



14th June 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

New Kokoumbo Diamond Drill Results

Predictive Discovery Limited (ASX: PDI) is pleased to report additional encouraging gold assay results from diamond drilling completed by Toro Gold Limited (Toro) on Predictive's Kokoumbo Project in Cote D'Ivoire, including:

- **Kokoumbo Hill Prospect:**
 - KOD005: 7.5m at 1.5g/t Au from 12m, including **1.5m at 8.9g/t Au**
 - KOD010: **1.5m at 14.9g/t Au** from 87m
 - Mineralized zone is open to the east and south
- **Sereme Prospect:**
 - KOD014: 3.0m at 1.9g/t Au from 39m
 - KOD015: 1.5m at 4.1/t Au from 1.5m
 - KOD015: 1.5m at 4.6/t Au from 18.7m
- These assays add to the previously reported drill results from Kokoumbo Hill (ASX release 13/5/16) which included:
 - KOD001: **7.5m at 16.0g/t Au** from 0m, including **1.5m at 74.2g/t Au** from 6.0m
 - KOD002: 7.5m at 1.6g/t Au from 0m
 - KOD003: **4.5m at 3.4g/t Au from 0m**

Mr Paul Roberts, Predictive's Managing Director said: *"We are still at an early stage in developing a good geological understanding of the Kokoumbo permit, with only 15 holes drilled so far on three prospects. But we do know that gold mineralisation is widespread in the permit and that some high gold grades are present in near-surface material. On Kokoumbo Hill, some of the gold mineralisation is associated with a microdiorite intrusive body that may be an important control on gold distribution. Some near-surface supergene enrichment of gold grades may also be present there."*

Toro continues to make excellent progress on the joint venture tenements, with an RC drilling program on the large gold-in-soil anomaly on the Boundiali permit in northern Cote D'Ivoire now nearing completion. We expect to be able to start releasing gold assay results from that drill program soon."

TORO JOINT VENTURE BACKGROUND

Predictive is in joint venture with Toro Gold Limited (**Toro**), a UK-based company, on six granted permits and two permit applications in Cote D'Ivoire (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%. Toro can earn a further 14% of Predictive CI by spending US\$2.5 million, which would then lift its equity to 65%. At this stage, Predictive plans to contribute 35% of the ongoing expenditure once Toro achieves its 65% equity.

