



28th April 2016

ASX Announcement

Predictive Discovery Limited is a gold exploration company with strong technical capabilities focused on its advanced gold exploration projects in West Africa.

ASX: PDI

Issued Capital: 1.33B shares

Share Price: 0.5 cents

Market Capitalisation: \$6.6M

Directors

Phillip Jackson
Non-Exec Chairman

Paul Roberts
Managing Director

David Kelly
Non-Executive Director

Large Gold Anomaly Defined in Cote D'Ivoire

Predictive Discovery Limited (ASX: PDI) is pleased to announce that infill geochemical sampling by Toro Gold Limited (Toro) on the Ferkessedougou Project in north-eastern Cote D'Ivoire has identified the following from gold-in-soil geochemistry:

- **4km long** plus 20ppb gold-in-soil anomaly defined by 200 x 50m infill sampling.
- Includes **continuous 2km long anomaly above 50ppb Au**.
- Higher values in soil grid include **0.90g/t Au, 0.70 g/t Au and 0.61g/t Au**.
- Potential new drilling target for Toro JV. Drill timing is not yet decided given the immediate drilling focus on the Boundiali permit.

Mr Paul Roberts, Predictive's Managing Director said: *"These new results confirm yet another promising gold anomaly in our Cote D'Ivoire exploration portfolio. Toro's infill soil sampling has confirmed that Ferkessedougou is our fourth important project in Cote D'Ivoire along with Kokoumbo, Boundiali and Bobosso".*

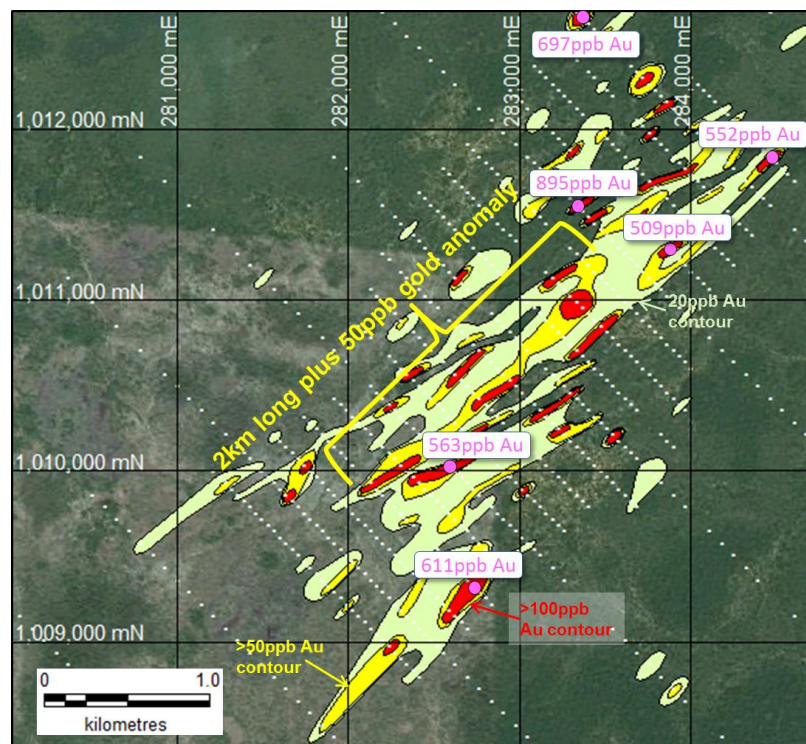


Figure 1: Geochemical map on satellite imagery background - showing location of the Ferkessedougou gold-in-soil anomaly including values above 0.5g/t Au (plus 500ppb Au)

