predictive discovery

ASX Announcement

23 September 2021

28M @ 12.1 G/T GOLD 1.5 KM FROM NE BANKAN

Predictive Discovery Limited ("Predictive" or "Company") is pleased to announce high impact air-core (AC) drill results within 1.5 kilometres of its NE Bankan deposit.

HIGHLIGHTS

- AC drilling following up a series of regional gold auger anomalies to the south and west of NE Bankan has returned excellent initial results including:
  - BKAC0016: **16m @ 2.3g/t Au** from surface, including:
    2m @ 7.5g/t Au from 2m, followed by
    28m @ 12.1g/t Au from 22m, including:
    6m @ 48g/t Au from 26m, with **2m @ +100g/t Au**[1]
  - BKAC0015: **8m @ 3.3g/t Au** from 6m, including: **2m @ 10g/t Au**
  - BKAC0014: **4m @ 4g/t Au** from 16m, including **2m @ 7.2g/t Au**
  - BKAC0011: **12m @ 1.8g/t Au** from 32m
- Predictive's extensive AC drilling program is just beginning with 16 holes totalling 660m reported in this announcement.
- The Company is systematically testing multiple promising targets identified previously by regional auger drilling and structural analysis of aeromagnetic data.
- Maiden Resource Estimate (MRE) is on-track for completion in the next week.

Managing Director, Paul Roberts said: *"These shallow, high-grade results are a great start to our regional AC program and confirm the potential for discovering new zones of gold mineralisation very close to NE Bankan.*

Importantly, some of the new AC drill results also suggest that transported material may have been too deep in places for the auger to drill through it, opening up the possibility that some of the new mineralised zones reported here may extend significantly along strike in follow-up AC drilling.

Our approach to exploration on the Bankan Project has been methodical, starting with power auger grid drilling and/or surface geochemical sampling and following up plus 0.25g/t Au anomalies with AC drilling. This approach successfully led to the NE Bankan and Bankan Creek discoveries. With both deposits now the focus of resource studies and systematic extensional drilling, we have returned to AC scout drilling across the permit area with immediate success.

These results are further evidence that we are just at the beginning of the Bankan discovery story with a lot more gold to find across the full project area."