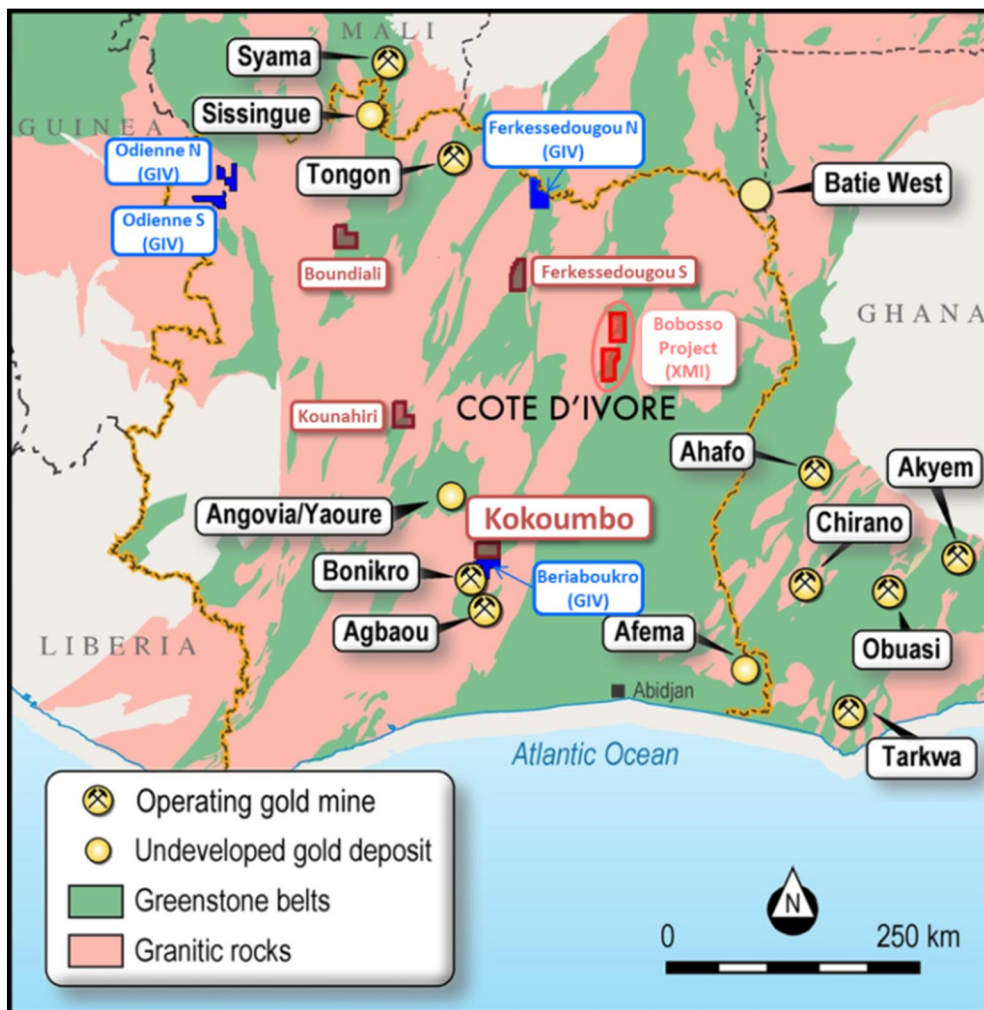


Figure 1: Locality map showing the initial Toro Joint Venture permits (in brown) including Kokoumbo (highlighted), the recently acquired GIV Joint Venture permits and permit applications (in blue), and the permits covered by PDI's agreement with XMI SARL over the Bobosso Project (red).

KOKOUMBO DIAMOND DRILLING PROGRAM

15 diamond drill holes totalling 1,610m were completed in April 2016. The diamond drilling program tested three prospects: Kokoumbo Hill, Sereme and Blonzwe (Figure 2).

Initial drill results from the first three holes were released to the ASX on 13th May 2016 and included the following:

- KOD001: **7.5m at 16.0g/t Au** from 0m, including **1.5m at 74g/t Au** from 6.0m.
- KOD002: 7.5m at 1.6g/t Au from 0m
- KOD003: **4.5m at 3.4g/t Au** from 0m

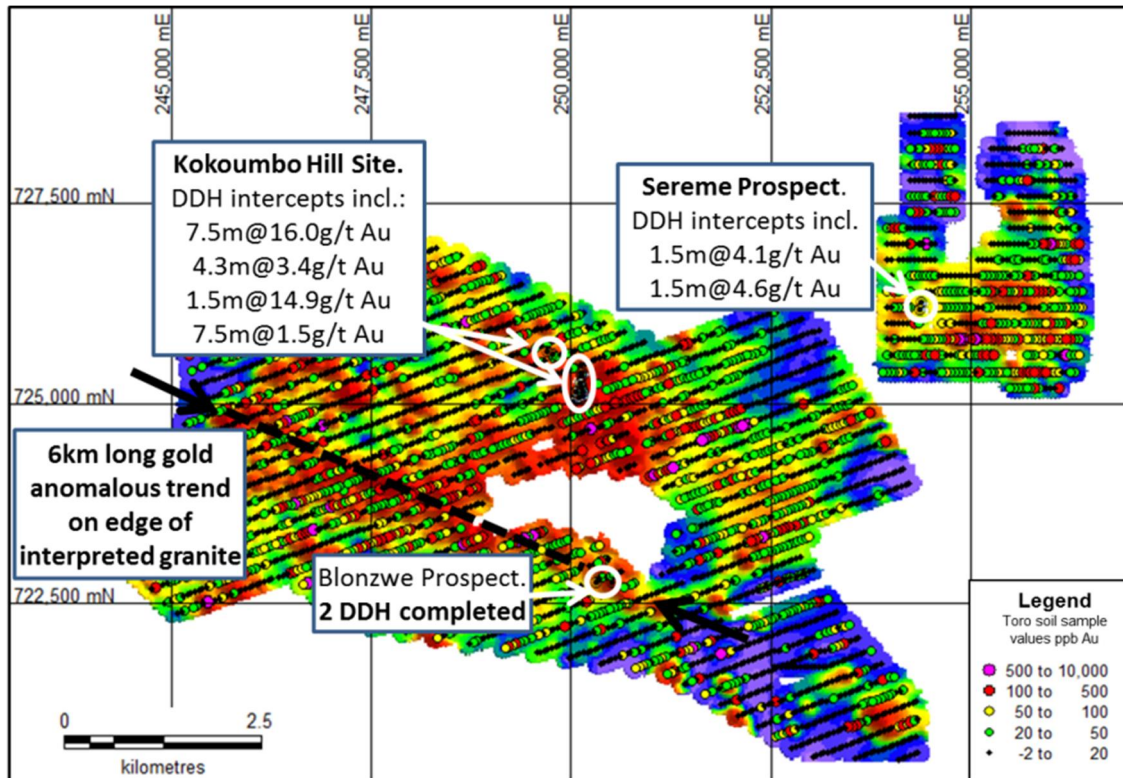


Figure 2: Location of Kokoumbo diamond drilling, superimposed on a colour gridded image of gold in soil geochemistry (ASX release dated 15/9/15). The Kokoumbo Hill sites are in the centre of a large area of gold in soil anomalies and substantial historical and recent artisanal mine workings.

