

**THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt as to what action you should take, you are recommended to seek your own financial advice immediately from an independent financial adviser who is authorised under the Financial Services and Markets Act 2000 (as amended) ("FSMA") if you are in the United Kingdom, or from another appropriately authorised independent financial adviser if you are in a territory outside the United Kingdom.**

This document comprises a prospectus (the "**Prospectus**") relating to Resolute Mining Limited (the "**Company**" or "**Resolute**") and has been prepared in accordance with the Prospectus Rules of the Financial Conduct Authority (the "**FCA**") made under section 73A of the FSMA and has been filed with the FCA.

This Prospectus constitutes a prospectus within a form of a single document within the meaning of Article 5 item 3 of the Directive 2003/71/EC ("**Prospectus Directive**") and has been prepared in accordance with the provisions of the Commission Regulation (EC) No 809/2004 of 29 April 2004 implementing Directive 2003/71/EC of the European Parliament and of the Council as regards information contained in the prospectus as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisements. This Prospectus has been approved by FCA in its capacity as the competent authority in the United Kingdom as the Company's home member state within the meaning of the Prospectus Directive. This document does not constitute a prospectus for the purposes of the Australian Corporations Act 2001 (Cth).

Application has been made to the FCA for all of the Shares to be admitted to the standard listing segment of the Official List of the FCA (the "**Official List**") and to the London Stock Exchange plc (the "**London Stock Exchange**") for such Shares to be admitted to trading on its main market for listed securities (together "**Admission**"). Admission to trading on the London Stock Exchange constitutes admission to trading on a regulated market. It is expected that Admission will become effective and that dealings will commence in the Shares on the London Stock Exchange at 8:00 am on 20 June 2019.

The Company and its Directors (whose names appear on page 42 of this document) accept responsibility for the information contained in this document. To the best of the knowledge of the Company and its Directors (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and contains no omission likely to affect the import of such information.

**This document should be read in its entirety and in particular, the section headed "Risk Factors" on pages 18 to 36.**



# Resolute

**Resolute Mining Limited**

*(Registered in Australia under the Australian Corporations Act 2001 with ACN 097 088 689)*

**Admission to the standard listing segment of the Official List of the Financial Conduct Authority and to trading on the London Stock Exchange's Main Market for listed securities of 758,094,588 ordinary shares of the Company with no par value**

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The Shares are already listed on and are admitted to trading on the ASX. Following Admission, the Shares will continue to be traded on the ASX. No application has been made, or is currently intended to be made, for the Shares to be admitted to listing or traded on any stock exchange other than the Main Market of the London Stock Exchange.

### **Notice to Overseas Investors**

The distribution of this Prospectus in certain jurisdictions other than the United Kingdom may be restricted by law. No action has been taken by the Company to permit a public offering of the Shares, or possession or distribution of this Prospectus (or any other offering or publicity materials relating to the Shares) in any other jurisdiction where action for that purpose may be required or doing so is restricted by law. Accordingly, neither this Prospectus nor any advertisement may be distributed or published in any other jurisdiction except under circumstances that will result in compliance with any applicable laws and regulations. Persons into whose possession this Prospectus comes are required by the Company to inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

This Prospectus does not constitute or form part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for, any securities other than the Shares to which it relates or any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for, such Shares by any person in any circumstances in which such offer or solicitation is unlawful and is not for distribution in or into the United States, Canada, South Africa or Japan. The Shares have not been and will not be registered under the US Securities Act or the applicable securities laws of Canada, South Africa or Japan and may not be offered or sold within the United States, Canada, South Africa or Japan or to, or for the account or benefit of, citizens or residents of the United States, Canada, South Africa or Japan.

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## 1 SUMMARY

*Summaries are made up of disclosure requirements known as 'Elements'. These elements are numbered in Sections A - E (A.1 - E.7).*

*This summary contains all the Elements required to be included in a summary for this type of security and issuer. Because some Elements are not required to be addressed, there may be gaps in the numbering sequence of the Elements.*

*Even though an Element may be required to be inserted in the summary because of the type of securities and issuer, it is possible that no relevant information can be given regarding the Element. In this case a short description of the Element is included in the summary with the mention of the words 'not applicable'.*

Section A – Introduction and warnings		
Element	Disclosure Requirement	Disclosure
A.1	Introduction	<p>This summary should be read as introduction to this Prospectus.</p> <p>Any decision to invest in the Shares should be based on consideration of this Prospectus as a whole by the investor.</p> <p>Where a claim relating to the information contained in this Prospectus is brought before a court, the plaintiff investor might, under the national legislation of the Member States, have to bear the costs of translating this Prospectus before the legal proceedings are initiated.</p> <p>Civil liability attaches only to those persons who have tabled the summary, including any translation thereof, but only if the summary is misleading, inaccurate or inconsistent when read together with the other parts of this Prospectus or it does not provide, when read together with the other parts of this Prospectus, key information in order to aid investors when considering whether to invest in the Shares.</p>
A.2	Consent for intermediaries	Not applicable.

Section B – Issuer		
Element	Disclosure Requirement	Disclosure
B.1	Legal and Commercial Name	Resolute Mining Limited.
B.2	Domicile/Legal Form/Legislation/Country of Incorporation	The Company was incorporated and registered in Australia on 8 June 2001 and is a company limited by shares and subject to the provision of the Australian Corporations Act 2001. The Company's registered number is ACN 097 088 689.
B.3	Current Operations and Principal Activities and Markets	<p>The Group is an established gold producer with operations in Africa and Australia and its registered office in Perth, Western Australia.</p> <p>The Group's principal focus is the Syama Gold Mine in Mali. The Group also owns the Ravenswood Gold Mine in Australia and the Bibiani Gold Mine in Ghana.</p> <p>For the 12-month period ending 30 June 2019, The Group expects to produce</p>



Section B – Issuer										
Element	Disclosure Requirement	Disclosure								
		<p>300,000 ounces (“oz”) of gold (in aggregate) from production at the Syama Gold Mine and the Ravenswood Gold Mine at an All-In Sustaining Cost (“AISC”) of US\$960/oz (A\$1,280/oz).</p> <p>The Group has a pathway to annual gold production in excess of 500,000oz in the medium-term from a Global Mineral Resource base of 16.8 million ounces (“Moz”) of gold (as at 31 December 2018 with the exception of the Tabakoroni Mineral Resource which is stated as at 31 March 2019 following re-estimation work). The Group also has a portfolio of strategic investments in African-focused gold exploration companies which provides the Group with exposure to a pipeline of future development opportunities, in addition to any external business development opportunities that may arise.</p>								
B.4a	Significant Trends	<p>The Group’s revenue is derived from the sale of gold and silver. For the year ended 30 June 2018, revenue from gold and silver sales amounted to A\$446 million (US\$346 million) (2017: \$541 million; US\$408 million). For the six-months to 31 December 2018, revenue from gold and silver sales amounted to A\$223 million (US\$161 million). The price of gold can vary significantly and is affected by factors which are outside the control of the Group including, in particular, the demand for gold as an investment and global geopolitical factors. The Group has sought to mitigate some of its price exposure through its active hedging practices. As at the Latest Practicable Date, the Group has 190,000 ounces hedged in deliveries of between 10,000oz and 20,000oz per month through to June 2020.</p>								
B.5	Group structure	<p>The Company is the parent company of the Group. The principal subsidiaries of the Company are:</p> <ul style="list-style-type: none"><li>Société des Mines de Syama (“SOMISY”) and Société des Mines de Finkolo S.A. (Mali) (“SOMIFI”). SOMISY, a Malian subsidiary of the Group, is the 100% owner and operator of the Syama Gold Mine. The Group, through one of its subsidiaries, Resolute (Somisy) Pty Ltd, has an 80% interest in SOMISY, while the Government of Mali holds the remaining 20%. The Group’s Tabakoroni project is held by SOMIFI of which the Company currently owns 100% through its wholly owned subsidiary, Resolute (Finkolo) Pty Ltd. Under applicable Malian mining legislation, the Government of Mali is entitled to a 10% free carried interest in SOMIFI which Resolute (Finkolo) Pty will be required to transfer to it following a request in order for the Government to participate in the Tabakoroni project. The Government of Mali also has the right to purchase an additional 10% interest in cash;</li><li>Carpentaria Gold Pty Ltd (Australia) is the 100% owner of the Ravenswood Gold Mine; and</li><li>Mensin Gold Bibiani Limited (Ghana) is the owner of the Bibiani Gold Mine. The Government of Ghana is entitled to a 10% free carried interest in Mensin.</li></ul>								
B.6	Major Shareholders	<p>The Company is not directly or indirectly controlled by any person. As at the Latest Practicable Date, the following persons have notified the Company of their interests as set out below:</p> <table><thead><tr><th>Substantial Holder</th><th>Percentage of Issued Shares</th></tr></thead><tbody><tr><td>ICM Limited</td><td>17.24%</td></tr><tr><td>Van Eck Associates Corporation</td><td>11.02%</td></tr><tr><td>Dimensional Fund Advisors LP</td><td>6.40%</td></tr></tbody></table>	Substantial Holder	Percentage of Issued Shares	ICM Limited	17.24%	Van Eck Associates Corporation	11.02%	Dimensional Fund Advisors LP	6.40%
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Van Eck Associates Corporation	11.02%									
Dimensional Fund Advisors LP	6.40%									

## Section B – Issuer

Section D – Issues

Element	Disclosure Requirement	Disclosure																																				
		The above persons do not have different voting rights.																																				
B.7	Key financial information for the Group	<p>The tables below set out certain selected consolidated financial and operating information of the Group, as at the dates and for the periods indicated below</p> <p>The Group presented interest income as a separate line item within the consolidated statement of comprehensive income within the Financial Report for the six-months ended 31 December 2018. The other income line item for previous periods financial information has been restated to exclude interest income which has been disclosed as a separate line item within the consolidated statement of comprehensive income.</p> <p>The Group presented share-based payments expense as a separate line item within the consolidated statement of comprehensive income within the Financial Report for the six-months ended 31 December 2018 and the year ended 30 June 2018 Financial Report. The administration and other corporate expenses line item for the previous periods financial information has been restated to exclude share-based payments expense which has been disclosed as a separate line item within the consolidated statements of comprehensive income. On 27 November 2018, the Company announced that it resolved to change the financial year to 31 December from 30 June.</p> <p>Financial information included herein has been derived as follows:</p> <ul style="list-style-type: none"><li>the financial information as at and for the six-month period ended 31 December 2018 set forth herein has been derived from the Financial Report for the six-months ended 31 December 2018;</li><li>the financial information as at and for the year ended 30 June 2018 set forth herein has been derived from the June 2018 Financial Report;</li><li>the financial information as at and for the six-month period ended 31 December 2017 set forth herein has been derived from the Half Year Report for the six-months ended 31 December 2017 (these accounts were unaudited but reviewed in accordance with ASRRE 2410);</li><li>the financial information as at and for the year ended 30 June 2017 set forth herein has been derived from the 2017 Financial Report; and</li><li>the financial information as at and for the year ended 30 June 2016 set forth herein has, unless otherwise indicated, been derived from the 2016 Financial Report. The Group noted a misstatement in the valuation of the Gold in Circuit and Gold Bullion (“GIC”) book value as at 30 June 2016 in the preparation of the Half Year Report for the six-months ended 31 December 2016. The carrying value of GIC as at 30 June 2016 disclosed as comparative financial information in the 30 June 2017 Financial Report was restated. Accordingly, in certain instances, namely where specific financial statement line items have been impacted by the misstatement in the GIC book value, financial information as at and for the year ended 30 June 2016 have been derived from the 2017 Financial Statements.</li></ul> <p><b>Selected consolidated income statement data:</b></p> <table><tr><th></th><th colspan="2">Six-months ended 31 Dec</th><th colspan="3">Year ended 30 June</th></tr><tr><th></th><th>2018</th><th>2017 (unaudited)</th><th>2018</th><th>2017</th><th>2016 (restated)</th></tr><tr><th></th><th>A\$ '000</th><th>A\$ '000</th><th>A\$ '000</th><th>A\$ '000</th><th>A\$ '000</th></tr><tr><td>Revenue from gold and silver sales</td><td>222,774</td><td>202,637</td><td>445,555</td><td>541,177</td><td>554,624</td></tr><tr><td>Cost of production relating to gold sales</td><td>(169,319)</td><td>(151,146)</td><td>(329,676)</td><td>(309,323)</td><td>(325,207)</td></tr><tr><td>Gross profit before depreciation.</td><td>53,455</td><td>51,491</td><td>115,879</td><td>231,854</td><td>229,417</td></tr></table>		Six-months ended 31 Dec		Year ended 30 June				2018	2017 (unaudited)	2018	2017	2016 (restated)		A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000	Revenue from gold and silver sales	222,774	202,637	445,555	541,177	554,624	Cost of production relating to gold sales	(169,319)	(151,146)	(329,676)	(309,323)	(325,207)	Gross profit before depreciation.	53,455	51,491	115,879	231,854	229,417
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## Section B – Issuer

Element	Disclosure Requirement	Disclosure				
		amortisation and other operating costs				
		Depreciation and amortisation relating to gold sales	(10,110)	(7,159)	(14,417)	(19,727)
		Other operating costs relating to gold sales	(18,896)	(13,956)	(32,138)	(35,222)
		Gross profit from operations	24,449	30,376	69,324	176,905
		Interest income	329	2,144	2,595	1,983
		Other income	13	8	404	69
		Other expenses	(6)	(2,380)	(2,449)	(202)
		Exploration and business development expenditure	(2,924)	(7,096)	(15,686)	(8,430)
		Administration and other corporate expenses	(8,498)	(6,154)	(14,133)	(10,913)
		Share-based payment expense	(1,346)	(969)	(1,782)	(1,184)
		Treasury realised gains/(losses)	213	2,745	2,096	4,039
		Fair value movements and unrealised treasury transactions	(13,602)	22,523	43,396	9,039
		Share of associates' losses	(476)	(772)	(1,500)	(1,799)
		Depreciation of non-mine site assets	(47)	(69)	(130)	(83)
		Finance costs	(5,264)	(1,942)	(4,298)	(3,328)
		(Loss)/profit before tax	(7,159)	38,414	77,837	166,096
		Tax benefit/(expense) from continuing operations	1,835	-	-	-
		(Loss)/profit for period from continuing operations	(5,324)	38,414	77,837	166,096
		Profit after tax for the discontinued operation	-	-	-	-
		(Loss)/profit for the period	(5,324)	38,414	77,837	166,096
		Items that may be reclassified subsequently to profit or loss				
		Exchange differences on translation of				

## Section B – Issuer

Element	Disclosure Requirement	Disclosure				
		foreign operations:				
		Members of the parent	3,460	(4,268)	(1,759)	2,501 (2,005)
		Changes in the fair value/realisation of available for sale financial assets, net of tax	-	2,929	(989)	281 59
		Transferred to profit and loss – disposed subsidiaries	-	-	-	- (39,402)
		Restatement	-	-	-	- 164
		<i>Items that may not be reclassified subsequently to profit or loss</i>				
		Exchange differences on translation of foreign operations:				
		Non-controlling interest	(246)	(595)	(1,253)	1,120 (2,879)
		Changes in the fair value/realisation of financial assets at fair value through other comprehensive income, net of tax	(7,061)	-	-	- -
		Restatement	-	-	-	- 41
		Other comprehensive (loss)/income for the year, net of tax	(3,847)	(1,934)	(4,001)	3,902 (44,022)
		Total comprehensive (loss)/income for the year	(9,171)	36,480	73,836	169,998 156,710
		<b>Selected consolidated balance sheet data:</b>				
		Six-months ended 31 Dec		Year ended 30 June		
		2018	2017 (unaudited)	2018	2017	2016 (restated)
		A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000
		Current assets				
		Cash	38,717	149,485	42,445	282,060 79,873
		Other financial assets – restricted cash	3,890	-	-	- -
		Receivables	56,822	26,353	45,097	5,748 7,005
		Inventories	178,623	224,195	234,720	202,074 174,022
		Financial assets at fair value through other comprehensive income	28,324	-	-	- -
		Available for sale financial assets	-	6,715	22,859	3,595 427
		Prepayments and other	8,296	-	5,299	2,679 2,177

## Section B – Issuer

Element	Disclosure Requirement	Disclosure				
		assets				
		Current tax asset	17,561	10,720	20,811	-
		Financial assets	-	4,798	-	2,214
		derivative	-	-	-	-
		Total current assets	332,233	422,266	371,231	498,370
		Non current assets				
		Prepayments	3,609	-	15,862	-
		Investments in associates	9,583	5,068	6,994	5,840
		Deferred tax assets	19,261	13,219	9,456	15,333
		Other financial assets	32	3,578	3,751	3,651
		Exploration and evaluation	62,904	68,403	53,162	64,879
		Development	405,382	219,868	302,158	159,612
		Property, plant and equipment	288,481	114,322	172,656	90,068
		Total non current assets	789,252	424,458	564,039	339,383
		Total assets	1,121,485	846,724	935,270	837,753
		Current liabilities				
		Payables	119,982	56,711	92,488	65,152
		Interest bearing liabilities	68,513	35,138	47,282	34,558
		Provisions	23,259	17,850	21,171	18,726
		Current tax liabilities	-	-	-	3,979
		Financial liabilities	-	-	-	-
		derivative	-	-	-	151
		Total current liabilities	211,754	109,699	160,941	122,415
		Non current liabilities				
		Interest bearing liabilities	138,711	-	-	-
		Financial liabilities	-	-	-	-
		derivative	-	-	-	264
		Provision	70,321	65,012	65,687	66,140
		Total non current liabilities	209,032	65,012	65,687	66,140
		Total liabilities	420,786	174,711	226,628	188,555
		Net assets	700,699	672,013	708,642	649,198
		Equity attributable to equity holders of the parent				
		Contributed equity	559,809	544,972	544,972	544,987

## Section B – Issuer

Element	Disclosure Requirement	Disclosure																																																																																																																		
		<table><tr><td>Reserves</td><td>34,956</td><td>38,248</td><td>37,011</td><td>38,408</td><td>33,427</td></tr><tr><td>Retained earnings/(accumulated losses)</td><td>115,616</td><td>101,454</td><td>134,073</td><td>83,333</td><td>(41,836)</td></tr><tr><td>Total equity attributable to equity holders of the parent</td><td>710,381</td><td>684,674</td><td>716,056</td><td>666,728</td><td>386,789</td></tr><tr><td>Non-controlling interest</td><td>(9,682)</td><td>(12,661)</td><td>(7,414)</td><td>(17,530)</td><td>(48,375)</td></tr><tr><td>Total equity</td><td>700,699</td><td>672,013</td><td>708,642</td><td>649,198</td><td>338,414</td></tr></table> <p><b>Selected consolidated cash flow statement data:</b></p> <table><tr><td></td><td colspan="2">Six-months ended 31 Dec</td><td colspan="3">Year ended 30 June</td></tr><tr><td></td><td>2018</td><td>2017</td><td>2018</td><td>2017</td><td>2016</td></tr><tr><td></td><td></td><td>(Unaudited)</td><td></td><td></td><td>(Restated)</td></tr><tr><td></td><td>A\$ '000</td><td>A\$ '000</td><td>A\$ '000</td><td>A\$ '000</td><td>A\$ '000</td></tr><tr><td>Net cash inflow from/(used in) operating activities</td><td>33,849</td><td>(24,563)</td><td>28,359</td><td>186,384</td><td>192,797</td></tr><tr><td>Net cash inflow from/(used in) investing activities</td><td>(181,035)</td><td>(93,137)</td><td>(268,956)</td><td>(127,753)</td><td>(43,300)</td></tr><tr><td>Net cash inflow from/(used in) financing activities</td><td>121,577</td><td>(14,844)</td><td>(14,845)</td><td>135,715</td><td>(78,859)</td></tr><tr><td>Net increase/(decrease) in cash and cash equivalents</td><td>(25,609)</td><td>(132,544)</td><td>(255,442)</td><td>194,346</td><td>70,638</td></tr><tr><td>Cash and cash equivalents at the beginning of the period</td><td>(4,837)</td><td>247,502</td><td>247,502</td><td>53,417</td><td>(19,735)</td></tr><tr><td>Exchange rate adjustment</td><td>1,865</td><td>(611)</td><td>3,103</td><td>(261)</td><td>2,514</td></tr><tr><td>Cash and cash equivalents at the end of the period</td><td>(28,581)</td><td>114,347</td><td>(4,837)</td><td>247,502</td><td>53,417</td></tr><tr><td>Cash and cash equivalents comprise the following:</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Cash at bank on hand</td><td>38,717</td><td>149,485</td><td>42,445</td><td>282,060</td><td>79,873</td></tr><tr><td>Bank overdraft</td><td>(67,298)</td><td>(35,138)</td><td>(47,282)</td><td>(34,558)</td><td>(26,456)</td></tr></table> <p>Certain significant changes to the Group’s financial condition and results of operations occurred during 2016, 2017 and 2018. These changes are set out below:</p> <p>On 28 September 2016, the Company completed an institutional placement of 76.5 million new Shares to raise A\$150 million (before expenses).</p> <p>During the year ended 30 June 2016, the Group successfully divested its remaining interests in Tanzania, following closure, decommissioning and rehabilitation of its Golden Pride Mine. In addition, the Group completed a primary crusher change-out and major roaster shutdown at Syama Gold Mine.</p>	Reserves	34,956	38,248	37,011	38,408	33,427	Retained earnings/(accumulated losses)	115,616	101,454	134,073	83,333	(41,836)	Total equity attributable to equity holders of the parent	710,381	684,674	716,056	666,728	386,789	Non-controlling interest	(9,682)	(12,661)	(7,414)	(17,530)	(48,375)	Total equity	700,699	672,013	708,642	649,198	338,414		Six-months ended 31 Dec		Year ended 30 June				2018	2017	2018	2017	2016			(Unaudited)			(Restated)		A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000	Net cash inflow from/(used in) operating activities	33,849	(24,563)	28,359	186,384	192,797	Net cash inflow from/(used in) investing activities	(181,035)	(93,137)	(268,956)	(127,753)	(43,300)	Net cash inflow from/(used in) financing activities	121,577	(14,844)	(14,845)	135,715	(78,859)	Net increase/(decrease) in cash and cash equivalents	(25,609)	(132,544)	(255,442)	194,346	70,638	Cash and cash equivalents at the beginning of the period	(4,837)	247,502	247,502	53,417	(19,735)	Exchange rate adjustment	1,865	(611)	3,103	(261)	2,514	Cash and cash equivalents at the end of the period	(28,581)	114,347	(4,837)	247,502	53,417	Cash and cash equivalents comprise the following:						Cash at bank on hand	38,717	149,485	42,445	282,060	79,873	Bank overdraft	(67,298)	(35,138)	(47,282)	(34,558)	(26,456)
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	A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000																																																																																																															
Net cash inflow from/(used in) operating activities	33,849	(24,563)	28,359	186,384	192,797																																																																																																															
Net cash inflow from/(used in) investing activities	(181,035)	(93,137)	(268,956)	(127,753)	(43,300)																																																																																																															
Net cash inflow from/(used in) financing activities	121,577	(14,844)	(14,845)	135,715	(78,859)																																																																																																															
Net increase/(decrease) in cash and cash equivalents	(25,609)	(132,544)	(255,442)	194,346	70,638																																																																																																															
Cash and cash equivalents at the beginning of the period	(4,837)	247,502	247,502	53,417	(19,735)																																																																																																															
Exchange rate adjustment	1,865	(611)	3,103	(261)	2,514																																																																																																															
Cash and cash equivalents at the end of the period	(28,581)	114,347	(4,837)	247,502	53,417																																																																																																															
Cash and cash equivalents comprise the following:																																																																																																																				
Cash at bank on hand	38,717	149,485	42,445	282,060	79,873																																																																																																															
Bank overdraft	(67,298)	(35,138)	(47,282)	(34,558)	(26,456)																																																																																																															

Section B – Issuer		
Element	Disclosure Requirement	Disclosure
		<p>During the year ended 30 June 2017, production at the Syama Gold Mine was sourced from the processing of stockpiled sulphide ore and the mining of oxide ore from satellite open pits. The Ravenswood Gold Mine commenced open pit mining at Nolans East while the Mt Wright Underground Mine continued to extend mine life beyond expectations.</p> <p>During the year ended 30 June 2018, the Group increased its Ore Reserves and Mineral Resources as at 30 June 2018 as a result of exploration success.</p> <p>During the six-month period ended 31 December 2018, the Group progressed studies across its portfolio culminating in the release of updates for the Syama Gold Mine, the Ravenswood Gold Mine and the Bibiani Gold Mine.</p> <ul style="list-style-type: none"> <li>At the Syama Gold Mine, the Definitive Feasibility Study Update delivered a significant reduction in the Life-of-Mine ("LOM") AISC and an increase in the underground Ore Reserve.</li> <li>At the Ravenswood Gold Mine, significant enhancements were identified for the Ravenswood Expansion Project as part of study work.</li> <li>At the Bibiani Gold Mine, a study update demonstrated potential for a low cost, long life operation with robust economics.</li> </ul> <p>Other notable events between 30 June 2018 and 31 December 2018 included the commencement of sublevel caving at the Syama Underground Mine, the commencement of open pit mining at Tabakoroni and the completion of maintenance activities on the roaster at the Syama Gold Mine as part of biennial shut down works.</p> <p>There have been no significant changes with respect to the financial condition and results of operations of the Group since 31 December 2018 (being the date to which the Group's latest audited financial information has been prepared).</p>
B.8	Pro-forma financial information	Not applicable. There is no pro forma financial information.
B.9	Profit forecast/estimate	Not applicable. This Prospectus does not contain profit forecasts or estimates.
B.10	Audit report – qualifications	Not applicable. The Company's audited financial information has been signed off without qualification.
B.11	Insufficiency of working capital	Not applicable. The Company is of the opinion that the working capital available to the Group is sufficient to cover the Group's present requirements, that is for at least 12 months from the date of this Prospectus.