[1] *Re-assay of the +100g/t Au result by a gravimetric method is awaited.*

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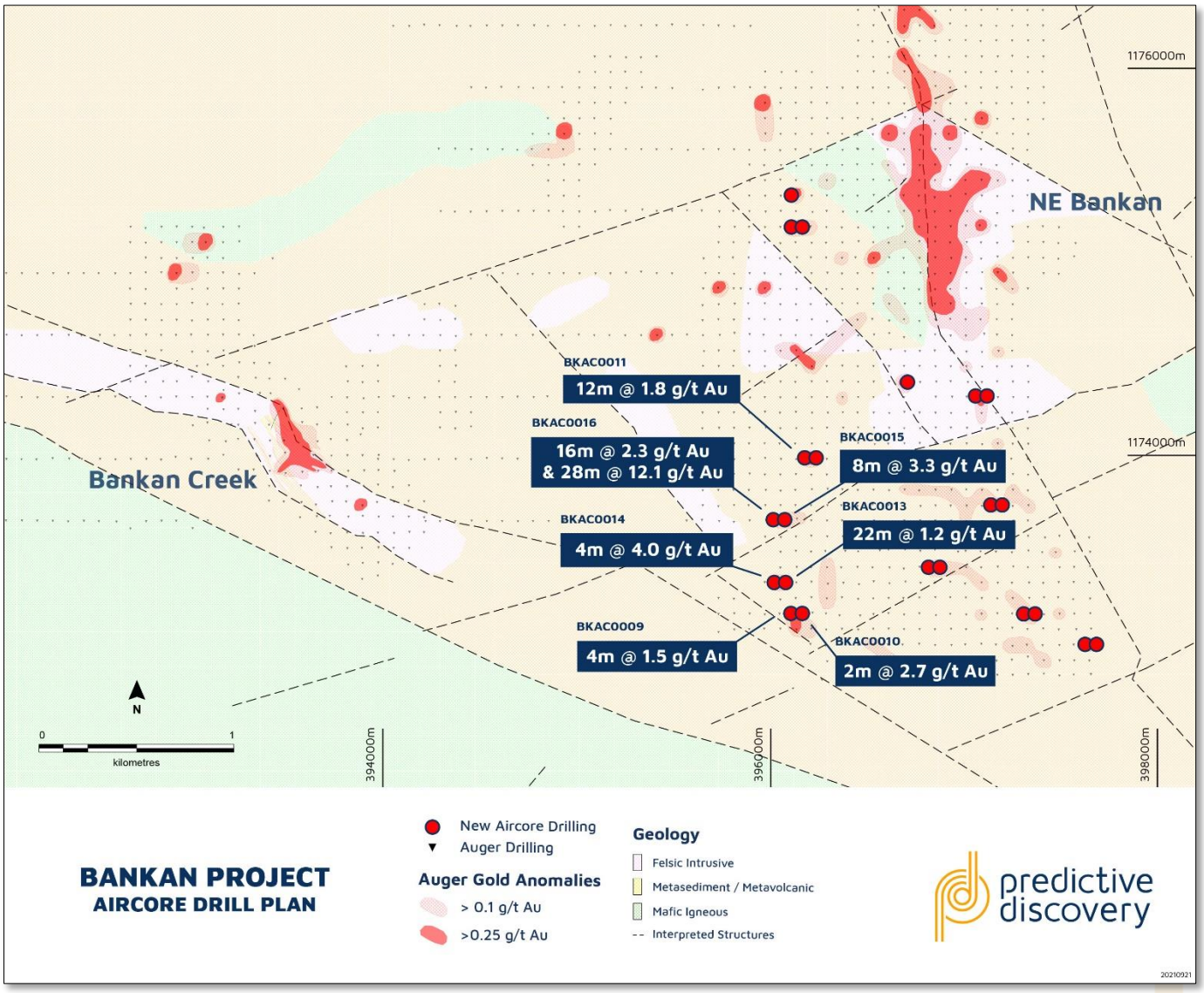

Figure 1 - Bankan Project showing new AC results, close to the NE Bankan and Bankan Creek Prospects

AIRCORE DRILLING RESULTS

The Company has been undertaking a large-scale power auger program across the Bankan Project area since mid-2020. A particular initial focus was in the area between NE Bankan and Bankan Creek, which is now interpreted to be connected by a series of ENE orientated cross structures (Figure 1).

The Company completed 16 holes totalling 660m of AC drilling in August 2021, testing beneath some of the plus 0.25 g/t Au power auger gold anomalies which have been reported over the last 12 months (Figures 1 to 3).

Two scissor (cross-cutting) holes were drilled beneath each gold-bearing auger hole to a maximum downhole depth of 50m (approximately 38m vertical depth).

The holes were designed to determine the orientation and dip of the targeted gold mineralisation in the selected auger holes. This drilling has obtained some excellent broad and high-grade intercepts including:

- BKAC0011: **12m @ 1.8g/t Au** from 32m
- BKAC0013: **22m @ 1.2g/t Au** from 18m (stopped in gold mineralisation)
- BKAC0014: **4m @ 4g/t Au** from 16m, including **2m @ 7.2g/t Au**
- BKAC0015: **8m @ 3.3g/t Au** from 6m, including: **2m @ 10g/t Au**
- BKAC0016: **16m @ 2.3g/t Au** from surface, including:

  2m @ 7.5g/t Au from 2m, followed by

  28m @ 12.1g/t Au from 22m, including:

  6m @ 48g/t Au from 26m, with **2m @ >100g/t Au**[2]

Drill results obtained so far suggest that there are horizontal zones of anomalous gold values on some sections and >10m thick horizontal zones with little or no gold on other sections.

This suggests that there are near-surface layers of transported material too thick for penetration by power auger in places, which may be concealing deeper zones of weathered bedrock gold mineralisation below, thereby warranting AC drilling to search for extensions along strike, despite low auger values.

The more-or-less north-south trend connecting the holes highlighted above may be partly or wholly connected in deeper weathered bedrock gold mineralisation beneath transported barren cover.

