

8 October 2019

GUINEA RESULTS IDENTIFY MORE GOLD AND NEW DRILL TARGETS AT KANINKO

- 132 samples collected from artisanal mine dumps and exposures at the Kaninko Permit (Guinea) has significantly expanded the project's potential, following encouraging initial channel sampling results¹.
- Three prospects for potential drill targeting have been identified:

BANKAN CREEK PROSPECT

- Initial focus of exploration which included the previously announced 7 channel samples which recorded a peak value of **4.6g/t gold**¹.
- 41 mine dump samples collected from an exposed saprolite zone 230m long and up to 60m wide, with peak values of 3.3g/t gold and 2.7g/t gold. Average value of all 49 samples collected is 0.8g/t gold.
- Anomalous gold values of up to 1.0g/t gold recorded in a 400m radius around the well-sampled saprolite zone.

BANKAN NORTH-EAST PROSPECT

• 20 mine dump samples collected from surficial workings over a 5-hectare area with peak values of **1.6g/t gold** and **1.4g/t gold**.

BANKAN EAST PROSPECT

- 11 mine dump samples collected from surficial workings over a 3-hectare area with a peak-value of **1.3g/t gold**.
- Gold mineralisation at all three prospects is open in all directions.
- A second Reconnaissance Authorisation has been granted immediately to the north of Kaninko, expanding the Company's ground position to 200km².
- Further work in the December Quarter will include soil sampling, geological mapping and trenching.

Predictive Discovery Limited (**Predictive** or **Company**) is pleased to announce new, encouraging sampling results from its 100%-owned Kaninko Project, located in Guinea. Predictive currently holds 500km² of landholdings in Guinea most with widespread artisanal gold workings. All projects are within the Siguiri Basin which hosts Anglogold's large Siguiri Mine (+10Moz).

"Alongside Kankan and Nonta, Kaninko is firming up as a promising property in Predictive's 100%-owned Guinea portfolio. These new results suggest that we have identified a new gold mineralised system with both disseminated and quartz-vein hosted gold identified over significant mineralised widths. We are not aware of any systematic previous exploration work in this area, so we are very hopeful of expanding the known gold mineralisation by exploration of the large unexplored areas surrounding the new prospects. We expect to invest significant time and effort in this area and the new, neighbouring Reconnaissance Authorisation in the next three months as we prepare for our first drilling campaign in Guinea in the March 2020 Quarter."

- Commented Managing Director, Paul Roberts.



ENCOURAGING RESULTS FROM SAMPLING ARTISANAL MINE SITES AT KANINKO

The Company has obtained widespread gold-anomalous values from sampling mine spoil from artisanal pits on the Kaninko Exploration Permit, located in Guinea. 132 samples were collected and assayed for gold by SGS in Bamako, Mali. Sample details are provided in Table 1. Sample locations and results are shown in Figures 2 and 3.

BANKAN CREEK PROSPECT

Initial results obtained from the newly-named Bankan Creek prospect, peaking at 4.6g/t gold², were followed-up by more systematic sampling of the saprolite artisanal site (see Figure 1). Samples were obtained from mine dumps as heavy rain had filled the workings, preventing the follow-up channel sampling that had been planned. Widespread surficial artisanal mine sites (extracting gold from near-surface laterite) in the surrounding area were also sampled. Anomalous gold values were found throughout (see Figures 2 and 3).



Figure 1 – A portion of the sampled Bankan Creek artisanal mine site on the Kaninko Exploration Permit.

41 samples were collected from the 230m long Bankan Creek saprolite mining zone (Figure 2). All samples were gold anomalous indicating the presence of disseminated mineralisation in the weathered rock mass. Results of some samples also suggested that observed quartz veining is at least partly gold bearing. The

 $^{^2 \} ASX \ Announcement \ 17/9/19 - CHANNEL \ SAMPLING \ IDENTIFIES \ NEW \ GOLD \ AT \ KANINKO \ PROJECT \ IN \ GUINEA \ https://www.investi.com.au/api/announcements/pdi/29ca37b4-e76.pdf$



average value of all 49 samples collected from the saprolite to date is 0.83g/t Au. Given that nugget gold has already been extracted by the artisanal miners using metal detectors, average grades in the near surface may average above 1g/t Au throughout the zone.

Samples collected from shallow laterite workings within a 400m radius of the saprolite zone (Figure 3) were also gold-anomalous suggesting that sub-surface saprolite mineralisation may be much more extensive than the 230m long zone revealed to date.

