Resolute | ASX Announcement

25 October 2016

NEW GOLD DISCOVERY AT SYAMA

Highlights

- New high grade intercepts returned from the ongoing deep extension drilling program at Resolute's Syama Gold Mine in Mali have opened up an extensive new southern zone for potential major additions to the Syama orebody.
- A completely new zone of mineralisation has been identified south of the Syama deposit and the new zone appears to be separate from the main Syama orebody.
- The significant results are from drilling on section 22800N and include the following intercepts:
    - **SYDD442 19m @ 2.6g/t Au from 273m; and**

      18m @ 3.0g/t Au from 372m
- The newly identified zone has the potential to greatly expand the Syama mineral resource with these results occurring 250m south of the current limit of mining.
- The Syama deep extension drilling program is ongoing and further drill holes are now being planned for this new southern zone.
- The impact of the new zone on the current Syama underground mine plan will be better understood when further results are received.

Resolute Mining Limited (Resolute or the Company) (ASX:RSG) is pleased to report additional high grade results from deep diamond drilling at the Syama Gold Mine (Syama) in Mali.

The Syama deep drilling program was commenced in late 2015 with the ambition of substantially expanding the Syama underground resource. Resource expansion was primarily expected to be at depth with the majority of drilling targeting mineralisation below the existing underground reserve. Positive results have been previously reported demonstrating the potential for substantial future resource growth (refer to ASX announcements dated 8 February 2016, 9 March 2016, and 1 August 2016). These previously reported results also indicated mineralisation at Syama remains open to the north and south.

The intercepts reported in this announcement are from drillhole SYDD442 on section 22800N which was completed to a depth of 480.3m during September 2016.

Significant intercepts assays received from drilling on section 22800N include:

- SYDD442 19m @ 2.57g/t Au from 273m; and
  18m @ 3.02g/t Au from 372m.

Note: Intersections are reported as down hole length and not true width using a 1.0g/t cutoff and up to 3 continuous metres of internal waste.

Further diamond drilling is now planned to follow up this result with the ambition of confirming a major extension of mineralisation along the Syama Shear to the south of the existing orebody.

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Resolute's Managing Director and CEO, Mr John Welborn, was excited about the results from the ongoing deep drilling program at the Syama Gold Mine:

"The two intersections in SYDD442 are particularly significant as they intersect gold mineralisation at a relatively shallow depth in an area where there has been no previous drilling, 250m south along strike from the current mining reserve. The results indicate a potential new mineralisation lens which is separate from the main mineralised zone at Syama. We see enormous potential along strike to the south and down dip, and that potential is being confirmed by these and other drill results returned this year. These results completely open up the southern area at Syama for potential major extensions to resources."

"Syama is already a world class orebody and the results we are receiving from the deep drilling program highlight the exceptional size and quality of the deposit. We have started development of the decline for the underground mine at Syama which the recently announced Definitive Feasibility Study demonstrated will deliver strong margins for Resolute over an operating life of more than 12 years. Under this plan, site production from Syama is expected to reach 250,000 ounces per year. This is based on the current underground reserve and mine plan, neither of which have been updated with the results reported from the deep drilling program. Resolute expects the program will materially increase the Syama underground resource, substantially increase the already impressive mine life, and may create opportunities to expand future production or adapt to a more efficient mine plan."

Syama Resource Extension Drilling Program

Drilling of SYDD442 intersected two zones of alteration and gold mineralisation which are interpreted to represent a new mineralised lens separate to and structurally offset from the main mineralisation zone at Syama. The positions are shown in Figures 1 and 2 below.

These new intersections open up the entire southern areas for possible extensions to the Syama deposit. South of the identified mineral resource the exploration drilling is extremely limited with only sparse 500m spaced drill sections of reverse circulation holes less than 50m deep. The newly identified zone is intersected at a depth of 200m below surface and does not appear to daylight.

The newly identified mineralisation is located at a depth that could potentially be accessible early in the life of the underground mine. The results also confirm the Syama resource is significantly under drilled and opportunity exists to substantially increase the current resource inventory.

The drilling program will continue through FY17 concentrating on outlining the full extent of this new zone of mineralisation as well as extending the resource at depth.

Results have been reported in accordance with the JORC code 2012 guidelines. A listing of all drill results is provided in Table 1 and the assessment criteria JORC Table 1 is attached as an appendix.

