

## **BANKAN GOLD PROJECT DRILLING ACCELERATED**

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**Predictive Discovery Limited** (Predictive or the Company) (ASX: PDI) is pleased to announce that three RC-DD drill rigs are active across the Bankan Gold Project, located in Guinea, with a second Diamond Drill (DD) rig now in operation at the NE Bankan gold discovery. All three rigs are operating on double shift, targeting a maiden JORC resource in mid-2021.

### **HIGHLIGHTS**

- The 25,000m Bankan-2 drilling program is now operating at full capacity:
  - **NE Bankan:** One Reverse Circulation (RC) and one DD rig both on double shift with 10 RC-holes completed so far.
  - **Bankan Creek:** One DD Rig at Bankan Creek also on double shift with 3 DD-holes completed so far.
- A second DD rig was mobilised to NE Bankan to undertake DD "tails", extending the RC pre-collars to their designed depths. The combined RC and DD holes are testing the down-dip extent of the thick zones of gold mineralisation on the western side of the deposit (incl. **55m at 2.9g/t gold<sup>1</sup>**).
- The Company is awaiting assay results from SGS Bamako (Mali) with 740 DD, 1,406 RC and 1,101 power auger samples now submitted for testing.
- Assay results are expected by early February and will continue for some months during the extensive 25,000 metre Bankan-2 drill program.
- Geological understanding of the gold mineralised system is improving with abundant gold observed in a new petrological study of core samples.
- At least 10,000m of power auger drilling will be completed in the next 2 months with two rigs substantially extending auger coverage on the Bankan Project.
- An airborne magnetic and radiometric survey designed to identify structural drill targets across the Bankan Project is expected to commence in approximately two weeks.
- With cash on hand of \$14 million at end December 2020, Predictive is well funded to complete its aggressive drill campaign and delivery of its maiden JORC Resource in mid-2021.

<sup>1</sup> ASX Announcement – 55M AT 2.94G/T GOLD – BROAD TRUE WIDTHS CONFIRMED AT BANKAN, GUINEA (10<sup>th</sup> Sept 2020)  
<https://www.investi.com.au/api/announcements/pdi/94452194-ceb.pdf>



*Figure 1 – RC rig drilling at NE Bankan*

## DRILL PROGRESS AND SAMPLES SUBMITTED

Total metres drilled to date in the Bankan-2 drill program comprise 9,356m of power auger, 1,573m of RC and 989m of DD. At present 10 RC-holes have been drilled at NE Bankan and 3 DD-holes have been completed at Bankan Creek.

The RC holes at NE Bankan are designed to test the down-dip extensions of previously discovered thick zones of gold mineralisation in the centre of the gold deposit. RC holes have been drilled to a maximum down-hole depth of 200m, with DD "tails" now in progress, designed to complete the full planned length of each of these holes and completing coverage of the target zones. The diamond tails are designed to extend the length of each hole by 110m on average.

At Bankan Creek DD has tested below and along strike to the north of the outstanding KKODD020 gold intercept of **91.6m at 1.9g/t gold<sup>2</sup>**.

Samples submitted to the SGS laboratory in Bamako in the past 9 days have included:

- 740 DD core samples from the first two DD-holes drilled at Bankan Creek,
- 1,406 RC samples from the first 10 RC-holes (pre-collars) at NE Bankan, and
- 1,101 auger samples, from 209 holes totalling 3,397m drilled to the west and east of Bankan Creek on a 320 x 80m spaced grid.

<sup>2</sup> ASX Announcement – 92M AT 1.9G/T GOLD - DIAMOND DRILLING EXPANDS BANKAN PROJECT (13 October 2020)  
<https://www.investi.com.au/api/announcements/pdf/d858335b-e93.pdf>

## GEOLOGICAL UPDATE

Over the past 2 months, Predictive has continued to enhance its understanding of the NE Bankan and Bankan Creek gold mineralised systems through re-logging of diamond drill core, petrological studies of gold mineralised core samples and multielement geochemistry. This work has improved the Company's understanding of the gold system, including:

- Gold mineralisation is most strongly associated with altered granitic rocks (typically tonalites). As reported previously, these granitic rocks have been intruded into more mafic rocks (mostly mafic volcanics), some of which are also gold-bearing.
- Gold mineralisation in fresh rock is strongly associated with sulphide mineralisation in variously oriented veins and disseminations. Sulphide contents typically range from 2 to 5%.
- At Bankan Creek, metasediments have been logged in DD core, including carbonates and shales, in contrast to NE Bankan. Some gold values were obtained in altered carbonates (skarns) in hole KKODD020.
- Partly silver-bearing (argentian) gold has been identified in many polished thin sections (e.g. Figures 2-3), commonly but not exclusively associated with pyrite and chalcopyrite (copper-iron-sulphide). Gold grains of up to 80 microns have been observed in polished thin sections and some coarser gold has been seen in panned saprolite (e.g. Figure 4).

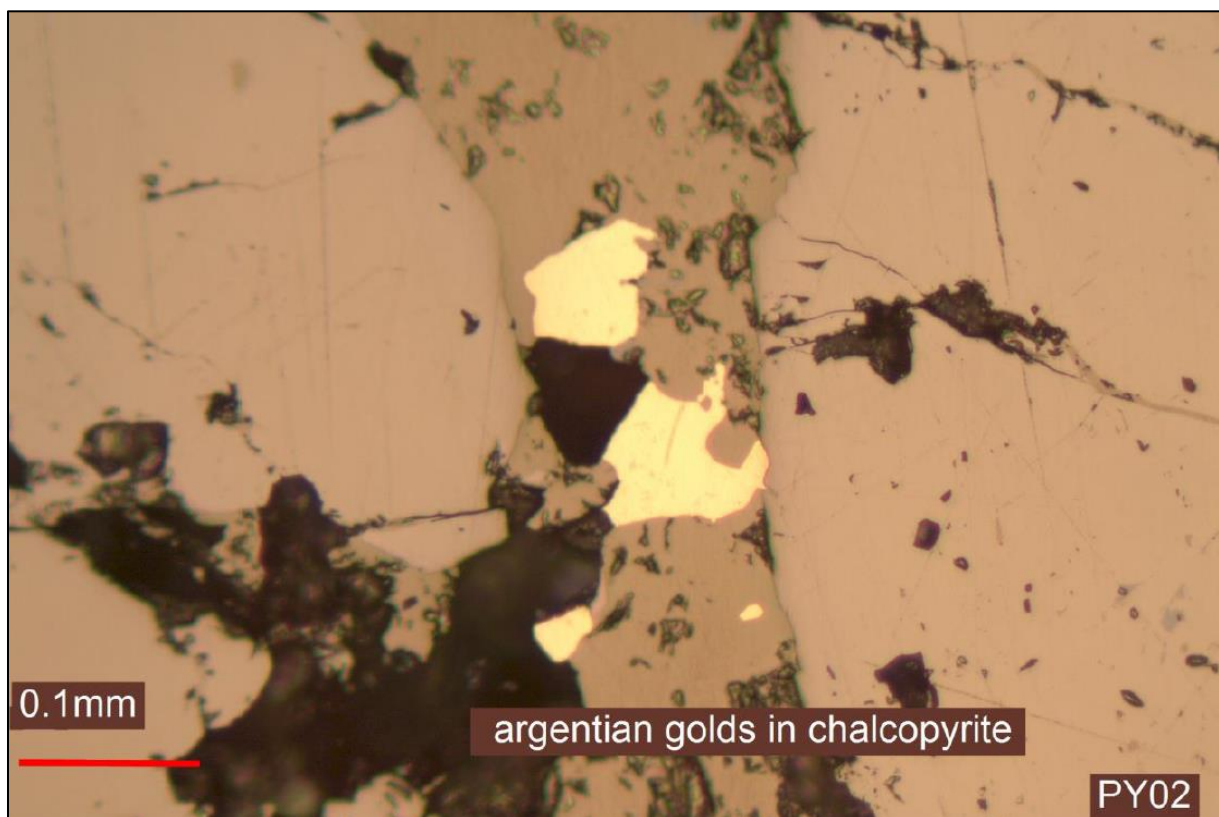


Figure 2 – Part of polished thin section showing silver-bearing (argentian) gold grains (yellow) up to 80 microns in diameter from NE Bankan in a chalcopyrite (copper-iron-sulphide) vein cutting through pyrite (iron sulphide) - from DD hole KKODD004, 194.6m





Figure 3 – Part of polished thin section showing silver-bearing (argentic) gold vein (yellow) from NE Bankan cutting through pyrite (iron sulphide) - from DD hole KKODD009, 152.0m



Figure 4 – Panned gold from air core hole KKOAC001 38-40m

- The multielement geochemistry was focused on gold-mineralised fresh rock core samples with relatively limited sampling of gold mineralisation in weathered materials (i.e. saprolite and saprock). Relevant observations included:
  - Minor element associations observed with gold mineralisation in fresh rock are copper, with very minor lead, zinc and bismuth.