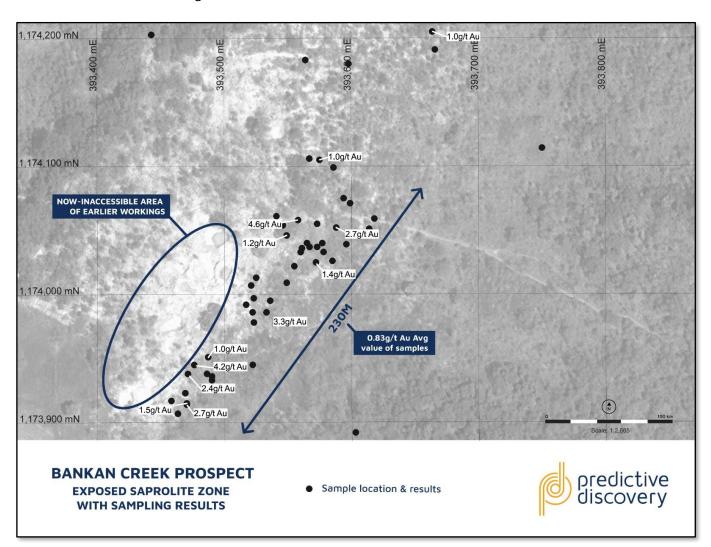


Figure 2 – Bankan Creek artisanal mine dump sample locations and results on satellite imagery.

BANKAN NORTH-EAST PROSPECT

20 samples were collected here from part of an extensive zone of surficial workings. Anomalous values peaking at **1.56g/t gold** and **1.44g/t gold** were obtained (Figure 3).

BANKAN EAST PROSPECT



11 samples were collected here from a third zone of surficial workings. Anomalous values peaking at **1.32g/t gold** were obtained (Figure 3).

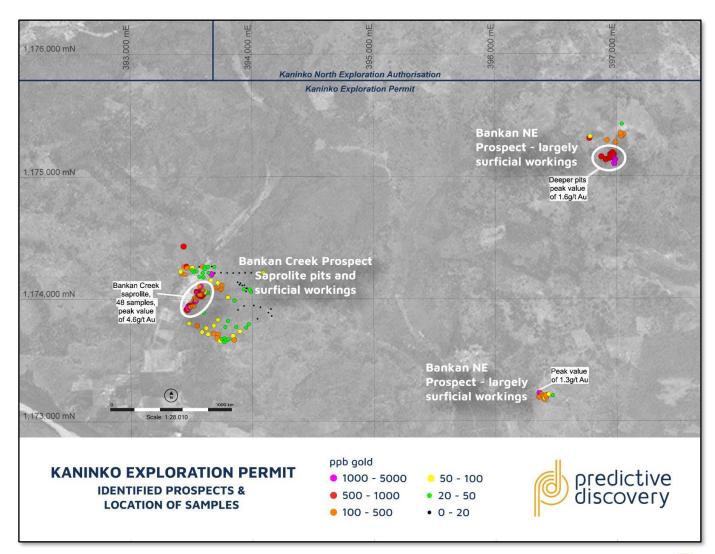


Figure 3 – Location of samples and prospects, Kaninko Exploration Permit, Guinea

GUINEA – UPCOMING ACTIVITY

Kaninko

The exploration effort will accelerate at Kaninko over the next three months to follow up these encouraging dump sample results. Work programs will include soil sampling, BLEG stream sediment sampling outside of the known mineralised areas, geological mapping, some additional dump sampling and trenching (where possible). A ground magnetics survey may also be undertaken. All this work is aimed at understanding the geology and narrowing down the most promising targets for a reconnaissance drilling program in the March Quarter.



Kankan

Follow-up infill geochemical sampling either via soil sampling or power auger drilling will be undertaken on the Kankan grid during the quarter, commencing in the next 1-2 weeks. Ground magnetics is also planned to help define subsurface rock structure prior to the planned March Quarter drilling program.

Nonta

A work program similar to the Kankan program is planned at Nonta. Work commencement may be delayed relative to Kankan and Kaninko until access improves following very heavy recent rains in the region.

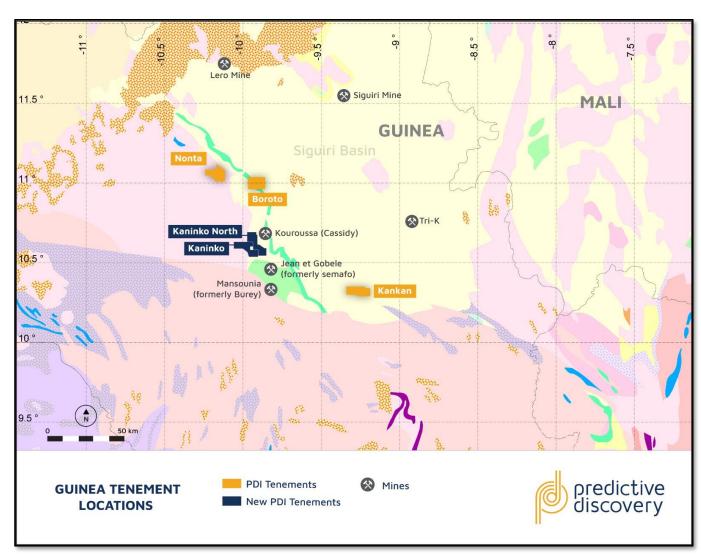


Figure 4 – Guinea tenement locations and gold deposits in the Siguiri Basin on geological map background