For further information, contact:

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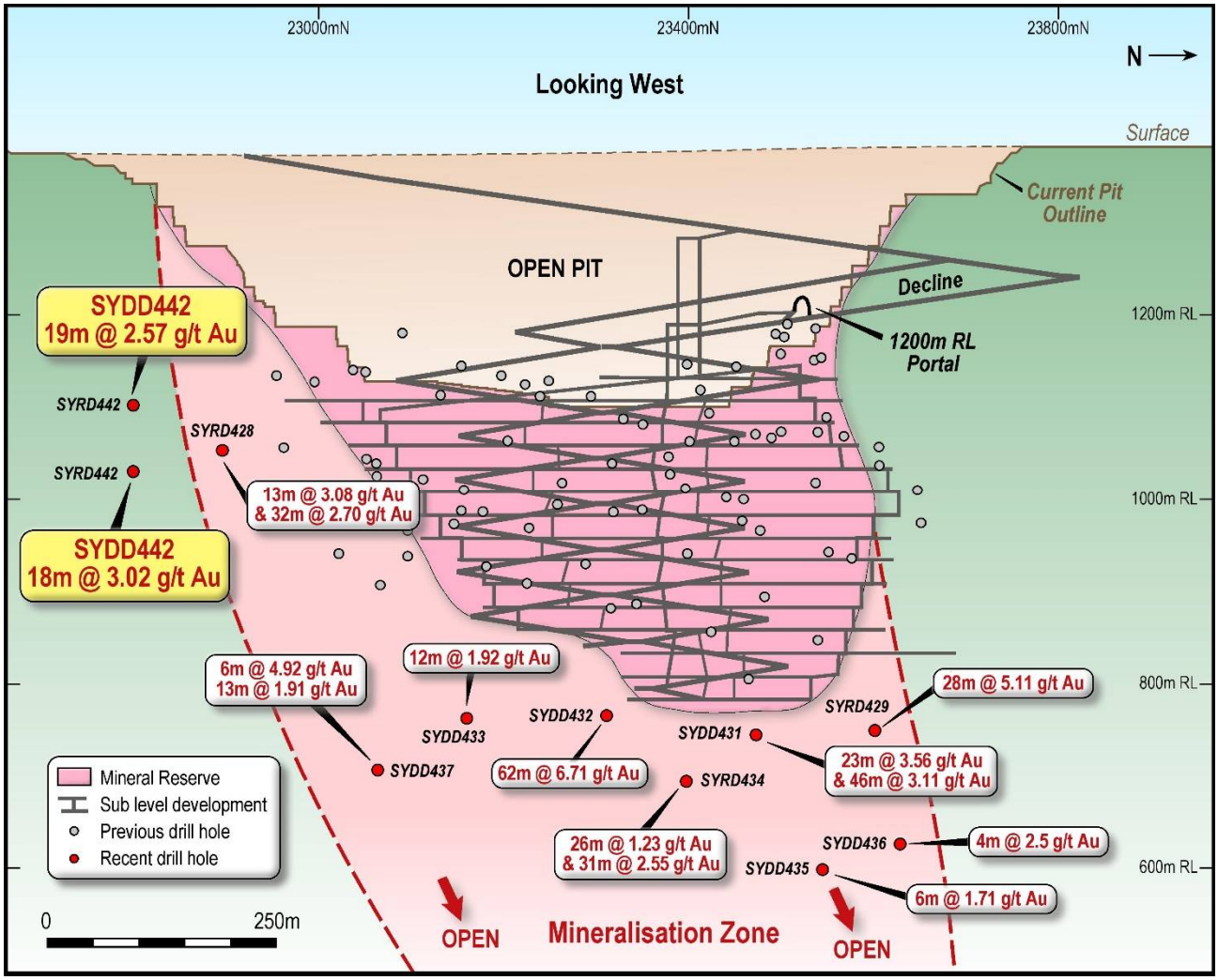


Figure 1: Longitudinal Projection showing location of new diamond drillhole pierce points, results and designed underground development