Two metre composite samples were assayed by fire assay at the SGS laboratory in Bamako, Mali.

A full schedule of results can be found in Table 1 along with a detailed explanation of drilling methods in Table 2.

[2] *Re-assay of the >100g/t Au result by a gravimetric method is awaited.*

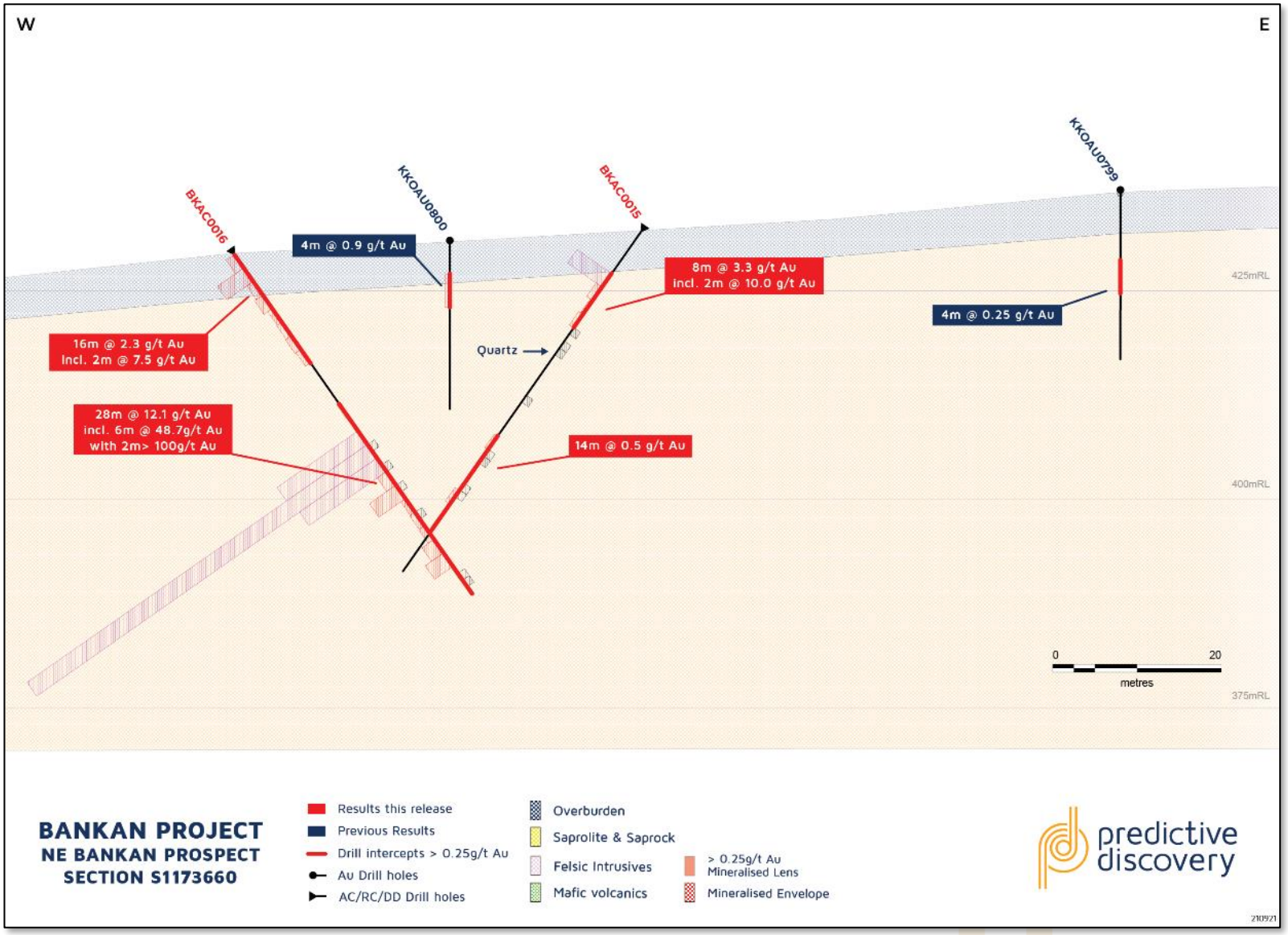

Figure 2 - Bankan Project, new AC results from Section 1173660 N

