

17 September 2019

CHANNEL SAMPLING IDENTIFIES NEW GOLD AT KANINKO PROJECT IN GUINEA

- Results received from 12 vertical channel samples collected at the new Kaninko Project from large and active artisanal mine sites.
- 7 samples from workings in strongly weathered bedrock (saprolite) returned an average value of
 1.5g/t gold with a peak value recorded of 4.6g/t gold.
- The above zone of saprolite exposure extends for 300m in a north-easterly direction but extensive surrounding surficial (laterite) workings suggest that potential area of bedrock mineralisation may be much larger.
- A program of systematic channel sampling of saprolite exposures in the deeper pits has now commenced along with grid-based sampling of surficial (laterite) spoil in the surrounding area.

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

"These early results from Kaninko add a promising new prospect into our Guinea portfolio following the earlier results from Kankan and Nonta which identified extensive soil geochemical anomalies^{1,2}. The better results were obtained from vertical channel sampling of weathered bedrock within a 300m length of artisanal workings from which artisanal miners report that they are currently extracting significant quantities of gold. We are hopeful that follow-up exploration of this site will enable us to expand the prospective area substantially and provide a strong target for drilling during the March Quarter.

We are continuing with our evaluation of new opportunities in the Siguiri Basin and expect to announce further ground acquisitions in Guinea in the coming months." - commented Managing Director, Paul Roberts.

ENCOURAGING EARLY SOIL SAMPLING RESULTS, NONTA PROJECT, GUINEA KANINKO – SAMPLING OF ARTISANAL MINE SITES

The Company obtained 12 vertical channel samples from artisanal pits on the Kaninko Reconnaissance Authorisation. The samples were assayed for gold by SGS in Bamako, Mali. Gold results and sample details are provided in Table 1. Sample locations and results are shown in Figure 1, the sampled site in Figure 2

¹ ASX ANNOUNCEMENT - ENCOURAGING EARLY SOIL SAMPLING RESULTS, NONTA PROJECT, GUINEA https://www.investi.com.au/api/announcements/pdi/e6aa9259-19c.pdf



and an illustration of a vertical channel sample is shown in Figure 3. Further information on sampling details is provided in Table 2 at the end of the release

TABLE 1 - CHANNEL SAMPLE RESULTS - KANINKO RECONNAISSANCE AUTHORISATION, GUINEA

Sample No.	Easting (WGS84, Zone 29N)	Northing (WGS84, Zone 29N)	Vertical depth sampled	Au (ppb)	Comments
PDG01278	393463	1173907	2.0-2.5m	137	Saprolite pit
PDG01279	393476	1173945	3.0-3.5m	4230	Saprolite pit (4.23g/t gold)
PDG01280	393573	1174055	4.0-4.4m	118.5	Saprolite pit
PDG01281	393558	1174058	3.0-5.0m	4600	Saprolite pit (4.60g/t gold)
PDG01282	393558	1174058	5.5-7.0m	939	Saprolite pit (0.94g/t gold)
PDG01283	393750	1174114	0.15-0.5m	87	Laterite pit
PDG01284	393750	1174114	2.0-2.5m	121	Laterite pit
PDG01285	393470	1173915	2.0-2.5m	1460	Saprolite pit (1.46g/t gold)
PDG01286	393470	1173915	2.5-2.8m	482	Saprolite pit (0.48g/t gold)
PDG01287	393603	1173892	2-2.5m	36.5	Laterite pit
PDG01288	393603	1173892	2.5-3.0m	45	Laterite pit
PDG01289	396427	1173220	1.0-3.0m	34	Laterite pit

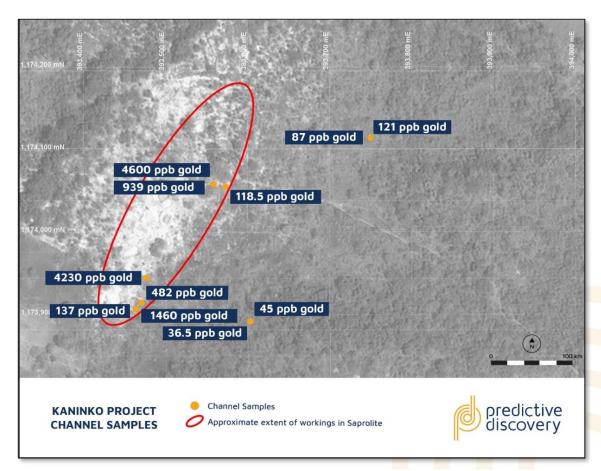


Figure 1 – Kaninko artisanal mine channel sample gold sample locations/results on satellite imagery.





