

## 29 April 2019

## Tabakoroni Resource Update 1 million ounces of gold grading 5g/t

Mineralisation strike length now 1.8km with high-grade coherent zones Ongoing diamond drilling expected to further expand resource Maiden Underground Resource provides strong support for future underground mine at Tabakoroni

### Highlights

- Tabakoroni Mineral Resource net of depletion at 31 March 2019 is 6.3Mt at 5.1g/t Au for 1.03Moz of gold
- Maiden Underground Mineral Resource is 5.2Mt at 5.1g/t Au for 850,000oz of gold (1.5g/t Au cut-off grade)
- Mineral Resource grade increased by more than 120% to 5.1g/t Au (from existing grade of 2.3g/t Au)
- Underground mining study including technical assessments and metallurgical test work has commenced to support the near-term development of a new underground mine at Tabakoroni
- Deposit is open in all directions with results continuing to increase the dimensions of high-grade sulphide zones
- Mineralisation has been delineated to a modest depth of ~250m with significant further depth potential
- Infill and extensional drilling is expected to extend the Tabakoroni Underground Mineral Resource through further systematic exploration of the more than 1.8km strike length of identified mineralisation

Resolute Mining Limited (Resolute or the Company) (ASX:RSG) is pleased to announce an updated Mineral Resource for Tabakoroni which includes a maiden Underground Mineral Resource. The updated Mineral Resource is 6.3 million tonnes (Mt) at 5.1 grams per tonne of gold (g/t Au) for 1.03 million ounces (Moz) of gold inclusive of a maiden Underground Mineral Resource of 5.2Mt at 5.1g/t Au for 850,000oz of gold (at a 1.5g/t Au cut-off grade). The updated Mineral Resource has been independently estimated in accordance with the JORC Code 2012 (see Appendix Table 1 for details) and incorporates results from the ongoing Tabakoroni diamond drilling program.

Managing Director and CEO, Mr John Welborn, was encouraged by the resource update and particularly pleased with the identification of coherent high-grade zones which are expected to support a future underground mine:

"Achieving our target of a million ounces of resources at Tabakoroni at above 5 grams per tonne of gold is an excellent outcome from the consistently excellent exploration drilling results we have been announcing over the past 12 months. The exceptional high-grade intersections from recent drilling results have confirmed a large increase in the size and grade of Tabakoroni which reinforces the value of our ongoing investment in exploration of Resolute's extensive Syama tenure."

"Tabakoroni is an important growth opportunity for Resolute which is allowing the Company to leverage our extensive processing infrastructure at the Syama complex. Open pit mining at Tabakoroni is exceeding expectations with high-grade ore mined in the March 2019 Quarter resulting in record production from the Syama oxide processing circuit.



## **ASX Announcement**

The expansion of Resolute's regional operating footprint and the successful construction and commissioning of the Tabakoroni all-weather haul road further enhances the Syama complex's future production and cost profile."

### **Tabakoroni Updated Mineral Resource Estimate**

The updated Tabakoroni Mineral Resource is 6.3Mt at 5.1g/t Au for 1.03Moz of gold. The classification and location of the new Mineral Resource (depleted for mining as at 31 March 2019) is presented in Table 1.

MINERAL RESOURCES	Μ	IEASURE	D	II	NDICATEI	D	I	NFERRED	)		TOTAL	
As at	Tonnes	Grade	Ounces									
31 March 2019	(000s)	(g/t Au)	(000s)									
Tabakoroni												
Open Pit	540	5.2	90	410	5.1	70	0	0.0	0	950	5.2	160
Underground	130	4.7	20	1,680	5.2	280	3,360	5.1	550	5,170	5.1	850
Stockpiles	190	3.1	20	0	0.0	0	0	0.0	0	190	3.1	20
Total	860	4.7	130	2,090	5.2	350	3,360	5.1	550	6,310	5.1	1,030

**Table 1: Tabakoroni Mineral Resources** 

Notes: 1.Differences may occur due to rounding.

