore features observed at Alamoutala, Yatela and the Sadiola FE3 and FE4 pits, all directly along strike. The deposit being targeted is a carbonate hosted, karst style, supergene gold deposit analogous to the Yatela deposit.
Drill hole information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea	All relevant drill hole details are provided in the announcement.

Criteria	Explanation	Commentary
	level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	
Data aggregation methods	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.	No assay results reported.
	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.	As above.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	All intercepts reported as downhole lengths. True widths have not yet been determined.
Diagrams	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.	See body of announcement for diagrams.
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.	No grade information is being reported.
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	All applicable geological observations have been reported at this time.

Criteria	Explanation	Commentary
	test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	3,800m of exploration drilling to test targets at Lakanfla is planned in the current program. Future work will depend on the results of this program.