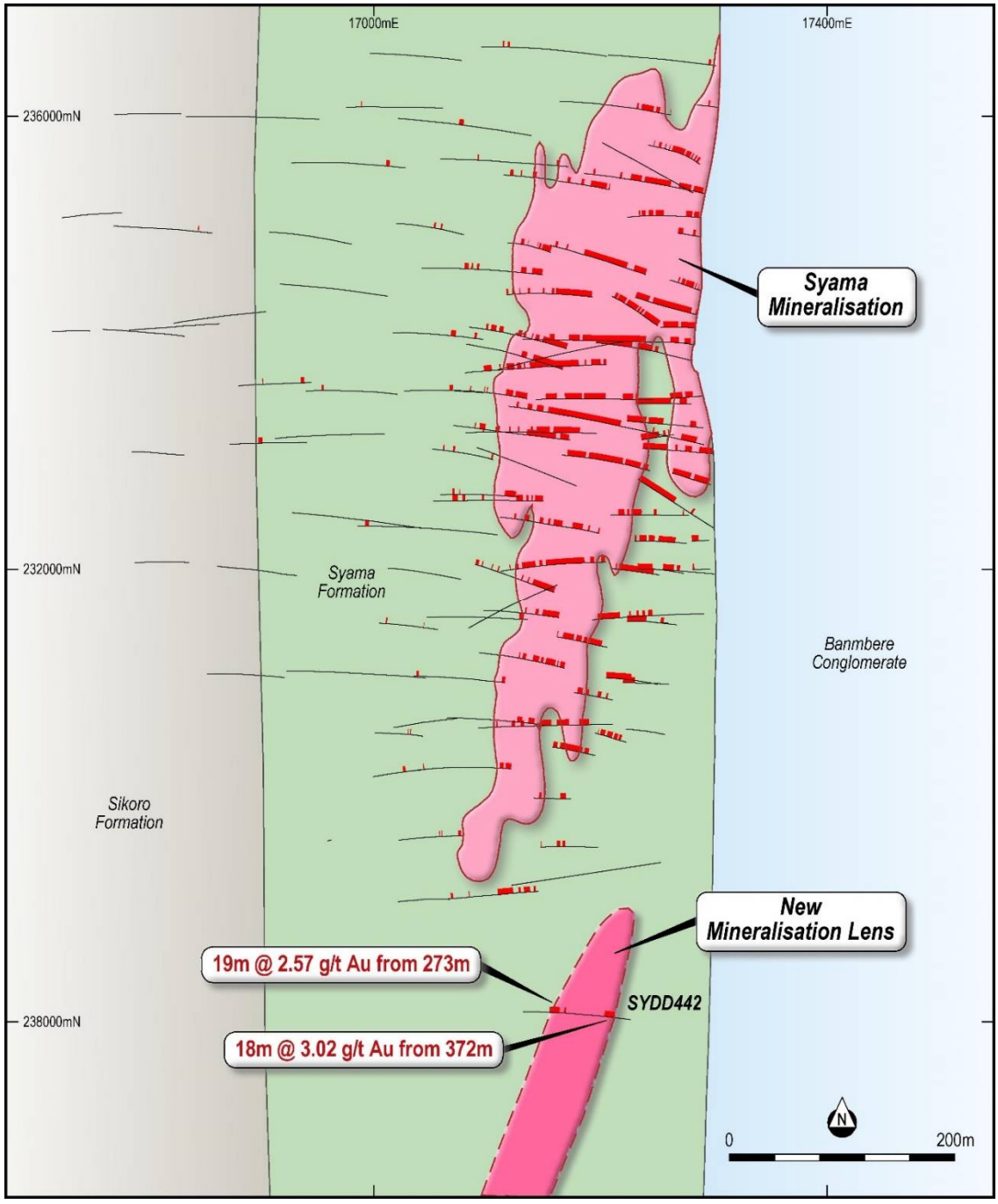


Figure 2: Geological Plan showing drillhole traces and intervals above 1g/t Au

Hole_ID	North (WGS)	East (WGS)	RL (m)	Dip	Azi (WGS)	EOH (m)	From (m)	To (m)	Width (m)	Au (g/t)
SYDD442	1193954	819955	344	-63	104	480.3	273	292	19	2.57
							300	303	3	1.32
							372	390	18	3.02

Table 1: Drillhole intercepts

Notes to Accompany Table:

- Grid coordinates are WGS84 Zone 29 North
- Intervals are HQ3 diamond core sampled every 1m by cutting the core in half to provide a 2-4kg sample
- Cut-off grade for reporting of intercepts is >1g/t Au with a maximum of 3m consecutive internal dilution included within the intercept; only intercepts >=3m are reported
- No top cut of individual assays prior to length weighted compositing of the reported intercept has been applied
- Samples are analysed for gold by Au-AA25 method which is a 30g fire assay fusion with AAS instrument finish

About Resolute

Resolute is a successful gold miner with more than 25 years of continuous production. The Company is an experienced explorer, developer, and operator having operated nine gold mines across Australia and Africa which have produced in excess of 7 million ounces of gold. The Company currently operates two mines, the Syama Gold Mine in Africa and the Ravenswood Gold Mine in Australia, and is one of the largest gold producers listed on the Australian Securities Exchange with FY17 guidance of 300,000 ounces of gold production at All-in-Sustaining-Costs of A$1,280/oz (US$934/oz).