2.Resources for the Tabakoroni Underground are reported below the current life of mine pit design and above a cut-off of 1.5g/t. 3.Resources for the Tabakoroni Open Pit are reported above the current life of mine pit design and above a cut-off of 1.0g/t.

### Tabakoroni Exploration Drilling Program and Latest Results

Diamond drilling underneath the Tabakoroni oxide mineralisation intersected high-grade gold in a number of locations during 2018 with positive results leading to an accelerated resource drilling program and a series of announcements detailing high-grade results (see ASX Announcements dated 25 May 2018, 5 July 2018, and 18 December 2018).

The drilling program is ongoing with continued success. Previously unreleased significant drill intersections recently returned are:

- TADD676 14m @ 16.7 g/t from 294m
- TADD675 12m @ 3.8 g/t from 293m
- TADD679 4m @ 10.7 g/t from 268m
- TADD682 7m @ 4.7 g/t from 380m
- TADD681 6m @ 4.7 g/t from 286m
- TADD681 9m @ 3.0 g/t from 298m

These drill intersections are the deepest holes completed at Tabakoroni and confirm the downdip extensions of economic gold mineralisation. The location of the drillholes are shown in Figure 1 and the full details are included in the Appendix. Figure 1 displays the resource block model gold grades which outline the much higher grade of greater than 10g/t Au "shoots" within the overall 5g/t Au Mineral Resource. These very high-grade shoots were intersected in the open pit which drove exceptional oxide performance in the March 2019 Quarter.

The high-grade results in TADD679 and TADD681 underneath the southern oxide pit are extremely encouraging and add significant weight to the possibility of another coherent mineralised lens downdip from the current resource model. Standout gold results in TADD675 and TADD676 are the deepest intersections to date underneath the central Namakan pit and confirm the northerly plunge to the high-grade shoots.

To date, exploration drilling has been limited to 250m below surface. As such, there is excellent potential for the deposit to grow at depth.



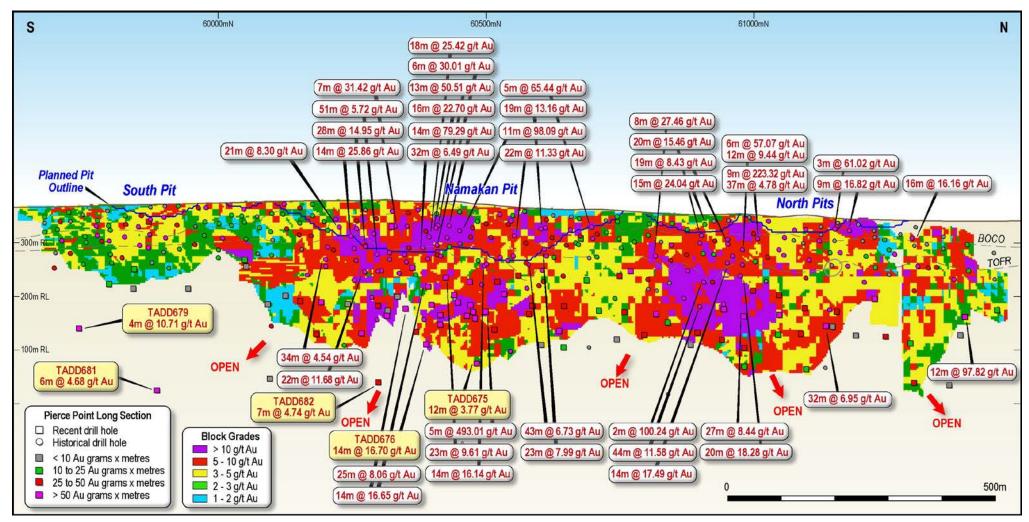


Figure 1: Tabakoroni longitudinal section with Mineral Resource model and drillhole pierce points