Section C - Securities		
Element	Disclosure Requirement	Disclosure
C.1	Description of the Offer	<p>No new Shares are being offered. All of the issued Shares (being 758,094,588 Shares) are to be admitted to trading on the standard listing segment of the Official List and to trading on the London Stock Exchange's Main Market for listed securities.</p> <p>The ISIN of the Shares is AU 000000RSG6. The Company's Shares will trade</p>

Section C - Securities		
Element	Disclosure Requirement	Disclosure
		using the ticker code "RSG".
C.2	Currency	Not applicable. No Shares are being offered.
C.3	Issued Share Capital	As at the Latest Practicable Date, there were 758,094,588 issued Shares. All issued Shares are fully paid.  The Shares have no par value.
C.4	Rights attaching to the Shares	<p>The rights attaching to Shares arise from a combination of the Constitution, statute and general law.</p> <p>Shares issued following the conversion of Performance Rights will rank equally in all respects with the Company's existing Shares.</p> <p>The Constitution contains the internal rules of the Company and define matters such as the rights, duties and powers of its shareholders and Directors, including provisions to the following effect (when read in conjunction with the Australian Corporations Act 2001 and the ASX Listing Rules):</p> <p><i>Shares</i></p> <p>The issue of shares in the capital of the Company and options over unissued shares by the Company is under the control of the Directors, subject to the Australian Corporations Act 2001, the ASX Listing Rules and any rights attached to any special class of shares.</p> <p><i>Meetings of Shareholders</i></p> <p>Directors may call a meeting of Shareholders whenever they think fit. Shareholders may call a meeting of Shareholders as provided by the Australian Corporations Act 2001. The Constitution contains provisions prescribing the content requirements of notices of meetings of Shareholders and all Shareholders are entitled to a notice of meeting. A meeting may be held in two or more places linked together by audio-visual communication devices. A quorum for a meeting of Shareholders is two eligible Shareholders.</p> <p>The Company holds annual general meetings in accordance with the Australian Corporations Act 2001 and the ASX Listing Rules.</p> <p><i>Voting</i></p> <p>Subject to any rights or restrictions at the time being attached to any shares or class of shares of the Company, each Shareholder of the Company is entitled to receive notice of, attend and vote at a general meeting. Resolutions of Shareholders will be decided by a show of hands unless a poll is demanded. On a show of hands each eligible Shareholder present has one vote. However, where a person present at a general meeting represents personally or by proxy, attorney or representative more than one Shareholder, on a show of hands the person is entitled to one vote only despite the number of Shareholders the person represents.</p> <p>On a poll each eligible Shareholder has one vote for each Share held.</p> <p><i>Changes to the Constitution</i></p> <p>The Constitution can only be amended by a special resolution passed by at least three quarters of the Shareholders present and voting at a general meeting of the Company. At least 28 days' written notice specifying the intention to propose the resolution as a special resolution must be given.</p>
C.5	Restrictions on the free transferability	Not applicable.
C.6	Admission to	The Shares are currently traded on and admitted to trading on ASX under the



Section C - Securities		
Element	Disclosure Requirement	Disclosure
	trading	<p>ticker code "RSG". Following Admission, the Shares will continue to be traded on ASX.</p> <p>An application has been made to the FCA for all of the Shares to be admitted to the Official List of the FCA (by way of a standard listing under Chapter 14 of the Listing Rules) and to trading on the London Stock Exchange's Main Market for listed securities.</p>
C.7	Dividend Policy	<p>The Company's policy anticipates a minimum annual dividend payment equivalent to the value of 2% of the Group's annual gold sales, provided that all operating and reasonable corporate and exploration expenses can be funded. The declaration and payment of future dividends remains fully at the discretion of the Board after taking into account a number of factors, including, but not limited to, the Company's financial and operating results, anticipated current and future cash requirements, future opportunities and prospects, general financial conditions and other factors deemed relevant.</p>

Section D - Risks		
Element	Disclosure Requirement	Disclosure
D.1	Key information on the key risks relating to the Group's business	<p>The Group may not achieve its expected gold production levels at its projects. The failure of the Group to achieve its production targets could have a material adverse effect on any or all of its future cash flows, profitability, results of operations and financial conditions.</p> <p>Actual production may vary from estimates for a variety of reasons, including: the availability of certain types of ores; the actual ore mined varying from estimates of grade or tonnage; dilution and metallurgical and other characteristics (whether based on representative samples of ore or not); short term operating factors such as the need for sequential development of orebodies and the processing of new or adjacent ore grades from those planned; mine failures, slope failures or equipment failures; industrial accidents; natural phenomena such as inclement weather conditions, floods, droughts, rock slides and earthquakes; encountering unusual or unexpected geological conditions; changes in power requirements and potential power shortages; shortages of principal supplies needed for mining operations, including explosives, fuels, chemical reagents, water, equipment parts and lubricants; plant and equipment failure; breakdown or repair; the inability to process certain types of ores; labour shortages or strikes; lack of required labour; civil disobedience and protests; and restrictions or regulations imposed by government agencies or other changes in the regulatory environment.</p> <p>Operating and capital costs are estimated based on the interpretation of geological data, feasibility studies, anticipated climatic conditions and other factors. Any of the following events, among the other events and uncertainties described in this Prospectus, could affect the ultimate accuracy of such estimates and result in an increase in actual operating and/or capital costs incurred.</p> <p>Mineral Resources and Ore Reserves are estimates only and no assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realized or that Reserves could be mined or processed profitably. There are numerous uncertainties inherent in estimating Resources and Reserves.</p> <p>As a producer of gold, any earnings of the Group are expected to be correlated to the price of gold. The gold price fluctuates and is affected by numerous factors beyond the control of the Group.</p>

Section D - Risks		
Element	Disclosure Requirement	Disclosure
		<p>Mineral exploration, project development and mining by their nature contain elements of significant risk. Ultimate and continuous success of these activities is dependent on many factors.</p> <p>The Group's mining operations are dependent on established metallurgical processes. It is possible that future ore sources may exhibit metallurgical characteristics that are different from those that have been treated to date and that this may result in lower recoveries and/or higher processing costs, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.</p> <p>The Group's exploration, development and mining activities are dependent upon the grant, or as the case may be, the maintenance, renewal or re-approval of appropriate licences, concessions, leases, permits and regulatory consents which may be withdrawn or made subject to limitations. The maintenance, renewal and granting of these tenement rights depends on the Group being successful in obtaining required statutory approvals and complying with regulatory processes (including the stamping and registration of documentation relating to these tenement rights). A failure to obtain these statutory approvals or comply with these regulatory processes may adversely affect the Group's title to such tenement rights.</p> <p>The Syama Gold Mine, which is the Group's principal operating mine, for which a substantial portion of the Group's revenue in the next 12 months are dependent, is a remote mine site with extensive supply lines supporting operations and relatively poor transport infrastructure. The risk of any interruption to the supply chain may result in shortage or absences of key materials and consumables causing delays or suspension of production, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations, which are dependent on operations at the Syama Gold Mine.</p> <p>There is a risk that the Group requires, and has an inability to secure, adequate external funding to develop the Bibiani Gold Mine. The consequence would be that the Bibiani Gold Mine remains on care and maintenance at a cost to the Group until the funding can be raised or sufficient funds are being generated by the Syama Gold Mine to develop the project, which could have a material adverse effect on the Group's prospects.</p> <p>In June 2014, Mensin, Drilling and Mining Services Limited and Noble Mining Ghana Limited entered into court approved Schemes of Arrangement ("<b>Scheme</b>") with their creditors and employees. Under the Scheme, 'Commercial Production' was to be achieved by June 2019. If not, the Bibiani Gold Mine was to be sold and the proceeds paid in satisfaction of the costs incurred in effecting the sale, then in satisfaction of the interim funding provided by the Group, then to pay certain of the intercompany debt (which is due to the Group), then to pay creditors and the balance of the intercompany debts due to the Group, pro rata.</p> <p>'Commercial Production' as defined in the current Scheme will not be able to be achieved by June 2019 and the Company would be required to sell the Bibiani Gold Mine unless it agrees an amendment to the Scheme. Therefore, in order to enable the Group to have the opportunity to complete its investigations as to the feasibility of mining at the Bibiani Gold Mine, and then to commence mining in an appropriate timeframe, it is necessary to amend the Scheme, so that the 'trigger' to the obligation to sell the Bibiani Gold Mine is changed, and to extend the date for achieving that trigger by three years.</p> <p>The only way to achieve such an outcome is for the creditors and the Court to approve an amended Scheme (the "<b>Amended Scheme</b>"). In February 2019, the Court approved the convening of a meeting of creditors to consider the Amended Scheme, and on 3 April 2019, the creditors who attended the meeting or voted by proxy unanimously approved the Amended Scheme. At the second Court hearing on 29 May 2019, the Court approved the Amended</p>

Section D - Risks		
Element	Disclosure Requirement	Disclosure
		<p>Scheme. The Amended Scheme will become operative upon compliance with certain administrative steps, which will occur within the required timeframe. As a consequence of the amendment to the Scheme, the Group will not be obliged to sell the Bibiani Gold Mine in the short term, and will only be obliged to do so if, within 3 years, it has not affected a sale of gold mined from the Bibiani Gold Mine.</p> <p>In addition, notwithstanding the Scheme's approval by the court, the creditors, and the Ghanaian Minister of Mines, two Ghanaian creditors have sought to circumvent the operation of the Scheme and are seeking to enforce a winding up order against Mensin, on the basis of judgement debts (being debts that have been determined by the Court to be owing) incurred prior to implementation of the Scheme. The Group is defending Mensin's right to unencumbered ownership of the Bibiani Gold Mine which was a key element of the Scheme supported by both Resolute and the Ghanaian government. If the Group is unsuccessful in defending the litigation by the two Ghanaian creditors, the effect on the Group may be that the judgement amounts, less the amounts paid to those creditors under the Scheme will need to be paid. The amount outstanding is estimated to be approximately US\$880,000 plus interest since March 2018 for one of the creditors and approximately US\$656,000 plus interest since October 2013 for the other creditor, totalling approximately US\$1.6 million. If Mensin is unsuccessful defending the litigation, Mensin may be able to avoid being wound up by immediately paying the judgement amounts, however there is a risk that the winding up may proceed in any case which could have a material adverse effect on the prospects of the Group. Mensin would be able to pay the US\$1.6 million, subject to judgement debts, if required.</p> <p>The Board is yet to approve the transition of the Ravenswood Gold Mine from operating as an underground mine at Mt Wright to large scale open-pit mining at Buck Reef West and Sarsfield, which could have a material adverse effect on the Group's prospects. Board approval is dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter.</p> <p>All phases of the Group's operations are subject to environmental regulation in the various jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation. They also set limitations on the generation, transportation, storage and disposal of solid and hazardous waste and the level of emissions generated by the Group's mining operations. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects, and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Group's operations.</p> <p>The Group's activities are subject to various laws governing exploration/development, taxes, labour standards and occupational health, safety, toxic substances, land use, water use, land claims of local people and other matters. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail the Group's activities. Amendments to current laws, regulations and permits governing activities of exploration and mining companies, or more stringent implementation thereof, could have a material adverse impact on the Group and cause increases in expenses or require abandonment or delays in activities.</p>

Section D - Risks		
Element	Disclosure Requirement	Disclosure
		<p>Mining operations, and in particular underground mining operations, are inherently dangerous workplaces. The Group's mining operations often place its employees and other in close proximity with large pieces of mechanised (and in some cases automated) equipment, moving vehicles, mining processes, regulated materials and other hazardous conditions. As a result, the Group is subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Unsafe work sites also have the potential to increase employee turnover and raise the Group's operating costs. Additionally, the Group's safety record can impact the Group's reputation. Any failure to maintain safe work sites could expose the Group to significant financial losses as well as civil and criminal liabilities, any of which could have a material adverse effect on the Group's operations and prospects.</p> <p>The business of the Group is subject to a number of risks and hazards generally, including adverse environmental conditions, industrial accidents, labour disputes, unusual or unexpected geological conditions, changes in the regulatory environment and natural phenomena such as inclement weather conditions and floods. Such occurrences could result in damage to mineral properties or production facilities, personal injury or death, environmental damage to properties of the Group or others, delays in mining, monetary losses and possible legal liability.</p> <p>The Group's mineral exploration and planned development activities are subject to various laws governing prospecting, mining, development, production, taxes, labour standards and occupational health, mine safety, toxic substances, land use, water use and other matters. Although the Group's exploration, mining and planned development activities are currently believed by the Company to be carried out in accordance with all applicable rules and regulations, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development.</p>
D.3	Risks relating to the Shares	<p>The value of Shares may go down as well as up and the market price of Shares may not reflect the underlying value of the Company.</p> <p>Trading in the Shares may be suspended.</p> <p>The Company may be excluded from trading.</p> <p>There can be no assurance regarding the future development of the market for the Shares and its liquidity.</p> <p>Dual listing of the Shares will result in differences in liquidity, settlement and clearing systems, trading currencies, prices and transaction costs between the exchanges where the Shares will be listed. These and other factors may hinder the transferability of the Shares between the two exchanges.</p> <p>Both the market price and trading volume of the Shares may depend on the opinions of the securities analysts monitoring the operations of the Group and publishing their research reports on its future performance.</p> <p>The Company may not be able to pay dividends in accordance with its stated dividend policy.</p> <p>In addition, the payment of any dividend is subject to board discretion.</p> <p>The ability of a Shareholder to bring or enforce an action against the Company may be limited under law.</p> <p>Shareholders may be subject to risks arising from adverse movements in the value of their local currency against the Australian Dollar.</p> <p>Non-Australian shareholders may have difficulties exercising rights which are governed by Australian law.</p>

Section E - Securities		
Element	Disclosure Requirement	Disclosure
E.1	Net Proceeds and Expenses	Not applicable. No proceeds will be received (or expenses incurred in issuing Shares) as no Shares are being offered pursuant to this Prospectus.
E.2a	Reasons for the offer and Use of Proceeds	Not applicable. No Shares are being offered.
E.3	Terms and Conditions of the Offer	Not applicable. No Shares are being offered.
E.4	Material Interests	Not applicable. No interests are known to the Company that are material to the admission of the Shares to the London Stock Exchange or which are conflicting interests.
E.5	Selling Shareholder and Lock up Arrangement	Not applicable. There are no selling shareholders or lock-up arrangements.
E.6	Dilution	Not applicable. No Shares are being offered.
E.7	Estimated expenses charged to investor	Not applicable. No Shares are being offered.

## **2 RISK FACTORS**

*Any investment in the Shares is subject to a number of risks. Prior to investing in the Shares, prospective investors should consider carefully the factors and risks associated with any such investment in the Shares, the Group's business and the industries in which it operates, together with all other information contained in this Prospectus including, in particular, the risk factors described below.*

*Prospective investors should note that the risks relating to the Group, its business and industries and the Shares summarised in the section of this Prospectus entitled "Summary" are the risks that the Directors believe to be the most essential to an assessment by a prospective investor of whether to consider an investment in the Shares. However, as the risks which the Group faces relate to events, and depend on circumstances, that may or may not occur in the future, prospective investors should consider not only the information on the key risks summarised in the section of this Prospectus entitled "Summary" but also, among other things, the risks and uncertainties described below.*

*The following is not an exhaustive list or explanation of all risks that prospective investors may face when making an investment in the Shares and should be used as guidance only. These risks and uncertainties are not the only ones facing the Group. The order in which risks are presented is not necessarily an indication of the likelihood of the risks actually materialising, of the potential significance of the risks or of the scope of any potential harm to the Group's business operations, prospects, financial condition and operational results. Additional risks and uncertainties relating to the Group that are not currently known to the Group, or that the Group currently deems immaterial, may individually or cumulatively also have a material adverse effect on the Group's business operations, prospects, financial condition and operational results. If any such risks should occur, the price of the Shares may decline and investors could lose all or part of their investment. Investors should consider carefully whether an investment in the Shares is suitable for them in the light of the information in this Prospectus and their personal circumstances.*

### **3 RISKS RELATING TO THE GROUP AND THE GROUP'S INDUSTRY**

#### **Production estimates**

The Group may not achieve its expected gold production levels at its projects and, in particular, at its Syama Gold Mine with its principal mining operation. The failure of the Group to achieve its production targets could have a material adverse effect on any or all of its future cash flows, profitability, results of operations and financial conditions. The realisation of production estimates is dependent on, among other things, the accuracy of Reserve and Resource estimates, the accuracy of assumptions regarding ore tonnages and grades and processing utilisation, throughput and recovery rates, the ability to secure and deliver sufficient ore to the processing plant, the physical characteristics of ores, the presence or absence of particular metallurgical characteristics, and ground conditions (including hydrology).

Actual production may vary from estimates for a variety of reasons, including: the availability of certain types of ores; the actual ore mined varying from estimates of grade or tonnage; dilution and metallurgical and other characteristics (whether based on representative samples of ore or not); short term operating factors such as the need for sequential development of orebodies and the processing of new or adjacent ore grades from those planned; mine failures, slope failures or equipment failures; industrial accidents; natural phenomena such as inclement weather conditions, floods, droughts, rock slides and earthquakes; encountering unusual or unexpected geological conditions; changes in power requirements and potential power shortages; shortages of principal supplies needed for mining operations, including explosives, fuels, chemical reagents, water, equipment parts and lubricants; plant and equipment failure; breakdown or repair; the inability to process certain types of ores; labour shortages or strikes; lack of required labour; civil disobedience and protests; security-related incidents and restrictions or regulations imposed by government agencies or other changes in the regulatory environment.

Such occurrences could also result in damage to mineral properties or mines, interruptions in production, injury or death to persons, damage to property of the Group or others, monetary losses and legal liabilities in addition to adversely affecting production and financial performance which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

#### **Increases in operating and capital costs**

Operating and capital costs are estimated based on the interpretation of geological data, feasibility studies, anticipated climatic conditions and other factors. Any of the following events, among the other events and uncertainties described in this Prospectus, could affect the ultimate accuracy of such estimate and result in an increase in actual operating and/or capital costs incurred: (i) unanticipated changes in grade and tonnage of gold ore to be mined and processed; (ii) incorrect data on which engineering assumptions are made; (iii) equipment delays; (iv) labour disputes and negotiations; (v) changes in government regulation including regulations regarding prices, cost of consumables, royalties, duties, taxes, permitting and restrictions on production quotas on exportation of minerals; and (vi) title claims which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

#### **Mineral Resource and Ore Reserve estimates**

Mineral Resources and Ore Reserves are estimates only and no assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realised or that Ore Reserves could be mined or processed profitably. There are numerous uncertainties inherent in estimating Mineral Resources and Ore Reserves, including many factors beyond the Group's control. Such estimation is a subjective process, and the accuracy of any Ore Reserve or Mineral Resource estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. Short-term operating factors relating to the Ore Reserves, such as the need for the orderly development of

orebodies or the processing of new or different ore grades, may cause mining operations to be unprofitable in any particular accounting period. In addition, there can be no assurance that gold recoveries in small scale laboratory tests will be duplicated in larger scale tests under on-site conditions or during production.

Fluctuation in gold prices, foreign exchange rates, results of drilling, metallurgical testing and production and the evaluation of mine plans subsequent to the date of any estimate may require the revision of such estimate. The volume and grade of Ore Reserves mined and processed and recovery rates may not be the same as currently anticipated. Any material reductions in estimates of Resources and Reserves, or of the Group's ability to extract these Ore Reserves, could have a material adverse effect on the Group's results of operations and financial condition.

The ability to maintain or increase gold production over the longer term will be almost entirely dependent on the Group's ability to expand/replace its depleted Ore Reserves. Any inability to replace these reserves could materially impact long term operations. Furthermore it must be noted that it can take many years from the initial phase of drilling until ore is able to be commercially extracted from certain locations. During this time fluctuations in the gold price may change the economic feasibility of mining the area which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Mining Licences and Permits**

Mining operations at the Ravenswood Gold Mine will cease in the December 2019 Quarter. The Group is evaluating a potential project – the Ravenswood Expansion Project which, if undertaken, would transition the Ravenswood Gold Mine from operating as an underground mine to large scale open-pit mining pursuant to the following sequence:

- Stage 1 of the potential Ravenswood Expansion Project ("**REP1**") which involves:
  - the mining and processing of the Buck Reef West;
  - extending and expanding the existing Nolans Tailings Storage Facility;
  - the upgrade of the Nolans processing plant to nameplate capacity of 5Mtpa; and
- Stage 2 of the potential Ravenswood expansion project ("**REP2**"), which involves the mining and processing of the Sarsfield open pit three years after REP1.

The Board is yet to approve the pursuit of the Ravenswood Expansion Project. Board approval is dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter.

The Group requires certain outstanding necessary licences and permits for REP1, including the following:

- the inclusion of additional surface area in ML 10170 in respect of land required for the extension and expansion of the existing NTSF;
- a native title agreement (on similar terms to the existing agreement) for the grant of the additional surface area in respect of ML 10170;
- approval for two road intersection upgrades;
- development approval for the noise bund;
- amendments to the Environmental Authority to accommodate the extension and expansion of the existing NTSF; and
- amendments to the Environmental Authority to update the water quality conditions as a result of any issues identified in a recently completed environmental evaluation report.

The Company does not perceive there to be any significant risk of non-approvals but, should the process be protracted, it will delay the evaluation of funding alternatives and the decision regarding commencement of the Ravenswood Expansion Project at the Ravenswood Gold Mine.



In order for development of the Bibiani Gold Mine to commence, a number of statutory approvals are required. These include:

- a mining operating permit: an application must be made to the Inspectorate Division of the Ghana Minerals Commission before the commencement of the operation of the mine, however if the Main Mining Operating Plan is not in its final form the Chief Inspector of Mines may issue a Temporary Mining Operating Permit for a period of six-months to enable the holder of that permit to submit a detailed Main Mining Operating Plan;
- a water permit: an application must be made to Ghana Water Resources Commission for an abstraction licence for mine de-watering;
- registration and licencing of dams and levees by the Ghana Water Resources Commission;
- a bulk supply licence from the Energy Commission; and
- fiscal permits from the Bank of Ghana.

Although the Company is confident that these approvals will be secured in a timely manner, if there are delays in receiving any of the approvals, the effect would be to delay its decision as to whether or not to proceed with recommencing of mining at the Bibiani Gold Mine, which could have a material adverse effect on the Group's prospects.

The Company is yet to evaluate its funding alternatives for Bibiani and as such, the Board is yet to make a decision with respect to a potential re-start of the Bibiani Gold Mine. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

### **Gold price volatility and impact on operations**

As a producer of gold, earnings of the Company are correlated to the price of gold.

The gold price fluctuates and is affected by numerous factors beyond the control of the Company. These factors include, but are not limited to, world demand for gold and other metals, forward selling by producers, production cost levels in major metal-producing regions, expectations with respect to the rate of inflation and deflation, interest rates, currency exchange rates, the global and regional supply of, and demand for, jewellery and industrial products containing metals, production levels, inventories, costs of substitutes, changes in global or regional investment or consumption patterns, sales by central banks and other holders, speculators and producers of gold in response to any of the above factors, and global and regional political and economic factors.

A decline in the market price of gold may have a material adverse impact on the Group's projects and anticipated future operations. Such a decline could also have a material adverse impact on the ability of the Group to finance the exploration, mining and development of its existing and future mineral projects and may also impact operations by requiring a reassessment on the feasibility of a particular project. Even if a project is determined to be economically viable, the need to conduct a reassessment following an adverse gold price movement may cause substantial delays or may interrupt operations until the reassessment can be completed. The Group will also have to assess the economic impact of any sustained lower gold prices on recoverability and therefore, on cut-off grades and the level of its Ore Reserves and Mineral Resources. The revenue the Group derives through the sale of gold is exposed to gold price risks, which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Underground mining**

The Group's current mine plans at its projects involve mining of the certain orebodies through underground mining methods. Underground mining can be more complex than open pit mining and any expansion into underground mining will also bring with it a new set of mining risks including orebody continuity and faulting, ventilation, cave-ins and flooding. These risks can affect or prevent ongoing underground operations, which can adversely affect the Group's ability to extract ore from its projects, and consequentially its profitability. The additional complexity involved in underground mining also increases the risk of capital cost increases or delays occurring in the underground development timetable. Any delays in the delivery of ore to the processing plant could lead to production shortfalls or a requirement to amend the overall project mine plan which may have a

material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Introduction and Operation of Automated Equipment**

The Group is currently introducing a suite of automated equipment at the Syama Underground Mine. There is a risk that the introduction of this equipment takes longer than expected which may impact output from the mine. There is also a risk that once introduced, this equipment does not perform to expectations which may also impact output from the mine which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Labour and employment matters**

Relations between the Group and its employees may be affected by changes in the scheme of labour relations that may be introduced by the relevant governmental authorities in whose jurisdictions the Group carries on business. Changes in such legislation or in the relationship between the Group and its employees may have a material adverse effect on the Group's business, results of operations and financial condition.

The Group has in excess of 3,200 employees and contractors and incurs substantial labour costs in order to conduct its operations. In addition, the required labour force may expand and total labour costs may increase substantially. Changes to the prevailing labour costs in Australia, Ghana or Mali may also lead to an increase in total labour costs.

If for any reason the Group seeks to reduce its workforce, for example if it does not meet operational targets and is required to scale back operations to conserve capital, there may be significant termination costs associated with reducing the size of the workforce. There may also be political and community concerns about any significant reduction in the workforce at any of its projects.

As the Group's business grows, it may require additional key financial, administrative, mining, marketing and public relations personnel as well as additional staff for operations. In addition, given the remote location of the properties, the lack of infrastructure in the nearby surrounding areas, and the shortage of a readily available labour force in the mining industry, the Group may experience difficulties retaining the requisite skilled employees in Mali and Ghana. While the Group believes that it will be successful in attracting and retaining qualified personnel and employees, there can be no assurance of such success.

### **Joint venture parties, contractors and agents**

The Directors are unable to predict the risk of financial failure or default by a participant in any joint venture to which the Group is, or may become a party; or insolvency or other managerial failure by any of the contractors used by the Group in any of its activities; or insolvency or other managerial failure by any of the other service providers used by the Group for any activity which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Access to infrastructure**

Mining, processing, development and exploration activities depend, to a significant degree, on adequate infrastructure. In the course of developing future mines, the Group, may need to construct and support the construction of infrastructure, which includes permanent water supplies, tailings storage facilities, power, maintenance facilities and logistics services and access roads. Reliable rail facilities, roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. Unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could materially adversely affect the Group's operations, financial condition and results of operations. Any such issues arising in respect of the supporting infrastructure or on the Group's sites could materially adversely affect the Group's results of operations or financial condition. Furthermore, any failure or unavailability of the Group's operational infrastructure (for example, through equipment failure or disruption to its

transportation arrangements) could materially adversely affect the production output from its mines or impact its exploration activities or development of a mine or project.

### **Tenement rights**

The Group's exploration, development and mining activities are dependent upon the grant, or as the case may be, the maintenance, renewal or granting of appropriate licences, concessions, leases, permits and regulatory consents which may be withdrawn or made subject to limitations. The maintenance, renewal and granting of these tenement rights depends on the Group being successful in obtaining required statutory approvals and complying with regulatory processes (including the stamping and registration of documentation relating to these tenement rights). A failure to obtain these statutory approvals or comply with these regulatory processes may adversely affect the Group's title to such tenement rights and which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

Further, there is no guarantee or assurance that the licences, concessions, leases, permits or consents will be renewed or extended as and when required or that new conditions will not be imposed in connection with the Group's prospecting licences and mining lease. The renewal or grant of the terms of each licence and mining lease is usually at the discretion of the relevant government authority. To the extent such approvals, consents or renewals are not obtained, the Group may be curtailed or prohibited from continuing with its exploration, development and mining activities or proceeding with any future development which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Title matters**

While the Group has attempted to diligently investigate its title to, and rights and interests in, the licences held by it, and, to the best of its knowledge, such title and interest are in good standing, this should not be construed as a guarantee of the same. The licences may be subject to undetected defects. Although the Group has not to date discovered any such defects, if a defect does exist it is possible that the Group may lose all or part of its interest in those of the licences to which the defect relates, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

The Group has not to date suffered any material losses as a result of any defects described above.

### **Reclamation/rehabilitation costs**

The Group's operations are subject to costs to reclaim properties after the minerals have been mined from the site. The obligation represents a future cost for the Group. As mine plans are estimates only and subject to change, the current estimate may not represent the actual amount required to complete all reclamation activity. If actual costs are significantly higher than the Group's estimates, its financial performance may be materially affected.

### **Environment**

All phases of the Group's operations are subject to environmental regulation in the various jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation. They also set limitations on the generation, transportation, storage and disposal of solid and hazardous waste. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects, and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Group's operations.

Environmental hazards may exist on the properties on which the Group holds interests which are unknown to the Company at present and which have been caused by previous or existing owners or operators of the properties.

Government approvals and permits are current and may in the future be required in connection with the operations of the Group. To the extent such approvals are required and not obtained, the Group may be curtailed or prohibited from continuing its mining operations or from proceeding with planned exploration or development of mineral properties or sale of gold.

Operations at the Syama Gold Mine include a number of potential risks in relation to various emissions being above legal requirements and/or resulting in harm as a result of the operation of a roaster, tailings dam (sulphate and cyanide) and dust. Consequences of this risk are loss of license to operate, reputational damage and material fines. A large number of existing controls are in place to manage this risk including ongoing monitoring of air quality, roaster stack emissions and water while predictive modelling is run for the roaster.

If any such environmental risks outlined above materialised, the consequences of which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

### **Tailings Storage Facilities**

Tailings Storage Facilities (TSFs) store large amounts of mining waste which are generated as a by-product when extracting minerals. As such, they can pose serious threats to humans and the environment, especially in case of their improper design, handling or management. Thus, a failure may result in uncontrolled spills of tailings, dangerous flow-slides or the release of hazardous substances, leading to major environmental catastrophes and potential casualties and loss of life. The effective and safe disposal of mining wastes presents technical and environmental issues. Any failure of a TSF may have material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **The impact of weather conditions causing flooding may have a material adverse effect on the Group**

The Group's assets are located in Australia, Mali and Ghana which are areas that can be subject to severe climatic conditions. Severe weather conditions, such as hot temperatures in summer and torrential rain, potentially causing flooding, could have a material adverse effect on operations, including on the delivery of supplies, equipment and fuel, and exploration and production levels.

### **Interruptions to supply of services and equipment may have a material adverse effect on operations**

The Group relies on the supply and availability of various services and equipment in order to successfully run its operations. For example, timely delivery of mining equipment and availability of such equipment is essential to the Group's ability to produce gold.

### **Competition**

The mineral resource industry is competitive in all of its phases. The Group competes with other companies, including major mining companies. Some of these companies have greater financial and other resources than the Group and, as a result, may be in a better position to compete for future business opportunities. The Group competes with other mining companies for the acquisition of leases and other mineral interests as well as for the recruitment and retention of qualified employees and other personnel. Specifically, the Group also competes with many other companies in Australia, Mali and Ghana. There can be no assurance that the Group can compete effectively with these companies.

### **The Group's activities are subject to various regulations**

The Group's activities are subject to various laws governing exploration/development, taxes, labour standards and occupational health, safety, toxic substances, land use, water use, land claims of local people and other matters. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail the Group's activities.

Amendments to current laws, regulations and permits governing activities of exploration and mining companies, or more stringent implementation thereof, could have a material adverse impact on the Group and cause increases in expenses or require abandonment or delays in activities.

Failure to comply with any Applicable Laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing activities to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in the exploration or development of mineral properties may be required to compensate those suffering loss or damage by reason of the activities and may have civil or criminal fines or penalties imposed for violations of Applicable Laws or regulations. If any member of the Group was required to compensate any persons or was subject to any fine or penalty, this may have a material or adverse effect on the Group and its financial position.

**The Group may not be able to obtain additional external financing on commercially acceptable terms, or at all to fund the development of the Group's portfolio or for other activities**

Mining operations, exploration and development involve significant financial risk and capital investment. The Group's operations and expansion plans may also result in increases in capital expenditures and commitments. The Group may require additional funding to expand its business and may require additional capital in the future to, among other things, develop some of the Group's permits. No assurance can be given that such capital will be available at all or available on terms acceptable to the Group. The Group may also need to seek funding from third parties if internally generated cash resources and available credit facilities, if any, are insufficient to finance these activities. Any debt financing, if available, may involve financial or other covenants which may limit the Group's operations and principal amounts under any debt financing arrangements entered into by the Group may become immediately due and payable if it fails to meet certain restrictive covenants.

The Group is progressing operational readiness planning at the Bibiani Gold Mine. In order for the mine to reach an operational status, the Company will evaluate funding alternatives for the capital expenditure associated with any proposed re-start. There is a risk that the Group will require, and not be able to secure, adequate external funding to develop the Bibiani Gold Mine. The consequence would be that the Bibiani Gold Mine remains on care and maintenance at a cost to the Group until the funding can be raised or sufficient funds are being generated by the Syama Gold Mine to develop the Bibiani Gold Mine, which could have a material adverse effect on the Group's prospects.

The Group will also evaluate its funding alternatives for the Ravenswood Expansion Project. There is a risk that the Group will require, and not be able to secure, adequate external funding to undertake the Ravenswood Expansion Project which would result in a continuation of treatment of lower grade, less economic ore which could have a material adverse effect on the Group's prospects.

## **Litigation**

In June 2014, Mensin, Drilling and Mining Services Limited and Noble Mining Ghana Limited entered into court approved Schemes of Arrangement ("**Scheme**") with their creditors and employees. With the endorsement of the Ghanaian government, the Scheme enabled the Group to secure the ultimate ownership of the Bibiani Gold Mine, with protection from those liabilities which had been incurred at a time when the mine was owned by Noble.

Under the Scheme, 'Commercial Production' was to be achieved by June 2019. If not, the Bibiani Gold Mine was to be sold and the proceeds paid in satisfaction of the interim funding provided by the Group, then to pay intercompany debt (which is due to the Group), then to creditors. Although it is anticipated that the Court will approve the Amended Scheme, if the Court does not approve the Amended Scheme, 'Commercial Production' as defined in the current Scheme will not be able to be achieved by June 2019 and the Company would be required to sell the Bibiani Gold Mine unless it agrees an amendment to the Scheme. Therefore, in order to enable the Group to have the opportunity to complete its investigations as to the feasibility of mining at the Bibiani Gold Mine, and then to commence mining in an appropriate timeframe, it is necessary to amend the Scheme, so that

the 'trigger' to the obligation to sell the Bibiani Gold Mine is changed, and to extend the date for achieving that trigger by three years.