Resolute's flagship Syama Gold Mine in Mali is a robust long life asset benefitting from fully operational parallel sulphide and oxide processing plants. The move to underground mining will continue the asset's history of strong cash generation and extend the mine life to out beyond 2028.

The Ravenswood Gold Mine in Queensland, Australia demonstrates Resolute's significant underground expertise in the ongoing success in mining the Mt Wright ore body. The completion of the Ravenswood Extension Project Study has now confirmed a 13-year mine life based on a return to open pit mining.

In Ghana, the Company has completed a feasibility study on the Bibiani Gold Project focused on the development of an underground operation requiring modest capital and using existing plant infrastructure. Resolute also controls an extensive exploration footprint along the highly prospective Syama Shear and greenstone belts in Mali and Cote d'Ivoire and is active in reviewing new opportunities to build shareholder value.

Competent Persons Statement

The information in this report that relates to the Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr Richard Bray who is a Registered Professional Geologist with the Australian Institute of Geoscientists and Mr Andrew Goode, a member of The Australasian Institute of Mining and Metallurgy. Mr Richard Bray and Mr Andrew Goode both have more than 5 years' experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Richard Bray and Mr Andrew Goode are full time employees of Resolute Mining Limited Group and each hold equity securities in the Company. They have consented to the inclusion of the matters in this report based on their information in the form and context in which it appears. This information was prepared and disclosed under the JORC code 2012 except where otherwise noted. Particular Reserves and Resources remain 2004 JORC compliant and not updated to JORC code 2012 on the basis that information has not materially changed since it was last reported.

JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

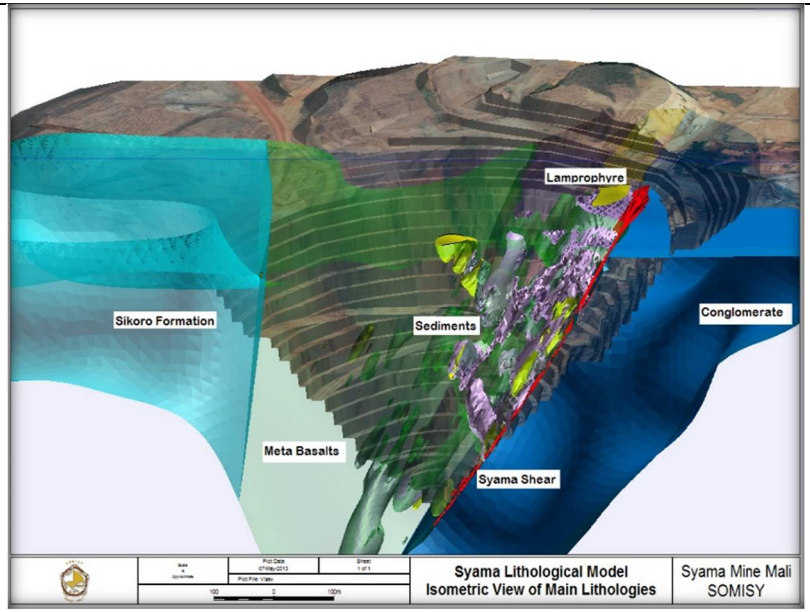
CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	· Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond Drill Core was sampled at 1m intervals and cut in half, to provide a 2-4kg sample, which was sent to the laboratory for crushing, splitting and pulverising, to provide a 30g charge for analysis. Sampling and sample preparation protocols are industry standard and are deemed appropriate by the Competent Person.
Drilling techniques	· Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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 types used include diamond core of HQ and NQ sizes. Core is oriented at 3m down hole intervals using a Reflex ActII RD Orientation Tool.
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.	Drill core interval recoveries are measured from core block to core block using a tape measure. Appropriate measures are taken to maximise sample recovery and ensure representative nature of the samples. No apparent relationship between sample recovery and grade.
Logging	· Whether core and chip samples have been geologically and geotechnically 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, channel, etc.) photography. · The total length and percentage of the relevant intersections	Drill holes were geologically logged by geologists for colour, grainsize, lithology, minerals, alteration and weathering on geologically domained intervals. Geotechnical and structure orientation data was measured and logged for all diamond core intervals. Diamond core was photographed (wet and dry).