About Tabakoroni

### Location and Background

Tabakoroni is located within the Finkolo Permit, 35km south of the Syama processing plant in southern Mali. Resolute's initial exploration focus at Tabakoroni was to identify oxide resources. As at 31 December 2018, Tabakoroni's Mineral Resource was 760,000oz (10Mt at 2.3g/t Au) and the Ore Reserve was 220,000oz (2.4Mt at 2.8g/t Au). Open pit mining operations commenced at Tabakoroni in the September 2018 Quarter with high-grade oxide and transitional material currently being mined and processed through the 1.5Mtpa Syama oxide circuit.

### **Geology and Mineralisation**

Gold mineralisation at Tabakoroni is hosted within the 5-25m thick Tabakoroni Main Shear Zone (TMSZ), a brittleductile shear zone developed in carbonaceous shale and siltstone rocks and localised along the eastern margin of Syama Formation basalt-dolerite flows and interflow sediments. The TMSZ gold mineralisation is associated with pyritic and carbonaceous fault gouge. Adjacent sandstone and siliceous siltstone display stockwork quartz-carbonate veins with pyrite disseminated throughout. Stylolitic quartz reefs are developed along the length of the TMSZ.

Drilling to date has identified high-grade gold mineralisation over a strike length of 1.5km with better gold grades seen where the shear intersects the basalt sediment contact. North of the Namakan pit the basalt is absent in the hanging wall and better grades are associated with felsic porphyry intrusives within the TMSZ.

### **Resource Estimation Methodology**

Tabakoroni was previously estimated using unconstrained Multiple Indicator Kriging (MIK) methodology with the Mineral Resource as at 31 December 2018 totalling 10Mt at 2.3g/t Au for 760,000oz using a 1g/t Au cut-off. MIK Mineral Resource estimation has been successfully used by Resolute for all open pit operations however the methodology is less suitable for underground Mineral Resource estimation.

A more selective resource model was required for underground operations and therefore the mineralisation was wireframed in detail to restrict dilution. The resulting wireframes were used to constrain the Ordinary Kriged (OK) estimation methodology. The new Mineral Resource Estimate is displayed in the longitudinal projection presented in Figure 1.

### **Ongoing Tabakoroni Exploration**

Diamond drilling at Tabakoroni is continuing with two rigs targeting the down plunge extensions of the currently defined Mineral Resources. The program will continue throughout CY2019 with significant results to be released when available.

### Potential Future Underground Mine at Tabakoroni

The drilling results at the Tabakoroni Main Zone at modest depths continue to increase the dimensions of the highgrade sulphide zones and support a future potential underground mine at Tabakoroni.

Exploration drilling at Tabakoroni will continue throughout CY2019 to expand the resource envelope. The maiden Underground Mineral Resource forms the basis for initial underground mining studies.

For further information, contact:

John Welborn Managing Director & CEO Jeremy Meynert General Manager – Business Development & Investor Relations



### **About Resolute**

Resolute is a successful gold miner with more than 30 years of experience as an explorer, developer, and operator of gold mines in Australia and Africa. The Company has operated nine gold mines which have produced more than 8Moz of gold. Resolute currently owns three gold mines, the Syama Gold Mine in Mali (Syama), the Ravenswood Gold Mine in Australia (Ravenswood) and the Bibiani Gold Mine in Ghana (Bibiani). For the 12 months through to 30 June 2019, Resolute expects to produce 300,000oz of gold at an All-In Sustaining Cost of US\$960/oz (A\$1,280/oz). The Company has a pathway to annual gold production in excess of 500,000oz from a Global Mineral Resource base of 16.6Moz of gold.

Syama is a world class, robust, long-life asset capable of producing more than 300,000oz of gold per annum from existing processing infrastructure. Resolute is currently commissioning the world's first fully automated underground gold mine at Syama which will deliver a low cost, large scale operation with a mine life beyond 2032.