- Arsenic values in gold mineralisation are generally below 20ppm with very little arsenopyrite recorded.
- Copper values are typically in the 100's of ppm in gold mineralisation in fresh rock. No oxide copper minerals (e.g. malachite or azurite) have been observed in logging of weathered drill samples.
- Some bismuth tellurides have been observed but no gold tellurides.
- *Overall, early observations of the geological characteristics of the mineralisation have been positive. The Company plans to undertake a large metallurgical test work program once further drilling has been completed to ensure that the tested samples will be representative of the ore bodies.*

A total of 61 DD core offcuts and 466 pulverised core samples were collected and submitted for petrology and multielement analysis respectively. Details of the petrological methods and multielement assay methods are provided in Table 1.

To date, geological interpretations of the mineralisation in fresh rock have been restricted with only one diamond drill hole testing a particular mineralised zone in fresh rock on each cross section. The only exceptions were one cross-section each at NE Bankan and Bankan Creek where pairs of scissor holes demonstrated west dipping gold mineralisation.

Once new gold assays are received from the new, deeper RC and DD holes, the Company will be able to correlate gold grades and geology in fresh rock on multiple cross sections. This is expected to offer new insights into gold grade distribution, as well as guidance for gold exploration elsewhere in the Bankan gold project area.

**TABLE 1 – MULTIELEMENT GEOCHEMICAL ANALYSES AND PETROLOGICAL SAMPLES**

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
<b>Sampling Technique</b>	<p>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.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to</p>	<p>Samples assayed by multielement geochemical analyses were pulps derived obtained previously from cut drill core.</p> <p>Core had previously been cut in half with a core saw where competent and with a knife in soft saprolite in the upper sections of the diamond drill holes.</p> <p>Petrological samples were selected by project geologists from gold mineralised intervals and various geological units. All samples were 5-10cm long quarter core pieces.</p> <p>Sampling was supervised by qualified geologists.</p>

	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.	
<b>Drilling</b>	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).	Drill type was a diamond drill rig collecting PQ, HQ and NQ core.
<b>Drill Sample Recovery</b>	<p>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.</p> <p>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.</p>	<p>Core sample recoveries were measured in the normal way for diamond drill core. Core recoveries were generally excellent except for the saprolite where some core loss was experienced owing to clayey core being washed out in the diamond drilling process. Given that most of these saprolite core loss zones were obtained in mineralised intervals, grade is probably underestimated in those sections as zones of core loss are assumed to contain no gold.</p> <p>Significant sample bias is not expected with cut core.</p>
<b>Logging</b>	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean/Trench, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	All drill samples were previously logged systematically for lithology, weathering, alteration, veining, structure and minor minerals. Minor minerals were estimated quantitatively. A core orientation device was employed enabling orientated structural measurements to be taken.
<b>Sub-Sampling Technique and Sample Preparation</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>The diamond drill samples were collected by longitudinally splitting core using a core saw or a knife where core was very soft and clayey. Half of the core was sent off to the laboratory for assay. The sampling method is considered adequate for a diamond drilling program of this type.</p> <p>Quarter core petrology samples were collected from some gold mineralised intervals as selected by project geologists to characterize mineralization. The sampling method is considered adequate for a drilling program of this type.</p>