The drill core was cut at Toro's camp in Yamoussoukro prior to sample preparation in Senegal. Samples were submitted for assay at the ALS laboratory at Loughrea in Ireland.

All of the remaining gold assay results from this drill program are reported in this release.

11 of the 12 holes reported here contained some gold mineralisation, including the following (at a 0.5g/t Au cut-off):

Kokoumbo Hill Prospect:

- KOD005: 7.5m at 1.5g/t Au from 12m, including 1.5m at 8.89g/t Au
- KOD010: 1.5m at 14.9g/t Au from 87m

Sereme Prospect:

- KOD014: 3.0m at 1.9g/t Au from 39m
- KOD015: 1.5m at 4.1/t Au from 1.5m

- KOD015: 1.5m at 4.6/t Au from 18.7m

Complete assay results are provided in Table 1.

The Kokoumbo Hill drilling (Figure 3) has identified near surface gold mineralisation both in chip-channel sampling and RC drilling, some of which is high grade (e.g. the KOD001 intercept). While some gold values were obtained in colluvial material, most are from weathered or fresh bedrock including the highest grade values to date. The earlier chip-channel sampling program (ASX release dated 10/11/15) indicated an association between encouraging gold values and a microdiorite containing rare quartz phenocrysts (Figure 4). Such rocks tend to contain lower titanium values than the surrounding basalts. A combination of core logging and titanium measurements (using a portable XRF machine) shows that such an association is also present in some of the drill intercepts, most definitively in the KOD001 and KOD005 intercepts. XRF measurement of the core is currently ongoing and may add to this geological interpretation in the weeks ahead.

Gold mineralisation is also found in zones containing quartz-carbonate veining in fresh basalt, generally with minor sulphides.

The principal gold mineralised zone identified from the drilling (holes KOD001-005) is open to the east and the south, the best results obtained to date being on the southernmost drill line.