Ravenswood has been a consistent performer and an integral part of Resolute's business for more than a decade. The highly successful Mt Wright Underground Mine continues to produce as the Company transitions back to a large scale, low cost open pit mining operation which will extend the mine life to at least 2032.

Bibiani is a potential long life, high margin operation and represents a growth opportunity for Resolute.

A portfolio of strategic investments in highly prospective, well managed African-focused gold exploration companies has been established to provide a pipeline of future development opportunities.

### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Mr Bruce Mowat, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Mowat is a full-time employee of Resolute Corporate Services Pty Ltd, a wholly owned subsidiary of Resolute Mining Ltd. Mr Mowat has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Mowat consents to the inclusion in the report of the Exploration Results and related content in the form and context in which it appears.

The information in this announcement that relates to the Mineral Resource estimate is based on, and fairly represents, information and supporting documentation prepared by Mrs Susan Havlin, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mrs Havlin is an employee of Optiro and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which has been undertaken to qualify as a Competent Person. Mrs Havlin consents to the inclusion in the report of the Mineral Resource estimate and related content in the form and context in which it appears.

### **ASX:RSG Capital Summary**

Fully Paid Ordinary Shares: 758,094,588 Current Share Price: A\$1.17 as at 26 April 2019 Market Capitalisation: A\$883 million FY19 Guidance (to 30 June): 300,000oz at AISC of US\$960/oz (A\$1,280/oz)

#### **Board of Directors**

Mr Martin Botha *Non-Executive Chairman* Mr John Welborn *Managing Director & CEO* Ms Yasmin Broughton *Non-Executive Director* Mr Mark Potts *Non-Executive Director* Ms Sabina Shugg *Non-Executive Director* Mr Peter Sullivan *Non-Executive Director* 

#### Contact

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### Appendix: Tabakoroni Recent Drilling Results

Hole_ID	North (WGS)	East (WGS)	RL (m)	Dip	Azi (WGS)	EOH (m)	From (m)	To (m)	Width (m)	Au (g/t)
FKDD144	1165120	810678	342	-65	91	117.2	14	23	9	2.96
							50	53	3	8.67
TADD674	1164861	810038	341	-53	64	292.3	188	198	10	2.27
TADD675	1163955	810348	376	-66	68	425.2	293	305	12	3.77
TADD676	1163860	810383	379	-63	68	415.4	294	308	14	16.7
TADD679	1163235	810573	370	-59	66	332.1	268	272	4	10.71
TADD680	1164859	810388	342	-55	240	479	98	100	2	10.46
TADD681	1163390	810548	370	-63	65	421.7	286	292	6	4.68
							298	307	9	3.03
TADD682	1163739	810361	378	-63	62	554	212	215	3	7.45
							380	387	7	4.74
TADD683	1163560	810444	382	-64	60	486.7	241	248	7	3.42

Note:

Grid coordinates are WGS84 Zone 29 North •

RC intervals are sampled every 1m by dry riffle splitting or scoop to provide a 1-3kg sample •

Diamond core are 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 >=2m and >=20 gram x metres are reported Samples are analysed for gold by 30g fire assay fusion with AAS instrument finish; over-range results are reanalysed by

• 30g fire assay fusion with gravimetric finish



## Appendix: Tabakoroni Gold Mine, JORC Code 2012 – Table 1 Section 1 Sampling Techniques and Data

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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</li> </ul>	The samples were collected from reverse circulation (RC) and diamond core drill holes. RC samples were collected on 1m intervals by riffle split (dry) or by scoop (wet), to obtain a 1-3kg sample which was sent to the laboratory for crushing, splitting and pulverising to provide a 30g charge for analysis. Diamond 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.