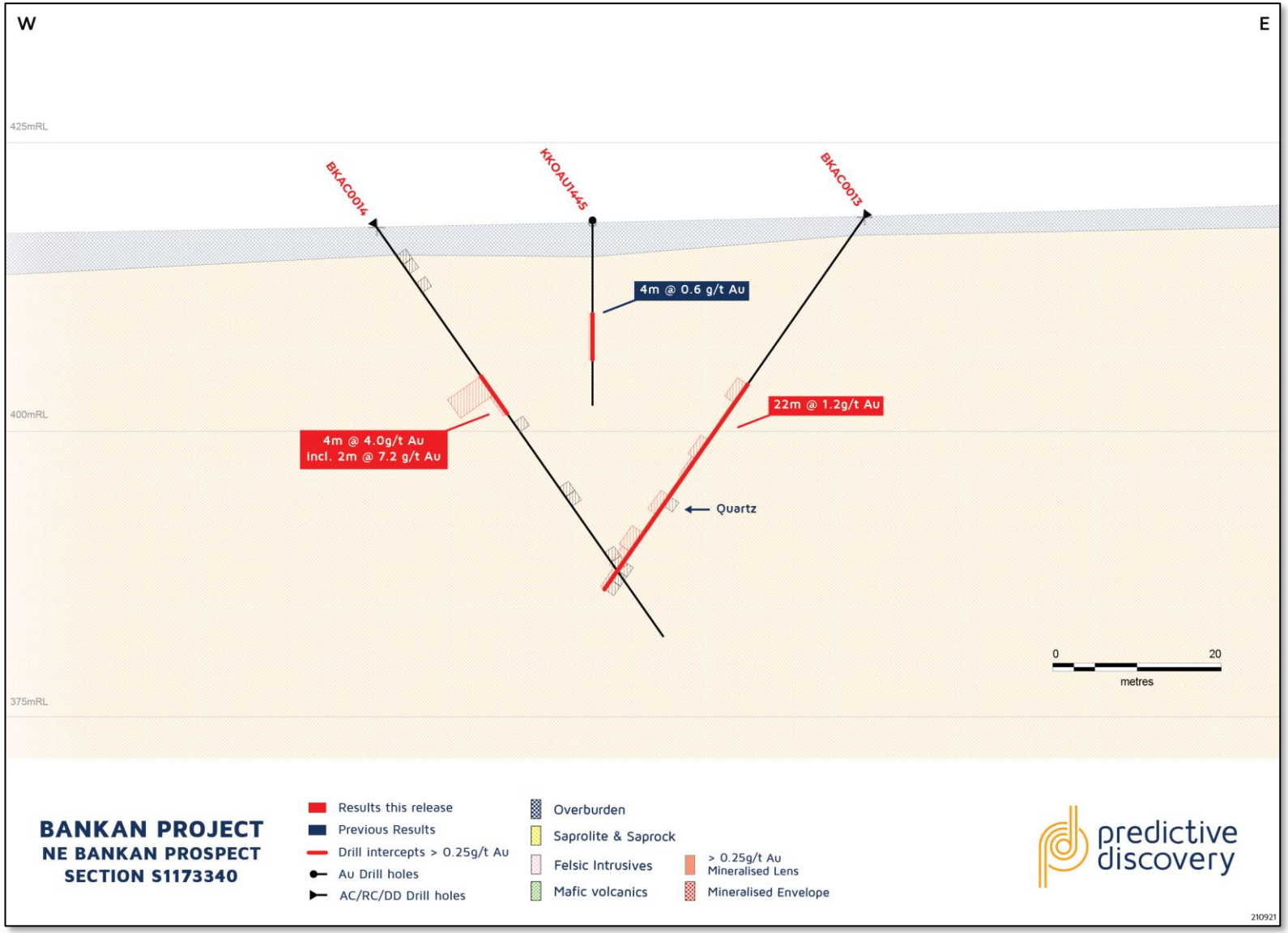

Figure 3 - Bankan Project, new AC results from Section 1173340 N

NEXT STEPS

AC drilling is ongoing and the rig is currently testing gold anomalous areas in the Argo licence area situated 15-20 km north of NE Bankan. Upon completion of that program, the AC rig will be returned to follow-up these newly identified prospects nearer to NE Bankan.