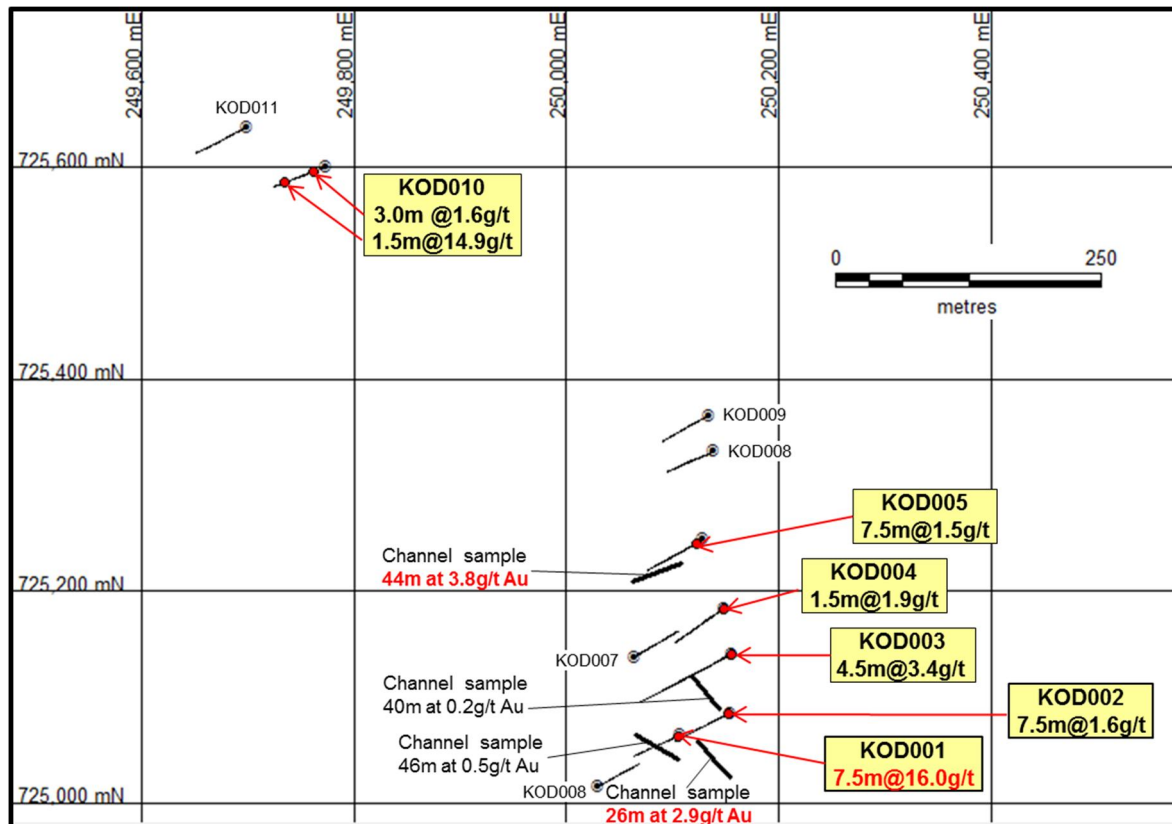


Figure 3: Kokoumbo Hill prospect showing significant drill results and chip-channel sampling locations with gold values (latter first reported on 10/11/15).



Figure 4: Photograph of microdiorite rock which is known to be gold-bearing at surface at the Kokoumbo Hill prospect (quartz phenocrysts circled)

NEXT STEPS

Toro is continuing with XRF measurements on the drill core and analysis of results from this drill program. The joint venture committee will meet next month to discuss the next phase of work on the Kokoumbo permit once this analysis is complete.

TABLE 1 – DRILL RESULTS – TORO GOLD DIAMOND DRILL PROGRAM

Hole No.	UTM 30N Easting	UTM 30N Northing	RL (m)	Hole depth (m)	Hole dip (°)	Azimuth (°)	Depth from (m)	Interval in m (estimated true widths in brackets)	Au (g/t) at 0.5g/t Au cut-off grade	Comments
KOD004	250149	725184	337	114.32	-60	240	0	1.5 (1.0)	1.86	colluvium
KOD004	250149	725184	337	114.32	-60	240	15	1.5 (1.0)	1.32	saprolite
KOD004	250149	725184	337	114.32	-60	240	75	7.5 (true width not known)	0.53	minor quartz-carbonate veining and pyrite-pyrrhotite
KOD005	250129	725249	332	122.86	-60	240	12	7.5	1.55	largely saprolite, low Ti response in XRF - possible microdiorite? Includes 1.5m at 8.89g/t Au
KOD005	250129	725249	332	122.86	-60	240	25.5	1.5 (true width not known)	0.87	saprock basalt
KOD005	250129	725249	332	122.86	-60	240	96	1.5 (true width not known)	1.01	minor quartz-carbonate veining and pyrite

KOD006	250139	725332	347	100.72	-60	240	33	1.5 (true width not known)	1.10	saprock basalt
KOD007	250064	725138	312	99.17	-60	060	10.5	1.5 (1.0)	0.98	saprock basalt
KOD007	250064	725138	312	99.17	-60	060	31.5	1.5 (true width not known)	0.89	
KOD008	250030	725016	277	91.6	-60	060	no significant result			
KOD009	250134	725366	360	103.74	-60	240	54	1.5 (true width not known)	0.81	saprolite
KOD010	249773	725601	384	109.84	-60	240	24	3 (true width not known)	1.60	saprock basalt
KOD010	249773	725601	384	109.84	-60	240	87	1.5 (true width not known)	14.90	quartz veining, carbonate alteration and pyrite-pyrrhotite
KOD011	249698	725638	370	109.94	-60	240	46.5	1.5 (true width not known)	1.23	minor quartz-carbonate veining
KOD012	250528	722747	221	80.74	-60	270	10.5	1.5 (true width not known)	0.67	saprock basalt
KOD013	250327	722748	220	82.23	-60	270	31.5	1.5 (true width not known)	1.15	saprock basalt
KOD014	254379	726177	360	84.07	-70	090	39	3 (true width not known)	1.91	locally sheared volcanoclastic saprock
KOD014	254379	726177	360	84.07	-70	090	46.5	1.5 (true width not known)	1.47	
KOD014	254379	726177	360	84.07	-70	090	69.86	3 (true width not known)	1.61	sheared conglomerate, minor sulphides
KOD015	254380	726250	339	99.43	-70	090	1.5	1.5 (true width not known)	4.06	saprock basalt
KOD015	254380	726250	339	99.43	-70	090	18.73	1.5 (true width not known)	4.58	saprock basalt on quartz vein margin