	information.	
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 PQ and HQ sizes and RC. Core is oriented at 3m down hole intervals using a Reflex Act II RD Orientation Tool.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	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 the representative nature of the samples. No apparent relationship is noted between sample recovery and grade.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill holes were geologically logged by geologists for colour, grainsize, lithology, minerals, alteration and weathering on geologically-domained intervals.</li> <li>Geotechnical and structure orientation data was measured and logged for all diamond core intervals.</li> <li>Diamond core was photographed (wet and dry).</li> <li>Holes were logged in their entirety (100%) and this logging was considered reliable and appropriate.</li> </ul>
Sub-sampling techniques and	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or</li> </ul>	Diamond core was sampled at 1m intervals and cut in half to obtain a 2-4kg sample.



sample	dry.	Reverse circulation samples were collected on 1m intervals by riffle split (dry) or by scoop (wet)
preparation	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	to obtain a 1-3kg sample. Sample preparation for diamond core and RC samples includes oven drying, crushing to 10mm, splitting and pulverising to 85% passing -75µm. These preparation techniques are deemed to be appropriate to the material being sampled. Drill core coarse duplicates were split by the laboratory after crushing at a rate of 1:20 samples. Reverse circulation field duplicates were collected by the company 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	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external</li> </ul>	All samples were dispatched to ALS Bamako for gold analysis by 30g fire assay fusion with AAS instrument finish (method code Au-AA25). Over-range results were re-analysed and reported by 30g fire assay fusion with gravimetric finish (method code Au-GRA21). 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 (1:40), non-certified sand blanks (1:40), diamond core coarse duplicates (1:20) and reverse circulation field duplicates (1:20). Laboratory quality control data, including laboratory standards, blanks, duplicates, repeats, grind size results and sample weights were also captured into the digital database.
Verification of sampling and assaying	<ul> <li>laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	Analysis of the QC sample assay results indicates that an acceptable level of accuracy and precision has been achieved. Verification of significant intersections have been completed by company personnel and the Competent Person.



	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	No drill holes within the resource area were twinned. Drill holes were logged into digital templates with lookup codes, validated and then compiled into a relational SQL 2012 database using DataShed data management software. The database has 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 PDF and CSV format and imported into the
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	SQL database without adjustment or modification. 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. Down hole surveys were collected at intervals between 5m and 30m using either a Reflex EZ- Gyro north seeking instrument or a Reflex EZ-Trac magnetic instrument in single shot or multi shot mode. A time-dependent declination was applied to the magnetic readings to determine UTM azimuth. Coordinates and azimuths are reported in UTM WGS84 Zone 29 North. Coordinates were translated to local mine grid using 1 point and rotation. Local topographic control is via LIDAR surveys, satellite photography and drone UAV aerial survey.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>Samples were collected on 1m intervals; no sample compositing is applied during sampling.</li> </ul>



	applied.	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	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.	Samples were collected from the drill site and stored on site. All samples were individually bagged and labelled with unique sample identifiers, then securely dispatched to the laboratories. All aspects of sampling and dispatch process were supervised and tracked by SOMIFI personnel.
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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Tabakoroni drilling was completed within the Finkolo-Tabakoroni Exploitation Licence PE 13/19.</li> <li>Resolute Mining Limited has an 85% interest in Exploitation Permit PE 13/19, through its Malian subsidiary, Société des Mines de Finkolo SA (SOMIFI). The Malian Government holds a free carried 10% interest in SOMIFI and a free carried 5% interest is held privately.</li> <li>The Permits are 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.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Etruscan Resources Inc explored Tabakoroni during 2002-2003 by auger, aircore, RC and diamond drill hole tails. The Tabakoroni area was previously explored by BHP (1988-1990) and Barrick Gold (1990) by auger, pits, trenches, RAB and diamond core drilling.
Geology	Deposit type, geological setting and style of mineralisation.	The Tabakoroni deposit is hosted in upright tightly folded greenstone rocks of the Syama Formation, comprising interbedded basalt and sediment units, and an overlying complex sequence of deep marine and turbiditic sediments. The sequence overlying the basalts contains interbedded carbonaceous units (silts and shales) that are preferentially deformed, and which form the Tabakoroni Main Shear Zone (TMSZ) that lies along the approximate contact of the greenstone-sediment sequence. Gold mineralisation occurs within the TMSZ associated with quartz vein stockworks and stylolitic quartz reefs.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level –</li> </ul> </li> </ul>	All information, including easting, northing, elevation, dip, azimuth, coordinate system, drill hole length, intercept length and depth are 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 Tabakoroni local grid has been tied to the UTM Zone 29 WGS84 co-ordinate system.