The only way to achieve such an outcome is for the creditors and the Court to approve an amended Scheme (the "**Amended Scheme**"). In February 2019, the Court approved the convening of a meeting of creditors to consider the Amended Scheme, and on 3 April 2019, the creditors who attended the meeting or voted by proxy unanimously approved the Amended Scheme. At the second Court hearing on 29 May 2019, the Court approved the Amended Scheme. The Amended Scheme will become operative upon compliance with certain administrative steps, which will occur within the required timeframe. As a consequence of the amendment to the Scheme, the Group will not be obliged to sell the Bibiani Gold Mine in the short term, and will only be obliged to do so if, within 3 years, it has not affected a sale of gold mined from the Bibiani Gold Mine.

If the Company makes a final investment decision to proceed with the re-start of the Bibiani Gold Mine within three years of the Amended Scheme becoming effective, the Company is confident that it will be able to affect a sale of gold mined from the mine during that period, thereby satisfying the requirement under the Amended Scheme to avoid a sale of Bibiani. There is, however, a risk that this requirement is not satisfied, which, in the absence of a further extension to the Scheme, would require the Bibiani Gold Mine to be sold.

In practice, the Board would either approve the investment required for a re-start of the Bibiani Gold Mine or the Group would continue to hold the Bibiani Gold Mine on care and maintenance pending a Board decision to proceed with the investment required for a re-start. If, after three years from the date of the Amended Scheme becoming effective, the Board has not approved the investment required for a re-start of the Bibiani Gold Mine and the Group has not affected a sale of gold mined from the Bibiani Gold Mine, it would, in the absence of an extension to the Amended Scheme, be required to affect a sale of the Bibiani Gold Mine. If required to sell then the Company may not recover all of the sums invested, which may have a material impact on the Group's prospects.

In addition, notwithstanding the Scheme's approval by the court, the creditors, and the Ghanaian Minister of Mines, two Ghanaian creditors have sought to circumvent the operation of the Scheme and are seeking to enforce a winding up order against Mensin, on the basis of judgement debts (being debts that have been determined by the Court to be owing) incurred prior to implementation of the Scheme. The Group is defending Mensin's right to unencumbered ownership of the Bibiani Gold Mine which was a key element of the Scheme supported by both Resolute and the Ghanaian government. If the Group is unsuccessful in defending the litigation by the two Ghanaian creditors, the effect on the Group may be that the judgement amounts, less the amounts paid to those creditors under the Scheme will need to be paid. The amount outstanding is estimated to be approximately US\$880,000 plus interest since March 2018 for one of the creditors and approximately US\$656,000 plus interest since October 2013 for the other creditor, totalling approximately US\$1.6 million. If Mensin is unsuccessful defending the litigation, Mensin may be able to avoid being wound up by immediately paying the judgement amounts, however there is a risk that the winding up may proceed in any case which could have a material adverse effect on the Group's prospects. Mensin would be able to pay the US\$1.6 million, subject to judgement debts, if required.

In addition, legal proceedings may arise from time to time in the course of the Group's activities. There have been a number of cases where the rights and privileges of mining and exploration companies have been the subject of litigation. The Directors cannot preclude that such litigation may be brought against the Company or a member of the Group in the future from time to time, which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Financial obligations**

The Company has a US\$150 million revolving credit facility in place which is repayable in July 2021. The repayment of this revolving credit facility is dependent on the Group generating sufficient cash flow from the production of gold to make the repayment or alternatively, being able to refinance this revolving credit facility. Any failure to service the revolving credit facility or to refinance it could result in a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **The Group is dependent on production from its key mining assets in order to generate revenue and cash flow**

The Group is currently dependent on production from its key mining assets at the Syama Gold Mine and the Ravenswood Gold Mine in order to generate revenue and cash flow. In 2018 and the first three months of 2019, the Group's revenues and cash flows were derived from sales of gold mined from the Syama Gold Mine and the Ravenswood Gold Mine with these mines providing all of the Group's revenues from mining operations in 2018 and the first three months of 2019. The Group expects that the Syama Gold Mine and the Ravenswood Gold Mine will continue to provide all of the Group's operating revenues and cash flows from mining operations in at least the short to medium-term.

The achievement of the Group's operational targets and ability to produce the expected amounts of gold will be subject to the completion of planned operational goals on time and according to budget, and will be dependent on the effective support of the Group's personnel, systems, procedures and controls. Any failure of these or any adverse mining conditions at the mines may result in delays in the achievement of operational targets with a consequent material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **The Group is dependent on its directors, senior management team and employees with relevant experience**

The Group is reliant on a number of key personnel. The loss of one or more of its key personnel could have an adverse impact on the business of the Group. Furthermore, it may be particularly difficult for the Group to attract and retain suitably qualified and experienced people, given the competition from other industry participants, the location of its operations and the relevant size of the Group.

The loss of, or diminution in, the services of qualified mining specialists or of members of the Group's senior management team or an inability to attract and retain additional senior management and/or mining personnel could have a material adverse effect on the Group's business, financial condition and results of operations.

There is no assurance that the Group will successfully continue to retain existing specialised personnel and senior management or attract additional experienced and qualified senior management and/or mining personnel required to successfully execute and implement the Group's business plan, which will be particularly important as the Group expands. Competition for such personnel is intense. The loss of such personnel and the failure to successfully recruit replacements in a timely manner, or at all, would have a material adverse effect on its business, prospects, financial condition and results of operations.

### **The Group has uninsured risks**

The business of the Group is subject to a number of risks and hazards generally, including adverse environmental conditions, industrial accidents, labour disputes, unusual or unexpected geological conditions, changes in the regulatory environment and natural phenomena such as inclement weather conditions and floods. Such occurrences could result in damage to mineral properties or production facilities, personal injury or death, environmental damage to properties of the Group or others, delays in mining, monetary losses and possible legal liability.

Although the Group maintains insurance to protect against certain risks in such amounts as it considers to be reasonable, its insurance will not cover all the potential risks associated with its operations and insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. It is not always possible to obtain insurance against all such risks and the Group may decide not to insure against certain risks because of high premiums or other reasons. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Group or to other companies in the mining industry on acceptable terms. Losses from these events may cause the Group to incur significant costs that could have a material adverse effect upon its financial performance and results of operations.

## **Changes in government regulation**

The Group's mineral exploration and planned development activities are subject to various laws governing prospecting, mining, development, production, taxes, labour standards and occupational health, mine safety, toxic substances, land use, water use and other matters. Although the Group's exploration, mining and planned development activities are currently believed by the Group to be carried out in accordance with all applicable rules and regulations, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development.

Many of the Group's mineral rights and interests are subject to governmental approvals, licenses and permits. The granting and enforcement of the terms of such approvals, licenses and permits are, as a practical matter, subject to the discretion of the applicable governments or governmental officials. No assurance can be given that the Group will be successful in maintaining any or all of the various approvals, licenses and permits in full force and effect without modification or revocation. To the extent such approvals are required and not obtained, the Group may be curtailed or prohibited from continuing or proceeding with planned exploration or development of mineral properties.

Failure to comply with Applicable Laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in mining operations or in the exploration or development of mineral properties may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed for violations of Applicable Laws or regulations.

Amendments to current laws and regulations governing operations or more stringent implementation thereof could have a substantial adverse impact on the Group and cause increases in exploration expenses, capital expenditures or production costs or reduction in levels of production at producing properties or require abandonment or delays in development of new mining properties.

Although the Group has not experienced any material changes in law or regulation which have affected its business, if there was such a material change, this which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

## **General economic and political risks**

Changes in the general economic and political climate in Africa, Australia and the UK (including the risk stemming from the UK's prospective exit from the European Union and the ongoing negotiations surrounding the terms and conditions of such exit) and on a global basis that could impact on economic growth, gold prices, interest rates, the rate of inflation, taxation and tariff laws, domestic security which may affect the value and viability of any gold activity that may be conducted by the Group.

## **Health and safety**

Mining operations, and in particular underground mining operations, are inherently dangerous workplaces. The Group's mining operations often place its employees and other in close proximity with large pieces of mechanised equipment, moving vehicles, mining processes, regulated materials and other hazardous conditions. As a result, the Group is subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Additionally, the Group's safety record can impact the Group's reputation. Any failure to maintain safe work sites could expose the group to significant financial losses as well as civil and criminal liabilities, any of which could have a material adverse effect on the Group's business, financial condition, results of operations and prospects.

Also, HIV/AIDS, malaria and other diseases represent a serious threat to maintaining a skilled workforce in the mining industry in Mali and Ghana. HIV/AIDS are major healthcare challenges faced by the Group's operations in Mali and Ghana. There can be no assurance that the Group will not lose members of its workforce or workforce man-hours or incur increased medical costs which may have a



material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Processing**

Metal and/or mineral recoveries are dependent upon metallurgical processes, which by their nature contain elements of significant risk such as:

- (i) identifying a metallurgical process through test work to produce a saleable metal and/or concentrate;
- (ii) developing an economic process route to produce a metal and/or concentrate; and
- (iii) changes in mineralogy in the ore deposit can result in inconsistent metal recovery, affecting the economic viability of the project.

The Group has a number of processing plants that are designed to treat a variety of ore sources with varying metallurgical properties. It is possible that future ore sources may exhibit metallurgical characteristics that are different from those that have been treated to date and that this may result in lower recoveries and/or higher processing costs, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

### **Logistics**

The Syama Gold Mine is a remote mine site with extensive supply lines supporting operations and relatively poor transport infrastructure. The risk of any interruption to the supply chain may result in shortage or absences of key materials and consumables causing delays or suspension of production, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

### **Industrial Disputes**

Mali also has a relatively high level of industrial disputes, which could result in disruption to the Group's mining projects at the Syama Gold Mine. Any extended industrial action which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations

## **4 RISKS RELATING TO MALI AND GHANA**

### **Political and Security instability in Mali and Ghana**

The Group's properties in Mali and Ghana may be subject to the effects of political changes, war and civil conflict, changes in government policy, lack of law enforcement, labour unrest and the creation of new laws. These changes (which may include new or modified taxes or other government levies as well as other legislation) may impact the profitability and viability of its properties. The effect of unrest and instability on political, social or economic conditions in Mali and Ghana could result in the impairment of exploration, development and mining operations. Any such changes are beyond the control of the Group and may adversely affect its business.

The political and security situation in Mali has been particularly volatile in recent years. In early 2012, there was a military coup and an occupation of the northern regions by armed groups. Peace negotiations between government and two rebel coalitions, known as the "Platform" and "Coordination" groups, concluded in the signing of an agreement on 15 May 2015 by both the government and the Platform group, and the government and the Coordination group on 20 June 2015. Its implementation, however, remains challenging. Security, which is critical for ensuring economic recovery and poverty reduction, remains fragile, with continuing attacks on the UN force and the Malian army by terrorist groups, mainly again in northern regions of Mali. Isolated terrorist attacks have also been recorded in the capital, Bamako although none of the gold mining and exploration areas have been the subject of attacks. Terrorist actions and conflict in Mali and the Sahel region could negatively impact the Group's people, operations, and broader supply chain. A significant and sustained escalation of terrorist activity in the region may negatively affect the Group's business and impact the profitability and viability of its properties.

In addition, local governmental and traditional authorities in Mali and Ghana may exercise significant influence with respect to local land use, land labour and local security. From time to time, various governments around the world, albeit not in any jurisdictions in which the Group at the relevant time had operations, have intervened in the export of gold in response to concerns about the validity of export rights and payment of royalties. No assurances can be given that the co-operation of such authorities, if sought by the Group, will be obtained, and if obtained, maintained which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

In addition, in the event of a dispute arising from foreign operations, the Group may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of Australian or international courts. The Group also may be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. Any such dispute or restrictions on the Group's rights could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

### **Legal systems in Mali and Ghana**

The legal systems operating in Mali and Ghana may be less developed than more established countries, which may result in risk such as:

- (i) political difficulties in obtaining effective legal redress in the courts whether in respect of a breach of law or regulation, or in an ownership dispute;
- (ii) a higher degree of discretion on the part of governmental agencies;
- (iii) the lack of political or administrative guidance on implementing applicable rules and regulations including, in particular, as regards local taxation and property rights;

- (iv) inconsistencies or conflicts between and within various laws, regulations, decrees, orders and resolutions; or
- (v) relative inexperience of the judiciary and court in such matter.

The commitment by local businesspeople, government officials and agencies and the judicial system to abide by legal requirements and negotiated agreements may be more uncertain, creating particular concerns with respect to licences and agreements for business. These may be susceptible to revision or cancellation and legal redress may be uncertain or delayed. There can be no assurance that joint ventures, licences, license application or other legal arrangements will not be adversely affected by the actions of the government authorities or others and the effectiveness of and enforcement of such arrangements cannot be assured which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Changes in legislation regarding repatriation of earnings**

The Group conducts a significant portion of its operations through subsidiaries incorporated in Mali and conducts some of its operations in Ghana and holds significant assets in such subsidiaries. Accordingly, any limitation on the transfer of cash or other assets between the Group and its subsidiaries could restrict the Group's ability to fund its operations efficiently. Any such limitations, or the perception that such limitations may exist now or in the future, could have an adverse impact on the Group's valuation and stock price. Moreover, there is no assurance that Mali, Ghana, or any other foreign country in which the Group may operate in the future will not impose restrictions on the repatriation of earnings to foreign entities.

Although the Group has not experienced and is not currently experiencing any issues in relation to the transfer of cash or other assets between the Company and its subsidiaries, if such issues materialised they could have a material adverse effect on the Group's business, prospects, financial condition and results of operations.

### **Risk of crime and corruption**

Countries in Africa can experience higher levels of criminal activity and governmental and business corruption. Exploration and mining companies operating in certain areas of Africa may be particular targets of criminal actions. Criminal or corrupt action against the Group could have a material adverse effect on the Group's business, operations, financial performance, cash flow and future prospects. In addition, the fear of criminal or corrupt actions against the Group could have an adverse effect on the ability of the Group to adequately staff and/or manage its operations or could substantially increase the costs of doing so.

By doing business Mali and Ghana, the Group could face, directly or indirectly, corrupt demands by officials, militant groups or private entities. Consequently, the Group faces the risk that one or more of its employees, agents, intermediaries or consultants may make or receive unauthorised payments given that such persons may not always be subject to its control.

Although the Group has policies and procedures designed to ensure that the Group's employees, agents, intermediaries and consultants comply with anti-corruption legislation, there is no assurance that such policies or procedures will work effectively all of the time or protect the Group against liability under any such legislation for actions taken by its agents, employees, intermediaries and consultants with respect to its business.

Furthermore, any remediation measures taken in response to potential or alleged violations of anti-corruption or anti-bribery laws, including any necessary changes or enhancements to the Group's procedures, policies and controls and potential personnel changes and/or disciplinary actions, may result in increased compliance costs.

Any such findings, or any alleged or actual involvement in corrupt practices or other illegal activities by the Group or its commercial partners or anyone with whom it conducts business could damage its reputation and its ability to do business, including by affecting its rights and title to assets or by the

loss of key personnel, and together with any increased compliance costs, could adversely affect its business, operations, financial performance, cash flow and future prospects.

### **Adverse sovereign action**

The Group is exposed to the risk of adverse sovereign action by the governments of Mali and Ghana. The mining industry is important to the economies of these countries and thus can be expected to be the focus of continuing attention and debate. In similar circumstances in other developing countries, mining companies have faced the risks of expropriation and/or renationalisation, breach or abrogation of project agreements, application to such companies of laws and regulations from which they were intended to be exempt, denials of required permits and approvals, increases in royalty rates and taxes that were intended to be stable, application of exchange or capital controls, and other risks which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Deposits of strategic importance**

There can be no assurance that industries deemed of national or strategic importance to countries in Africa such as mineral production will not be nationalised. Government policy may change to discourage foreign investment, re-nationalisation of mining industries may occur and other government limitations, restrictions or requirements not currently foreseen may be implemented. There can be no assurance that the Group's assets in Africa will not be subject to nationalisation, requisition or confiscation, whether legitimate or not, by any authority or body. Similarly, the Group's operations may be affected in varying degrees by government regulations with respect to restrictions on production, price controls, export controls, income taxes, expropriation of property, environmental legislation, mine safety and annual payments to maintain mineral properties in good standing. There can be no assurance that the laws of Mali or Ghana protecting foreign investments, will not be amended or abolished or that these existing laws will be enforced or interpreted to provide adequate protection against any or all of the risks detailed above. There can be no assurance that any agreements with the governments of Ghana or Mali will prove to be enforceable or provide adequate protection against any or all of the risks described above which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

### **Risk of illegal miners**

Issues of small scale illegal mining have arisen over the years within Mali. This illegal mining has largely involved small scale operations run by local inhabitants who do so to supplement their earnings. Illegal mining activities have the potential to affect the Group's operational performance which may have a material adverse effect on the business, results of operations, financial condition and prospects of the Group.

## **5 RISKS RELATING TO THE SHARES**

### **Investment in publicly quoted securities**

Prospective investors should be aware that the value of Shares may go down as well as up and that the market price of Shares may not reflect the underlying value of the Company. Investors may therefore realise less than, or lose all of, their investment.

### **Securities investments and share market conditions**

The price at which Shares are quoted and the price at which investors may realise their Shares may be influenced by a significant number of factors, some specific to the Group and its operations and some which affect quoted companies generally. These factors could include the performance of the Group, large purchases or sales of Shares, legislative changes and general, economic, political or regulatory conditions.

Furthermore, the stock market, and in particular the market for exploration and mining companies may experience extreme price and volume fluctuations that may be unrelated or disproportionate to the operating performance of such companies. These factors may materially adversely affect the market price of the securities of the Company regardless of the Group's operational performance.

### **Takeovers**

The Company is subject to requirements for takeovers under Australian law which may affect a bidder's ability to freely acquire Shares. In particular, the Australian Foreign Acquisitions and Takeovers Act 1975 generally prohibits a "foreign person" (generally, any person or entity that is not an Australian resident but including any Australian company in which a "foreign person" has voting power of at least 20%, or two or more "foreign persons" hold an aggregate interest of at least 40%), together with its associates, from either directly or indirectly acquiring an interest in 20% or more of the Company's issued shares, without first giving notice to the Australian Treasurer through the Foreign Investment Review Board, and complying with certain other requirements, and either the Australian Treasurer having stated that there is no objection to the acquisition or a statutory period having expired without the Australian Treasurer objecting. Please see Section 12 of Part VIII of this document for further information about the restrictions imposed under these laws.

In addition, the Constitution contains provisions in relation to "proportional takeover bids" designed to protect Shareholders in the event that a bidder makes a bid for a proportion, but not all, of the Shares. Such provisions may affect a bidder's ability to freely acquire Shares. In particular, the Constitution provides that a majority of Shareholders in a general meeting must approve a proportional takeover bid in order for it to proceed. Please see Section 3 of Part VIII of this document for further details of the restrictions imposed under the Constitution.

### **There can be no assurance regarding the future development of the market for the Shares and liquidity**

There is a risk that trading in the Shares may be suspended from trading on the LSE or the ASX.

The Company's Shares may be delisted from the LSE or the ASX.

The Shares are listed on the ASX. Nevertheless, the past performance of the Shares on the ASX cannot be treated as indicative of the likely future development of the market and future demand for the Shares. The lack of a liquid public market for the Shares on the ASX and/or London Stock Exchange may have a negative effect on the ability of shareholders or investors to sell their Shares, or adversely affect the price at which the holders are able to sell their Shares. There can be no assurance as to the liquidity of any trading in the Shares, or that the Shares will be actively traded on the ASX or the London Stock Exchange in the future.

**Dual listing of the Shares will result in differences in liquidity, settlement and clearing systems, trading currencies, prices and transaction costs between the exchanges where the Shares will be listed. These and other factors may hinder the transferability of the Shares between the two exchanges**

The Shares are listed on the ASX. An application will be made to list the Shares on the London Stock Exchange. Consequently, the trading in and liquidity of the Shares will be split between these two exchanges. Moreover, the price of the Shares may fluctuate, and may at any time be different on the ASX and the London Stock Exchange and vice versa. Differences that occur in settlement and clearing systems, trading currencies, transaction costs and other factors may hinder the transferability of the Shares between the exchanges. This could adversely affect the trading of the Shares on these exchanges and increase their price volatility and/or adversely affect the price and liquidity of the Shares on these exchanges.

The Shares are quoted and traded in Australian Dollars on the ASX. The Shares will be quoted and traded in Pounds Sterling on the London Stock Exchange. The market price of the Shares on those exchanges may also differ due to exchange rate fluctuations. The shares traded on the ASX are settled and cleared through the ASX Settlement. The shares traded on the London Stock Exchange will be settled and cleared through CREST.

**Impact of securities or industry analysts**

Both the market price and trading volume of the Shares may depend on the opinions of the securities analysts monitoring the operations of the Group and publishing their research reports on its future performance. The Company has no control over these analysts, who may downgrade their recommended prices for the Shares at any time, issue opinions which are not in conformity with the Board's view, or may drop coverage of the Company altogether.

All the above-mentioned events may have an adverse impact on the trading volume and price of the Shares.

**The Company may not be able to pay dividends**

The Company has paid dividends on its Shares for each of the last 3 full financial years ending 30 June. The Company's policy anticipates a minimum annual dividend payment equivalent to the value of 2% of the Group's annual gold sales, provided that all operating and reasonable corporate and exploration expenses can be funded. The declaration and payment of future dividends remains fully at the discretion of the Board after taking into account a number of factors, including, but not limited to, the Company's financial and operating results, anticipated current and future cash requirements, future opportunities and prospects, general financial conditions and other factors deemed relevant.

**The ability of a Shareholder to bring or enforce an action against the Company may be limited under law**

The Company is incorporated under the laws of Australia. The majority of the Directors and officers reside outside the United Kingdom and all or a substantial portion of the Company's assets and the assets of the majority of the Directors and officers are located outside the United Kingdom. As a result, it may not be possible for investors to effect service of process within the United Kingdom upon the Company or the majority of the Directors and officers or to enforce against them in Australia, Western Australia any judgments of the courts of England and Wales including judgments predicated upon the civil liability provisions of the UK or European securities laws. The ability of a Shareholder to bring an action against the Company may be limited under law. The rights of Shareholders are governed by the laws of Australia and the Constitution. These rights may differ from the rights of shareholders in a typical company incorporated in England and Wales.

**Shareholders may be subject to risks arising from adverse movements in the value of their local currency against the Australian Dollar**

The Shares have no nominal value, and will be quoted and traded:

- (i) in pounds sterling on the LSE; and
- (ii) in Australian Dollars on ASX.

In addition, any potential dividends the Company may pay in the future will be declared and paid in Australian Dollars. Shareholders buying shares on the LSE should take into account a potential risk arising from adverse movements in the value of their local currency against the Australian Dollar.

**Non-Australian shareholders may have difficulties exercising rights which are governed by Australian law**

The Company is organised and exists under Australian law. Accordingly, the rights and obligations of the Company's shareholders are regulated by Australian corporate law and the Company's shareholders must follow Australian legal requirements in order to exercise their rights, in particular the resolutions of the shareholders in a general meeting may be passed with majorities different from the majorities required for the adoption of equivalent resolutions under English law or other laws. Additionally, to the extent that pre-emptive rights are granted, shareholders in the Company in some jurisdictions may experience difficulties, or may be unable to exercise their pre-emptive rights. Should the Company's share capital be increased in the future, the Company's shareholders who will not exercise their priority right to subscription of new shares should take into account that their interest in the Company's share capital may be diluted upon the issuance of new shares.

Furthermore, the Company's shareholders holding their Shares through CREST should also take into consideration the arrangements between CHESS and CREST, as well as CREST rules governing settlement of securities in non-UK registered companies (for details see Section 4 in Part VII of this Prospectus) in this respect. As a result, the exercise of certain shareholder rights may be more difficult or costly than the exercise of rights in other companies listed on the London Stock Exchange.

## **6 RISKS RELATING TO TAX**

### **Tax treatment of non-Australian investors in an Australian company may vary**

The Company is organised and exists under the laws of Australia and, as such, the Australian tax regime applies to the distribution of profit and other payments from the Company to its shareholders. The taxation of income from such payments, as well as other income, for instance, from the sale of the Shares, may vary depending on the tax residence of the shareholder, as well as the existence and provisions of double tax treaties between a shareholder's country of residence and Australia. Tax provisions applying to particular shareholders may be unfavourable and/or may change in the future, in a way which has an adverse effect on the tax treatment of a shareholder's holding of the Shares.

### **Tax Status**

Any change in the Group's tax status or in taxation legislation in any jurisdiction in which the Group operates could affect the Group's profitability and ability to make returns to shareholders.



## 7 IMPORTANT INFORMATION

### Forward Looking Statements

Some of the statements in this document include forward looking statements which reflect the Directors' current views with respect to financial performance, business strategy, plans and objectives of management for future operations (including development plans relating to the Group's products and services). These statements include forward looking statements both with respect to the Group and the sectors and industries in which the Group operates. Statements which include the words "expects", "intends", "plans", "believes", "projects", "anticipates", "will", "targets", "aims", "may", "would", "could", "continue" and similar statements are of a future or forward looking nature.

All forward looking statements address matters that involve risks and uncertainties. Accordingly, there are or will be important factors that could cause the Group's actual results to differ materially from those indicated in these statements. These factors include but are not limited to those described in the part of this document entitled "Risk Factors", which should be read in conjunction with the other cautionary statements that are included in this document. Any forward looking statements in this document reflect the Directors' current views with respect to future events and are subject to these and other risks, uncertainties and assumptions relating to the Group's operations, results of operations and growth strategy.

These forward looking statements speak only as of the date of this Prospectus. Subject to any obligations under the Prospectus Rules, the Listing Rules, the ASX Listing Rules, MAR or the DTRs, the Company undertakes no obligation to publicly update or review any forward looking statement, whether as a result of new information, future developments or otherwise. All subsequent written and oral forward looking statements attributable to the Group or individuals acting on behalf of the Group are expressly qualified in their entirety by this paragraph. Prospective investors should specifically consider the factors identified in this document which could cause actual results to differ before making an investment decision.

Investors should note that the contents of these paragraphs relating to forward-looking statements do not qualify the statement made as to working capital in Section 17 of Part VIII of this document.

### Third party information

Where information contained in this document has been sourced from a third party, the Company and the Directors confirm that such information has been accurately reproduced and, so far as they are aware and have been able to ascertain from information published by third parties, no facts have been omitted which would render the reproduced information inaccurate or misleading. The sources of such third party information have been disclosed at the location in this Prospectus where such third party information is presented.

### Presentation of financial and other information

The Company publishes its financial statements in Australian Dollars.

The following exchange rates have been used throughout this Prospectus for information extracted from the historical financial information:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
Closing (AUD/USD)	0.7053	0.7800	0.7403	0.7686	0.7440
Average (AUD/USD)	0.7240	0.7791	0.7752	0.7537	0.7282
Closing (AUD/EUR)	0.6110	0.6515	0.6336	0.6728	0.6701
Average (AUD/EUR)	0.6286	0.6623	0.6498	0.6916	0.6560

For all other financial information, unless otherwise indicated, the following exchange rate has been used:

A\$1 : US\$0.6913, being the exchange rate at the Latest Practicable Date.

The financial information on the Group set out in this document has, unless otherwise indicated, been extracted from the Group's audited consolidated statement of financial position and consolidated statements of profit or loss and other comprehensive income, cash flows and changes in equity and related notes as of and for the years ended 30 June 2016, 2017, 2018, and audited financial statements for the half-year ended 31 December 2018, set forth in Appendix 1 of this Prospectus. Audited financial statements for the six-month period ended 31 December 2018 were prepared as part of the Group's change in financial year-end to 31 December. The financial information as at and for the year ended 30 June 2016 set forth herein has, unless otherwise indicated, been derived from the 2016 Financial Report. The Group noted a misstatement in the valuation of the GIC book value as at 30 June 2016 in the preparation of the Half Year Report for the six-months ended 31 December 2016. The carrying value of GIC as at 30 June 2016 disclosed as comparative financial information in the 30 June 2017 Financial Report was restated. Accordingly, in certain instances, namely where specific financial statement line items have been impacted by the misstatement in the GIC book value, financial information as at and for the year ended 30 June 2016 have been derived from the 2017 Financial Report.

The financial statements were prepared in accordance with Australian Accounting Standards and comply with IFRS. The financial statements for the years ended 30 June 2016, 2017, 2018 and the financial statements for the six-month period ending 31 December 2018 were audited by the Company's independent auditors at the relevant time, Ernst & Young, in accordance with Australian Auditing Standards. Ernst & Young were a member of the Chartered Accountants Australia and New Zealand at the relevant time. The liability of Ernst & Young with respect to civil claims (in tort, contract or otherwise) arising out of its audits of the financial statements of the Group included in this Prospectus is limited by the Chartered Accountants Australia and New Zealand Professional Standards Scheme (NSW) approved by the Professional Standards Council or such other applicable scheme approved pursuant to the Professional Standards Act 1994 (NSW), including the Treasury Legislation Amendment (Professional Standards) Act 2004 (Cth).

Certain figures contained in this document, including financial information, have been subject to rounding adjustments. Accordingly, in certain instances, the sum of the numbers in a column or a row in tables contained in this document may not be the precise arithmetic sum of the figures that precede them.

### **References to defined terms**

Certain terms used in this document, including certain capitalised terms and certain technical and other terms, are defined in Part IX of this document.

### **Consequences of a standard listing and summary of the differences between standard and premium categories of listing**

Application will be made for all of the Shares to be admitted, to the Official List pursuant to Chapter 14 of the Listing Rules which sets out the requirements for standard listings.

As a company with a standard listing, the Company will not be required to comply with the provisions of, amongst other things:

- Chapter 7 of the Listing Rules setting out the Premium Listing Principles as contained in Listing Rule 7.2.1A that companies with a standard listing are not required to comply with.
- Chapter 8 of the Listing Rules regarding the appointment of a listing sponsor to guide the company in understanding and meeting its responsibilities under the Listing Rules in connection with certain matters. The Company has not appointed and does not intend to appoint such a sponsor in connection with the Admission.