As reported previously, the Mineral Resource Estimate (MRE) is expected to be delivered this month.

- END -

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

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

For further information visit our website at www.predictivediscovery.com or contact:

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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.

ABOUT PREDICTIVE

Predictive Discovery (ASX:PDI) is focused on its 100%-owned Guinea portfolio in the prolific Siguiri Basin. The Company has made two discoveries at Bankan Creek and NE Bankan, located 3km apart. Bankan is a true greenfields gold discovery with no previous drilling having been completed on the exploration permits prior to Predictive's drilling which commenced in early 2020.

At NE Bankan the Company has identified a high-grade core with recent intercepts including 49.7m @ 11.7g/t Au and 44m @ 8.0g/t Au[3], both returned in July 2021. The Company is building towards a Maiden Resource Estimate at the Bankan Project whilst continuing to grow its regional exploration program.

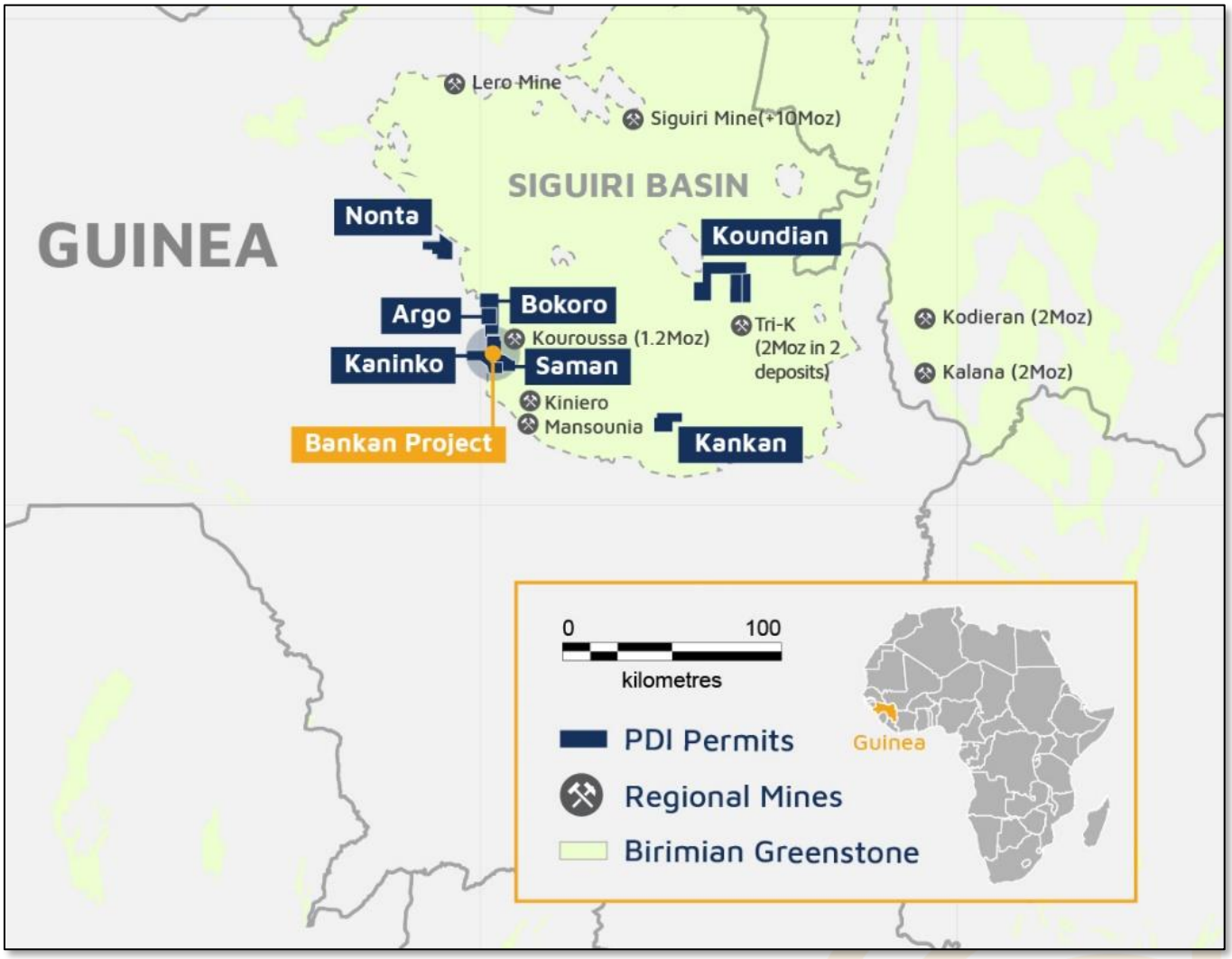

Figure 4 - Predictive Discovery's 100%-owned Guinea Portfolio of gold projects.

[3] ASX Announcement - BONANZA GOLD GRADES AS HIGH-GRADE ZONE REVEALED AT BANKAN (19 July 2021)

TABLE 1 – BANKAN PROJECT AIRCORE DRILL RESULTS

Hole No.	UTM 29N East	UTM 29N North	RL (GPS)	Hole azimuth	Hole dip	Hole depth	0.25g/t gold cut-off			Comments
							From	Interval	Au g/t	
BKAC0001	397676	1173026	429	270	-55	50	0.0	50.0	NSR	
BKAC0002	397621	1173021	430	90	-55	50	16.0	2.0	1.22	