<b>Quality of Assay Data and Laboratory Tests</b>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p> <p>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.</p>	<p>All samples were previously assayed by SGS technique FAA505 for gold with a detection limit of 5ppb Au. All samples with gold values exceeding 10g/t Au were re-assayed using SGS method FAA515 with a detection limit of 0.01g/t Au.</p> <p>A selection of drill core samples were analysed for 34 multi-elements by SGS technique ICP14B, Aqua regia digest with an ICP-OES finish. Elements analysed and reported herein with detection limits in brackets include: Ag (2ppm), As (3ppm), Bi (5ppm), Fe (0.01%), Pb (2ppm), S (0.01%), and Zn (0.5ppm).</p> <p>A selection of quarter core gold mineralised samples were dispatched to Perth Western Australia. Townend Mineralogy prepared and described all petrological samples and provided photomicrograph, SEM analysis and reports, two images from which are provided for reference as figures 2-3.</p> <p>Field duplicates, standards and blank samples were previously submitted for every 15 samples on a rotating basis.</p> <p>Duplicate and standards analyses were all previously returned were within acceptable limits of expected values.</p>
<b>Verification of Sampling and Assaying</b>	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data</p>	<p>At this stage, the intersections have not been verified independently.</p> <p>No twin holes were drilled in the holes reported here but some drilling has been done previously sufficiently close to a previously drilled hole to provide confirmation of the location of mineralisation. Specifically KKODD002 was drilled close to Air Core Hole KKOAC001 and demonstrated that that similar, consistent gold mineralisation was present in the near surface.</p>
<b>Location of Data points</b>	<p>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.</p> <p>Specification of the grid system used Quality and adequacy of topographic control</p>	<p>Drill hole collar locations were recorded at the completion of each hole by hand-held GPS.</p> <p>Positional data was recorded in projection WGS84 Zone 29N.</p> <p>Hole locations have been re-surveyed using a digital GPS system.</p>
<b>Data Spacing and Distribution</b>	<p>Data spacing for reporting of Exploration Results</p> <p>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.</p> <p>Whether sample compositing has been applied</p>	<p>The previously reported diamond drill holes were designed to explore the gold mineralised system in fresh rock. Single DD holes are in the process of being drilled on most 80m spaced sections in the 1.3km long zone tested previously with RC drilling</p> <p>The adequacy of the current drill hole spacing for Mineral Resource estimation is not yet known as an appropriate understanding of mineralisation continuity has not yet been established</p>
<b>Orientation of Data in Relation to Geological Structure</b>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>There is very limited outcrop in the immediate area but based on the small number of geological observations and the overall strike of the anomaly, an east west line orientation with holes inclined to the west was considered most likely to test the target mineralised zone. Results from earlier drilling has now determined that the overall dip of the gold mineralised envelope is to the west. Three of the diamond drill holes reported in this release were drilled from west to east to obtain true widths through the gold mineralisation. The other diamond drill holes and the RC holes reported here were drilled mostly from east to west or from NE to SW.</p>
<b>Sample Security</b>	<p>The measures taken to ensure sample security</p>	<p>Core trays and RC chips are stored in a guarded location close to the nearby Bankan Village. Coarse rejects and pulps will be eventually recovered from SGS in Bamako and stored at Predictive's field office in Kouroussa.</p>

		Petrological quarter core samples were selected, individually bagged, labelled and sealed. These samples were then dispatched to Perth Western Australia via secure international courier.
<b>Audits or Reviews</b>	The results of any audits or reviews of sampling techniques and data	No reviews or audits of sampling techniques were conducted.
<b>Section 2 Reporting of Exploration Results</b>		
<b>Mineral Tenement and Land Tenure Status</b>	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.
<b>Exploration Done by Other Parties</b>	Acknowledgment and appraisal of exploration by other parties.	Predictive is not aware of any significant previous gold exploration over the permit.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The geology of the Kaninko permit consists of mafic volcanics and intrusives, granitic rocks and minor metasediments.
<b>Drill Hole Information</b>	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: <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length</li> <li>• 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.</li> </ul>	Relevant hole locations have previously been reported, see ASX releases for PDI.
<b>Data Aggregation Methods</b>	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.	Earlier diamond drill sampling was generally in one metre intervals.  Up to 2m (down-hole) of internal waste was previously included for results reported at both the 0.25g/t Au and 0.5g/t Au cut-off grades.  Mineralised intervals were previously reported on a weighted average basis.