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Technique	<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 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</p>	<p>All of the sampling described in Table 1 refers to diamond drill core.</p> <p>Diamond drill core was cut in half and submitted for crushing, pulverisation and gold assay. The remaining half was retained in the core trays.</p> <p>The drill samples are judged to be representative of the rock being drilled because representative sub-sampling of both the core was achieved.</p>

	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).	DD: Diamond drilling produced HQ and NTW sized drill core.
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.	Diamond drill core recovery was measured in the standard way. No relationship between core recovery and grade has been observed.
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.	Logging of DD records lithology, mineralogy, mineralisation, alteration, structure, weathering and other features of the samples. Logging of sulphide mineralization and veining is quantitative. All holes were logged in full. No judgement has yet been made by independent qualified consultants on whether the geological and geotechnical logging has been sufficient to support Mineral Resource estimation, mining and metallurgical studies.
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 core was cut in half longitudinally. Half core samples were collected for assay, and the remaining half core samples stored in the core trays. Core samples were submitted for assay in 1.5m intervals. The sampled material is considered to be representative of the core as a whole.

Quality of Assay Data and Laboratory Tests	<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 assayed for gold by 50g fire assay at the ALS laboratory in Loughrea.</p> <p>At the lab, regular assay repeats, lab standards, checks and blanks were inserted and analysed.</p> <p>Unlabelled standards (Certified Reference Materials) were also inserted.</p>
Verification of Sampling and Assaying	<p>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</p>	<p>No holes have yet been twinned.</p> <p>Field data collection was undertaken by Toro Gold geologists and supervised by Toro Gold management.</p>
Location of Data points	<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>Collar positions were located using a hand held GPS with a location error of +/- 3m.</p> <p>Collar coordinates listed in the table are for the WGS84 datum, Zone 30 North.</p>
Data Spacing and Distribution	<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 holes were mostly drilled on approximately 50m-spaced cross sections.</p> <p>No judgement has yet been made by an independent qualified consultant on whether the drill density is sufficient to calculate a Mineral Resource.</p> <p>Diamond drill samples were not composited.</p>
Orientation of Data in Relation to Geological Structure	<p>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.</p>	<p>All drill holes reported here were drilled approximately at right angles to the anticipated strike of a target shallow east dipping zone. The dip of much of the mineralisation is not known and, for this reason, true widths have not been estimated for most of the reported drill intervals.</p>

Sample Security	The measures taken to ensure sample security	The drill core is stored securely at Toro's field office at Kplessou on the Kokoumbo permit.
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 drill program.
Section 2 Reporting of Exploration Results		
Mineral Tenement and Land Tenure Status	<p>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.</p> <p>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.</p>	The Kokoumbo exploration permit was granted in June 2013. PDI Cote D'Ivoire SARL is earning a 90% interest in the Kokoumbo permit from local partner, Ivoir Negoce. PDI Cote D'Ivoire SARL is a wholly owned subsidiary of PDI. 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.	Extensive historical exploration has been carried out on the Kokoumbo permit and was acknowledged and described in PDI's release to the ASX dated 10/6/14.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of Kokoumbo consists of granite, metasediments, mafic volcanics and intrusives, and conglomerates. Quartz-vein hosted mineralisation observed at Kokoumbo is considered to be of the orogenic gold type.
Drill Hole Information	<p>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:</p> <ul style="list-style-type: none"> • 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. 	All of the required data is provided in Table 1 (above).
Data Aggregation Methods	<p>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.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such</p>	<p>All core was sampled in 1.5m intervals.</p> <p>No top cuts have been applied to the drill results.</p> <p>Up to 3m (down-hole) of internal waste is included.</p> <p>Mineralised intervals are reported on a weighted average basis.</p>

	<p>aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	
Relationship Between Mineralisation Widths and Intercept Lengths	<p>These relationships are particularly important in the reporting of Exploration Results</p> <p>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').</p>	True widths are only estimated for shallow mineralised intervals, which are thought to be orientated near parallel to the ground surface.
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.	Appropriate plans showing the location of the drill holes are included in the text of this document.
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.	All intercepts containing grades above 0.5g/t Au are reported in this release with a maximum thickness of internal waste of 3.0m.
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 exploration data is either reported in this release or has been reported previously and is referred to in the release.
Further Work	<p>The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	Analysis of the data and XRF readings of the core are ongoing. The results of the program will be reviewed at a joint venture meeting in the next month and the direction of additional drilling programs will then be 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-pittable 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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