BKAC0003	397358	1173179	429	270	-55	50	0.0	50.0	NSR	
BKAC0004	397309	1173180	423	90	-55	50	12.0	2.0	0.52	
							22.0	2.0	0.80	
BKAC0005	397194	1173740	436	270	-55	50	10.0	2.0	0.69	
BKAC0006	397144	1173741	440	90	-55	50	32.0	4.0	0.33	
BKAC0007	396827	1173422	430	90	-55	50	24.0	6.0	0.66	
							42.0	6.0	0.75	
BKAC0008	396874	1173419	427	270	-55	50	6.0	4.0	0.61	
							24.0	8.0	0.63	
BKAC0009	396156	1173182	417	270	-55	50	6.0	4.0	1.50	
BKAC0010	396106	1173183	417	90	-55	20	18.0	2.0	2.66	Mineralised to end of hole
BKAC0011	396240	1173986	441	270	-55	50	**32.0**	**12.0**	**1.79**	
BKAC0012	396184	1173984	440	90	-55	50	0.0	50.0	NSR	
BKAC0013	396076	1173335	419	270	-55	40	**18.0**	**22.0**	**1.19**	Mineralised to end of hole
BKAC0014	396033	1173338	418	90	-55	44	**16.0**	**4.0**	**4.00**	**Incl. 2m @ 7.19g/t Au from 16m**
BKAC0015	396077	1173664	432	270	-55	50	**6.0**	**8.0**	**3.33**	**Incl. 2m @ 10g/t Au from 6m**
							30.0	14.0	0.53	
BKAC0016	396028	1173664	428	90	-55	50	**0.0**	**16.0**	**2.32**	**Incl. 2m @ 7.52 g/t Au from 2m**
							22.0	**28.0**	**12.12**	**Incl. 6m @ 48.7 g/t Au from 26m which includes 2m @ >100g/t Au (to be reassayed). Mineralised to end of hole**
BKAC0017	397057	1174304	439	90	-55	50	4.0	2.0	0.60	
BKAC0018	397115	1174301	436	270	-55	43	0.0	43.0	NSR	
BKAC0019	396706	1174380	430	270	-55	13	0.0	13.0	NSR	
BKAC0020	396154	1175177	433	270	-55	50	20.0	2.0	0.75	
							28.0	4.0	0.73	
BKAC0021	396101	1175179	430	90	-55	50	44.0	2.0	1.00	
BKAC0022	396106	1175344	429	90	-55	50	0.0	50.0	NSR	
Note: Some AC holes contain a few damp to wet samples.										