<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	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').	True widths have previously only been estimated for west to east diamond drill holes. The overall orientation of mineralised zones on the other drilled lines is not yet properly understood.
<b>Diagrams</b>	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.	Results for all holes discussed in this report have previously been reported - see PDI ASX releases dated 31 July 2020 and 10 September 2020.
<b>Balanced Reporting</b>	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.	Comprehensive reporting of drill results has previously been reported- see PDI ASX releases dated 31 July 2020 and 10 September 2020.
<b>Other Substantive Exploration Data</b>	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 other exploration data on this area has been reported previously by PDI.
<b>Further Work</b>	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.	These results form part of a large ongoing program of RC and diamond drilling. Geological studies will continue to be conducted to characterise the gold mineralisation going forward.

*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 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.*

This announcement is authorised for release by Predictive Managing Director, Paul Roberts.

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## ABOUT PREDICTIVE

Over the past 2 years, Predictive has built a commanding land position in Guinea's Siguiri Basin (Figure 5), acquiring 861km<sup>2</sup> across ten permits with all ground identified utilising the Company's Predictore™ methodology.

In July 2019, Predictive was granted the Kaninko Permit (now known as the Bankan Project) near the town of Kouroussa in the Siguiri Basin. This tenement, located approximately 10km from Cassidy's Kouroussa gold deposit, laid the platform for the Company's growth with exploration activity and drilling delivering high-gold grades and broad gold mineralised widths at the NE Bankan and Bankan Creek gold discoveries.

*"Gold is becoming an important commodity in Guinea as international exploration funding to the country is increasing significantly"* – KPMG, Guinea Country Mining Guide

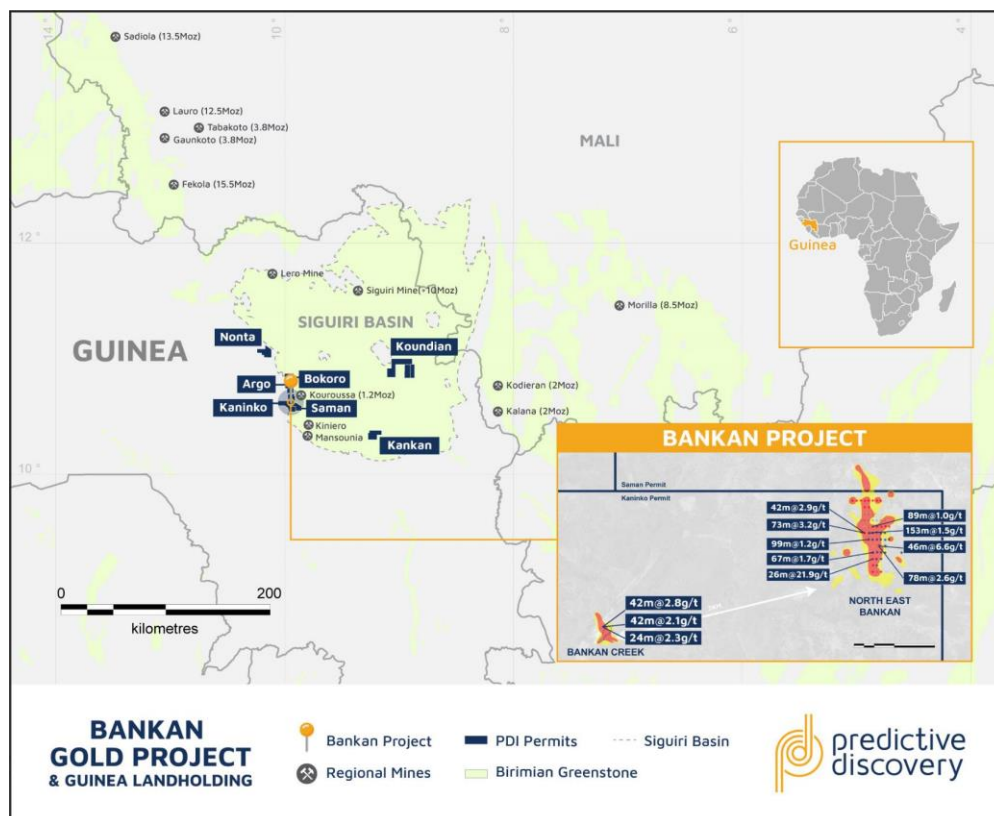


Figure 5 – Predictive Discovery 100%-owned Guinea Portfolio of gold projects