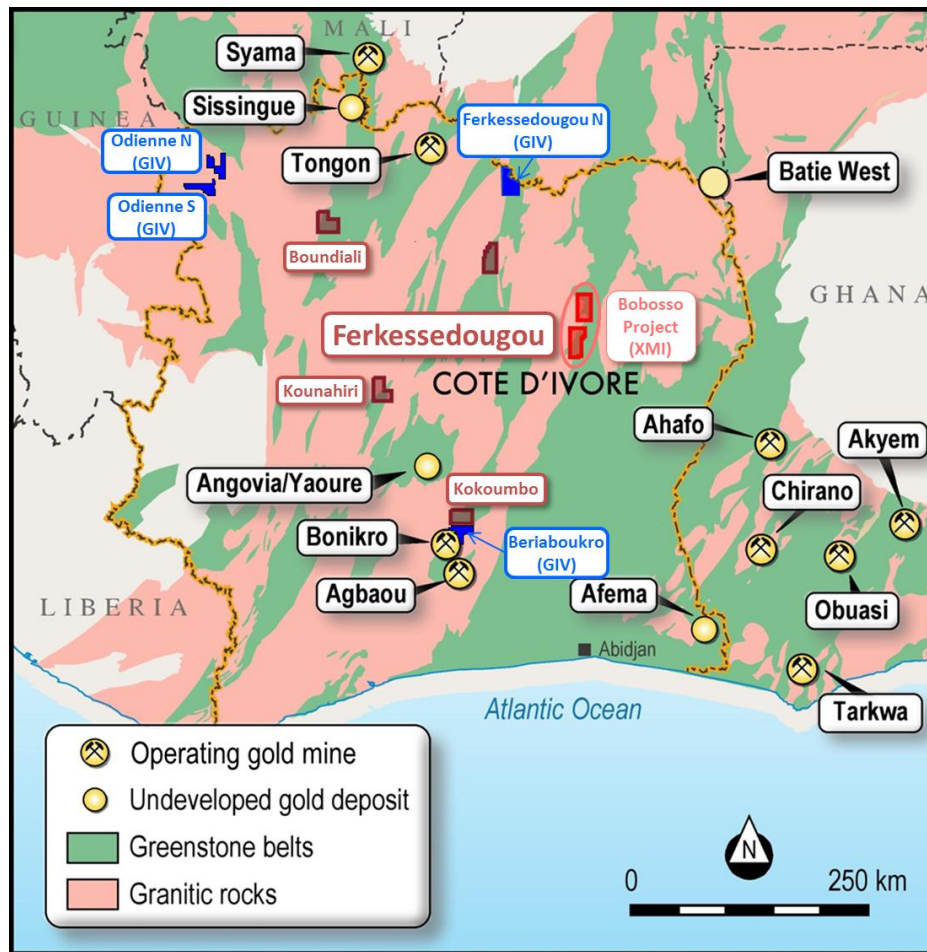


Figure 2: Locality map showing the initial Toro Joint Venture permits (in brown) including Ferkessedougou (highlighted), the recently acquired GIV Joint Venture permits and permit applications (in blue), and the permits covered by PDI's agreement with XMI SARL over the Bobosso Project (red).

COTE D'IVOIRE BACKGROUND

Predictive has been increasingly focused on Cote D'Ivoire in recent years. The country covers over a third of the highly prospective Birimian gold belt, more than any other country in West Africa. Cote D'Ivoire is highly underexplored for gold because the exploration investment boom in the last decade largely bypassed the country because of political instability. Since the accession of President Alassane Ouattara in 2011 and his comfortable re-election last year, and with investment certainty provided by an updated Mining Act and a forward-looking Mines Administration, Cote D'Ivoire has become a highly attractive exploration investment destination.

Predictive is in joint venture with Toro Gold Limited (**Toro**), a UK-based company, on eight permits in Cote D'Ivoire and with XMI SARL, an Ivorian company, on two additional permits covering the Bobosso Project (Figure 1). The Toro Joint Venture operates through Predictive Discovery Limited's subsidiary, Predictive Cote D'Ivoire SARL (**Predictive CI**) of which Predictive now holds 49%. Predictive now has interests in exploration ground in Cote D'Ivoire covering nearly 4,000 km².

FERKESSEDOUGOU SOIL SAMPLING PROGRAM

Predictive reported encouraging reconnaissance soil sampling results from the northern two thirds of the Ferkessedougou permit on 10th November 2015.

In February and March, 2016, Toro completed reconnaissance soil sampling coverage of the southern third of the permit and undertook infill sampling of the 3km long gold anomalous zone identified in the initial survey (ASX release 10/11/15). The reconnaissance samples were collected on an 800 x 100m grid and every second sample was submitted for analysis. The infill samples were collected on a 200 x 50m grid and all samples were analysed. Soil samples were sieved to 80 mesh at a nearby field office and assayed for gold by ALS at Loughrea in Ireland. In total, 1,364 samples were submitted for analysis.

The infill sampling showed that there is a coherent gold anomalous zone in the northern part of the permit with values above 20ppb Au extending over 4km (Figure 1). Within that zone, there is a 2km long continuous anomaly above 50ppb along with other shorter strike length gold anomalous features. There are a number of encouraging high values (>500ppb Au or >0.5g/t Au), ranging from 509 to 895 ppb Au.