- Chapter 9 of the Listing Rules regarding continuing obligations in relation to companies with a premium listing that companies with a standard listing are not required to comply with.
- Chapter 10 of the Listing Rules relating to significant transactions. Nonetheless, the Company is required under Chapter 11 of the ASX Listing Rules to consult with ASX and (in certain circumstances), seek shareholder approval before making a significant change to the nature of its activities, disposing of its main undertaking or disposing of its major assets.
- Chapter 11 of the Listing Rules regarding related party transactions. Nonetheless, the Company is required to comply with Chapter 10 of the ASX Listing Rules which require that the Company not enter into any transaction with a person of influence relating to the acquisition or disposal of any substantial assets of the Company, not issue securities to a related party and not make certain payments to related parties without seeking shareholder approval.
- Chapter 12 of the Listing Rules regarding purchases by the Company of Shares. Nonetheless, the Company must comply with the Australian Corporations Act 2001 and the ASX Listing Rules in relation to any purchases of its own shares which require that the Company seek shareholder approval to purchase of Shares, subject to minimal exceptions.
- Chapter 13 of the Listing Rules regarding the form and content of circulars to be sent to shareholders. However, the Company is required to comply with the requirements of the ASX Listing Rules, which contain certain obligations in relation to the form and content of any notices of meeting sent to its shareholders where shareholder approval is being sought pursuant to an ASX Listing Rules.

In addition to the above, standard listed companies are not required to comply with the below eligibility and ongoing requirements for a premium listing:

- Companies with a standard listing are not required to: (i) exercise operational control over the business it carries on as its main activity; or (ii) carry on an independent business as their main activity.
- The UK Corporate Governance Code does not apply directly to companies with a standard listing. The ASX Corporate Governance Council's Corporate Governance Principles and Recommendations apply to the Company. However, pursuant to paragraph 7.2 of the DTRs, companies with a standard listing are still required to make a statement in the directors' report covering the governance code to which the issuer is subject in relation to the financial reporting process and certain details of its share capital. The directors of companies with a standard listing are also required to include a description of the internal control and risk management systems and the composition of committees. The Company will comply with such requirements set out in DTR 7.2.
- A standard listing does not require a company to offer pre-emption rights pursuant to the Listing Rules. However, the Company will be required to comply with the ASX Listing Rules which require (among other things) that it seek shareholder approval before issuing shares representing more than 15% (or 25% in certain circumstances) of its expanded share capital in any 12 month period (subject to certain exceptions).

In addition, companies with a standard listing are not eligible for inclusion in the UK series of FTSE indices.

### **Application of the City Code on Takeovers and Mergers**

The Company is incorporated in, has its registered office and is resident in Australia. Accordingly, transactions involving the Shares will not be subject to the provisions of the City Code which regulates takeovers in the UK. However, Chapter 6 of the Australian Corporations Act 2001 contains provisions that are similar or analogous to certain provisions of the City Code.

The Company is subject to requirements for takeovers under the Australian Corporations Act 2001 and other applicable Australian law which may affect a bidder's ability to freely acquire Shares.

### **Australian takeover regulations**

The takeover provisions of the Australian Corporations Act 2001 apply to dealings in the Shares and other securities in the Company. Subject to certain exceptions, the Australian Corporations Act 2001 prohibits the acquisition of a relevant interest in the voting shares of an Australia company that is either listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders if, as a result of the acquisition, the voting power of the acquirer (or any other person) in the company would increase from 20% or below to more than 20%. Similarly, such an acquisition is forbidden if any person who already has more than 20% but less than 90% of the voting power increases their voting power in the target company. However, it is not mandatory for a person who exceeds these thresholds to make a takeover bid for all the shares in the relevant company.

A person's voting power for these purposes is equal to the aggregate relevant interest of the person and their associates in the voting shares of the relevant company. In relation to the Company, the Shares are the only class of voting shares in the Company.

A person has a relevant interest in a share if they have the power to control disposal of that share or to control the exercise of the right to vote in respect of that share. A person also has a relevant interest in any share held by a body corporate or managed investment scheme they control or in which they have voting power above 20%. These concepts are broad and, for example, a person can have a relevant interest and voting power in a share as a result of an agreement to purchase the share (even a conditional agreement) or a call option to acquire the share.

There are several exceptions which allow acquisitions which would otherwise be prohibited from taking place. These exceptions include acquisitions (provided certain requirements are met):

- under a formal takeover offer in which all shareholders can participate;
- with the approval of a majority of shareholders who are not parties to the transaction, given at a general meeting of the company;
- in 3% increments every six-months (provided that the acquirer has had voting power of at least 19% in the company at all times during the six-months prior to the acquisition);
- pro rata offers of new shares in which all shareholders can participate; or
- by an underwriter or sub-underwriter to offers of securities in the company in certain circumstances.

Please see Section 12 of Part VIII below for further details.

### **WEBSITE**

The contents of the Company's website, [www.rml.com.au](http://www.rml.com.au), do not form part of this document. Investors should base their decision whether or not to invest in the Shares on the contents of this document alone.

### **PRESENTATION OF MARKET AND OTHER DATA**

Market and economic data used throughout this document is sourced from various independent sources. The Company and the Directors confirm that such data has been accurately reproduced and, so far as they are aware and are able to ascertain from information published from such sources, no facts have been omitted which would render the reproduced information inaccurate or misleading.

## **8 EXPECTED TIMETABLE OF PRINCIPAL EVENTS**

*Each of the times and dates is subject to change without further notice. Reference to a time of day are to London time.*

Publication of this Prospectus	17 June 2019
Admission and commencement of dealings on the London Stock Exchange	8:00am London Time on 20 June 2019

### **DEALING CODES**

ISIN for the Shares	AU000000RSG6
SEDOL for Shares	BGQ0FZ5
LEI for Shares	254900MP8JONT590XY28
Ticker code for the Shares on ASX/LSE	RSG

### **NO ACTION TO BE TAKEN BY SHAREHOLDERS**

Shareholders are not required to take any action upon receipt of this Prospectus, which is being made available publicly for information purposes only.

This Prospectus has been published solely to enable the Company to obtain Admission of the Shares to the standard listing segment of the Official List and to trading on the London Stock Exchange's Main Market in the United Kingdom.

## 9 DIRECTORS, SECRETARY, REGISTERED OFFICE AND ADVISERS

Directors	Marthinus Botha	Non-Executive Chairman
	John Welborn	Managing Director & CEO
	Yasmin Broughton	Non-Executive Director
	Mark Potts	Non-Executive Director
	Sabina Shugg	Non-Executive Director
	Peter Sullivan	Non-Executive Director
Further information on the Directors is contained in Part III of this document		
Company Secretary	Amber Stanton	
Registered Office and Principal Place of Business	Level 2, 15 – 17 William Street Perth WA 6000	
UK Solicitors to the Company	Bryan Cave Leighton Paisner LLP Adelaide House London Bridge EC4R 9HA United Kingdom	
Australian Solicitors to the Company	DLA Piper Level 31, Central Park 152-158 St Georges Terrace Perth WA 6000 Australia	
Auditors to the Company	Ernst & Young (in respect of the financial years ended 30 June 2016, 30 June 2017, 30 June 2018 and for the half year ended 31 December 2018)	
	11 Mounts Bay Road Perth WA 6000 Australia	
Competent Persons	Optiro Pty Limited 1/16 Ord St, West Perth WA 6005, Australia	
Australian Registrars	Computershare Investor Services Pty Ltd Level 11, 172 St Georges Terrace Perth WA 6000	
UK Registrars	Computershare Investor Services Plc The Pavilions Bridgwater Road Bristol BS13 8AE	

## **Part I**

### **Information on the Group**

#### **1 INTRODUCTION**

The Company is an established gold producer with operations in Africa and Australia and its registered office in Perth, Western Australia.

The Syama Gold Mine, which is the Group's principal operating mine, for which a substantial portion of the Group's revenue in the next 12 months are dependent, is a remote mine site with extensive supply lines supporting operations and relatively poor transport infrastructure. The risk of any interruption to the supply chain may result in shortage or absences of key materials and consumables causing delays or suspension of production, which could have a material adverse effect on the Group's business, prospects, financial condition and results of operations, which are dependent on operations at the Syama Gold Mine.

The Group also owns the Ravenswood Gold Mine in Australia and the Bibiani Gold Mine in Ghana.

For the 12-month period ending 30 June 2019, the Group expects to produce 300,000 ounces ("oz") of gold (in aggregate) from production at the Syama Gold Mine and the Ravenswood Gold Mine at an All-In Sustaining Cost ("AISC") of US\$960/oz (A\$1,280/oz). The Group has a pathway to annual gold production in excess of 500,000oz in the medium-term from a Global Mineral Resource base of 16.8 million ounces ("Moz") of gold (as at 31 December 2018 with the exception of the Tabakoroni Mineral Resource which is stated as at 31 March 2019 following re-estimation work).

The Group also has a portfolio of strategic investments in African-focused gold exploration companies which provides the Group with exposure to a pipeline of future development opportunities, in addition to any external business development opportunities that may arise. The Group is currently commissioning the world's first fully automated underground gold mine at the Syama Underground Mine with the intention to deliver a low cost, large scale operation with a mine life beyond 2032. The Ravenswood Gold Mine has historically been an integral part of the Group's business for more than a decade. At the Ravenswood Gold Mine, mining operations at Mt Wright Underground Mine will cease during the December 2019 Quarter as the Group takes steps to potentially transition to a large scale, low cost open pit mining operation which will, if undertaken, extend the mine life to at least 2032 as part of the Ravenswood Expansion Project. Proceeding with the Ravenswood Expansion Project is dependent on Board approval which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company. Concurrently, the Group is undertaking a strategic review of the Ravenswood Expansion Project which is seeking to target increased potential production through an optimised development plan. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter.

The Bibiani Gold Mine is a potential long life, high margin operation and represents a growth opportunity for the Group. The Company is yet to evaluate its funding alternatives for Bibiani and as such, the Board is yet to make a decision with respect to a potential re-start of the Bibiani Gold Mine. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

A portfolio of strategic investments in African-focused gold exploration companies has been established to provide a pipeline of future development opportunities, in addition to any external business development opportunities that may arise.

#### **2 HISTORY OF THE COMPANY**

The Company is an Australian public company limited by shares that was incorporated on 8 June 2001 and admitted to the Official List of ASX on 20 September 2001. The Company has a long operating history, being the successor to Resolute Limited following a merger pursuant to a scheme of arrangement with Resolute Limited. The Company is incorporated under the Australian Corporations Act 2001 with an Australian Company Number of 097 088 689. The Company is a 'disclosing entity' for

the purposes of the Australian Corporations Act 2001 and is therefore subject to regular reporting obligations under the Australian Corporations Act 2001. The Company has also been subject to continuous disclosure obligations under the ASX Listing Rules since its admission to the Official List of ASX in 2001.

Below is a brief historical summary of the Company:

- Resolute Limited was incorporated on 22 June 1983, originally named Samantha Exploration NL, operating various mines through its history.
- The Company was incorporated on 8 June 2001 and on 22 June 2001 announced a proposed corporate reorganisation with Resolute Limited whereby the Company would become the new holding company for the corporate group under a simplified corporate and capital structure. The reorganisation was implemented pursuant to a scheme of arrangement whereby the Company merged with Resolute Limited.
- In March 2004, the Group acquired the Ravenswood Gold Mine.
- In April 2004, the Group acquired the Syama Gold Mine.
- In the second half of 2008, mining recommenced at the Syama Gold Mine.
- In 2013, the Group acquired the Bibiani Gold Mine.
- Capital Raising: on 28 September 2016, the Group completed an institutional placement of 76.5 million new Shares to raise A\$150 million (before expenses).

Further information on the Group's assets is set out in Section 3 of this Part 1.

### **3 BUSINESS OVERVIEW**

The Group owns 3 gold mines – the Syama Gold Mine in Mali, the Ravenswood Gold Mine in Australia and the Bibiani Gold Mine in Ghana. Details on each of these projects is set out below in Sections 3.1 to 3.3 respectively. In addition, the Group has a portfolio of minority investments in African-focused gold explorers.

Approximately 70% of the ore mined by the Group for the 9 months through to 31 March 2019 was mined at the Syama Gold Mine with 1.68Mt of ore being sourced from the Syama Underground Mine and the Tabakoroni Open Pit Mine. 0.7Mt of ore was mined at the Mt Wright Underground Mine at the Ravenswood Gold Mine. In terms of ore processed over this period, 2.75Mt of ore was processed at Syama Gold Mine and 1.75Mt of ore was processed at Ravenswood Gold Mine. The difference between ore mined and ore processed relates to ore sourced from existing stockpiles. In terms of overall production for the period, 177,860oz were produced from the Syama Gold Mine while 49,444oz were produced at the Ravenswood Gold Mine. Further details of the Syama Gold Mine and the Ravenswood Gold Mine are set out at paragraph 3.1 and paragraph 3.2 respectively of this Part I.

#### **3.1 Syama Gold Mine**

##### **3.1.1 Project Background and Location**

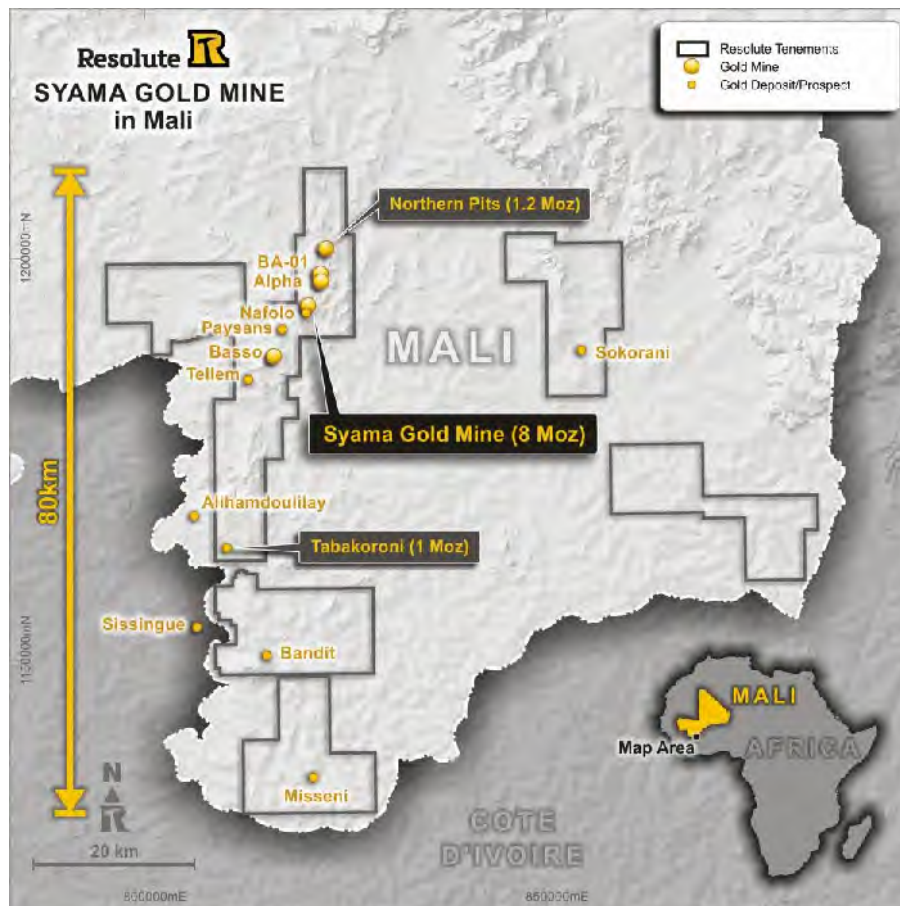
The Syama Gold Mine is the Group's principal project. SOMISY, a Malian subsidiary of the Group, is the 100% owner and operator of the Syama Gold Mine. The Company (through another subsidiary, Resolute (Somisy) Pty Ltd) has an 80% interest in SOMISY, while the Government of Mali holds the remaining 20%. The Group's Tabakoroni project is held by SOMIFI of which the Group currently owns 100% through its wholly owned subsidiary, Resolute (Finkolo) Pty Ltd. Under applicable Malian mining legislation, the Government of Mali is entitled to a 10% free carried interest in SOMIFI which Resolute (Finkolo) Pty will be required to transfer to it following a request in order for the Government to participate in the Tabakoroni project. The Government of Mali has not yet made such a request. The Government of Mali also has the right to purchase an additional 10% interest in cash. Further details



regarding the Government of Mali's participation in these projects is set out in paragraphs 1.4.2 and 1.4.4 of Part II of this document.

The Syama Gold Mine is situated in south-eastern Mali in West Africa, approximately 280 km southeast of the capital Bamako, and 800 km from the port of Abidjan in Côte d'Ivoire.

The Syama Gold Mine is within the district of Fourou, Kadiolo area, in the region of Sikasso. The major towns in the area are Kadiola and Sikasso. Kadiola, 55 km southeast, is the regional capital, while Sikasso, approximately 85 km to the northeast, is the second largest city in Mali.



**Figure 3.1.1.1: Syama Tenement Package**

Mining commenced at the Syama Gold Mine in 1990 by BHP. In October 1996, Randgold Resources Limited acquired the Syama Gold Mine from BHP and proceeded to operate the Syama Gold Mine until 2001 when it placed the mine on care and maintenance due to underperformance. The Group acquired the Syama Gold Mine in April 2004, and after completing a Preliminary Feasibility Study, mining recommenced in the second half of 2008. The Syama Gold Mine comprises the Syama open pit (where mining concluded in May 2015), the Syama Underground Mine where sublevel caving commenced in December 2018 and various satellite pits including the Tabakoroni Open Pit Mine which is located 35km from the Syama Gold Mine.

### 3.1.2 Mining

Mining activities are currently being undertaken at the Syama Underground Mine and the Tabakoroni Open Pit Mine.

Mining at the main Syama Open Pit concluded in May 2015. Development of the Syama Underground Mine commenced in September 2016 using a temporary in-pit portal. A twin decline access portal within a box cut adjacent to the open pit has now been established. Long hole stoping commenced in August 2018 while sublevel caving at the Syama Underground Mine commenced in December 2018.

The Syama Underground Mine is continuing to ramp-up and commercial production is targeted to be achieved in the September 2019 Quarter. Commercial production will be achieved once the Syama Underground Mine is functioning substantially in line with management's expectations in relation to overall performance and all material testing is complete.

### 3.1.3 Processing

There are two processing plants at the Syama Gold Mine – a 2.4Mtpa sulphide plant, which treats the fresh (sulphide) material from the Syama Underground Mine (and stockpiles) and a 1.5Mtpa oxide plant, designed to treat material from the Syama satellite pits and Tabakoroni.

The oxide circuit comprises separate crushing, grinding and leaching circuits while sharing the electrowinning circuit with the sulphide plant, which comprises flotation, concentrate roasting and leaching components.

The Group has commenced implementation of a series of processing upgrades with the objective of increasing the total sulphide gold recovery to 89% or above. While it has always been considered desirable to achieve sulphide (fresh ore) recoveries at these levels, it has not been operationally possible with the historic infrastructure, flowsheet, and operating model.

The initial programme ("**Project 85**"), which has now been commissioned, is expected to increase sulphide recoveries from 78% to a minimum of 85% on underground ore. Project 85 comprised of a series of sulphide processing plant upgrades aimed at delivering improved recoveries from high-grade ore sourced from the Syama Underground Mine. These upgrades included the introduction of a new calcine regrind and carbon-in-leach circuit as well as repurposing the existing calcine carbon-in-leach tanks and detox circuits.

Beyond Project 85, the Group has been working with Outotec, the manufacturer of the Syama Gold Mine roaster, in developing a new roaster technology that will produce a low carbon calcine with the aim of further improving CIL recovery. This new technology will allow the Group to modify the current single-stage Circulating Fluidised Bed Roaster into a Low Carbon Roaster ("**LCR**"). The introduction of the LCR is expected to increase sulphide recoveries to at least 89%.

At the Syama Gold Mine, gold is smelted onsite as dore bars. The bars are shipped offsite by armoured transport to a gold refinery in Switzerland where refining is completed under routine commercial terms.

Gold credits are transferred to the Perth Mint in Australia after subtraction of the refining costs. Some credits are received for silver where the content exceeds a specified percentage.

### 3.1.4 Production and Costs

For the period from 1 July 2018 to 31 March 2019, gold at the Syama Gold Mine has been produced from a combination of ore sourced from the Syama Underground Mine, the Tabakoroni Open Pit Mine and pre-existing sulphide and oxide stockpiles. Sulphide stockpiles largely comprise of ore mined during the period of operation of the Syama Open Pit, which concluded in 2015. Oxide stockpiles have been built up from mining of a series of satellite deposits north of the Syama processing plant (BA01, Beta and Alpha). As the Syama Underground Mine ramps up to commercial production, the ore will be increasingly sourced from the Syama Underground Mine rather than from stockpiled ore.

The following table sets out the production and costs for the period from 1 July 2018 to 31 March 2019.

<b>March Year-to-Date (1 July 2018 to 31 March 2019)</b>	<b>Units</b>	<b>Syama Sulphide</b>	<b>Syama Oxide</b>	<b>Syama Total</b>
UG Lateral Development	m	7,255	-	7,255
UG Vertical Development	m	202	-	202
Total UG Lateral Development	m	7,457	-	7,457
UG Ore Mined	t	407,982	-	407,982
UG Grade Mined	g/t Au	2.57	-	2.57
OP Operating Waste	BCM	-	3,592,781	3,592,781
OP Ore Mined	BCM	-	600,694	600,694
OP Grade Mined	g/t Au	-	2.49	2.49
Total Ore Mined	t	407,982	1,273,491	1,681,473
Total Tonnes Processed	t	1,371,605	1,102,427	2,474,032
Grade Processed	g/t Au	1.73	4.12	2.79
Recovery	%	69.8	85.1	76.6
Gold Recovered	oz	53,130	128,741	181,871
Gold in Circuit Drawdown/(Addition)	oz	(2,510)	(1,501)	(4,011)
Gold Produced (Poured)	oz	<b>50,620</b>	<b>127,240</b>	<b>177,860</b>
Gold Bullion in Metal Account Movement (Increase)/Decrease	oz	8,879	(7,561)	1,318
Gold Sold	oz	59,499	119,679	179,178
Achieved Gold Price	A\$/oz	1,765	1,765	1,765
	US\$/oz	1,266	1,266	1,266
<b>Cost Summary</b>				
Mining	A\$/oz	-	339	242
Processing	A\$/oz	921	237	432
Site Administration	A\$/oz	496	148	247
Stockpile Adjustments	A\$/oz	57	(4)	13
Gold in Circuit Movement	A\$/oz	(72)	(10)	(27)
Cash Cost	A\$/oz	<b>1,402</b>	<b>710</b>	<b>907</b>
	US\$/oz	<b>1,009</b>	<b>511</b>	<b>653</b>
Royalties	A\$/oz	108	107	107
By-Product Credits	A\$/oz	(4)	-	(1)
Sustaining Capital + Others	A\$/oz	20	5	9
Administration Cost Recharged to Site	A\$/oz	45	24	30
Corporate Administration Costs	A\$/oz	-	-	-
All-In Sustaining Cost (AISC) AISC is calculated on gold produced (poured)	A\$/oz	<b>1,571</b>	<b>846</b>	<b>1,052</b>
	US\$/oz	<b>1,131</b>	<b>609</b>	<b>758</b>
Depreciation and Amortisation	A\$/oz	122	75	90

**Table 3.1.4.1: Production and Cost Summary for the Syama Gold Mine from  
1 July 2018 to 31 March 2019**

### 3.1.5 Feasibility Study Summary

In July 2018, the Company released an updated feasibility study for the Syama Underground Mine which outlined key operating parameters (Syama Feasibility Study Update). The Syama Feasibility Study Update provided that the Syama Underground Mine would produce 3.042Moz of gold (contained) over a 14-year life of mine at an AISC of US\$746 per ounce. The operating parameters are set out in Table 3.1.5.1 below.

	Unit	Metric
<b>Underground Development</b>		
Decline development	m	10,869
Vertical development	m	3,738
Level development	m	81,928
Total development	m	96,465
<b>Ore Production</b>		
Development ore	kt	3.319
Stoping ore	kt	31,870
Total ore	kt	35,188
Metal grade (ROM)	g/t Au	2.69
Metal contained (ROM)	koz	3,042
<b>Metal Recovery</b>		
Processing recovery	%	89%
Metal (recovered)	koz	2,697
<b>Operating Unit Costs (including pre-production)</b>		
Mining	US\$/t	19.9
Processing	US\$/t	19.4
G&A	US\$/t	4.9
Royalty, refining costs & silver credits	US\$/t	5.8
<b>Operating and Capital Costs</b>		
Sustaining capital	US\$m	255
AISC	US\$/oz	746

**Table 3.1.5.1 Syama Underground Key Operating Metrics**

### 3.1.6 Automation

The Group is in the process of commissioning a fully automated mining system at the Syama Underground Mine. The automated system spans drilling, bogging, loading and haulage and is on schedule to be fully commissioned in the second half of 2019. The Group has introduced automated long hole production drilling and automated loading, with automated haulage to be introduced in the September 2019 Quarter.

The key benefits that have been identified for automation include:

- increased machine productivity and performance;
- reduction in number of machines required leading to capital and maintenance savings;
- reduced risk and better safety outcomes;
- reduction in required personnel underground;
- lower production costs per tonne;
- greater control of mining, with less variation which results in less dilution;
- reduction in equipment wear and damage;
- increased productivity and efficiency and optimised scheduling;
- greater machine life; and
- opportunity for mining rate increases without the requirement for additional infrastructure.

The Group, in partnership with Sandvik, is introducing a fleet of autonomous loaders and trucks for stope production at the Syama Gold Mine. The Syama Gold Mine autonomous fleet will comprise five Sandvik TH663 (63 t) trucks and a combination of LH621, LH517 and LH514E loaders (totalling five). The autonomous fleet will service ore passes and utilise a standalone decline. Drilling will also be carried out by automated longhole drill rigs which utilise automated drill bit changing as well.

The fleet will be managed using the Sandvik AutoMine and OptiMine systems for planning, analysis, process optimisation and automation.

### 3.1.7 Infrastructure

#### **Site Access**

As a fully operational mine site, the Syama Gold Mine has a well-established road network within the site and well-established roads from the site connecting it to the local villages and major roads of Mali as well as an airstrip.

Access to the Syama Gold Mine is via formed gravel road off the sealed Sikasso to Côte d'Ivoire highway through Kadiola and then Fourou to site. Most consumables and supplies use this route as it can be approached either from Côte d'Ivoire through the border post at Zegoua, or alternatively from Burkina Faso and Togo through Sikasso. The road north through Bananso to Farakala, on the main highway from Bamako to Sikasso, provides an alternate and shorter route to Bamako. This road is generally impassable during the wet season when the low level "bridge" at Bananso is covered with water.

There is also a local airstrip facility with three scheduled flights per week (Bamako – Syama – Accra, Accra – Syama – Bamako).

#### **Buildings**

Supporting infrastructure on site consists of a large stores complex, large workshop complexes for fixed plant and open pit mobile plant, office complexes for processing staff, for mining staff (houses both contractor and SOMISY personnel), sample preparation and analysis laboratory, medical centre, administration office complex, air strip and accommodation for housing expatriate and senior national staff.

#### **Water Supply**

The primary storage of raw water is within the old Beta and Alpha open pits. These pits are replenished via water pumped from the Bagoie River and the underground workings during the wet season. Access to water from the Bagoie River is restricted during the dry months. The current water supply strategy has demonstrated itself to be effective for the needs of the operation and is expected to continue.

#### **Power Supply**

The Group currently operates a 34MW diesel fired power station at the Syama Gold Mine. The Syama power station was originally established by BHP and contains a fleet of diesel generators which have been progressively expanded to meet operational requirements. The current configuration consists of two 5MW Allen units and a series of smaller Caterpillar and Cummins units. Total available power at Syama Gold Mine from these units is approximately 34MW. The sulphide processing plant is the main user of power at the Syama Gold Mine at a projected 18MW, with underground operations expected to utilise 8MW at peak production, and between 5MW and 6MW during steady state operation.

In November 2018, the Group announced that it had signed a Joint Development Agreement with Ignite Energy Projects Pty Ltd for the development of a 50MW hybrid power plant which will combine solar, battery and heavy fuel oil technologies. The new hybrid power plant will be funded and constructed under an independent power producer model whereby Ignite Energy, under the terms of an exclusive power purchase agreement, will be responsible for the design, construction, ownership, funding and operation of the new hybrid power plant. The addition of a component of low-cost power

from Solar PV, and the use of batteries to provide spinning reserve and manage loads more efficiently, is projected to result in a substantial reduction in the Syama Gold Mine power costs. Power costs at the Syama Gold Mine are expected to reduce by up to 40%, materially improving operating costs, particularly in reducing the sulphide processing cost.

### 3.1.8 Mineral Resource and Ore Reserve Estimate

The Syama Mineral Resources and Ore Reserves and Competent Person's Reports have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

The most recent Mineral Resources for the Syama Gold Mine are reported as at 31 December 2018, which are presented in Table 3.1.8.1. Subsequent to 31 December 2018, an update to the Mineral Resource estimate for Tabakoroni was completed. The declared Mineral Resource for Tabakoroni as at 31 March 2019 is presented in Table 3.1.8.2.

Please refer to the Competent Person's Report in Appendix 2 of this Prospectus and the Competent Person's Statement in relation to the Mineral Resources and Ore Reserves.