	<ul> <li>elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>Whole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Spectrum Survey &amp; Mapping from Australia established survey control at Tabakoroni using AusPos online processing to obtain an accurate UTM Zone 29 (WGS84) and 'above geoid' RL for the origin of the survey control points.</li> <li>Accuracy of the survey measurements is considered to meet acceptable industry standards.</li> <li>Drill hole information has been tabulated for this release in the intercepts table of the accompanying text.</li> <li>For completeness the following information about the drill holes is provided:</li> <li>Easting, Northing and RL of the drill hole collars are measured and recorded in UTM Zone 29 (WGS84)</li> <li>Dip is the inclination of the drill hole from horizontal. A drill hole drilled at -60° is 60° from the horizontal</li> <li>Down hole length is the distance down the inclination of the hole and is measured as the distance from the horizontal to end of hole</li> <li>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.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly</li> </ul>	<ul> <li>Exploration results reported in this announcement are tabulated using the following parameters:</li> <li>Grid coordinates are WGS84 Zone 29 North</li> <li>Cut-off grade for reporting of intercepts is &gt;=1g/t Au</li> <li>No top cut of individual assays prior to length weighted compositing of the reported intercept has been applied</li> <li>Maximum 3m consecutive internal dilution included within the intercept</li> <li>Metal equivalent values are not used in reporting.</li> </ul>



	stated.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	The majority of the Tabakoroni mineralisation is vertical. There is one domain which dips at 45° to the west. The majority of the drill holes are planned at a general inclination of -60 degrees east and 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) F 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	1 5	Exploration results and infill drilling results are being reported in this announcement and tabulated in the body of the text.
Other substantive exploration data		No geophysical and geochemical data or any additional exploration information has been reported in this release, as they are not deemed relevant to the release.



	substances.	
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Further drilling is planned.

### Section 3 Estimation and Reporting of Mineral Resources

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data have been compiled into a relational SQL database; the setup of this database precludes the loading of data which do not meet the required validation protocols. The data is managed using DataShed© drill hole management software using SQL database techniques. Validation checks are conducted using SQL and DataShed© relational database standards. Data has also been checked against original hard copies for 100% of the data, and where possible, loaded from original data sources.</li> <li>Resolute completed the following basic validation checks on the data supplied prior to resource estimation:</li> <li>Drill holes with overlapping sample intervals</li> <li>Sample intervals with no assay data or duplicate records</li> <li>Assay grade ranges</li> <li>Collar coordinate ranges</li> </ul>
		Valid hole orientation data.



		There are no significant issues identified with the data.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mrs Susan Havlin, an employee of Optiro Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy is the Competent Person who has visited this site in February 2019. All aspects of drilling, sampling and mining are considered by the Competent Persons to be of a high industry standard.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The digital database used for the interpretation included logged intervals for the key stratigraphic zones of Tabakoroni. Detailed geological logs were available in hardcopy and digital and reviewed where necessary. There is a high level of confidence for the interpretation of the Tabakoroni Main Shear Zone (TMSZ) due to the close-spaced grade control drilling at surface and the confirmation of the position in the current oxide pits. There is a moderate level of confidence in the geological interpretation of the minor lodes adjacent to the TMSZ. Wireframes used to constrain the estimation are based on drill hole intercepts and geological boundaries. All wireframes at Tabakoroni have been constructed to a 1g/t Au cut-off grade for shape consistency. The mineralisation in the TMSZ is generally quite consistent and drill intercepts clearly define the shape of the minor lodes could have alternative interpretations at depth; however, these account for only 30% of the total ounces of the deposit.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The mineral resource at Tabakoroni comprises four individual domains. The main zone is the TMSZ, which extends for approximately 1,800 metres along strike; the sub-vertical dipping gold mineralised zone width varies between 1.5 and 15 metres, with an average thickness of 5 metres. The Mineral Resource is limited in depth by drilling, which extends from surface to a maximum depth of approximately 250 metres vertically.