	logged.	Diamond core were logged into Excel spread sheets, then validated and imported into the digital drill hole database. Holes were logged in their entirety (100%) and this logging was considered reliable and appropriate.
Sub-sampling techniques 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.	Core were sampled at 1m intervals and cut in half to obtain a 2-4kg sample which was sent to the laboratory for crushing, splitting and pulverising. Core samples were submitted to ALS Bamako laboratory for sample preparation and analysis. Sample preparation includes oven drying, crushing to 10mm and splitting, pulverising to 85% passing -75 microns. These preparation techniques are deemed to be the appropriate to the material and element being sampled. ALS Inspection has the QMs framework either Certified to ISO 9001:2008 or Accredited to ISO 17025:2005 in all of its locations. Drill core coarse duplicates were split by the laboratory after crushing at a rate of 1:20 samples. Sampling, sample preparation and quality control protocols are of industry standard and all attempts were made to ensure an unbiased representative sample was collected. The methods applied in this process were deemed appropriate by the Competent Person.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Core samples were analysed for gold by ALS Bamako Au-AA25 method, which is a 30g fire assay fusion with AAS instrument finish. The analytical method was appropriate for the style of mineralisation. No geophysical tools were used to determine elemental concentrations. Quality control (QC) procedures included the use of certified standards and blanks (1:20), non-certified sand blanks (1:20), coarse duplicates (1:20). Laboratory quality control data, including laboratory standards, blanks, duplicates, repeats and grind size results were also captured into the digital database and analysed for accuracy and precision. Analysis of the QC sample assay results indicates that an acceptable level of accuracy and precision has been achieved.
Verification of sampling and assaying	· The verification of significant intersections by either independent or alternative company personnel. · The use of twinned holes. · Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. · Discuss any adjustment to assay data.	Verification of significant intersections have been completed by company personnel and the competent person. No drill holes within the resource area were twinned. Drill holes were logged onto paper templates or Excel templates with lookup codes, validated and then compiled into a relational SQL 2008 database using DataShed data management software. The database has a variety of verification protocols which are used to validate the data entry. The drill hole database is backed up on a daily basis to the head office server. Assay result files were reported by the laboratory in CSV format and were imported into the SQL database without adjustment or modification.
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.	Collar coordinates were picked up in UTM (WGS84) by staff surveyors using an RTK DGPS with an expected accuracy of ±0.05m; elevations were height above EGM96 geoid.

	· Specification of the grid system used. · Quality and adequacy of topographic control.	Down hole surveys were collected every 6m using Reflex EZTRAC magnetic multi shot instrument. A time-dependent declination was applied to the magnetic readings to determine UTM azimuth. Coordinates and azimuth are reported in UTM WGS84 Zone 29 North in this release. Coordinates were translated to local mine grid where appropriate. Local topographic control is via satellite photography and drone UAV Aerial Survey.
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.	Drill hole spacing was sufficient to demonstrate geological and grade continuity appropriate for a Mineral Resource and the classifications applied under the 2012 JORC Code. However, no mineral resource was disclosed in this release. The appropriateness of the drill spacing was reviewed by the geological technical team, both on site and head office. This was also reviewed by the Competent Person. Core samples were collected on 1m intervals; no sample compositing is applied during sampling.
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.	Holes were drilled predominantly perpendicular to mineralised domains where possible. No orientation based sampling bias has been identified in the data.
Sample security	· The measures taken to ensure sample security.	Core samples were collected from the drill site and stored on site, then securely dispatched to the laboratories. All aspects of sampling process were supervised by SOMISY personnel and very limited opportunities exist for tampering with samples.
Audits or reviews	· The results of any audits or reviews of sampling techniques and data.	External audits of procedures indicate protocols are within industry standards.