	Measured			Indicated			Inferred			Total		
	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)
Syama UG	8,740	3.3	930	44,390	3.2	4,580	5,650	2.8	500	58,780	3.2	6010
Syama stockpiles	100	2.5	10	2,270	1.3	100	0	0.0	0	2,360	1.4	100
<b>Sub-total (sulphide)</b>	<b>8,840</b>	<b>3.3</b>	<b>930</b>	<b>46,660</b>	<b>3.1</b>	<b>4,680</b>	<b>5,650</b>	<b>2.8</b>	<b>500</b>	<b>61,140</b>	<b>3.1</b>	<b>6,110</b>
Satellite deposits	0	0.0	0	6,840	2.1	460	1,450	2.2	100	8,290	2.1	560
Stockpiles (satellite deposits)	970	1.4	40	1,630	1.1	60	50	1.1	0	2,650	1.2	100
<b>Sub-total satellite deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>8,470</b>	<b>1.9</b>	<b>520</b>	<b>1,500</b>	<b>2.1</b>	<b>100</b>	<b>10,940</b>	<b>1.9</b>	<b>660</b>
Tabakoroni OP	2,800	2.9	260	3,770	2.2	280	3,180	2.0	200	9,740	2.4	740
Tabakoroni Stockpiles	320	2.1	20	0	0.0	0	0	0.0	0	320	2.1	20
<b>Sub-total Tabakoroni</b>	<b>3,120</b>	<b>2.8</b>	<b>280</b>	<b>3,770</b>	<b>2.2</b>	<b>280</b>	<b>3,180</b>	<b>2.0</b>	<b>200</b>	<b>10,060</b>	<b>2.3</b>	<b>760</b>
Historical tailings	0	0.0	0	0	0.0	0	17,000	0.7	360	17,000	0.7	360
<b>Total</b>	<b>12,920</b>	<b>3.0</b>	<b>1,250</b>	<b>58,900</b>	<b>2.9</b>	<b>5,480</b>	<b>27,320</b>	<b>1.3</b>	<b>1,170</b>	<b>99,140</b>	<b>2.5</b>	<b>7,900</b>

**Table 3.1.8.1 Syama Mineral Resources as at 31 December 2018**

Notes:

1. Mineral Resources include Ore Reserves. Differences may occur due to rounding.
2. Mineral Resources are on a 100% managed basis. Totals may not sum due to rounding. Tabakoroni is reported as at 31 March 2019 as a result of re-estimation work which was undertaken following major drilling program.
3. The Syama Gold Mine underground and satellite deposit Mineral Resources are quoted above a 1.5g/t gold cut-off.
4. Resources for the Tabakoroni Open Pit are reported above a gold cut-off of 1.0g/t.

	Measured			Indicated			Inferred			Total		
	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)
Tabakoroni OP	540	5.2	90	410	5.1	70	0	3.4	0	950	5.2	160
Tabakoroni UG	130	4.7	20	1,680	5.2	280	3,360	5.1	550	5,170	5.1	850
Tabakoroni Stockpiles	190	3.1	20	0	0.0	0	0	0.0	0	190	3.1	20
<b>Sub-total Tabakoroni</b>	<b>860</b>	<b>4.7</b>	<b>130</b>	<b>2,090</b>	<b>5.2</b>	<b>350</b>	<b>3,360</b>	<b>5.1</b>	<b>550</b>	<b>6,310</b>	<b>5.1</b>	<b>1,030</b>

**Table 3.1.8.2 Tabakoroni Mineral Resources as at 31 March 2019**

Notes:

1. Differences may occur due to rounding.
2. Resources for the Tabakoroni Open Pit are reported above a gold cut off of 1.0g/t and above the life of mine pit design.
3. Resources for the Tabakoroni Underground are reported above a gold cut off of 1.5g/t and below the life of mine pit design.

4. Tabakoroni is reported as at 31 March 2019 as a result of re-estimation work which was undertaken following major drilling program.

### 3.1.9 Exploration

Recent exploratory work conducted by the Group has been dominated by extensive aircore, RC and diamond drilling programmes targeting areas previously identified by non-drilling exploration programs. An IP geophysical crew and equipment is based at the Syama Gold Mine and this is used for detailed surveys at particular locations when required. Infill soil geochemical surveys are conducted to provide more detailed data for targeting at particular deposits.

#### **Nafolo and Syama Deeps**

The Nafolo discovery is located immediately south of the Syama Mineral Resource where historic exploration drilling by BHP was limited to 500 m wide spaced lines of shallow (30 m) sterilisation reverse circulation drilling. A number of these holes confirm anomalous gold at surface, indicating significant untested space to potentially host another large gold deposit along the strike extensions of the Syama Shear.

The Syama Deeps drilling programme commenced in late 2015 with the ambition of substantially expanding the Syama Underground Mineral Resource. This drilling expanded the Syama resource substantially and in addition discovered the Nafolo deposit with step out drilling to the south of the Syama deposit.

Recent drilling has extended the Nafolo alteration and mineralisation footprint over a strike length of 700m and the deposit remains open downdip and to the south. Drilling results from Nafolo demonstrate potential expansions to the existing Syama Gold Mine plan from underground mining. The upper lens of Nafolo mineralisation is contiguous with the southern extensions of the main Syama Gold Mine mineralisation envelope. As such the Nafolo mineralisation can potentially be accessed from existing Syama Underground infrastructure and may form part of a future expanded mining operation.

Exploration is now focussed on looking for repetitions of the Nafolo zone to the south and north along the Syama shear. There is an unexplored 6km strike extension with favourable mineralisation positions to the south of Syama Gold Mine. Drilling along strike to the south has identified low grade zones of similar alteration and mineralisation to the Syama Gold Mine. This program will continue throughout CY2019.

#### **Tabakoroni**

Tabakoroni is a key focus exploration area for the Group. The potential for high grade sulphide mineralisation was initially identified during the drill out of the Group's existing Ore Reserves of surface oxide mineralisation at Tabakoroni. Drilling undertaken during 2018 returned wide zones of gold mineralisation at grades suitable for underground mining operations. A maiden Underground Resource at Tabakoroni was announced on 29 April 2019. The updated Mineral Resource estimate for Tabakoroni is 6.3Mt at 5.1g/t of gold for 1.03Moz of gold (net of depletion) inclusive of a maiden underground Mineral Resource of 5.2Mt at 5.1g/t of gold for 850,000oz of gold at a 1.5g/t of gold cut-off grade, representing a grade increase of 120% on previous estimates.

High grade gold mineralisation has now been intersected at Tabakoroni over a strike length of more than 1.5km. Mineralisation remains open at depth and along strike to the north. Drilling to date has outlined two zones of coherent high-grade mineralisation each with a strike length of 500m with widths averaging 10 metres. The combination of a strike length of over 1.5km and the fact that drilling to date has only tested the mineralised system to a depth of 250m below surface leads the Group to see excellent upside at Tabakoroni. Exploration drilling at Tabakoroni will continue throughout 2019 to fully define the resource envelope. The maiden resource forms the basis for initial studies of a future underground mine.

### 3.1.10 31 March 2019 quarterly update

On 30 April 2019, the Company announced an update on its operation in performance for the March 2019 Quarter:

- For the March 2019 Quarter, gold production was 98,105oz at an AISC of A\$1,039/oz (US\$740/oz)
- The average gold price received in the March 2019 Quarter was A\$1,791/oz (US\$1,276 oz) from total gold sales of 108,024oz
- Syama Underground Mine ramp-up continues with commercial production targeted for September 2019 Quarter
- New Mali Mining Convention signed which establishes improved fiscal and operating conditions for the Syama Gold Mine
- Mining Permit at the Syama Gold Mine extended for a further 10 years
- Updated Global Mineral Resources of 16.8Moz including Ore Reserves of 5.7Moz (as at 31 December 2018 with the exception of the Tabakoroni Mineral Resource which is stated as at 31 March 2019 following re-estimation work)
- Tabakoroni Resource Update confirms 1Moz of gold at 5.1g/t
- Cash, bullion and listed investments as at 31 March 2019 of A\$86m (US\$61m)
- Gold in circuit inventory as at 31 March 2019 of 67,612oz worth an additional A\$123m (US\$88m)
- FY19 guidance (to 30 June) of 300koz at A\$1,280/oz (US\$960/oz) maintained

### Operations Update

In addition, on 30 April 2019 the Company announced that gold production at the Syama Gold Mine during the March 2019 Quarter totalled 84,552oz at an AISC of A\$839/oz (US\$ 598 oz). The Syama Gold Mine quarterly production was up more than 50% on the December 2018 quarter comprising 71,186oz from Syama Oxide operations and 13,366oz from Syama Sulphide operations. The operations performance for the Syama Gold Mine for the March 2019 Quarter is set out in Table 3.1.10.1 below.

Period	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t Au)	Recovery (%)	Total Gold Production (oz)	Cash Cost (A\$/oz)	ISC (A\$/oz)
Sep Quarter	169,971	681,248	2.55	73.9	37,102	1,213	1,390
Dec Quarter	694,557	906,703	2.61	79.4	56,207	1,006	1,150
Mar Quarter	816,945	886,082	3.18	78.8	84,552	707	839
Year to Date	1,681,473	2,474,033	2.79	76.6	177,860	907	1,052

**Table 3.1.10.1: Syama Operations Performance**

### Sulphide Operations

Gold production from the sulphide circuit for the March 2019 Quarter of 13,366oz was 38% lower than the December 2018 Quarter (21,554oz). This was primarily due to a lower proportion of higher grade ore from the Syama Gold Mine being processed in the March 2019 Quarter. In the March 2019 Quarter, ore from Syama Underground Mine represented 18% of the feed compared to 33% in the December 2018 Quarter. Consequently, overall processed grades and recoveries were lower, which resulted in less gold being poured despite a similar number of tonnes being mined.



	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t)	Recovery (%)	Total Production (Gold oz)	Cash Cost (A\$/oz)	AISC (A\$/oz)
Sep Quarter	88,563	355,961	2.24	69.2	15,702	1,187	1,358
Dec Quarter	167,446	511,387	1.73	71.4	21,554	1,647	1,823
Mar Quarter	151,973	504,257	1.37	68.6	13,366	1,257	1,379
Year to Date	407,982	1,371,605	1.73	69.8	50,620	1,402	1,571

**Table 3.1.10.2: Syama Sulphide Production and Cost Summary**

### Oxide Operations

Gold production of 71,186oz was a record for the Syama oxide circuit in the March 2019 Quarter. The increased production relative to December 2018 Quarter as the result of a full quarter of mining and processing of ore from the Tabakoroni Open Mine. A zone of particularly high-grade ore in the centre of the deposit was mined at Stage 1 of the Namakan Pit Tabakoroni.

The deeper extensions of this zone and other areas of high-grade have been modelled as part of the estimation of the new Tabakoroni Underground Mineral Resource, the details of which were published on 29 April 2019. The higher mined grades observed at Stage 1 of the Namakan Pit were also accompanied by higher metallurgical recoveries which were in part driven by the commissioning of a gravity circuit at the oxide plant in the December 2018 Quarter.

	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t)	Recovery (%)	Total Production (Gold oz)	Cash Cost (A\$/oz)	AISC A\$/oz
Sep Quarter	81,408	325,287	2.88	77.9	21,400	1,229	1,407
Dec Quarter	527,111	395,316	3.74	83.9	34,653	608	736
Mar Quarter	664,972	381,825	5.57	92.3	71,186	603	737
Year to Date	1,273,491	1,102,427	4.12	85.1	127,240	710	846

**Table 3.1.10.3: Syama Oxide Production and Costs Summary**

## 3.2 Ravenswood Gold Mine

### 3.2.1 Project Background and Location

Carpentaria Gold Pty Ltd, a 100%-owned subsidiary of the Group, is the 100% owner and operator of the Ravenswood Gold Mine. The Ravenswood Gold Mine is located in North Queensland, 120 km south of Townsville, and 1,000 km north-northwest of Brisbane, or approximately 90 km by road from the town of Charters Towers, in the township of Ravenswood. The Ravenswood Gold Mine is a mature operation, having been in continuous production since 1987.

The Ravenswood Gold Mine currently produces gold from low grade, less economic ore. The proposed Ravenswood Expansion Project which will, if undertaken, extend the mine life of the Ravenswood Gold Mine would be undertaken in two stages as described below. The Board is yet to approve the pursuit of the Ravenswood Expansion Project. Board approval is dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company. It is the Company's

current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter.

REP1 will entail process plant modifications, relocation and upgrading of the Ravenswood state school, tailings removal and construction of a new tailings storage facility as well as development of the Buck Reef West open pit mine.

REP2 will see open pit mining at Sarsfield and the processing of this ore. The second stage will entail mining of the much larger Sarsfield resource. Prior to commencement of the second stage, tailings which have been deposited in Sarsfield will be removed and redeposited in a new above ground tailings storage facility. The second stage comprises a cutback of the existing Sarsfield open pit to expose ore remaining at the base of this pit.

The expected LOM project capital associated with REP1 and REP2 is A\$327m. The Group expects to receive all required permits and licences and considers the likelihood of not receiving the permits as very low. The Ravenswood Gold Mine is a "Prescribed Project". Under Queensland Government legislation, a Prescribed Project declaration is designed to facilitate the approval process for projects deemed to be of particular economic or social significance to Queensland. This is achieved by empowering the Co-ordinator General to actively assist in the planning, delivery and co-ordination of all required government and regulatory approvals to ensure there are no unnecessary delays.

The Board is yet to approve the pursuit of the Ravenswood Expansion Project. Board approval is dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company.

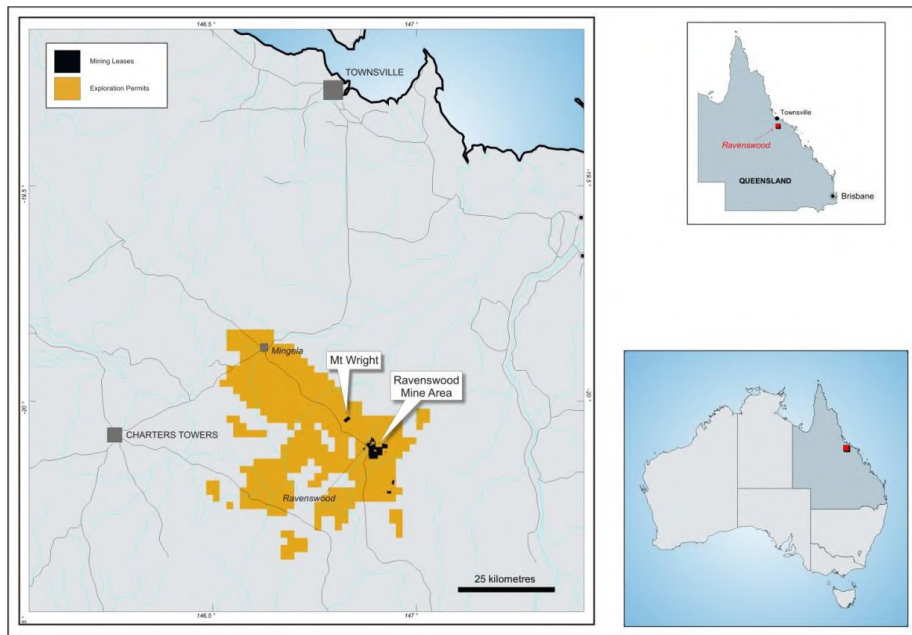
On 13 May 2019, the Queensland Government approved nine new mining leases over areas which support the Ravenswood Expansion Project. The mining leases granted to Carpentaria Gold Pty Ltd, a member of the Group, include:

- the grant of 3 mining leases to cover gaps in the tenure for the Buck Reef West pit; and
- the grant of 6 mining leases for stockpiles, waste storage and other infrastructure such as water pipelines and a noise bund.

In addition to the mining leases granted, mining leases and permits required by the Group to undertake REP1 include the following:

- Department approval of three recently executed compensation agreements to procure the grant of some of the mining lease applications;
- the inclusion of surface rights in an existing mining lease to allow the development of the new tailings dam;
- a native title agreement (on similar terms to the existing agreement) to procure grant of the surface rights;
- amendments required to the Environmental Authority to accommodate the new tailings dam proposal;
- amendments required to the Environmental Authority to deal with water quality issues;
- development approval for the noise bund; and
- approval for the road realignment and interconnection.

The Mining licences currently granted over the Ravenswood Gold Mine cover all of the mining and processing activities required for REP2.



**Figure 3.2.1.1 Ravenswood Gold Mine Location**

### 3.2.2 Mining

Mining at the Mt Wright Underground Mine at Ravenswood is currently undertaken by sublevel shrinkage with continuous fill. As of December 2018, the lowest level reached is the 500 level 900m below surface. From a peak of 1.5Mtpa three years ago the mine is now producing at a rate of 40,000 tonnes per month as operations at Mt Wright approach the end of mine life. The Ravenswood Underground Mine will continue to mine lower grade, less economic ore until the conclusion of mining at Mt Wright in the December 2019 Quarter with low grade stockpiles to be treated at the Ravenswood Gold Mine thereafter. There are currently 33.7Mt of stockpiles on site at Ravenswood at a grade of 0.4 g/t of gold. These are mainly contained in the Mineralised Waste Stockpile for which an estimate was published in the December 2018 Mineral Resource and Ore Reserve Statement (as set out in Tables 3.2.7.1 and 3.2.7.2). Based on the current processing capacity of 2.8Mtpa, there are sufficient stockpiles on site to support processing and production of gold for five years. The Company does not expect a material impact on the overall financial performance of the Ravenswood Gold Mine when mining ceases and production is sourced from processing of stockpiled ores. Whilst this will result in a lower level of production and consequently revenue, this will be partially offset by a reduction in the cost of production since no mining activities will be undertaken. The proposed Ravenswood Expansion Project will see the Ravenswood Gold Mine transition to open pit mining pursuant to the sequence outlined above in Section 3.2.1. If the Ravenswood Expansion Project is not approved by the Board, there will be no further mining at the Ravenswood Gold Mine following the conclusion of mining activities at the Ravenswood Gold Mine in the December 2019 Quarter, with production continuing from the processing of low grade stockpiles thereafter.

Buck Reef West and Sarsfield will both be mined using conventional open pit mining techniques utilising an excavator and trucking fleet to extract material. Mineralised material will be transported to the ROM for processing at the Nolans processing plant, waste material trucked to the waste rock dump and lower grade material will be stockpiled.

The Ravenswood proposed Life of Mine Plan (the "**Ravenswood LOMP**") for the Ravenswood Gold Mine includes the existing Sarsfield schedule as reported in the July 2018 Feasibility Study, merged with an updated Buck Reef West schedule and design. The LOMP is based on a milling rate of 5Mtpa and mining rates suitable for operating two 250t class excavators. Ounces delivered to the mill range between 12koz and 17koz per month.

Mill feed from Sarsfield will be post-beneficiated ore. The resulting operation is expected to produce 108koz to 150koz of gold per annum for 11 years from the date of completion of the ramp up, at an average AISC of A\$1,063/oz (US\$823/oz). The proposed production schedule includes:

- Completion of Mt Wright underground. Mine life has significantly exceeded its original forecast closure date and is now expected to cease operations in the final quarter of 2019.
- Stockpiled ore from Nolans East, along with historic low-grade Sarsfield stockpiles, will provide mill feed thereafter.
- Subject to Board approval, as part of REP1, the processing plant is to be upgraded to 5.0Mtpa (currently 2.8Mtpa) within 12 months of REP1 commencing and mining and processing of the Buck Reef West open pit would be expected to occur within a similar timeframe.
- Mining and processing of ore from the Sarsfield open pit would take place as part of REP2.

### 3.2.3 Processing

The Nolans processing plant processes ore from the Ravenswood Gold Mine and currently has capacity to treat approximately 2.8Mtpa of gold bearing ore through a three-stage crushing plant. The existing crushing plant uses a single stage jaw crusher, secondary and tertiary cone crushers to reduce the particle size of ore to a size suitable for grinding. The crushed ore is mixed with water to produce a slurry in the primary ball mill to reduce the particle size even further. The ground slurry is pumped to cyclone classification which produces a coarse underflow fraction and a fine overflow fraction. The underflow gravitates via a gravity concentrator to a secondary ball mill for further size reduction, then back to the cyclones. The particle size in the fine overflow, is pumped to a conventional carbon-in-leach circuit for gold extraction by cyanide and recovery by activated carbon.

Coarse gold collected by the gravity concentrator is leached in strong cyanide before the gold-loaded solution is pumped into the gold room's electrowinning circuit. Gold-loaded carbon from the CIL is eluted daily to produce a solution which is suitable for direct electrowinning. Metallic gold is formed at the cathode during electrowinning, after which gold from the cathodes is removed periodically and smelted to produce gold doré bars.

### 3.2.4 Production and Costs

The following table sets out the production and costs for the Ravenswood Gold Mine for the March 2019 Quarter as announced on 29 April 2019.

<b>March Year-to-Date (1 July 2018 to 31 March 2019)</b>	<b>Units</b>	<b>Ravenswood Gold Mine</b>
UG Ore Mined	t	361,310
UG Grade Mined	g/t Au	1.87
OP Operating Waste	BCM	59,894
OP Ore Mined	BCM	117,802
OP Grade Mined	g/t Au	0.59
Total Ore Mined	t	696,758
Total Tonnes Processed	t	1,749,967
Grade Processed	g/t Au	0.94
Recovery	%	92.1
Gold Recovered	oz	48,919
Gold in Circuit Drawdown/(Addition)	oz	525
<b>Gold Produced (Poured)</b>	<b>oz</b>	<b>49,444</b>
Gold Bullion in Metal Account Movement (Increase)/Decrease	oz	7,677
Gold Sold	oz	57,121
<b>Achieved Gold Price</b>	<b>A\$/oz</b>	<b>1,742</b>

March Year-to-Date (1 July 2018 to 31 March 2019)	Units	Ravenswood Gold Mine
	US\$/oz	1,255
<b>Cost Summary</b>		
Mining	A\$/oz	562
Processing	A\$/oz	713
Site Administration	A\$/oz	272
Stockpile Adjustments	A\$/oz	134
Gold in Circuit Movement	A\$/oz	11
Cash Cost	A\$/oz	1,692
	US\$/oz	1,218
Royalties	A\$/oz	104
By-Product Credits	A\$/oz	(11)
Sustaining Capital + Others	A\$/oz	12
Administration Cost Recharged to Site	A\$/oz	62
Corporate Administration Costs	A\$/oz	-
All-In Sustaining Cost (AISC) AISC is calculated on gold produced (poured)	A\$/oz	1,859
	US\$/oz	1,338
Depreciation and Amortisation	A\$/oz	76

**Table 3.2.4.1: Production and Cost Summary for March Year to Date (1 July 2018 to 31 March 2019)**

### Proposed Plant Expansion

As part of the Group's proposed transition to open pit mining at the Ravenswood Gold Mine, GR Engineering Services was engaged to develop capital and operating cost estimates for an expanded Nolans processing plant designed to process 8Mtpa ore through the crushing circuit and 5Mtpa through the milling circuit. The plant expansion study was predicated on the following:

- A new crushing circuit capable of achieving 8Mtpa throughput, including the future ability to reject barren oversize ore at a nominal 3Mtpa for those ores that can be beneficiated by simple crushing and screening. The Buck Reef West ore cannot be beneficiated in this way, so crushing throughput will target 5Mtpa;
- Refurbishing and recommissioning the third regrind mill to increase grinding capacity to 5Mtpa;
- Providing additional leaching capacity to retain the same leaching residence time by installing two new leach tanks; and
- Installing larger CIL inter-stage carbon screens in the adsorption circuit to cater for the higher flow.

The new crushing plant will replace the existing plant, and features a primary gyratory crusher followed by secondary and tertiary cone crushers in closed circuit with screens to produce a consistent particle size distribution for grinding. The plant caters for the very hard nature of the Buck Reef West and Sarsfield ore as determined by metallurgical testwork and includes the ability to retrofit a future beneficiation circuit to reject barren waste from ores where the gold grade can be upgraded into the fine fraction through simple screening.

#### 3.2.5 Infrastructure

##### Site Access

Major sealed roads pass through the southern and western parts of the region and link the operations with Townsville and Charters Towers using the Flinders Highway. A bus service operates twice a day between site and Charters Towers.

The existing haulage roads between Sarsfield and Nolans were constructed for mine haul trucks and are currently used by the haulage contractor for cartage between the Mt Wright and Nolans East operations.

## **Buildings**

The existing office facilities consist of three transportable structures and a steel framed covered walkway. The complex houses three offices, ablutions and meal room facilities. Serviced camp style accommodation is available on site. The Ravenswood Village is planned to undergo an expansion to house the larger mine workforce associated with mining activities at Buck Reef West and Sarsfield.

Current workshop facilities are scheduled for expansion to service and maintain the larger mining equipment and fleet numbers. Explosive storage facilities will be re-established using the previous building footprints.

## **Water Supply**

Water is supplied to the mine from the nearby Burdekin River, approximately 18km southwest of the Ravenswood Gold Mine. The water supply system consists of approximately 20km of buried pipeline with a number of strategically located surge tanks and variable speed pipeline pumps to provide surge protection.

Two storage dams have been built to provide the site with a theoretical 100% reliability of supply of 9.2 megalitres per day for expected flow patterns in the river. The first dam is located adjacent to the river and has a capacity of about 1,046 megalitres. The second dam is adjacent to the mine site and has a capacity of approximately 1,380 megalitres. The design pumping capacity is 14 megalitres per day.

Raw water is pumped from the storage dams directly to the processing plant, Mt Wright underground and the water treatment plant. The existing water treatment plant is operated by Carpentaria on behalf of the Charters Towers Regional Council (CTRC) and supplies water to the Ravenswood township as well as the Buck Reef West and Sarsfield sites. Due to the planned Sarsfield pit expansion, plans have been made to move the plant. The plant will also be upsized to accommodate additional requirements of construction and ongoing operations. The upgraded plant will be a containerised unit capable of producing 0.5 ML/day of potable water, which will meet Australian drinking water standards.

## **Power Supply**

The Ravenswood Gold Mine is supplied by two mains power feeds. The main power line feeding the processing plant and the Mt Wright Underground Mine are run along the west and north sides of the Sarsfield pit.

## **Environment**

An Environmental Authority has been issued for the mining of both the Buck Reef West and Sarsfield pits. There are some outstanding permitting requirements; however, none of these are considered significant risks that could materially affect the development of the Ravenswood Gold Mine.

Expansion of the Nolans Tailings Storage Facility ("**NTSF**") requires approval from the Queensland Department of Environment and Science ("**DES**"), expected in mid-2019. Similarly, it is intended that a portion of the LOM tailings will be deposited in the completed Buck Reef West pit. This will also require DES approval, which being sought in conjunction with the approval to expand the NTSF, and is therefore also expected in mid-2019.

### **3.2.6 Mineral Resource and Ore Reserve Estimate**

The Ravenswood Mineral Resources have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported

in accordance with the JORC Code. Please refer to the Competent Person's Report and the Competent Person's Statement in Appendix 2 of this Prospectus.

	Measured			Indicated			Inferred			Total		
	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)
Sarsfield	43,250	0.8	1,120	38,500	0.7	880	22,080	0.7	520	103,830	0.8	2,520
Buck Reef West	830	1.5	40	36,550	1.0	1,220	8,660	1.0	280	46,040	1.0	1,540
Sarsfield Mineralised Waste)	0	0.0	0	0	0.0	0	33,700	0.4	400	33,700	0.4	400
<b>Sub-total (O/C)</b>	<b>44,090</b>	<b>0.8</b>	<b>1,160</b>	<b>75,040</b>	<b>0.9</b>	<b>2,110</b>	<b>64,440</b>	<b>0.6</b>	<b>1,200</b>	<b>183,570</b>	<b>0.8</b>	<b>4,460</b>
Mt Wright	290	3.6	30	0	0.0	0	470	3.6	60	770	3.7	90
Welcome Breccia	0	0.0	0	0	0.0	0	2,040	3.2	210	2,040	3.2	210
Stockpiles (UG)	0	0.0	0	10	1.6	0	0	0.0	0	10	1.6	0
<b>Sub-total (UG)</b>	<b>290</b>	<b>3.6</b>	<b>30</b>	<b>10</b>	<b>1.6</b>	<b>0</b>	<b>2,510</b>	<b>3.3</b>	<b>260</b>	<b>2,810</b>	<b>3.3</b>	<b>300</b>
<b>Ravenswood Total</b>	<b>44,380</b>	<b>0.8</b>	<b>1,190</b>	<b>75,050</b>	<b>0.9</b>	<b>2,110</b>	<b>66,950</b>	<b>0.7</b>	<b>1,460</b>	<b>186,380</b>	<b>0.8</b>	<b>4,760</b>

**Table 3.2.6.1 Ravenswood reported Mineral Resources as at 31 December 2018**

Notes

1. Mineral Resources include Ore Reserves. Differences may occur due to rounding.
2. Resources and Reserves are reported above 0.4g/t Au cut-off for Sarsfield, Nolans East and Buck Reef West.
3. Mt Wright Reserves are reported above 2.3g/t Au cut-off and Resources above 1.8g/t Au cut-off.
4. The Ravenswood Expansion Project assumed a gold price of A\$1,575/oz.

Ore Reserves at the Ravenswood Gold Mine comprise Sarsfield, Nolans East and Buck Reef West open pit Ore Reserves, the remnant Mt Wright underground Ore Reserves and associated surface stockpiles and are reported below as at 31 December 2018.

	Proved			Probable			Total		
	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)	Tonnes (kt)	Grade (g/t Au)	Gold (koz)
Sarsfield	31,530	0.7	720	18,250	0.7	360	19,780	0.7	1,080
Nolans East	0	0.0	0	0	0	0	0	0.0	0
Buck Reef West	970	1.3	40	18,590	1.0	600	19,570	1.0	640
Stockpiles (O/C)	360	0.6	10	10	1.6	0	370	0.6	10
<b>Total (O/C)</b>	<b>32,860</b>	<b>0.7</b>	<b>760</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,720</b>	<b>0.8</b>	<b>1,720</b>
Mt Wright	160	2.2	10	0	0.0	0	160	2.2	10
Stockpiles (UG)	0	0.0	0	0	0.0	0	0	0.0	0
<b>Total (UG)</b>	<b>160</b>	<b>2.2</b>	<b>10</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>160</b>	<b>2.2</b>	<b>10</b>
<b>Ravenswood Total</b>	<b>33,030</b>	<b>0.7</b>	<b>780</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,880</b>	<b>0.8</b>	<b>1,730</b>

**Table 3.2.6.2 Ravenswood Ore Reserves as at 31 December 2018**

Notes:

1. Differences may occur due to rounding.
2. Resources and Reserves are reported above 0.4g/t Au cut-off for Sarsfield, Nolans East and Buck Reef West.
3. Mt Wright Reserves are reported above 2.3g/t Au cut-off and Resources above 1.8g/t Au cut-off.
4. The Ravenswood Expansion Project assumed a gold price of A\$1,575/oz.