<ul> <li>Estimation and modelling techniques</li> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mining propriate account of such data.</li> <li>The assumptions made regarding recovery of by-productis.</li> <li>Estimation to deleterious elements of other non-grade variables of the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model interpolation, the block size in relation</li></ul>			There is a zone parallel to the TMSZ which is generally at depth and not as consistent; this is dominantly in the central part of the deposit. The northeast (NE) domain is a zone which is striking at 20° and is sub vertical in the north of the deposit. The final domain is in the south and is dipping at 45° to the west. The whole of the Tabakoroni deposit, including domains additional to the TMSZ, extends for 400 metres in the horizontal plane.
	modelling	<ul> <li>estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by- products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>In the case of block model</li> </ul>	<ul> <li>estimate the gold grade. Grades were estimated into parent block of 5mE by 12.5mN by 12.5mRL with sub- celling down to 1mE by 3.125 mN by 3.125 mRL was employed for resolution of the mineralisation boundaries as defined by wireframes. The drill spacing at Tabakoroni varies from 12.5 by 12.5 metres for grade control to between 25 and 50 metres for the exploration holes.</li> <li>Drillhole sample data was flagged using domain codes generated from three-dimensional mineralisation domains. The grade control samples and exploration samples were composited to 1 metre intervals.</li> <li>Variogram orientations were largely controlled by the strike of the mineralisation and downhole variography. Variograms for estimation purposes were determined for each domain.</li> <li>Kriging neighbourhood analysis was performed to optimise the block size, sample numbers and discretisation levels with the goal of minimising conditional bias in the gold grade estimates.</li> <li>Mineralisation domains were treated as hard boundaries in the estimation process while oxidation surfaces were treated as soft boundaries.</li> <li>Three search passes were used, with the first search pass set to the range of the variogram for each element. A minimum of 8 and a maximum of 30 samples were used. The search stayed the same for the second pass, but was increased by a factor of 3 for the third and final pass. The minimum number of samples was reduced to 6 for the second pass and 4 for</li> </ul>



	relation to the average sample spacing and the search employed.	No deleterious elements were found in the ore.
	Any assumptions behind modelling of selective mining units.	No selective mining units have been assumed.
	<ul> <li>Any assumptions about correlation between variables.</li> </ul>	Top cuts were applied to reduce the variability of the data and to remove the outliers.
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	The estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the drillhole data and by northing and elevation slices. Global comparison between the input data and the block grades for each variable is considered acceptable (±10%).
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Comparison with the mine production to date was carried out and was within an acceptable limit.
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	All tonnages have been estimated on a dry basis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	Mineral Resources for open pit extraction have been reported at a 1 g/t Au grade cut-off and above the current life of mine pit design. The Mineral Resources for underground mining have been reported at a 1.5 g/t Au grade cut-off and below the current life of mine pit design. The resource has been demonstrated to be amenable to underground mining.
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions</li> </ul>	No mining assumptions have been made at Tabakoroni. Mining parameters, including minimum width assumptions, will be applied during the conversion to Ore Reserves.