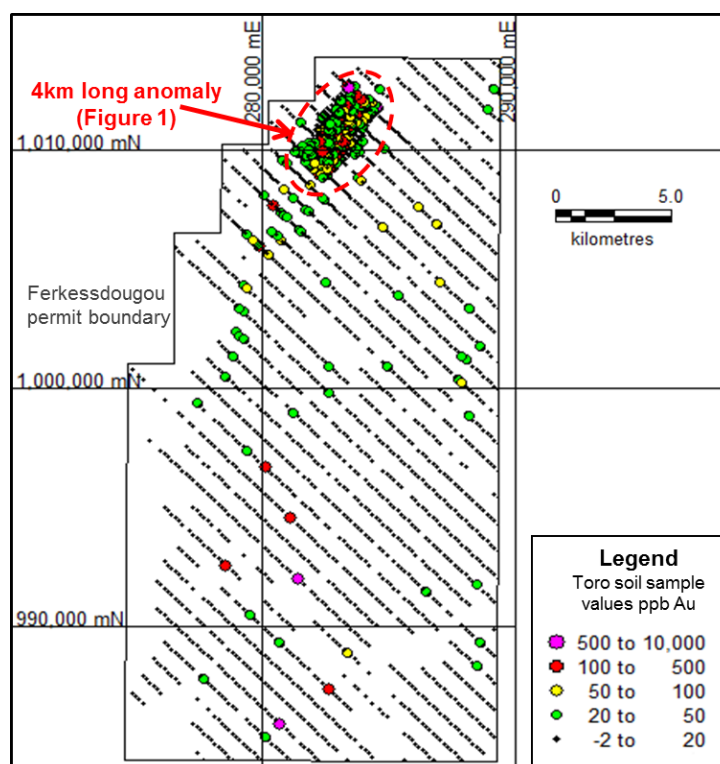


Figure 3: Soil sample locations from the entire Ferkessedougou permit in north-east Cote D'Ivoire. Gold results in grade intervals are shown.

NEXT STEPS

Toro and Predictive agree that these soil results are worthy of drill follow-up. Scheduling of that drilling will be considered once the drill results from Kokoumbo and Boundiali have been received and assessed.

TABLE 1 – FERKESSEDOUGOU SOIL SAMPLING RESULTS

Sample numbers	Northing (WGS84-30N)	Easting (WGS84 – 30N)	RL	Hole dips	Azimuth	Hole Depth	From	Interval	Au (ppb)
Toro sample numbers in the ranges 30,244-32,649. Reconnaissance samples from the southern third of the permit were sampled every 100m along lines but only every second sample was submitted for analysis.	Refer to Figures 1 and 3 for map locations of all samples	Refer to Figures 1 and 3 for map locations of all samples	See notes	Not relevant to the samples described in this report	Not relevant to the samples described in this report	Soil samples were collected from 10-50cm depth	Not relevant to the samples described in this report	Not relevant to the samples described in this report	See notes and Figures 1 and 3
Notes: Soil sampling is a reconnaissance exploration technique. In the sampling and sample preparation method used by Toro, soil samples were collected from shallow holes and dried and subsampled at a local field camp. The prepared samples were then sent to the ALS laboratory in Loughrea in Ireland for fire assay analysis. RL ranges for the Ferkessedougou permit are 271 to 316m. Individual RLs are not reported in this announcement because they are not relevant to interpreting geochemical data of this type.									

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.	The sampling described in this report refers samples obtained from the Ferkessedougou exploration permit in Cote D'Ivoire. The soil and lag samples were collected from shallow holes with depths between 10 and 50cm.
Drilling	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details	This is not relevant to a soil sampling program.

	(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 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 soil 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.	Soil samples are described in terms of soil type, regolith and landscape classification and colour. Descriptions are largely 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 method is appropriate and standard for soil samples of this type.

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 analytical method used has a very low (1ppb Au) detection limit which is appropriate for samples of this type.
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 soil 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 1 and 3) are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 30 - 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	The soil sampling grid was 800 x 200m with infill in selected areas to 200 x 50m and is considered appropriate for a reconnaissance exploration grid of this type. 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. 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.	The samples were collected along lines which were designed to cross cut the interpreted bedding and foliation strike orientations in permit.
Sample Security	The measures taken to ensure sample security	Samples are stored securely at Toro Gold's field office in Yamoussoukro.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data	No audits or reviews of sampling techniques and data have been carried out given the reconnaissance nature of this sampling program.
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 Ferkessedougou exploration permit was granted to PDI Cote D'Ivoire SARL in June 2013. Toro Gold Limited has earned a 51% interest in PDI Cote D'Ivoire SARL by spending US\$1 million.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	PDI is not aware of any effective gold exploration over the Ferkessedougou permit however historic records are incomplete at the Cote D'Ivoire government geological agency.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the Ferkessedougou permit consists of granite, metasediments, mafic volcanics and intrusives, and conglomerates.
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 soil sampling program. Sample coordinate information is provided in Table 1 and on the maps included in this release.
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 soil sampling program..
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').	This is not relevant to a soil sampling program.
Diagrams	Appropriate maps and sections (with	Appropriate plans showing the locations of the soil samples, classified by results, are shown in this release.

	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.	
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 soil samples 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.	Follow-up drilling is expected on this permit but the timing of that drilling has not yet been decided.

Predictive Discovery Limited (PDI) was established in late 2007 and listed on the ASX in December 2010. The Company is focused on exploration for gold in West Africa. The Company operates in Burkina Faso, West Africa where it has assembled a substantial regional ground position covering 1,500km² and is exploring for large, open-pit mineable gold deposits. Exploration in eastern Burkina Faso has yielded a large portfolio of exciting gold prospects, including the high grade Bongou gold deposit on which a resource estimate was calculated in September 2014. PDI also has substantial interests in a large portfolio of tenements in Côte D'Ivoire covering a total area of 3,937 km².

Competent Persons Statement

The exploration results and the Exploration Target 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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