### 3.2.7 Exploration

Drilling has focussed on Nolans (61,181 m), Sarsfield (180,138 m), Buck Reef West (117,876 m), and Mt Wright (60,672 m). In addition, 141,300 m has been drilled on other prospects located within an approximate 50 km radius of the Ravenswood Gold Mine. Drilling at Buck Reef West, Nolans and

Sarsfield has been carried out during numerous campaigns over several years. Methods of drilling have included Aircore, Percussion, Reverse Circulation, and Diamond Core, with resource calculations predominantly based upon results from RC and Diamond drilling.

Exploration has also utilised a variety of geophysical techniques (magnetics, induced polarisation, electromagnetics, gravity, radiometrics, and seismic), a variety of geochemical methods (soil sampling at various spacing, rock chip sampling), and several geological studies variably focussed on lithology, alteration, mineralisation, and structure. University-based research studies have also been completed on each of the main deposits and several other prospects in the region (e.g. Welcome, Glenroy).

The operations performance for the Ravenswood Gold Mine for the March 2019 Quarter is set out in Table 3.2.7.1 below.

	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t Au)	Recovery (%)	Total Production (Gold oz)	Cash Cost (A\$/oz)	AISC (A\$/oz)
Sep Quarter	474,689	626,317	0.99	93.3	18,406	1,645	1,757
Dec Quarter	141,166	552,500	1.03	92.4	17,484	1,711	1,954
Mar Quarter	80,903	571,150	0.80	90.5	13,554	1,730	1,874
Year to Date	696,758	1,749,967	0.94	92.1	49,444	1,692	1,859

**Table 3.2.7.1: Ravenswood Production and Cost Summary as at 31 March 2019**

Production for the March 2019 Quarter of 13,554oz was 22% lower than the December 2018 Quarter. This primarily resulted from reduced production tonnages from the Mt Wright Underground Mine, where cave overdraw was lower than in previous periods and a limited number of primary production areas being available. Milled tonnages during the March 2019 Quarter were lower than originally planned due to a partial shutdown during the monsoon weather event in February. Recoveries were also down due to the lower overall feed grade.

### 3.3 Bibiani Gold Mine

#### 3.3.1 Project Background, Location and Accessibility

The Bibiani Gold Mine is owned by Mensin Gold Bibiani Limited ("**Mensin**") of which the Group currently owns 100% through its wholly owned subsidiary, Resolute (Bibiani) Pty Ltd. The Government of Ghana is entitled to a 10% free carried interest in Mensin. This means that the Government is entitled to 10% of the equity of Mensin and it shall not be required to make any payment for that equity. The project is located 80 km southwest of Kumasi and 253 km northwest of the Ghanaian capital, Accra.

The Bibiani Gold Mine has a long history of gold mining with commercial production starting in the early 1900s, which continued on and off up to 2013 and is estimated to have produced over 5Moz of gold during this period.

The Bibiani Gold Mine was placed into care and maintenance in 2013 during which Mensin took control of the Bibiani Gold Mine. The Group is currently undertaking operational readiness planning ahead of a potential re-start.

The Company is currently considering its plans in relation to the Bibiani Gold Mine, including the capital expenditure required to re-start and to fully commission. Once this operational review has been undertaken, the Company will consider the implementation and timing of a potential re-start.

The Company's strategy at the Bibiani Gold Mine is to generate an operational readiness programme and to complete the process of seeking all approvals from the Government of Ghana. It is the Company's current expectation that, once these two objectives have been realised, the Group will



make a final investment decision on the Bibiani Gold Mine during the December 2019 Quarter. The Company will evaluate funding alternatives for the capital expenditure associated with any proposed re-start, which may include applying the revenues from the Syama Gold Mine and/or alternative sources of finance, pending a final investment decision.

In June 2014, Mensin, Drilling and Mining Services Limited and Noble Mining Ghana Limited entered into court approved Schemes of Arrangement ("**Scheme**") with their creditors and employees. With the endorsement of the Ghanaian government, the Scheme enabled the Group to secure the ultimate ownership of the Bibiani Gold Mine, with protection from those liabilities which had been incurred at a time when the mine was owned by Noble.

Under the Scheme, 'Commercial Production' was to be achieved by June 2019. If not, the Bibiani Gold Mine was to be sold and the proceeds paid in satisfaction of the costs incurred in effecting the sale, then in satisfaction of the interim funding provided by the Group, then to pay certain of the intercompany debt (which is due to the Group), then to pay creditors and the balance of the intercompany debts due to the Group, pro rata. Due to the timeframes facing the Group, Commercial Production will not be able to be achieved by June 2019. Therefore, in order to enable the Group to have the opportunity to complete its investigations as to the feasibility of mining at the Bibiani Gold Mine, and then to commence mining in an appropriate timeframe, it is necessary to amend the Scheme, so that the 'trigger' to the obligation to sell the Bibiani Gold Mine is changed, and to extend the date for achieving that trigger by three years.

The only way to achieve such an outcome is for the creditors and the Court to approve an amended Scheme (the "**Amended Scheme**"). In February 2019, the Court approved the convening of a meeting of creditors to consider the Amended Scheme, and on 3 April 2019, the creditors who attended the meeting or voted by proxy unanimously approved the Amended Scheme. At the second Court hearing on 29 May 2019, the Court approved the Amended Scheme. The Amended Scheme will become operative upon compliance with certain administrative steps, which will occur within the required timeframe. As a consequence of the amendment to the Scheme, the Group will not be obliged to sell the Bibiani Gold Mine in the short term, and will only be obliged to do so if, within 3 years, it has not affected a sale of gold mined from the Bibiani Gold Mine. Further details are set out in paragraph 18.4 of Part VIII of this document.

### 3.3.2 Mining

The main mining method at Bibiani Underground Mine is intended to be longhole open stoping ("**LHOS**") with pillars. This method will be used in the majority of the mining areas, where the stope blocks are less continuous, occur in multiple lodes or vary in width. LHOS entails developing a drill drive along the strike of the stope and drilling production holes in rings perpendicular to the drive. The stope is initiated via a slot raise at one end of the ore drive and ore is extracted by then progressively firing the drill rings and bogging the ore in a retreating manner along the strike. The ore drive is driven along the hangingwall of the stope, enabling the last hole in each ring to be drilled parallel to the hangingwall, reducing the damage done to the hangingwall of the stope, reducing the risk of premature failure, and thus reducing the overall dilution.

In the lower southern portion of the Bibiani Underground Mine, a large continuous block of mineralisation (>25 m in width) is amenable to sublevel shrink ("**SLS**") mining. SLS mining utilises a lower cut-off grade for higher production rates and lower costs and was used by the Group at its Mt Wright Underground Mine at the Ravenswood Gold Mine in Queensland, Australia.

When at full capacity, the Bibiani Gold Mine is planned to mine at a rate of 88,000t of ore per month, with approximately 25,000t of waste per month, giving a total rock movement of approximately 115,000t per month. The following schedule priorities and sequence are required:

- strip and re-support the Main decline;
- establish the primary ventilation network from 7 Level to the surface;
- develop the South decline to 18 Level;
- separately dewater and develop the GH decline to provide full ventilation capacity, access to the ROM pad and a second mine egress;
- stope the 5 to 8 Level South area;

- stope the lower South area once access is established; this area contains the large continuous, highest grade ore zone which will allow for simpler, lower risk production with the highest ounces;
- supplement from the North area and upper South area; and
- transition to the North area as the South area is depleted.

The time to first production of ore from the mine, as measured from first capital spend, is six-months, with the ramp up to steady state production (88kt per month) after 11 months from first capital spend.

### 3.3.3 Processing

The Bibiani Life-of-Mine Plan (the "**Bibiani LOMP**") prepared for the 2018 Pre-Feasibility Study includes the mining and processing of the Ore Reserve. Inferred Mineral Resources were also used in the final Bibiani LOMP, although scheduled later than the Indicated Resources. The final mine design contains 39% Inferred Mineral Resources, with no reduction factor applied. The Bibiani LOMP includes a detailed financial model, which shows a positive NPV at a US\$1,200 gold price. The Inferred Mineral Resources have not been reported in the declared Ore Reserve.

The proposed processing route for Bibiani Underground fresh ore utilises the well-known and traditional technology of gold extraction incorporating comminution, gravity concentration, flotation, cyanide leaching of concentrate and flotation tails and gold recovery via carbon-in-leach. The processing rate is expected to match the underground mine production of a nominal 1 to 1.2 Mtpa.

### 3.3.4 Geology and Mineralisation

The gold deposits at the Bibiani Gold Mine are structurally-controlled mesothermal lode-type deposits. The mineralisation is associated with quartz veins and quartz stockworks which are hosted within a sequence of Lower Birimian fine to medium grained turbiditic sandstones. The sedimentary turbidite sequence is tightly folded, with west-dipping axial planes and localised development of steep west-northwest dipping shear zones which have acted as conduits for the initial gold mineralisation.

### 3.3.5 Study Overview

In July 2018, the Company released an updated study for the Bibiani Gold Mine which outlined key operating parameters for the proposed operation ("**Bibiani Study**"). Under the Bibiani Study, the operation would produce 1.084Moz of gold (contained) over a potential 11 year life of mine (including pre-production) at an AISC of US\$764 per ounce. The operating parameters are set out in Table 3.3.5.1 below.

<b>Underground development</b>		
Ore development	m	23,883
Waste development	m	10,234
Vertical development	m	1,548
Total development	m	34,117
<b>Ore production</b>		
Development ore	kt	878
Stoping ore	kt	9,182
Total ore	kt	10,060
Metal grade (ROM)	g/t Au	3.4
Metal contained (ROM)	koz	1,084
<b>Metal recovery</b>		
Processing recovery	%	89.9
Metal (recovered)	koz	974
<b>Operating unit costs</b>		
Underground Mining (excl. pre-production)	US\$/t	31.3
Processing	US\$/t	21.6

General and Admin	US\$/t	9.0
Royalty and refining costs	US\$/t	6.8
<b>Costs</b>		
Sustaining capital	US\$m	63
Operating cost	US\$m	624
<b>AISC</b>	<b>US\$/oz</b>	<b>\$764</b>
<b>Mine life (incl. pre-production)</b>	<b>years</b>	<b>11.0</b>

**Table 3.3.5.1 Bibiani Key Operating Metrics**

### 3.3.6 Infrastructure

#### Site Access

The main access to the mine is from the east, along the Kumasi-Bibiani – Sefwi Bekwai Highway. The Kumasi airport can be accessed from Accra by a 45-minute flight using various national airlines. Access to the Bibiani Gold Mine gate from the Kumasi Highway is excellent. The mine is also serviced by two coastal ports, Tema which lies just to the east of the capital Accra, and Takoradi which lies 180 km to the south of Bibiani.

#### Buildings

Existing surface infrastructure is located adjacent to the Main Pit and includes offices, meeting rooms, change rooms, workshops, mines rescue and medical facilities. Most of the facilities are in reasonable condition but will require refurbishment and upgrading to cater for full scale production.

#### Water Supply

To recommence the sinking of the GH decline, the Strauss pit and existing GH decline will require dewatering. The water generated from dewatering processes (raw water) will be used within the underground operations, as well as for dust suppression, domestic use and the process plant. The existing water storage system currently provides a secure plant supply in case of extended drought conditions. Raw water will be stored in the mine dewatering settling pond and the seven levees that were historically constructed as tailings storage ponds. Levee embankments are well vegetated, which protects them from erosion and subsequent sedimentation, as well as improving water quality by removing trace metals and nutrients. From the settling pond and levees, water is pumped to a 5,000 m<sup>3</sup> raw water pond (HDPE lined earth dam) located at the plant site.

#### Power Supply

Underground power is currently supplied from the Electricity Commission of Ghana from a substation located outside the lease, near the Main Pit. From here, 11 kV is supplied underground to four substations where it is converted to 415 V. It is expected that this low voltage 415 V network would be replaced by a 1000 V system, which is standard in Australia and which has operational advantages. Additional infrastructure will also be required for redevelopment of the GH decline.

An estimate of the underground power requirements has been completed based on the electrical equipment to be used, including drills, pumps and fans. Usage is expected to reach a maximum of 4.0MW.

#### Environment

Proposed underground mining operations at the Bibiani Gold Mine are not expected to disturb any new areas, with the underground access to the mine being from existing open pit excavations. Existing offices, stores, workshops and buildings will be utilised, with any new buildings being built on the existing site. It is intended that waste rock be used underground and void fill or tipped into existing open pits. Haul ways and roads, and the designs for the TSF are the same as those previously approved in former Environmental Permits.

On 19 June 2018, the Environmental Permit for re-initiation of underground gold mining and processing at the Bibiani Gold Mine was approved by the EPA under Sections 2 (i) and 12 (1) of the Ghanaian Environmental Protection Agency Act, 1994 (Act 490) and Part 1 of the Ghanaian Environmental Assessment Regulation 1999 (LI 1652).

### 3.3.7 Mineral Resource and Ore Reserve Estimate

The most recent Mineral Resource is presented in Table 3.3.8.1 below as at 31 December 2018 and is reported in accordance with the JORC Code (2012). These Mineral Resources represent material to be mined from underground and have been reported above a cut-off grade of 2.0g/t gold.

Please refer to the Competent Person's Report and the Competent Person's Statement in Appendix 2 of this Prospectus.

	<b>Tonnes (Mt)</b>	<b>Gold grade (g/t Au)</b>	<b>Gold (koz)</b>
Indicated	13.26	3.5	1,490
Inferred	8.44	3.7	1,010
<b>Total</b>	<b>21.69</b>	<b>3.6</b>	<b>2,500</b>

**Table 3.3.7.1 Bibiani Mineral Resource estimate at 31 December 2018**

1. Mineral Resources include Ore Reserves. Differences may occur due to rounding.
2. Bibiani Reserves are reported above 2.75g/t Au cut-off and Resources above a 2.0g/t cut-off.
3. Bibiani Ore Reserves are reported at the gold price of US\$1,150/oz.

The Ore Reserves are reported in Table 3.3.7.2 below in accordance with the JORC Code and are based upon a gold price of US\$1,200 and have been quoted above a cut-off grade of 2.2g/t of gold.

	<b>Tonnes (Mt)</b>	<b>Gold grade (g/t Au)</b>	<b>Gold (koz)</b>
Proven	-	-	-
Probable	6.40	3.3	660
<b>Total</b>	<b>6.40</b>	<b>3.3</b>	<b>660</b>

**Table 3.3.7.2 Bibiani Ore Reserves at 31 December 2018**

1. Mineral Resources include Ore Reserves. Differences may occur due to rounding.
2. Bibiani Reserves are reported above 2.75g/t Au cut-off and Resources above a 2.0g/t cut-off.
3. Bibiani Ore Reserves are reported at the gold price of US\$1,150/oz.

### 3.3.8 Exploration

Prior to 2012, a total of 1,464 exploration drillholes were completed by previous owners. These include both diamond and reverse circulation ("RC") drillholes, as well as RC collared holes with diamond tails (RCD) and underground channel samples. During 2014 and 2015, the Group carried out a data validation and verification process to increase confidence in the historical data collected between 1993 and 2012. Upon the purchase of the Bibiani Gold Mine assets, Resolute immediately embarked on a re-assessment of the underground potential and commenced an extensive resource drilling programme consisting of both surface and underground drilling. This was broken up into two phases:

- Phase 1: the Group completed 26,284 m of RC and diamond drilling at the Bibiani Gold Mine, with the aim of enhancing the estimated Mineral Resource (announced 15 August 2014).
- Phase 2: Further exploration drilling at the Bibiani Gold Mine commenced in December 2016 and was completed in June 2017, with 22,884 m of diamond drilling undertaken from both surface and underground positions. The primary focus of the programme was to convert existing Inferred Resources to Indicated Resources and to explore for new unmined mineralised lodes.

## 4 THE MARKET

Historically, gold played an important role in the international monetary system until the collapse of the Bretton Woods system of fixed exchange rates. Since 1971, its role has diminished but, remains an important asset in the reserve holdings of several countries. Today, due to its characteristics, gold is sought after not only for investment purposes and by the jewellery market, but it is also used in the manufacturing of certain medical and electronic devices.

Consequently, gold prices fluctuate according with the following variables:

- **Central Banks/US Dollar:** All other variables being stable, gold prices will be positively affected when US Dollar decreases in value, as gold provides a hedge against a lower US Dollar. The most popular currency held in reserves is the US Dollar. Reserves keep the banks secure by reducing the risk that they will default by ensuring that they maintain a minimum amount of physical funds. Having said that, when the US Dollar depreciates, and in order to spread their risk, central banks invest in other assets such as gold, pushing the metal's price up.
- **Inflation Rates:** All other variables being stable, gold is an asset which rises with inflation.
- **International Politics and Monetary System Risk:** With economic and political instability (e.g. a "housing bubble" or "uncertain political elections"), asset prices may drop while demand for gold rises being a 'safe haven' of wealth.
- **Demand:** All other variables being stable, gold prices will increase when demand is higher than the supply in the Market. Gold demand is driven by the following markets:
- **Jewellery Sector:** Jewellery has been by far the most important market for gold and, according to the World Gold Council's Gold Demand Trends Full Year and Q4 2018 Report ("**World Gold Council 2018 Report**"), represented approximately 51% of gold demand in 2018. The demand is mostly supported by countries from the Middle East and Asia, especially during holiday seasons such as the Chinese New Year and Diwali (Dhanteras) in India;
- **Investment:** According to the World Gold Council 2018 Report, investment demand comprised approximately 27% in 2018 and is mainly driven by coins, bar hoarding and the ETF (Exchange-Traded Funds) market.
- **Supply:** Gold supply is driven by gold mining volumes and sales of existing gold:
- **Mining:** According to the World Gold Council 2018 Report, mines produced approximately 75% of all gold supplied in 2018, with 3,364 tonnes of gold produced in 2018.
- **Recycled Gold:** Supply of recycled gold also plays a key role in the price of gold. Supply of recycled gold usually increases when the global economy is sluggish or when gold prices increase. According to the World Gold Council 2018 Report, estimates are that approximately 1,126 tonnes of gold was recycled in 2018.

## 5 INVESTMENTS

In addition to its direct holdings, the Group has minority investments in multiple African explorers including:

- Orca Gold Inc ("**Orca**") (16%): TSX-V listed gold developer currently advancing its Block 14 gold project towards a production decision. In November 2018, Orca released a feasibility study for Block 14 which confirmed the potential for a 14-year open pit project producing an average of 167,000oz per annum at an AISC of US\$783/oz from an Ore Reserve of 2.854Moz.

- Loncor Resources Inc (27%) ("**Loncor**"): TSX-V listed explorer focused on two projects in the Democratic Republic of Congo the Ngayu and North Kivu projects which collectively host 1.2Moz of gold Mineral Resources. Loncor holds exploration permits covering 1,696 square kilometres of the Ngayu Archaean greenstone belt in the Tshopo province in the northeast of the Democratic Republic of Congo. Loncor also controls exploration permits covering an area of approximately 13,000 square kilometres in the North Kivu province. Loncor's Ngayu project is subject to a joint venture agreement with Barrick Gold Corporation (formerly held through Randgold Resources Limited) whereby Barrick can earn 65% by delivering a pre-feasibility study.
- Kilo Goldmines Limited ("**Kilo**") (27%): TSX-V listed explorer with gold and iron ore prospects and resources in the Northeastern portion of the Democratic Republic of Congo. Kilo's primary focus is on its Somituri and Isiro projects which collectively host 1.7Moz of gold Mineral Resources.
- Manas Resources Limited ("**Manas**") (26%): ASX-listed explorer focused on the Mbengué, Eburnea and Gonsan projects in Cote d'Ivoire. Manas has entered into an earn-in agreement for up to 70% ownership in Mbengué which is held by Occidental Gold SARL, a 100% owned subsidiary of Perseus Mining Limited. Mbengué covers an area just under 400 square kilometres over the highly prospective Senoufo greenstone belt. The Eburnea Project is located in central-northeast Cote d'Ivoire, 30km northwest of the city of Bouaké and approximately 290km north of Abidjan. Gonsan covers a combined area of approximately 1,000 square kilometres.
- Mako Gold Limited ("**Mako**") (20%): ASX-listed gold explorer focused on ground in Burkina Faso and Cote d'Ivoire. Mako is earning a 75% interest in the Napié Project is located in the north central part of Côte d'Ivoire. Mako Gold's Niou Project is located within the Goren Greenstone Belt, in the central part of Burkina Faso.
- Oklo Resources Limited ("**Oklo**") (11%): ASX-listed gold explorer focused on its large landholding of eight gold projects covering approximately 1,400 square kilometres in some of Mali's most prospective gold belts. In late 2016, Oklo initiated a reconnaissance auger geochemistry program over the Dandoko and Moussala Projects to explore for new targets concealed under the extensive tracts of lateritic cover.

As at the Latest Practicable Date, the market values of the Group's investments in the above companies are:

Name	Orca Gold Limited	Loncor Resources Inc	Kilo Goldmines Limited	Manas Resources Limited	Mako Gold Limited	Oklo Resources Limited
Listing Venue	TSX-V	TSX-V	TSX-V	ASX	ASX	ASX
<b>Ownership as at 30 June 2018</b>						
No. of shares held	16,182,480	51,000,000	46,568,000	523,899,835	10,000,000	34,401,730
% interest	9%	27%	27%	20%	19%	10%
Market Value	A\$10.3m	A\$3.9m	A\$1.2m	A\$3.1m	A\$2.2m	A\$10.3m
<b>Ownership as at 31 December 2018</b>						
No. of shares held	32,364,960	51,000,000	46,568,000	603,189,835	12,301,000	36,298,232
% interest	16%	27%	27%	23%	19%	10%
Market Value	A\$17.8m	A\$4m	A\$0.7m	A\$2.4m	A\$1.4m	A\$9.1m

Name	Orca Gold Limited	Loncor Resources Inc	Kilo Goldmines Limited	Manas Resources Limited	Mako Gold Limited	Oklo Resources Limited
<b>Ownership as at Latest Practicable Date</b>						
<b>No. of shares held</b>	32,364,960	51,000,000	46,568,000	682,484,709	14,275,785	37,596,176
<b>% interest</b>	16%	27%	27%	26%	20%	11%
<b>Market Value Latest Practicable Date</b>	A\$14.3m	A\$4.5m	A\$0.8m	A\$2.0m	A\$1.2m	A\$4.7m

## 6 HEDGING

The Company maintains a policy of undertaking short-dated hedging to take advantage of periods of elevated gold prices.

The Company continued to actively manage its gold sales and undertake hedging above its budgeted gold price to take advantage of gold price volatility, maximise revenues and protect the Company's balance sheet and cash flows in 2019. During the March 2019 Quarter, the Company hedged 30,000oz at an average price of A\$1,887oz and 30,000oz at an average price of US\$1,335oz and also engaged in some shorter dated hedging.

As at 31 March 2019, the Company's remaining hedge deliveries are summarised below:

	<b>A\$ Forward Sales</b>		<b>US\$ Forward Sales</b>	
<b>Quarter</b>	<b>Forward Price (A\$/oz)</b>	<b>Delivery (oz)</b>	<b>Forward price (US\$/oz)</b>	<b>Delivery (oz)</b>
June 2019	1,720	13,000	1,278	23,000
September 2019	1,756	30,000	1,335	15,000
December 2019	1,756	30,000	1,335	15,000
March 2020	1,887	15,000	-	-
June 2020	1,887	15,000	-	-
<b>Total</b>	<b>1,789</b>	<b>103,000</b>	<b>1,310</b>	<b>53,000</b>

**Table 6.1 Forward Sales as at 31 March 2019**

## 7 STRATEGY

The Group's strategy is to be an innovative, low cost, multi-mine, African-focused gold producer. The principal project is the Syama Underground Mine, which is ramping up to commercial production. The Ravenswood Gold Mine and Bibiani represent growth opportunities for the Group. The Group has a strong organic growth pipeline with the potential re-start of the Bibiani Gold Mine and the Ravenswood Expansion Project, both of which are subject to Board approval. Board approval is dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project and/or a re-start of Bibiani is in the best interests of the Company. This existing growth pipeline is complemented by a diverse exploration portfolio including multiple strategic minority equity investments in African explorers.

## **8 KEY STRENGTHS**

### **Proven Operating Capability**

The Company is a proven operator having mined more than 8Moz ounces of gold from nine gold mines in Australia and Africa.

### **Large Scale Producing Asset at the Syama Gold Mine**

The Syama Gold Mine is a 14-year life asset based on existing Ore Reserves and has the potential to produce 300,000oz per year.

### **Growth Pipeline of High Quality Long Life, Low Cost, Large Scale Assets**

The Group's current growth pipeline comprises two long life, low cost projects; the Ravenswood Expansion Project at the Ravenswood Gold Mine will deliver low cost production over a 14-year life while a re-start of the Bibiani Gold Mine has the potential to deliver low cost production over a potential 10 year mine life. These two pipeline assets, which the Company currently expects to be in a position to consider for approval during the December 2019 Quarter, provide meaningful low cost production in addition to the Syama Gold Mine and underpin the Company's clear pathway to gold production in excess of 500,000oz per annum in the medium term.

### **Class Leading Resource Base**

The Group has a large gold inventory position comprising 16.8Moz of Global Mineral Resources including 5.8Moz of Ore Reserves (as at 31 December 2018 with the exception of the Tabakoroni Mineral Resource which is stated as at 31 March 2019 following re-estimation work).

### **Strong Commitment to Exploration**

The Group's strong commitment to exploration is evidenced in its addition of in excess of 7Moz of Mineral Resources and 3Moz of Ore Reserves since 2010.

### **Strong Focus on Technology and Innovation**

Technology and innovation is a core part of the Company's strategic focus. At the Syama Gold Mine, the Group is currently commissioning the world's first customised fully automated underground mine which will be powered by the world's largest mine-based hybrid power plant which incorporates the latest in solar and battery technologies.

### **Unique Skill Set and Reputation in Africa**

The Group has successfully operated in Africa for over 20 years and believes that this first-hand knowledge places it at a competitive advantage to a number of its peers in operating in the continent.

### **Commitment to Responsible Mining Practices**

The Group is committed to operating its assets in an efficient, safe, responsible, sustainable and transparent way.

## **9 REASONS FOR THE LISTING**

The London Stock Exchange is a natural home for large mining companies with African exposure. Listing the Company on the London Stock Exchange provides an opportunity for investors with a LSE-focused investment mandate with an opportunity to invest in the Company.



## 10 EMPLOYEES

As at the Latest Practicable Date, the Group has 939 employees.

The table below shows the geographical breakdown of employees by their main activity.

Country	Total No. of Employees	Office and Management	Technical and Operational
Australia	249	76	173
Mali	632	67	565
Ghana	46	33	13
Other (Cote d'Ivoire)	12	5	7
<b>Total</b>	<b>939</b>	<b>181</b>	<b>758</b>

## 11 SUMMARY FINANCIAL INFORMATION

The following information has been extracted without material adjustment from the financial information on the Group contained in Part IV of this document.

Prospective investors should read the whole of this document and should not rely solely on this summary.

	<i>Year ended 30 June 2016 (audited, restated) A\$ '000</i>	<i>Year ended 30 June 2017 (audited) A\$ '000</i>	<i>Year ended 30 June 2018 (audited) A\$ '000</i>	<i>Six-months ended 31 December 2017 (unaudited) A\$ '000</i>	<i>Six-months ended 31 December 2018 (audited) A\$ '000</i>
Revenue	554,624	541,177	445,555	202,637	222,774
Gross profit before depreciation, amortisation and other operating costs	229,417	231,854	115,879	51,491	53,455
Gross profit from Operations	154,711	176,905	69,324	30,376	24,449
Profit/(loss) before tax	200,732	166,096	77,837	38,414	(7,159)
Profit/(loss) after tax	200,732	166,096	77,837	38,314	(5,324)

## 12 CURRENT TRADING AND PROSPECTS

Since 31 December 2018, trading in relation to the current financial year has been in line with the Directors' expectations.

## 13 DIVIDENDS AND DIVIDEND POLICY

The Group's policy anticipates a minimum annual dividend payment equivalent to the value of 2% of the Company's annual gold sales, provided that all operating and reasonable corporate and exploration expenses can be funded. The declaration and payment of future dividends remains fully at the discretion of the Board after taking into account a number of factors, including, but not limited to,

the Company's financial and operating results, anticipated current and future cash requirements, future opportunities and prospects, general financial conditions and other factors deemed relevant.

## **14 TAXATION**

Further information on United Kingdom taxation and Australian taxation with regard to the Shares is set out in Part VII of this document. All information in relation to taxation in this document is intended only as a general guide to the position in each of Australia and the United Kingdom. If you are in any doubt as to your own tax position, or are subject to tax in a jurisdiction other than Australia and the United Kingdom, you should consult your own independent professional adviser immediately.

## **15 CREST AND CHESS**

CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by a written instrument. The Constitution permits trading in Shares to take place in uncertificated form.

The Company, through its Registrar in the United Kingdom, Computershare, has established a depository facility whereby Depository Interests, representing Shares, are issued to Shareholders who wish to hold their Shares in electronic form in CREST. Accordingly, settlement of transactions in Shares following Admission will take place within the CREST system, if the relevant Shareholders so wish, in accordance with section 4 of Part VIII (Settlement).

Current arrangements for the settlement of transactions in Shares on the ASX pursuant to CHESS (the electronic settlement system operated by ASX Settlement in accordance with the ASX Settlement Rules) will continue to apply whilst the Company remains listed on the ASX.

## **16 FURTHER INFORMATION**

Your attention is drawn to the remaining parts of this document which contain further information on the Group.

## **Part II**

### **Regulatory Regime and Licence Overview**

#### **1 MALI**

##### **1.1 Background**

The Sudanese Republic and Senegal became independent of France in 1960 as the Mali Federation. When Senegal withdrew after only a few months, what formerly made up the Sudanese Republic was renamed Mali.