Figure 1 – A portion of the sampled artisanal mine site on the Kaninko Reconnaissance Authorisation, Guinea.



Figure 3 – Example of vertical channel sample, Siguiri Basin, Guinea



GUINEA – UPCOMING ACTIVITY

Predictive's team is currently undertaking follow-up vertical channel sampling over the artisanal site on an approximate $25 \times 25 \text{m}$ grid. Sampling of dumps derived from surrounding surficial workings will also be collected on a $50 \times 50 \text{ m}$ grid. The team has also been mapping new artisanal mine sites on the property with systematic sampling to be conducted across them in the coming weeks.

Ongoing wet weather is impeding resumption of soil sampling at Kankan and Nonta at the moment. In the meantime, the team is carrying out XRF analysis of soil sample pulps at PDI's new field office in Kouroussa using the Company's hand-held XRF machine. Results of this analysis will be used to help infer rock types and possible structures below the surface laterite.

Larger scale geochemical surveys on the Kankan, Nonta, Kaninko and possibly Boroto properties will be undertaken in the next few months. These may be accompanied by ground geophysical surveys where appropriate. All this work is aimed at readying Predictive's best Guinea prospects for drilling in the March Quarter of 2020.

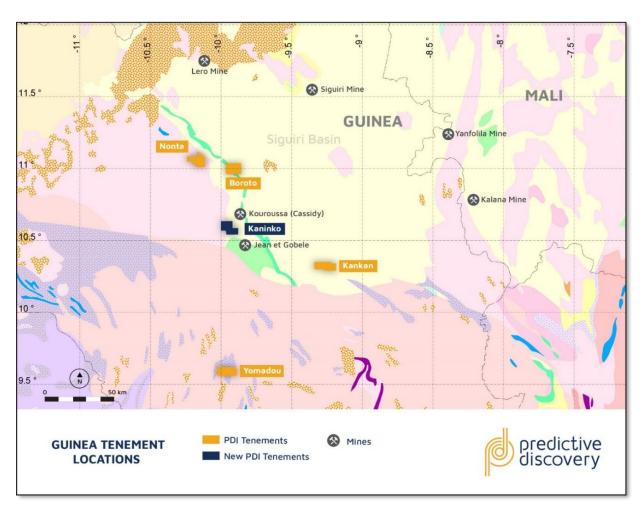


Figure 4 – Guinea tenement locations on geological map background



TABLE 2 – CHANNEL SAMPLE DETAILS – KANINKO EXPLORATION AUTHORISATION

Sample numbers	Northing (WGS84- 29N)	Easting (WGS84 – 29N)	RL	Hole dips	Azimuth	Hole Depth	From	Interval	Au (ppb)
Kaninko	Refer to Table	Refer to Table	See	Vertical	Not	Sample depths below	See Table 1	See Table 1	See Table 1 and
samples:	1 and Figure 1	1 and Figure 1	notes	channel	relevant	surface are provided in			Figure 1
PDG1278-1289	for sample	for sample		samples	to	Table 1			
	location data.	location data.			vertical				
					channel				
					samples.				

Notes: Channel sampling is used in pits and trenches to obtain a representative sample of rock or regolith materials. Samples were obtained from vertical channels and weighed between 2 and 8kg. The entire samples were sent to the SGS laboratory in Bamako, Mali for crushing and 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 373-391m. 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 channel samples obtained from artisanal workings in the Kaninko Exploration Authorisation in Guinea-Conakry. The channel samples were obtained from artisanal mine pits from depths below surface of between 0.15m and 7.0m.
	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 channel 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 channel 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.	Channel samples are described in terms of interpreted lithology, mineralogy, degree of weathering and structure where observable. 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 channel 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 channel 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 map (Figure 1) 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 channel samples were collected along vertical channels principally because this is the practical method in artisanal pits. The orientation of the gold mineralisation in such deeply weathered materials cannot be determined but shallow



	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.	dipping quartz veins were observed which suggests that vertical channels were appropriate.		
Sample Security	The measures taken to ensure sample security	Samples are stored securely at the SGS laboratory in Bamako but will be returned to Predictive's field office in Kouroussa in due course.		
	Section 2 Reporting of Expl	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 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 channel 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 channel 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 channel sampling program An appropriate plan showing the locations of the		
	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.	channel 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 channel 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.	More intensive channel sampling and dump sampling is now in progress in the area.		



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.

Our prospect generator model of **Exploration – Partnership – Growth** provides a pipeline of continuous and early stage exploration opportunities, partnering with experienced and respected companies to fund ongoing exploration and leveraging their expertise to realise shareholder value.

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