TABLE 2 - JORC CODE – AIR CORE DRILLING

Section 1: Sampling Techniques 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 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.	Samples assayed were Aircore (AC) drill chips/core. Individual one metre samples were collected from the cyclone and weighed. Each sample was then riffle split producing a 1kg split sample. Two metre composite samples weighing approximately 2kg were submitted to the assay laboratory by combining the individual 1kg riffle split sample from each metre into a single bag. Duplicate samples were retained for re-assay. Sampling was supervised by qualified geologists. Samples were dried, crushed and pulverised at the SGS laboratory in Bamako to produce a 50g fire assay charge.
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).	Drilling company is IPGS (Industry Petroleum and Gas of Senegal) Drill type is aircore using a 4.3 inch (110mm) diameter coring blade. Where hard layers including quartz veins were encountered the blade was switched to a face sampling 4.5 inch (115mm) RC hammer bit.
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.	Each 1 metre drill sample was weighed. Sample recoveries were in general high and no unusual measures were taken to maximise sample recovery. Where samples became too wet or sample recovery and quality decreased holes were stopped. Significant sample bias is not expected with riffle splitting of saprolitic materials.

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.	All drill samples were logged systematically for lithology, weathering and alteration and minor minerals. Minor minerals are estimated quantitively.
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 samples were collected by riffle splitting samples from large bags collected directly from the cyclone on the drill rig. Sample condition is generally dry or moist, however some samples are wet. The sampling method is considered adequate for an AC drilling program of this type. One field duplicate was taken and assayed every 50 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.	All samples were 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. Field duplicates, standards and blank samples were each submitted for every 15 samples on a rotating basis. Duplicate and standards analyses were all returned were within acceptable limits of expected values.
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	At this stage, the intersections have not been verified independently. No twin holes have been drilled to date.
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	Drill hole collar locations were recorded at the completion of each hole by hand-held GPS. Positional data was recorded in projection WGS84 UTM Zone 29N. Relative height levels (RL) are relative to Above Mean Sea Level (AMSL) and assigned by draping collars on DTM surface determined from aerial geophysical survey. Hole locations may be re-surveyed using a digital GPS system later.

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	The drill holes were designed to follow up previously defined >0.25g/t Au auger drill anomalies. Two scissor holes were drilled in opposite directions at each target with hole collars positioned approximately 50m apart. Hole target depths were 50m each with the intention of obtaining a complete sample of the oxidised gold mineralisation and providing some indication of gold mineralisation orientations. All holes were angle drilled at 55 degrees. The adequacy of the current drill hole spacing for Mineral Resource estimation is not yet known as an appropriate understanding of mineralisation and continuity has not yet been established
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. 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.	There is very limited outcrop in the area but based on the Bankan NE deposit to the north, and east west line orientation with holes inclined to the west and east was considered most likely to test the target anomalies.
Sample Security	The measures taken to ensure sample security	Large samples are stored in guarded location close to the nearby Bankan Village. Samples were split and sealed (tied off in calico or plastic bags) at the drill site. All samples picked for analyses are placed in clearly marked bags and were stored securely on site before being picked up and transported to Bamako by SGS truck. Coarse rejects and pulps will be eventually recovered from SGS in Bamako and stored at Predictive's field office in Kouroussa.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data	No reviews or audits of sampling techniques were conducted.
Section 2 Reporting of Exploration 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 Other Parties	Acknowledgment and appraisal of exploration by other parties.	Predictive is not aware of any significant previous gold exploration over the permit.
Geology	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.
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	See Table 1 and the accompanying notes in these tables.

	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.	
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.	Drill sampling was in one metre intervals. Up to 2m (down-hole) of internal waste is included for results reported at the 0.25g/t Au cut-off grade. Mineralised intervals are reported on a weighted average basis.
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 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 not been estimated the overall orientation of mineralised zones is not known.
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.	An appropriate map and cross sections are included in this release (Figures 1-3).
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.	Comprehensive reporting of the drill results is provided in Table 1.
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 other exploration data on this area has been reported previously by PDI.
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.	These results form part of an ongoing regional exploration AC drill program to follow up power auger drilling soil anomalies. Regional power auger drilling is also ongoing.