Landlocked Mali depends on gold mining and agricultural exports for revenue. The country's fiscal status fluctuates with gold and agricultural commodity prices and the harvest; cotton and gold exports make up around 80% of export earnings. Mali remains dependent on foreign aid.

Economic activity is largely confined to the riverine area irrigated by the Niger River; about 65% of Mali's land area is desert or semi desert. About 10% of the population is nomadic and about 80% of the labour force is engaged in farming and fishing. Industrial activity is concentrated on processing farm commodities. The government subsidizes the production of cereals to decrease the country's dependence on imported foodstuffs and to reduce its vulnerability to food price shocks.

Mali is developing its iron ore extraction industry to seek to diversify foreign exchange earnings away from gold, but the pace will depend on global price trends.

##### **1.2 Mali Legislative Framework and Permitting**

The legislative framework for mining in Mali is stated in a Mining Code and its implementation Ordinances/Decrees. The Mining Code sets out statutory requirements in respect to, and administration of, exploration and exploitation of minerals as well as their processing, transporting, treatment and marketing.

Malian mining law provides that all Mineral Resources are administered by the *Direction Nationale de la Géologie et des Mines* or National Directorate of Geology and Mines under the Ministry of Mines and Petroleum.

Under the current Malian mining legislation, exploration activities may be carried out under a *permis de recherche* or exploration permit. Exploration permits are granted for a period of three years, renewable twice for additional two-year periods.

Likewise, a *permis d'exploitation* or exploitation permit is required to undertake exploitation activities. The exploitation permit grants an exclusive right to prospect, explore and exploit the mineral substances for which it has been granted, for a period of up to 30 years, renewable for additional periods of 10 years until depletion of the deposit located within the area covered by the permit.

The exploration and exploitation permits are granted following the conclusion of a contractual agreement called a *Convention d'Etablissement* or Establishment Convention. The Establishment Convention follows a model adopted by decree, and is signed between the Republic of Mali and the holder of the mining permit, and the parties must comply with the agreed conditions.

The Syama Exploitation Permit was granted pursuant to Decree No.89-087/P-RM, dated 29 March 1989, as amended by Decree No.93-450/PM-RM, dated 21 December 1993, assigned by Decree No.08-414/PM-RM, dated 23 July 2008, and renewed a first time by Decree No.09-107/PM-RM dated 18 March 2009 and a second time by Decree no 2019-0298/PM-RM dated 18 April 2019. The Syama Exploitation Permit was originally issued under the Mining Code of 3 September 1970, which was repealed by subsequent legislation. The current applicable mining legislation in Mali is the Mining Code of 27 February 2012.

### 1.3 Mining licences held in Mali

Description	Holder	Duration of Licence
Syama Exploitation Permit	SOMISY	The Syama Exploitation Permit has been renewed for a period of 10 years expiring on 17 April 2029
Finkolo Exploitation Permit	SOMIFI	The Finkolo Exploitation Permit was granted for a period of 30 years expiring on 9 May 2033

### 1.4 Mine development agreements

Practice in Mali is to have the title holder execute a mining convention that is based on a model adopted by Decree, such model reproducing to a very large extent the provisions of the mining legislation in force, which in respect of the Syama Mining Convention is the 2012 Mining Code and regulations and in respect to the Finkolo Mining Convention is the 1999 Mining Code and regulations.

#### 1.4.1 Syama Establishment Convention

The Syama Exploitation Permit was originally accompanied by an Establishment Convention dated 14 April 1987, initially entered into between the Republic of Mali and Utah International Inc. The Establishment Convention provided for an expiration date on 29 March 2019.

On 7 March 2019, SOMISY and the Republic of Mali signed a new Establishment Convention for the exploration and exploitation of Gold and mineral substances of Group 2. This Establishment Convention, which is stated to remain in force for the validity period of Syama Exploitation Permit, follows the model adopted by an application decree of the Mining Code of 27 February 2012.

#### 1.4.2 Principal Terms applicable to Syama

The Syama Exploitation Permit is today governed by the 2012 Mining Code. The principal terms of the Syama Exploitation Permit, Syama Establishment Convention and applicable law are as follows:

**Government Rights** – upon issuance of an exploitation permit, the exploration permit holder is required to incorporate a Malian company, in the capital of which the State will hold a 10% free carried interest. The newly issued exploitation permit is transferred for free to the newly incorporated Malian exploitation company. In addition to the rights held by other shareholders in the Malian company, the free carry interest held by the Malian State is non-dilutable and gives the right to a priority dividend on account of its 10% free carried interest, which must be paid before any other allotment of the company's distributable profit. There are no other rights conferred on the Malian State in connection with their free carry interest. However, while this is not stated in the 2012 Mining Code, in practice, the Malian State requests the right to appoint two directors to the Board of the Malian exploitation company. Under the 2012 Mining Code, the Malian Government has the option to purchase an additional 10% equity interest in the Malian exploitation company for cash, such additional interest not benefiting from any preference rights (anti-dilution, priority dividend etc.). This confers the same rights as any other holder of shares in the Malian exploitation company without any priority dividend entitlement. Private Malian investors may acquire in cash 5% of the exploitation company's capital under the same terms and conditions as other private investors.

SOMISY having been constituted and its exploitation permit issued before the adoption of the 2012 Mining Code, the Malian Government already holds a 20% interest in the capital of SOMISY. Under the contractual regime that originally applied to SOMISY, 15% of such 20% interest was free carried. Following the expiration of the original Establishment Convention signed on 14 April 1987, SOMISY entered into a new Establishment Convention with the Republic of Mali on 7 March 2019 which follows

the model adopted by an application Decree of the 2012 Mining Code. In addition, the Syama Exploitation Permit was renewed by a Decree dated 18 April 2019 which specifies that the Exploitation Permit is subject to the 2012 Mining Code. As a consequence, the SOMISY project became subject to the 2012 Mining Code. Under the 2012 Mining Code, as well as the 7 March 2019 Establishment Convention, the portion of the Governmental participation being free carried is 10% which means that the current 15% free carried participation of the Malian Government in SOMISY is reduced to 10%. Should the Group wish to perfect this reduction, SOMISY's articles of association would need to be amended to refer to the 7 March 2019 Establishment Convention, instead of the original 14 April 1987 Establishment Convention. To date, there has been no discussion between SOMISY and the Malian Government regarding this reduction of its free carried interest in SOMISY from 15% to 10% and SOMISY does not currently have any intention to commence such discussions. Therefore, there is no current intention to change SOMISY's articles and therefore the Malian Government's free carried interest remains at 15%.

Mining activities – exploitation permits grant to their owner the exclusive right over the relevant perimeter to research and exploit the mineral substances for which the evidence of the existence of an exploitable deposit has been made through a feasibility study submitted to, and approved by, the Mines Administration. The holder of an exploitation permit may process and sell mineral concentrates. Permit holders may request that a safety perimeter be created around the mine and its installations.

Land access – the holder must obtain the consent of landowners to carry out activities involving or impacting the surface. Absent such consent, the holder may compel landowners to allow mining works to be carried out on their land subject to the payment of a fair and prior indemnity. If the exploitation works make the landowners' title unusable under normal conditions, the landowners may request (i) the expropriation of the land or (ii) an indemnity. The title holder may also obtain the expropriation of reluctant landowners.

No mining pit or tunnel may be drilled on the surface and no survey may be carried out below a depth of 50 meters within a radius of 100 meters around walled properties, villages, groups of houses, wells without the consent of the landowner; on both sides of transportation routes, water routes and more generally around any works of public use, art works, without the authorisation of the Minister of Mines and the other competent Minister. In addition, if the mining works impact the quality or quantity of underground water used by local populations, the holder must fulfil such populations' water needs. Transportation routes, power lines and other infrastructure created by the holder inside or outside the surface area covered by its mining title may be opened for public use if this does not impede the exploitation works, subject to the payment of a fair indemnity and of the holder's costs.

Sales – the holder has the right to export extracted, produced and processed substances and the freedom to commercialise such substances with the exception of exportations towards countries that are hostile to the Mali State or its nationals.

Taxes – under the 2012 Mining Code, the stability of certain tax and customs regime is guaranteed throughout the validity period of the mining title. However the stability does not apply to the mining duties, taxes, and royalties nor to taxes imposed by international organizations to which Mali is a party.

The holder is exempted from certain taxes and customs payable on oil products earmarked for producing power required for the extraction, transport and processing of minerals and for the operating and maintenance of social and sanitary infrastructure built by the holder save for WAEMU common solidary levy (PCS) and ECOWAS common levy (PC).

The holder is subject to the payment of customs duties in accordance with the applicable laws and regulations, but benefits from certain exemptions from admission and entry, exit and customs duties on certain materials for a period ending on the third anniversary of the commencement of production.

Corporate tax applies at the discounted rate of 25% for a duration of 15 years following the date of commencement of production and VAT is exempted until the third anniversary of the commencement of production.

Revenues generated on the portion of the production which exceeds by more than 10% the forecasts contained in the annual production programme approved by the shareholders meeting, is subject to taxation as per the standard regime.

Renewal – renewal of the permit is subject to the payment of FCFA 100,000,000.

Annual Royalty – annual area royalty is payable at the rate of FCFA 100,000 per km<sup>2</sup> per year.

#### 1.4.3 Finkolo Establishment Convention

The Finkolo Exploitation Permit is accompanied by an Establishment Convention for the exploration and exploitation of Gold and mineral substances of Group 2 dated 15 June 2001 entered into between the Republic of Mali and Bago National Corporation SARL (the predecessor in title of SOMIFI). The Finkolo Establishment Convention is stated to remain in force for a maximum period of 30 years. The Finkolo Establishment Convention is governed Mining Code of 19 August 1999 while the Finkolo Exploitation Permit was issued under the Mining Code of 27 February 2012.

#### 1.4.4 Principal Terms

The principal terms of the Finkolo Exploitation Permit, Finkolo Establishment Convention and applicable law is as follows:

Government Rights – upon issuance of an exploitation permit, the exploration permit holder is required to incorporate a Malian company, in the capital of which the State will hold a 10% free carried interest. The newly issued exploitation permit is transferred for free to the newly incorporated Malian exploitation company. In addition to the rights held by other shareholders in the Malian company, the free carry interest held by the Malian State is non-dilutable and gives right to a priority dividend on account of its 10% free carried interest, which must be paid before any other allotment of the company's distributable profit. There are no other rights conferred on the Malian State in connection with their free carry interest. However, while this is not stated in the 1999 Mining Code, in practice, the Malian State requests the right to appoint two directors to the Board of the Malian exploitation company. Under the 1999 Mining Code, the Malian Government has the option to purchase an additional 10% equity interest in the Malian exploitation company for cash, such additional interest not benefiting from any preference rights (anti-dilution, priority dividend etc.).

Mining activities – exploitation permits grants to their owner the exclusive right over the relevant perimeter to research and exploit the mineral substances for which the evidence of the existence of an exploitable deposit has been made through a feasibility study submitted to the Mines Administration. The holder of an exploitation permit may process and sell mineral concentrates. Permit holders may request that a safety perimeter be created around the mine and its installations.

Land access – the holder must obtain the consent of landowners to carry out activities involving or impacting the surface. Absent such consent, the holder may compel landowners to allow mining works to be carried out on their land subject to the payment of a fair and prior indemnity. If the exploitation works make the landowners' title unusable under normal conditions, the landowners may request (i) the expropriation of the land or (ii) that the holder purchases the land.

No mining pit or tunnel may be drilled on the surface and no survey may be carried out below a depth of 50 meters within a radius of 100 meters around walled properties, villages, groups of houses, wells without the consent of the landowner; on both sides of transportation routes, water routes and more generally around any works of public use, art works, without the authorisation of the Minister of Mines and the Minister of the relevant structure. In addition, if the mining works impact the quality or quantity of underground water used by local populations, the holder must fulfil such populations' water needs. Transportation routes created by the holder inside or outside the surface area covered by its mining title may be opened for public use if this does not impede the exploitation works.

Sales – the holder has the right to export extracted, produced and processed substances and the freedom to commercialise such substances with the exception of exportations towards countries that are hostile to the Mali State or its nationals.

Taxes – under the 1999 Mining Code, the stability of certain tax and customs regime is guaranteed throughout the validity period of the mining title. However the stability does not apply to the mining duties, taxes, and royalties.

The holder is exempted from certain taxes and customs payable on oil products earmarked for producing power required for the extraction, transport and processing of minerals and for the operating and maintenance of social and sanitary infrastructure built by the holder save for WAEMU common solidary levy (PCS) and ECOWAS common levy (PC).

The holder is subject to the payment of customs duties in accordance with the applicable laws and regulations, but benefits from certain exemptions from admission and entry, exit and customs duties on certain materials for a period ending on the date of commencement of production.

Special tax on certain products of 3% of gross turnover and VAT is payable as from the fourth year following date of first production

Renewal – renewal of the permit is subject to the payment of FCFA 2,000,000.

Annual Royalty – annual area royalty is payable at the rate of FCFA 100,000 per km<sup>2</sup> per year.

Application of the 1999 Mining Code – SOMIFI has been applying the 1999 Mining Code to its Tabakoroni project based on certain provisions of the Finkolo Mining Convention. Such position is confirmed by a compliance certificate issued by the National Director of Mines dated 24 April 2019 which states that the mining legislation applicable to it is the 1999 Mining Code.

## 2 AUSTRALIA

### 2.1 Background

Australia has become an internationally competitive, advanced market economy due in large part to economic reforms adopted in the 1980s and its location in one of the fastest growing regions of the world economy. Long-term concerns include an aging population, pressure on infrastructure, and environmental issues such as floods, droughts, and bushfires. Australia is the driest inhabited continent on earth, making it particularly vulnerable to the challenges of climate change.

Australia is a significant exporter of natural resources, energy, and food. Australia's abundant and diverse natural resources attract high levels of foreign investment and include extensive reserves of coal, iron ore, copper, gold, natural gas, uranium, and renewable energy sources.

### 2.2 Australian Legal Framework and Permitting

Exploration for and mining of minerals and coal in Queensland is pursuant to the *Mineral Resources Act 1989* (Qld) (the "**MR Act**"). The MR Act establishes a regime to be met by entities seeking to engage in the extraction of minerals. This typically begins with gaining an exploration permit for minerals ("**EPM**").

An EPM allows its holder to enter the land the subject of the EPM (subject to the agreement of any land owner or occupier) to undertake exploration activities to determine the existence, quality and quantity of minerals within the permit. However, an EPM holder does not acquire ownership of any minerals discovered on the land the subject of the permit and may only dispose of any minerals discovered with the consent of the Minister of Mines and subject to such terms and conditions as the Minister of Mines thinks fit.

Before an EPM is granted, any native title requirements will need to be addressed.

Carpentaria holds a number of EPMs under which it conducts exploration activity. Where relevant, formal individual agreements are negotiated with the traditional landowners and property owners for each of the exploration prospects before carrying out exploration activities. Exploration activities conducted within these EPMs are highly regulated and reports are routinely submitted to the Queensland Government containing details of work conducted in the area and expenditure.

If exploration identifies the existence of minerals, subject to compliance with the MRA, the holder of an EPM has the right to apply for, and have granted, one or more mining claims, mineral development licences or mining leases ("**ML**") in respect of the land the subject of the permit. The right to grant of a mining claim, mineral development licence or ML is subject to the MRA, which gives the Minister for Mines a residual discretion to refuse such an application, including with reference to the public interest.

An ML may be granted in respect of one or more minerals and allows its holder to enter the land the subject of the ML (subject to the agreement of any land owner or occupier) for the purpose of mining the mineral or minerals specified in the lease, and for all purposes necessary to carry on that mining, and for such purposes, other than mining, as are specified in the ML and are associated with mining.

The registered holder of an ML owns all minerals lawfully mined from the land the subject of the lease.

Before a ML is granted, any native title requirements will need to be addressed and an Environmental Authority will need to be granted in respect of the particular activities to be conducted on that ML.

Royalties are payable to the Queensland Government in respect of all minerals mined from a mining tenement, including an ML. However, in respect of certain minerals including gold, no royalty is



payable on the first A\$100,000 of the total value of that mineral mined and sold, disposed of or used in a financial year.

The royalty rate in respect of gold is offset with reference to the average of the p.m. fix price quoted on the London Bullion Market for the relevant quarter, converted to Australian dollars at the hedge settlement rate for each day of the quarter (Average Market Price). The applicable rates are:

- where the Average Market Price is equal to or lower than A\$600/troy ounce, 2.5% of the gross value;
- where the Average Market Price is greater than A\$600/troy ounce but less than A\$890/troy ounce, between 2.5% and 5% of the gross value based on a sliding scale; and
- where the Average Market Price is equal to or greater than A\$890/troy ounce, 5% of the gross value.

### **2.3 Group licences and approvals in Australia (material to REP1)**

On 13 May 2019, the Queensland Government approved nine new mining leases over areas which support the Ravenswood Expansion Project. The mining leases granted to Carpentaria Gold Pty Ltd, a member of the Group, include:

- the grant of three mining leases (ML 100145, ML 100147 and ML 100149) to cover gaps in the tenure for the Buck Reef West pit;
- the grant of one further mining lease (ML 100172) for the Buck Reef West pit and a waste rock dump;
- the grant of one further mining lease (ML 100156) for mining and infrastructure rights to cover a gap in the existing mining tenure; and
- the grant of four further mining leases (ML 100143, ML 100144, ML 100146 and ML 100148) for other infrastructure such as water pipelines and a noise bund.

On 7 June 2019, the Queensland Government approved the inclusion of additional surface area for three mining leases over areas which support the Ravenswood Expansion Project. The approval for the additional surface area for the mining leases was granted to Carpentaria Gold Pty Ltd, a member of the Group as follows:

- ML 1380 in respect of land required for the Buck Reef West pit and other infrastructure; and
- ML 1574 and ML 1640 in respect of land required for other infrastructure including waste storage, roads, a noise bund and water management.

The Group requires certain outstanding necessary licences and permits for REP1 including the following:

- the inclusion of additional surface area in ML 10170 in respect of land required for the extension and expansion of the existing NTSF;
- a native title agreement (on similar terms to the existing agreement) for the grant of the additional surface area in respect of ML 10170;
- approval for two road intersection upgrades;
- development approval for the noise bund;
- amendments to the Environmental Authority to accommodate the extension and expansion of the existing NTSF; and
- amendments to the Environmental Authority to update the water quality conditions as a result of any issues identified in a recently completed environmental evaluation report.

Proceeding with the Ravenswood Expansion Project is dependent on Board approval which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company.

## 2.4 Heritage Agreements

The Group has entered into the following Cultural Heritage Management Plans (CHMPs) and Heritage Agreements:

### *CHMP in relation to MLs 1682, 10237 and 10170*

This CHMP expires upon the earlier of the expiration, cancellation or surrender of MLs 1682, 10237 and 10170, termination of project activities, the date which is 20 years from the commencement date of the CHMP or if either party gives three months written notice.

Birriah Aboriginal Corporation RNTBC agree not to challenge the validity of the grant of MLs 1682, 10237 and 10170. The observance of the Cultural Heritage Protocol is a fundamental condition of the CHMP and provides a cultural heritage protection and conservation strategy and potential requirement for monitors.

### *CHMP (in relation to MLAs 100143, 100144, 100145, 100148, 100156, 100172 and an application for inclusion of additional surface area within ML 1380)*

The CHMP in relation to MLAs 100143, 100144, 100145, 100148, 100156, 100172 and an application for inclusion of additional surface area within ML 1380 is attached to the "Native Title Agreement - Ravenswood Expansion Project" and adopts the terms of the CHMP referred to above in relation to MLs 1682, 10237 and 10170.

### *Deed of Heritage Agreement made 15 August 2017 between the Chief Executive of the Department of Environment and Heritage Protection, the Department of Education and Training and Carpentaria Gold Pty Ltd in respect of the Ravenswood State School and Residence*

Heritage Agreement required under the *Queensland Heritage Act 1992* (Qld) to permit development on the Ravenswood School and Residence heritage place for the Buck Reef West expansion.

### *Exemption Certificate for development at Ravenswood State School and Residence granted on 15 August 2017*

This certificate is valid for a period of six years and is granted under the *Queensland Heritage Act 1992* (Qld) to permit development on the Ravenswood School and Residence heritage place for the Buck Reef West expansion.

### *Heritage Agreement made 10 August 2017 between the Chief Executive of the Department of Environment and Heritage Protection and Carpentaria Gold Pty Ltd in respect of the Ravenswood Mining Landscape and Chinese Settlement Area*

This Heritage Agreement was required under the *Queensland Heritage Act 1992* (Qld) to permit development on the Ravenswood Mining Landscape and Chinese Settlement Area heritage place for the Buck Reef West expansion.

### *Exemption Certificate for development at Ravenswood Mining Landscape and Chinese Settlement Area granted on 15 August 2017*

Exemption certificate granted under the *Queensland Heritage Act 1992* (Qld) to permit development on the Ravenswood Mining Landscape and Chinese Settlement Area heritage place for the Buck Reef West expansion.

### *Heritage Agreement Deed of Variation (Ravenswood School and Pool) dated 8 April 2019*

This deed of variation was required to include the School's former pool into the Heritage Agreement in respect of the Ravenswood School and Residence to reflect that, subsequent to the execution of this agreement, the heritage listing for the Ravenswood School and Residence was amended to include the school's Former Pool.

## 2.5 Native Title Agreements

The Group has entered into the Ravenswood Expansion Project Native Title Agreement.

Under this agreement, Birriah Aboriginal Corporation RNTBC consents to the grant of MLAs 100143, 100144, 100145, 100148, 100156, 100172 and an application for inclusion of additional surface area within ML 1380 and the undertaking of the Ravenswood Expansion Project.

The parties agreed to adopt the terms of the Cultural Heritage Management Plan in relation to MLs 1682, 10237 and 10170 and dated 26 June 2012, as assigned to the Birriah Aboriginal Corporation RNTBC on 25 November 2016.

## 2.6 Environmental Approvals and Licences

The Group has or will need to enter into the following environmental approvals and licences which are material to REP1:

*Environment Protection and Biodiversity Conservation Act 1999 (Cth) Controlled Action Approval (Sarsfield Expansion Project) dated 23 March 2017*

This approval expires 30 June 2046. The expansion of the Sarsfield open cut gold mine was determined to be a controlled action, but was approved without conditions.

*Environment Protection and Biodiversity Conservation Act 1999 (Cth) Controlled Action Referral Decision - (Buck Reef West Project) dated 14 July 2017*

The recommencement of mining at Buck Reef West mine site was determined not to be a controlled action pursuant to this referral decision.

*Environmental Authority EPML00979013 dated 22 March 2018 in respect of ML 1337, ML 1338, ML 1379, ML 1380, ML 1394, ML 1395, ML 1412, ML 1416, ML 1417, ML 1418, ML 1435, ML 1451, ML 1452, ML 1532, ML 1574, ML 1639, ML 1640, ML 1682, ML 1692, ML 1736, ML 1753, ML 10039, ML 10040, ML 10041, ML 10170, ML 10237, ML 100143, ML 100144, ML 100145, ML 100146, ML 100147, ML 100148, ML 100149, ML 100172, ML 100156*

This EA authorises the recommencement of mining at Buck Reef West and the expansion of the Sarsfield open pit, subject to certain conditions.

*Water licence 57293A held by Carpentaria Gold Pty Ltd and Water Licence 4003888 held by Charters Towers Regional Council and operated by Carpentaria Gold Pty Ltd*

This licence is valid until 30 June 2111 and was granted pursuant to the *Water Act 2000*. Licences authorise the taking of water from the Burdekin River, subject to certain conditions.

*Environmental Authority Amendment in respect of the extension and expansion of the NTSF*

An amendment is required to accommodate the updated proposal to expand the NTSF onto land the subject of ML 10170 and ML 1682, and use this and the final Buck Reef West expanded pit void for tailings storage. This application to amend EA EPML00979013 was lodged with the Department of Environment and Science on 31 December 2018 and the Company expects this approval will be granted in June 2019. This approval is not required prior to the commencement of REP1 but will be required within the first year of REP1.

*Environmental Authority Amendment (Water quality conditions)*

An amendment is required to update the water quality conditions included in the current EA EPML00979013 as a result of any issues identified by the Department of Environment and Science following its assessment of a report submitted to it on 6 January 2019 in response to a 'notice to conduct or commission an environmental evaluation'. This approval is not required prior to the commencement of REP1.

### *Road Intersection upgrade approvals*

These approvals are required to upgrade two intersections to handle additional traffic.

The design review of the intersection upgrades has been completed and conditional approval is expected in the near future, and the remaining traffic management matters (e.g. road impact assessment, management plans etc.) are expected by the end of June 2019.

This approval is required prior to the commencement of REP1.

### *Development approval (Buck Reef noise bund)*

A portion of the noise bund will have to be located outside of the proposed mining lease boundary and approved through a development approval issued by Charters Towers Regional Council. In principle approval has been provided to the Group in respect of this approval, however additional geotechnical and land access works are required to complete the development application submission. This process is expected to be completed by mid-September 2019.

## 2.7 Ravenswood MLs and EPMs

Description	Expiry date	Commentary
<b>Mining Leases</b>		
ML 1337	30/04/28	Authorised for Gold <sup>1</sup>
ML 1338	31/12/19	Authorised for Gold
ML 1379	30/11/34	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore
ML 1380	30/11/34	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore
ML 1394	31/03/28	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 1395	30/04/18 (renewal lodged)	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 1404	28/02/22	Authorised for bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 1412	31/01/23	Authorised for bismuth ore, cobalt ore, copper ore, gold, lead ore, silver ore, tungsten/wolfram/scheelite, zinc ore
ML 1416	31/05/23	Authorised for bismuth ore, cobalt ore, copper ore, gold, lead ore, silver ore, tungsten/wolfram/scheelite, zinc ore
ML 1417	31/05/23	Authorised for bismuth ore, cobalt ore, copper ore, gold, lead ore, silver ore, tungsten/wolfram/scheelite, zinc ore
ML 1418	31/05/23	Authorised for bismuth ore, cobalt ore, copper ore, gold, lead ore, silver ore, tungsten/wolfram/scheelite, zinc ore
ML 1435	31/07/27	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore
ML 1451	31/03/26	Authorised for gold, silver ore
ML 1452	31/12/19	Authorised for gold, silver ore
ML 1520	31/10/24	Authorised for gold, silver ore
ML 1532	31/10/27	Authorised for antimony ore, arsenic ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 1574	30/09/27	Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 1639	30/09/27	Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 1640	31/08/27	Antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore

<sup>1</sup> Lease is subject to a mortgage in favour of NM Rothschild & Sons (Australia) Limited and Citicorp International Limited

Description	Expiry date	Commentary
ML 1682	31/10/22	Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 1692	30/04/28	Authorised purpose: treatment plant/mill site
ML 1722	30/04/28	Authorised purpose: stock pile ore/overburden (to be conditionally surrendered on the grant of ML 100172)
ML 1736	30/06/28	Authorised purpose: tailings/settling dam
ML 1753	30/04/28	Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 10039	31/08/20	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 10040	31/10/19	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 10041	31/10/19	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 10170	31/12/20	Authorised purpose: tailings/settling dam, treatment plant/mill site Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore Add surface area under assessment <sup>23</sup>
ML 10237	31/03/27	Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore
ML 10268	31/08/14 (renewal lodged)	Authorised for copper ore, gold, lead ore, silver ore, zinc ore
ML 100143	31/05/2039	Authorised purpose: pipeline - water only, water management (commencement date 1 June 2019)
ML 100144	31/05/2039	Authorised purpose: pipeline - water only, water management (commencement date 1 June 2019)
ML 100145	31/05/2039	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore (commencement date 1 June 2019)
ML 100146	31/05/2039	Authorised purpose: pipeline - water only, water management (commencement date 1 June 2019)
ML 100147	31/05/2039	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore (commencement date 1 June 2019)
ML 100148	31/05/2039	Authorised purpose: pipeline - water only, water management (commencement date 1 June 2019)
ML 100149	31/05/2039	Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore (commencement date 1 June 2019)
ML 100156	31/05/2039	Authorised purpose: tailings/settling dam Authorised for antimony ore, bismuth ore, copper ore, gold, lead ore, silver ore, zinc ore (commencement date 1 June 2019)
ML 100172	31/05/2039	Authorised purpose: mine waste/spoil dumps, stock pile ore/overburden Authorised for copper ore, gold, lead ore, molybdenum ore, silver ore, zinc ore (commencement date 1 June 2019)
<b>Exploration Permit for Minerals</b>		
EPM 9165	06/04/19	Authorised for all minerals other than coal Application to vary relinquishment schedule conditions is under assessment
EPM 14778	20/11/20	Authorised for all minerals other than coal Permit is subject to a consent caveat in favour of Barclays Bank PLC Australia Branch
EPM 15099	14/05/21	Authorised for all minerals other than coal

<sup>3</sup> NTSF is required in the first year of REP1.

<sup>4</sup> Native title agreement required prior to the end of the first year of REP 1 to allow the extension and expansion of the NTSF.

Description	Expiry date	Commentary
		Permit is subject to a consent caveat in favour of Barclays Bank PLC Australia Branch
EPM 16118	10/02/20	Authorised for all minerals other than coal
EPM 16203	26/09/22	Authorised for all minerals other than coal Permit is subject to a consent caveat in favour of Barclays Bank PLC Australia Branch
EPM 18029	05/02/24	Authorised for all minerals other than coal
EPM 18121	05/01/19 (renewal lodged)	Authorised for all minerals other than coal Application to vary relinquishment schedule conditions and expenditure conditions are under assessment
EPM 18514	05/01/24	Authorised for all minerals other than coal
EPM 19273	05/02/24	Authorised for all minerals other than coal
EPM 25387	28/05/2019 (renewal lodged)	Authorised for all minerals other than coal
EPM 25521	18/03/20	Authorised for all minerals other than coal
EPM 26220	18/12/21	Authorised for all minerals other than coal
EPM 26221	18/12/21	Authorised for all minerals other than coal

## 2.8 Principal terms of the Mining Lease Rights

A mining lease may be granted under the *Mineral Resources Act 1989* (Qld) in respect of one or more minerals for the purpose of mining the mineral or minerals specified in the lease and for all purposes necessary to carry on that mining and such purposes, other than mining, as are specified in the mining lease and are associated with mining. Mining leases are granted by the Minister for an initial term approved by the Minister.