Section 2 Reporting of Exploration Results

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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.	Drilling was conducted within the Malian Exploitation Concession Permit PE 93/003 which covers an area of 200.6 Km^2 Resolute Mining Limited has an 80% interest in the Syama project and the Exploitation Permit PE—93/003, on which it is based, through its Malian subsidiary, Sociêtê des Mines de Syama SA (SOMISY). The Malian Government holds a free carried 20% interest in SOMISY. The Permit is held in good standing. Malian mining law provides that all mineral resources are administered by DNGM (Direction Nationale de la Géologie et des Mines) or National Directorate of Geology and Mines under the Ministry of Mines, Energy and Hydrology.
Exploration done by other parties	· Acknowledgment and appraisal of exploration by other parties.	The Syama deposit was originally discovered by a regional geochemical survey undertaken by the Direction National de Géologie et des Mines (DNGM) with assistance from the United Nations Development Program (UNDP) in 1985. There had also been a long history of artisanal activities on the hill where an outcropping chert horizon originally marked the present day position of the open pit. BHP during 1987-1996 sampled pits, trenches, auger, RC and diamond drill holes across Syama prospects. Randgold Resources Ltd during 1996-2000 sampled pits, trenches, auger, RAB, RC and diamond drill holes across Syama prospects.
Geology	· Deposit type, geological setting and style of mineralisation.	The Syama Project is found on the northern margin of the Achaean-Proterozoic Leo Shield which forms the southern half of the West African Craton. The project area straddles the boundary between the Kadiana–Madinani terrane and the Kadiolo terrane. The Kadiana-Madinani terrane is dominated by greywackes and a narrow belt of interbedded basalt and argillite. The Kadiolo terrane comprises polymictic conglomerate and sandstone that were sourced from the Kadiana-Madinani terrane and deposited in a late- to syntectonic basin. Prospects are centred on the NNE striking, west dipping, Syama-Bananso Fault Zone and Birimian volcano-sedimentary units of the Syama Formation. The major commodity being sought is gold.

		
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o Whole 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 information including easting, northing, elevation, dip, azimuth, coordinate system, drill hole length, intercept length and depth were measured and recorded in UTM Zone 29 WGS84. The Syama belt is mostly located on the Tengrela 1/200,000 topo sheet (Sheet NC 29-XVIII). The Syama local grid has been tied to the UTM Zone 29 WGS84 co-ordinate system. Spectrum Survey & Mapping from Australia established survey control at Syama using AusPos online processing to obtain an accurate UTM Zone 29 (WGS84) and 'above geoid' RL for the origin of the survey control points. Accuracy of the survey measurements is considered to meet acceptable industry standards. Drill hole information has been tabulated for this release in Appendix 1 of the accompanying text. For completeness the following information about the diamond drilling is provided: · Easting, Northing and RL of the drill hole collars were measured and recorded in UTM Zone 29 (WGS84). · Dip is the inclination of the drill hole from horizontal. For example, a drill hole drilled at o -60^0 is 60^0 from the horizontal. · Down hole length is the distance down the inclination of the hole and was measured as the distance from the horizontal to end of hole. · Intercept depth is the distance from the start of the hole down the inclination of the hole to the

		depth of interest or assayed interval of interest. The Competent Persons do not believe the listing of the entire drill hole data base used to calculate the resources is relevant for this release.
Data aggregation methods	· In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.	Exploration results reported in this announcement are tabulated using the following parameters: • Grid coordinates are WGS84 Zone 29 North. • Intervals are NQ or HQ diamond core sampled every 1m by cutting the core in half to provide a 2-4kg sample. • Cut-off grade for reporting of intercepts is >1g/t Au with a maximum of 3m consecutive internal dilution included within the intercept; only intercepts >=3m are reported. • No top cut of individual assays prior to length weighted compositing of the reported intercept has been applied. • Samples are analysed for gold by Au-AA25 method which is a 30g fire assay fusion with AAS instrument finish
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 (e.g. 'down hole length, true width not known').	The mineralisation is steeply dipping at approximately 60^0 from the horizontal. The majority of the drill holes are planned at local grid 090^0 at a general inclination of -60^0 east to achieve as close to perpendicular to the ore zone as possible. At the angle of the drill holes and the dip of the ore zones, the reported intercepts will be slightly more than true width.
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.	Relevant maps, diagrams and tabulations are included in the body of text.
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.	Exploration results and infill drilling results are being reported in this announcement and tabulated in the body of the text. The results are reported to show the potential to expand the Underground Resource previously released.
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.	No geophysical and geochemical data and any additional exploration information has been reported in this release, as they are not deemed relevant to the release.
Further work	· The nature and scale of planned further work (e.g. tests for lateral extensions or depth 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.	Depth extension drilling is planned to test the down-dip potential of the Syama ore body at depth, and beneath the current limit of drilling. Relevant maps and diagrams are included in the body of text.

JORC Table 1 report