	made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	No metallurgical factors or assumptions have been made during the resource estimation process as these will be addressed during the conversion to Ore Reserves.
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where</li> </ul>	It is a requirement of Decree No.03-594/P-RM of 31 December 2003 of Malian law that an Environmental and Social Impact Study (Étude d'Impact Environmental et Social – EIES) must be undertaken to update the potential environmental and social impacts of the mine's redevelopment. The EIES for the Syama Gold Mine (including Tabakoroni) was approved in November 2007 and an Environment Permit (07- 0054/MEA – SG) was issued by the Ministry of Environment and Sanitation on 22 November 2007. The Ministry of Environment conducts timely reviews of the Syama Gold Mine to ensure that company maintains compliance with the EIES guidelines. At Syama and Tabakoroni, there are three key practices for disposal of wastes and residues namely, stacking of waste rock from open pit mining; storage of tailings from mineral processes; and "tall-stack dispersion" of sulphur dioxide from the roasting of gold bearing concentrate. All waste disposal practices are in accordance with the guidelines in the EIES.



	these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>The Environmental &amp; Social Impact Study – "Société des Mines de Syama, Syama Gold Mine, Mali", dated 2007 indicated there was minimal potential for acid mine drainage from waste rock due to the elevated carbonate content which buffers a potential acid generation. Resolute maintains a plan for progressive rehabilitation of waste rock landforms as part of ongoing mine development and waste rock dumping.</li> <li>The landform of tailings impoundments does not have a net acid generating potential. The largest volume is flotation tailings where the sulphide minerals have already been removed from the host rock. Its mineralogy includes carbonates which further buffer any acid-formation potential from sulphides that may also be present.</li> <li>Cyanide levels in the leached-calcine tailings are typically less than 50 ppm in the weak acid dissociable form. Groundwater away from the tailing's landform is intercepted by trenches and sump pumps.</li> <li>Sulphur dioxide is generated from the roasting of gold concentrate so that gold can be extracted and refined. Tall-Stack "dispersion" of the sulphur dioxide emission is monitored continuously. Prevailing weather and dissipation of the sulphur dioxide is modelled daily to</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> </ul>	continuously. Prevailing weather and dissipation of the sulphur dioxide is modelled daily to predict the need to pause the roasting process to meet the air quality criteria set out in the Environmental & Social Impact Study.         Site personnel have completed numerous bulk density comparative estimates on HQ drill core to assess variability using the Archimedes method of dry weight versus weight in water. This method was used for 76% of the bulk density measurements. The other 34% is by unknown method.         On the basis of the data collected the following SG estimates were applied to the model by weathering type:         a)       Oxide       2.31 t/m³         b)       Transitional       2.41 t/m³         c)       Fresh       2.70 t/m³



Classification	<ul> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	The Measured Mineral Resource classification is based on good confidence in the geology and gold grade continuity with 12.5 m x 12.5 m spaced drillhole density in the central part of the deposit. The Indicated Mineral Resource classification is based on good confidence in the geology and gold grade continuity with less than 50 m x 50 m spaced drillhole density in the central part of the deposit. The Inferred Mineral Resource classification is applied to extensions of mineralised zones on the margins of the deposit where drill spacing is more than 50 m x 50 m and the extents of mineralisation at depth. The validation of the block model has confirmed satisfactory correlation of the input data to the estimated grades and reproduction of data trends. The Mineral Resource estimate appropriately reflects the view of the Competent Persons.
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	The Mineral Resource has been audited internally and in conjunction with resource consultants at Optiro Pty Ltd as part of the routine validation process. There has been no external review of the Mineral Resource estimate.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the</li> </ul>	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of Measured, Indicated and Inferred resource categories as defined by 2012 JORC Code guidelines. The estimate is considered to be relevant to an annual level of reporting of tonnage and grade. The estimation was compared with the production history at Tabakoroni and it is within 10% which is within the limits for a measured classification.



## **ASX Announcement**

relative accuracy and confidence of the estimate.

- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
   These statements of relative accuracy and confidence of the estimate
- and confidence of the estimate should be compared with production data, where available.