TABLE 1 – DUMP SAMPLE DETAILS – KANINKO EXPLORATION PERMIT



Sample numbers	Northing (WGS84- 29N)	Easting (WGS84 – 29N)	RL	Hole dips	Azimuth	Hole Depth	From	Interval	Au (ppb)
Kaninko	Refer to	Refer to	See	Not	Not	Not	Not	Not	Refer to
samples:	Figures 2 and 3	Figures 2 and	notes	relevant	relevant	relevant	relevant	relevant	Figures 2
PDG1657-	for sample	3 for sample		to dump	to dump	to dump	to dump	to dump	and 3
1697,	location data.	location data.		samples	samples	samples	samples	samples	
PDG1699-1789									

Notes: The samples were collected by a process of random selection of saprolite on mine dumps mined from the adjacent pits and each weighed approximately 2kg. The samples were sent to the SGS laboratory in Bamako, Mali for crushing, grinding and aqua regia (low detection limit) gold analysis. Plus 200ppb values were re-analysed by fire assay. RL ranges at surface for the sampled workings are 371-435m. Individual RLs are not reported in this announcement because they are not relevant to interpreting geochemical data of this type. All samples were collected from gold artisanal mine sites.

	Section 1: Sampling Techni	ques and Data
Criteria	JORC Code Explanation	Commentary
Sampling Technique	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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this	The sampling described in this report refers to mine dump samples obtained from artisanal workings in the Kaninko Exploration Permit in Guinea-Conakry.
	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.	
Drilling	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).	This is not relevant to a mine dump sampling program.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed. 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.	This is not relevant to a mine dump sampling program.



Logging	Whether core and chip samples have been geologically and geotechnical logged 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/Trench, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Mine dump samples are described in terms of interpreted lithology or regolith type and degree of weathering. Descriptions are qualitative.
Sub-Sampling Technique and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample preparation methods are appropriate and standard for mine dump samples.
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. 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. 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.	The use of aqua regia gold assays followed up by fire assays for higher values with samples of this type is appropriate and standard.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data	This is not relevant to a mine dump sampling program
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. Specification of the grid system used Quality and adequacy of topographic control	Coordinates shown on the locality maps (Figures 2 and 3) are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 29 - Northern Hemisphere.
Data Spacing and Distribution	Data spacing for reporting of Exploration Results 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. Whether sample compositing has been applied	Data spacing for artisanal mine samples is not relevant. No Mineral Resource can be estimated from these data.
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.	The mine dump samples were collected by random selection from the surface of mine dumps adjacent to pits in saprolite from which the material had been extracted



	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.			
Sample Security	The measures taken to ensure sample security	Samples are stored securely at the SGS laboratory in Bamako and will be returned to Predictive's field office in Kouroussa in due course.		
	Section 2 Reporting of Explo	oration Results		
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. 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 Kaninko Reconnaissance Authorisation was granted to a Predictive subsidiary in Guinea in June 2019. It was converted to an Exploration Permit in early October 2019. It is 100% owned by Predictive.		
Exploration Done by	Acknowledgment and appraisal of exploration by other	Predictive is not aware of any significant gold exploration over		
Other Parties Geology	parties. Deposit type, geological setting and style of mineralisation.	the permit. The geology of the Kaninko permit consists of metasediments, mafic volcanics and intrusives, and granitic rocks.		
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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length • 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.	This is not relevant to a mine dump sampling program		
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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	This is not relevant to a mine dump sampling program		
Relationship Between Mineralisation Widths and Intercept Lengths Diagrams	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 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'). Appropriate maps and sections (with scales) and tabulations	This is not relevant to a mine dump sampling program		
	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.	An appropriate plan showing the locations of the dump samples is shown in this release.		
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.	Results from all assayed samples within the Kaninko Permit have been 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 test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All relevant, new exploration data is reported in this release.		
Further Work The nature and scale of planned further work (eg tests for lateral 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.		The next phase of work will include soil sampling, some additional mine dump sampling, BLEG stream sediment geochemistry and trenching,		



Predictive advises that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

Competent Persons Statement

The exploration results reported herein, insofar as they relate to mineralisation are based on information compiled by Mr Paul Roberts (Fellow of the Australian Institute of Geoscientists). Mr Roberts is a full-time employee of the company and has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Roberts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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About Predictive Discovery

With exposure to a world class region, Predictive Discovery (**ASX:PDI**) is focused on its west African gold projects in Burkina Faso, Cote D'Ivoire and Guinea.