A mining lease under the *Mineral Resources Act 1989* (Qld) authorises the registered holder to enter and occupy the land the subject of the lease for any purpose for which the lease was granted or for any purpose permitted or required under the lease. The registered holder of a mining lease owns all minerals lawfully mined from the land the subject of the lease.

### Renewal

Unless otherwise specified, in the final year of the term of the lease, but before the final six-months of the term, the registered holder may apply to renew the mining lease for a further term. Subsequently, the Minister may renew the term of the mining lease for a further term if satisfied that: the holder has complied with the terms of the lease and the *Mineral Resources Act 1989* (Qld); the land the subject of the lease still contains workable quantities of mineral or mineral bearing ore or is otherwise required for purposes for which the lease was granted; the proposed renewal term is appropriate; the current and proposed uses of the land are appropriate; the holder has appropriate financial and technical resources to carry out the proposed mining operations during the renewal period; and the public interest will not be adversely affected by the renewal.

Where the holder of a mining lease applies for renewal of the lease, provided the application is properly made and is not withdrawn, and the holder continues to comply with the *Mineral Resources Act 1989* (Qld), the mining lease continues in force until the application for renewal of the lease has been determined.

### Obligations

The holder of a mining lease is obliged to:

- use the areas of the mining lease for the purpose for which it was granted;
- pay all rents and royalties due under the lease;

- pay all local government rates and charges lawfully chargeable in respect of the land the subject of the lease; and
- provide security in the form of a bond, guarantee, indemnity or other financial arrangement in respect of its obligations under the lease.

Failure to comply with these obligations may result in the cancellation of the mining lease or the imposition of a penalty.

### **Other Conditions**

Mining leases are subject to various other conditions, including standard conditions for the protection of the environment and certain third party interests in land.

### **Royalties**

Royalties are payable to the Queensland Government in respect to of all minerals mined from a mining tenement, including a mining lease. However, in respect of certain minerals including gold, no royalty is payable on the first A\$100,000 of the total value of that mineral mined and sold, disposed of or used in a financial year.

The royalty rate in respect of gold is offset with reference to the average of the p.m. fix price quoted on the London Bullion Market for the relevant quarter, converted to Australian dollars at the hedge settlement rate for each day of the quarter ("**Average Market Price**"). The applicable rates are:

- where the Average Market Price is equal to or lower than A\$600/troy ounce, 2.5% of the gross value;
- where the Average Market Price is greater than A\$600/troy ounce but less than A\$890/troy ounce, between 2.5% and 5% of the gross value based on a sliding scale; and
- where the Average Market Price is equal to or greater than A\$890/troy ounce, 5% of the gross value.

Principal terms of the Exploration Permits

### **Rights**

An exploration permit under the *Mineral Resources Act 1989* (Qld) authorises the registered holder to enter the land the subject of the permit and explore that land for any mineral to which the permit applies.

An exploration permit holder does not acquire ownership of any minerals discovered on the land the subject of the permit and may only dispose of any minerals discovered with the consent of the Minister and subject to such terms and conditions as the Minister thinks fit.

### **Renewal**

Subject to the Minister determining otherwise, exploration permits are granted for an initial term of up to five years. The Minister may extend the term of an exploration permit by periods of up to five years if satisfied that: the holder has complied with all the covenants and conditions of the permit as well as the *Mineral Resources Act 1989* (Qld); the activities the holder proposes to carry out in the renewal period are appropriate and acceptable; the holder has appropriate financial and technical resources to carry out the proposed activities during the renewal period; and it is in the public interest to grant the renewal.

Where the holder of an exploration permit applies for renewal of the permit, provided the application is properly made and is not withdrawn and the holder continues to comply with the *Mineral Resources Act 1989* (Qld), the exploration permit continues in force until the application for renewal of the permit has been determined.

## **Mining Lease**

Subject to compliance with the *Mineral Resources Act 1989* (Qld), the holder of an exploration permit has the right to apply for, and have granted, one or more mining claims, mineral development licences or mining leases in respect of the land the subject of the permit. The right to grant of a mining claim, mineral development licence or mining lease is subject to the *Mineral Resources Act 1989* (Qld), which gives the Minister a residual discretion to refuse such an application, including with reference to the public interest. Where the holder of an exploration permit applies for a mining claim, mineral development licence or mining lease over that land, the exploration permit continues in force until the application for a the claim, licence or lease has been determined.

## **Obligations**

The holder of an exploration permit is obliged:

- to pay an annual rent;
- unless varied, to comply with approved programs of work and related expenditure commitments in connection with exploration on the exploration permit; and
- unless the Minister decides otherwise, to reduce the area of the permit by:
  - 40% of the number of blocks subject to the exploration permit within three years after the date of grant or renewal; or
  - 50% of the remaining number of blocks subject to the exploration permit within five years after the date of grant or renewal;
- where required, to provide security in the form of a bond, guarantee, indemnity or other financial arrangement in respect of its obligations under the permit; and
- to, within 14 days of discovering on the land the subject of the permit any mineral of commercial value in economic quantities, report that discovery to the Minister.

Failure to comply with these obligations may result in cancellation of the exploration permit or the imposition of a penalty.

## **Other Conditions**

Exploration permits are subject to various other conditions, including standard conditions for the protection of the environment and certain third party interests in land.

## **3 GHANA**

### **3.1 Ghana**

Formerly known as the Gold Coast, Ghana in 1957 became the first sub-Saharan country in colonial Africa to gain its independence.

Ghana has a market-based economy with relatively few policy barriers to trade and investment in comparison with other countries in the region, and Ghana is endowed with natural resources. Ghana's economy was strengthened by a quarter century of relatively sound management, a competitive business environment, and sustained reductions in poverty levels, but in recent years has suffered the consequences of loose fiscal policy, high budget and current account deficits, and a depreciating currency.



## 3.2 Ghanaian Legal Framework and Permitting

### 3.2.1 Legal Framework

#### *Ownership of Minerals*

Under the Constitution of the Republic of Ghana, 1992, all minerals in their natural state in, under or upon any land or water are the property of the Republic of Ghana and vested in the President on behalf of the people of Ghana.

#### *Ownership of Land*

In Ghana, the ownership of land on which there are mineral deposits is separate from the ownership of minerals. While, as indicated above, minerals are vested in the state, much of land in Ghana is held under customary law and owned by communities whose members are entitled to exercise a range of rights in it. Where the landowning community is presided over by a chief (a traditional ruler), the land is referred to as "stool land" or, in certain parts of the country, "skin land".

No person is allowed to conduct activities on or over land in Ghana for the search for or mining of a mineral unless granted a mineral right. This is so even where the person has a right or title to the land. The grant of a mineral right entitles the holder to enter the land for the purpose of conducting the mineral operations for which the right has been granted.

Pursuant to the provisions of the Constitution of Ghana, 1992, the development of any stool land is not permitted unless the Regional Lands Commission has certified that the proposal is consistent with the development plan drawn up by the local District Assembly. There are also provisions in the Constitution governing the payment of revenues generated from stool lands and the general administration and development of such lands.

#### *Minerals and Mining Act, 2006*

The Minerals and Mining Act, 2006 ("**Act 703**") requires that a permit be obtained from the Minister responsible for mines to engage in a search for or the mining of any mineral. Under the Act, an application for a mineral right is made to the Minister through the Minerals Commission. The Commission is required to submit its recommendation on the application to the Minister.

Act 703 makes provision for the following types of mineral rights: reconnaissance licences, prospecting licences and mining leases.

#### *The Minerals Commission Act, 1993 (Act 450)*

The Minerals Commission is a body established under the Minerals Commission Act, 1993 ("**Act 450**") to regulate and manage the utilisation of the mineral resources of Ghana and co-ordinate policies in relation to them. In this regard the Commission is mandated under Act 450 to, among other things, advise the Minister on matters relating to minerals.

### 3.2.2 Permitting

The Group requires the following licences and permits to carry on its business:

#### *Mining Operating Permit*

The Minerals and Mining (Health, Safety and Technical) Regulations, 2012 (L.I. 2182) requires a person who is granted a mining lease to, before the commencement of operation of the mine, obtain a Mining Operating Permit from the Inspectorate Division of the Commission. Provision is made for a temporary Mining Operating Permit to enable the holder to submit a detailed Main Mining Operating Plan covering activities over the lifetime of the mining operations for approval and issuance of a final operating permit.

### *Environmental Permit*

The Environmental Assessment Regulations, 1999 (L.I. 1652) prohibit the commencement of an undertaking which in the opinion of the Environmental Protection Agency (EPA) has or is likely to have an adverse effect on the environment unless the undertaking has been registered and an environmental permit has been issued by the EPA prior to its commencement.

Where an environmental permit is granted to an applicant, the permit is valid for a period of 18 months effective from the date of issue. Failure to commence operation of the undertaking within the 18 months shall render the permit invalid after the period.

### *Licence to export, sell or dispose of minerals*

The exportation, sale or disposal of minerals requires a licence from the Minister for Lands and Natural Resources. The Minister may, on the recommendation of the Minerals Commission, prescribe terms and conditions for the licence. The licence is not transferable. However, a mining lease authorises the holder, according to section 46 of the Minerals and Mining Act to, inter alia, "take and remove from the land the specified minerals and to dispose of them in accordance with the holder's approved marketing plan".

Under the Minerals and Mining (General) Regulations, 2012 (L.I. 2173), an application by a holder of a mining lease for a licence to export, sell or dispose of gold or other precious minerals produced by the holder must be accompanied by a refining contract and a sales and marketing agreement. Where the application is by a person other than the holder of a mining lease, the application shall be accompanied by particulars of financial and technical resources available to the applicant, an estimate of the amount of money proposed to be spent, a business plan or particulars of the program of the proposed operations and a localisation program. The localisation program must include a statement indicating how the applicant intends to train Ghanaians to replace expatriates within a specified time frame, if available.

The licence to export, sell or dispose of minerals may specify conditions.

### *Ghana Investment Promotion Centre*

Under the Ghana Investment Promotion Centre Act, 2013 ("**Act 865**"), save for enterprises specifically reserved for Ghanaians, all other enterprises in which foreign participation is allowed are required to register with the GIPC. The exception relating to those engaged in mining and petroleum operations in the predecessor to Act 865 no longer exists.

Act 865 provides for the minimum foreign capital participation of a non-Ghanaian in any business enterprise in Ghana. In the case of a joint enterprise with a Ghanaian partner, the non-Ghanaian must invest foreign capital of not less than US\$200,000 or its equivalent worth in capital goods by way of equity participation and the Ghanaian partner must not have less than 10% equity participation in the joint enterprise. In the case where the enterprise is wholly owned by a non-Ghanaian there must be an investment of foreign capital of not less than US\$500,000 or its equivalent worth in capital goods by way of equity capital. Registration with the Centre is renewable every two years.

Under the GIPC Act, failure to register or renew a registration with the GIPC attracts a fine of not less than GH¢6,000 and not more than GH¢12,000. There is an additional fine of between GH¢300 and not more than GH¢600 for each day of the default. The GIPC may also advise the Bank of Ghana to suspend any remittances including transfer of capital, profits and dividends from or by the company and take any other action that the GIPC considers appropriate in the event of default under Section 41(2) of the GIPC Act.

### *Development Permit*

Section 91 of the Local Governance Act, 2016 ("**Act 936**") requires that the prior written permission of the planning authority of a district is obtained before any physical development is carried out in the

district. A "physical development" "means the carrying out of building, engineering, mining or other operations on, in, under or over land, or the material change in the existing use of land or a building and includes the sub-division of land, the disposal of waste on land including the discharge of effluent into a body of still or running water and the erection of advertisement or other hoarding."

Act 936 allows the District Planning Authority to impose conditions on the grant of a permit and is also empowered to impose additional conditions on a permit "already granted".

The District Planning Authority is empowered, where the requisite development permit has not been obtained or the conditions of a permit are not complied with to "give written notice in such form as may be prescribed by regulations to the owner of the land requiring him on or before a date specified in the notice to show cause in writing addressed to the District Planning Authority why the unauthorised development should not be prohibited, altered, abated, removed or demolished" and if no such cause is shown the Authority "may carry out the prohibition, abatement, alteration, removal or demolition and recover any expenses incurred from the owner of the land as if it were a debt due to the District Planning Authority".

A District Planning Authority may also demand the "immediate stoppage of the execution of any work carried out contrary to Act 936 or to the terms of an approved development plan".

#### *Operating Licence and Permit for the acquisition, use, transportation and storage of explosives*

Regulation 23 of the Minerals and Mining (Explosives) Regulations, 2012 ("**L.I. 2177**") prohibits the construction of a building or other structure to be used as a magazine for the storage of explosives unless an operating license has been granted for that purpose by the Minerals Commission.

Regulation 32 of L.I. 2177 prohibits the storage of explosives in a magazine unless a permit has been issued for that purpose by the Minerals Commission. A permit to store explosives is valid for one year and is renewable on application.

Under L.I. 2177, an operating licence is required for the purchase and use or transportation of explosives. There are separate operating licences for the purchase and use of explosives and for transportation. Each is valid for a period of one calendar year and is renewable on application made one month before the end of each year. Additionally, a permit is required for each occasion on which explosives are being transported in respect of which the specific type and amount of explosives must be indicated.

#### *Water Resources Commission Act, 1996 (Act 522)*

The use of water resources is regulated by the Water Resources Commission Act, 1996 ("**Act 522**") and the Water Use Regulations, 2001 ("**L.I. 1692**"). Under Act 522, the property in and control of all water resources is vested in the President on behalf of and in trust for the people of Ghana. It provides that no person shall (a) divert, dam, store, abstract or use water resources; or (b) construct or maintain any works for the use of water resources except in accordance with the provisions of the Act.

Subject to obtaining the requisite approvals or licences under Act 522, a holder of a mineral right may, for purposes of or ancillary to the mineral operations, obtain, divert, impound, convey and use water from a river, stream, underground reservoir or watercourse within the land the subject of the mineral right.

Act 522 established the Water Resource Commission (the "**Water Commission**") and vested it with responsibility "for the regulation and management of the utilisation of water resources..." The Commission is empowered to grant water rights. Additionally, it may issue enforcement notices requiring steps to be taken in relation to activities involving use of water resources which pose threats to the environment or to public health, including the putting of a stop to the activities.

### *Business Operating Permit*

Generally, the bylaws of District Assemblies in Ghana require that businesses operating within the area of jurisdiction of the District Assembly obtain from them a business operating permit at a fee. The permit is renewable yearly.

### *Fire Permit*

The Fire Precaution (Premises) Regulations, 2003 ("**L.I. 1724**"), at regulation 1, requires premises used as, inter alia, a "place of work" or "for a purpose which involves access to the premises by members of the public, whether on payment or not" to have a fire certificate issued by the Chief Fire Officer. It is the statutory obligation of the owner or occupier of the premises to obtain this certificate. The Chief Fire Officer has the power to restrict or even prohibit the use of premises "if the fire risk to persons on the premises is high" until acceptable steps have been taken to reduce the fire risks.

The certificate is valid for 12 months and is renewable.

L.I. 1724 allows the Chief Fire Officer to: (a) enter premises to inspect their fire certificate; (b) to ensure that properly maintained means of escape as well as firefighting equipment is properly maintained.

### 3.2.3 Status of the Group's licensing/permitting in Ghana

While mining and environmental permits and approval were held by Noble Mineral Resources Limited (a previous owner of the Bibiani Gold Mine) they excluded underground mining and, in some cases, permits have expired or were cancelled when the operation was placed on care and maintenance or ownership was changed.

The Group currently maintains an Environmental Permit obtained from the EPA. In addition, for the mine to operate legally, a Mining Operating Permit from the Minerals Commission is required. The Group expects to have this permit in place during 2019.

Below in paragraph 3.3 is a summary of the licences and permits required by the Group in Ghana and the status of those licences and permits:

### 3.3 Group licences in Ghana

Description	Duration of Licence	Commentary
Mining Lease	30 years, to expire on 17 May 2027	The lease was originally issued to Ashanti Goldfields (Bibiani) Limited and is currently being held by the Group for the residue of its original term.

The principal terms of the Mining Lease are set out below.

### **Rights**

Exclusive right to work, develop and produce gold in the Lease Area (including, the processing, storing and transportation of ore and materials together with the rights and powers reasonably incidental thereto) subject to the other terms of the Lease.

## **Renewal**

Lease to be renewed upon such terms and conditions as the parties may agree upon an application of the holder not less than six-months before the expiration of the Agreement. The renewal is subject to the holder being in compliance with all of its obligations under the Agreement.

## **Annual Rent**

An annual rent of GHS 5 per square metre is payable half yearly in advance.

## **Royalty**

The holder is required to pay royalty to Government as prescribed by legislation.

## **Taxes**

The holder is required to pay tax in accordance with the laws of the Republic save that Lessee is not required to deduct or withhold any taxes from any payment made from its External Account of (i) any interest or other costs or fees paid in respect of any borrowing by or on behalf of the lessee in foreign currency for project; and (ii) any dividends paid to shareholders. The current rate of corporate tax for mining companies is 35%.

## **Obligations**

The key obligations of the holder are to:

- commence commercial production of gold within two years from the date of the mining lease.
- conduct its operations in a manner consistent with good commercial mining practices so as not to unreasonably interfere with vegetation in the Lease Area or with customary rights and privileges of persons to hunt and snare game, gather firewood for domestic purposes or to collect snails.
- conduct all of its operations with due diligence, efficiency, safety and economy, in accordance with good mining practices and in a proper and workmanlike manner, observing sound technical and engineering principles using appropriate modern and effective equipment, machinery, materials and methods, and pay particular attention to conservation of resources, reclamation of land and environmental protection generally.
- mine and extract ore utilising methods which include quarrying, pitting, trenching, stoping, shaft sinking, and dredging in the Lease Area.
- maintain all equipment in good and safe condition, normal wear and tear excluded and keep all excavated areas, shafts, pits and trenches in good and safe condition and take all practical steps (i) to prevent damage to adjoining farms and villages; (ii) to avoid damage to trees, crops, buildings, structures and other property in the Lease Area; to the extent, however that any such damage is necessary or unavoidable, the lessee to pay fair and reasonable compensation.
- as far as is necessary or practicable, provide and maintain in good repair and condition roads, gates, stiles and fences for the convenient occupation of the Lease Area.
- to notify the Minister, Chief Executive of the Minerals Commission and the Head of the Inspectorate Division of the Minerals Commission, and the Director of the Ghana Geological Survey of the discovery in the Lease Area of any other mineral deposits apart from gold. The holder will be given the first opportunity to explore for and work the said minerals subject to a satisfactory arrangement with the Government.

In addition, the holder is prohibited from conducting any operations in a sacred area and requires the prior consent in writing of the Minister to conduct any operation within (i) 50 yards of any building, installation, reservoir or dam, public road, railway or area appropriated for railway; and (ii) in an area

occupied by a market, burial ground/cemetery or Government Office, or situated within a town or village or set apart for, used, appropriated or dedicated to a public purpose.

### **Transfer/Assignment**

The holder cannot assign part or whole of Lease Area without the consent of the Government of the Republic of Ghana. No shares of the capital stock of the holder can be transferred without the prior consent in writing of the Government unless such transfer will not result in a change in control of the holder. A change in control under the Minerals and Mining Act, 2006 (Act 703) occurs where 20% or more of the shares of a mining company are transferred. In such circumstances, there are provisions for notification and obtaining the Minister's 'no objection' to the transfer. There is, however, an exemption from such notification and 'no objection' requirements where the mining company is listed.

### **Termination**

If in its opinion the mine can no longer be economically worked, the holder can terminate the Agreement by giving not less than nine months' notice to the Government. Such termination shall be without prejudice to any obligation or liability incurred by the holder prior to the effective date of such termination.

The Government may after allowing the holder at least three months to remedy the breach terminate the lease in any of the following circumstances: (i) the holder fails to make any of the payments provided for on the payment date; (ii) contravention or failure by the holder to comply with any of the other provisions of the Lease; (iii) insolvency or bankruptcy or entry into by the holder of any agreement or composition with its creditors or liquidation of the holder; (iv) the holder makes any false statement or makes such a statement recklessly without due regard as to whether it is true or false. Any such termination is subject to and without prejudice to any obligation or liability imposed or incurred under the Lease prior to the effective date of termination and to such rights as the Government may have under law.

Upon the termination or expiry of the Mining Lease, the immovable assets of the lessee in the Lease Area and all other appurtenances, pits, trenches and boreholes become the property of the Government without charge. Likewise all materials, vehicles and other movable assets in the Lease Area which are fully depreciated for tax purposes. Those movable assets which are not depreciated for tax purposes shall be offered for sale to Government.

The holder is permitted to surrender on not less than three months' notice in writing, all its rights in respect of part of the Lease Area not larger in aggregate than 20% of the said area.

### **Disputes**

The agreement is governed by the Laws of the Republic of Ghana and subject to arbitration under the Arbitration Rules of the United Nations Commission on International Trade Law.

#### **Amendments to the Mining Lease**

In a letter dated 12 June 2014 giving ministerial approval for the Company to become the controller of Noble Gold Bibiani Limited, subject to certain conditions, it was stated, *inter alia*, that these conditions would be incorporated in a new mining lease to be granted to the company to be renamed Bibiani Gold Ltd. These conditions included:

- The former employees of Noble Gold Bibiani Limited shall be paid their full entitlements in accordance with the terms agreed by the Ghana Mine Workers Union, on behalf of the employees, under a Memorandum of Understanding and Court ordered Scheme of Arrangement, subject to any future revisions acceptable to the Ghana Mine Workers Union, Noble Gold Bibiani Ltd and the Minister;
- The former employees of Noble Gold Bibiani Limited shall be given preference in hiring by the Group when mining operations are recommenced provided the former employees have the relevant experience and/or qualifications for the required positions;

- All indebtedness to local creditors shall be resolved in accordance with the terms agreed by the creditors and approved by the High Court under the Scheme of Arrangement;
- All taxes and other fiscal liabilities determined to be owing by the date of the mining lease shall be settled in full;
- All outstanding environmental issues shall be resolved to the satisfaction of the Environmental Protection Agency;
- The Group shall submit an action plan supported with time lines and a budget which will form the basis of monitoring for the period of the confirmatory exploration/feasibility study. The Group shall commit to the planned expenditure and agreed milestones. This requirement shall be determined not later than 30 days after the grant of mining lease;
- The Group shall submit a feasibility study report to the Commission not later than 24 months from the date of mining lease;
- The Group shall continue or improve all Corporate Social Responsibility projects agreed to be completed by Noble Gold Bibiani Ltd;
- Government shall hold a 10% free carried interest in the company in accordance with section 43 of Act 703. This means that the Government is entitled to 10% of the equity of Mensin and it shall not be required to make any payment for that equity. Further, no special rights attach to these shares. The rights attributable to the interest and how dividends will be determined and paid shall be as agreed between the Government and the holder of the mining lease;
- The Group shall under no circumstances enter into any transaction that has the effect of transferring the mining lease to a third party without the approval of the Minister. Where the terms of any proposed transfer to a third party are deemed to be unacceptable to Government or would result in the former shareholders and directors of Noble acquiring any interest in the mining lease, the Minister shall not approve the transaction; and
- The Minister may terminate the mining lease without notice to show cause if the company breaches any of the above conditions.

The Group also currently holds an 18 month Environmental Permit which expires on 18 December 2019. In addition, the Company expects to have a Mining Operating Permit in place during 2019.

The Group does not currently have a licence to export, sell or dispose of minerals as it is not currently producing gold at the Bibiani Gold Mine. It will require a Development Permit in order to undertake development of the mine. Once the Group has obtained this permit and commenced redevelopment, it will be required to obtain an Operating Licence and Permit for the acquisition, transportation and storage of explosives.

The Group is in the process of acquiring or renewing the following permits:

- GIPC Registration;
- Permit from Water Resources Commission;
- Business Operating Permit. The Group has received invoicing from the Bibiani-Anhwiaso-Bekwai Municipal Assembly for the issue of the 2019 licence which will be paid shortly; and
- Fire Permit.

**Part III**  
**Directors, Senior Management and Corporate Governance**

**1 DIRECTORS AND SENIOR MANAGEMENT**

1.1 The Board comprises the following people:

<b>Name</b>	<b>Position</b>
Marthinus (Martin) John Botha	Non-Executive Chairman
John Paul Welborn	Managing Director and Chief Executive Officer
Yasmin Broughton	Non-Executive Director
Mark Stephen Potts	Non-Executive Director
Sabina Jane Shugg	Non-Executive Director
Peter Ross Sullivan	Non-Executive Director

The business address of each of the Directors is Level 2, 15 – 17 William Street Perth, Western Australia.

1.2 Brief biographical details of each of the Directors are set out below and a list of their other directorships is set out at Section 6 of Part III.

**Marthinus (Martin) Botha, Non-Executive Chairman (aged 60)**

Mr Martin Botha was appointed Chairman in June 2017 after being appointed to the board in February 2014. Mr Botha is an Engineering Surveyor by training with 30 years' experience in international investment banking. A founding director in Standard Bank Plc's London-centred international operations, Mr Botha established and led the development of the core global natural resources trading and financing franchises, as well as various geographic operations, including those in the Russian Commonwealth of Independent States, Turkey and the Middle East.

**John Welborn, Managing Director and Chief Executive Officer (aged 48)**

Mr John Welborn was appointed Managing Director and Chief Executive Officer on 1 July 2015. Mr Welborn is a Chartered Accountant with a Bachelor of Commerce degree from the University of Western Australia, is a Fellow of Chartered Accountants Australia and New Zealand and is a member of the Australian Institute of Mining and Metallurgy and the Australian Institute of Company Directors.

**Yasmin Broughton, Non-Executive Director (aged 47)**

Ms Yasmin Broughton is a Non-Executive Director and was appointed to the board in June 2017. Ms Broughton is a corporate lawyer with significant experience working as both a director and an executive in a diverse range of industries. Ms Broughton has over 15 years' experience working with ASX-listed companies as an officer and has a deep understanding of corporate governance, including compliance and managing complex legal issues.



**Mark Potts, Non-Executive Director (aged 52)**

Mr Mark Potts is a Non-Executive Director and was appointed to the board in June 2017. Mr Potts has held senior executive and board positions, in start-ups and large corporate environments, over a 30-year career. Most recently Mr Potts was the worldwide CTO and VP for Corporate Strategy at Hewlett Packard Enterprise. Prior to Hewlett Packard, Mr Potts was the founder of several successful, venture backed start-ups, that have driven technology disruption and business innovation in varied industries.

**Sabina Shugg, Non-Executive Director (aged 51)**

Ms Sabina Shugg was appointed to the Board as a Non-Executive Director on 7 September 2018. Ms Shugg is a mining engineer with over 30 years' experience involving senior operational roles with leading mining and consulting organisations. Ms Shugg holds a Master of Business Administration from the University of Western Australia, a Mining Engineering degree from the Western Australian School of Mines, and a Western Australian First Class Mine Manager's Certificate of Competency. In 2015, Ms Shugg was awarded a Member of the General Division of the Order of Australia for significant service to the mining industry through executive roles in the resources sector and as a role model and mentor to women.

**Peter Sullivan, Non-Executive Director (aged 63)**

Mr Peter Sullivan was appointed Managing Director and Chief Executive Officer of the Company in 2001 and retired as Chief Executive Officer on 30 June 2015 at which point he became a Non-Executive Director of the Company. Mr Sullivan is an engineer and has been involved in the management and strategic development of resource companies and projects for over 25 years.

1.3 The following are Senior Managers of the Group:

Name	Age	Position
Lee-Anne de Bruin	44	Chief Financial Officer
David Kelly	54	Acting Chief Operating Officer
Amber Stanton	40	General Counsel and Company Secretary

The business address of each of the Senior Managers is Level 2, 15 – 17 William Street, Perth, Western Australia.

**Brief biographical details of each of the Senior Managers are set out below:****Lee-Anne de Bruin, Chief Financial Officer (aged 44)**

Ms Lee-Anne de Bruin joined the Group as Chief Financial Officer (CFO) in February 2017 and is responsible for the accounting, financial, taxation, treasury, technology and human resources functions of the Group. Ms de Bruin has over 16 years of financial, operational and strategic management experience across multiple industry sectors, including 12 years in the mining industry in both Africa and Australia, where she has held both CFO and Managing Director positions. Ms de Bruin is a member of the South African Institute of Chartered Accountants.

**David Kelly, Acting Chief Operating Officer (aged 54)**

Mr David Kelly joined the Group in 2016 as General Manager – Corporate Strategy and is currently Acting Chief Operating Officer. Mr Kelly is responsible for all aspects of the Group's operations and projects. An experienced geologist and Company Director, Mr Kelly has served in various senior executive roles in the resources sector for the last 30 years including as an investment banker and corporate advisor. Currently a non-executive director of ASX listed companies Predictive Discovery Limited and Manas Resources Limited, Mr Kelly has previously served as a director of Ridge Resources Limited, Renaissance Minerals Limited and Pacific Ore Limited.

## **Amber Stanton, General Counsel and Company Secretary (aged 40)**

Ms Amber Stanton is a corporate lawyer and was appointed as General Counsel / Company Secretary in August 2017. Prior to joining the Group, Ms Stanton was a partner at two international law firms, specialising in mergers and acquisitions, capital markets, energy and resources and general corporate and commercial matters. Ms Stanton was the WA winner of the 2011 Telstra Business Women's Award (Corporate and Private Sector).

## **2 CORPORATE GOVERNANCE**

### **2.1 The Board**

The Board comprises the Chairman, four Non-Executive Directors and the Managing Director & Chief Executive Officer.

The Board is responsible for evaluating and setting the strategic direction for the Group, establishing goals for management and monitoring the achievement of these goals. The Chief Executive Officer is responsible to the Board for the day-to-day management of the Group.

The specific responsibilities of the Board include:

- providing strategic direction to the Group and deciding upon the Group's strategies and objectives in conjunction with the CEO;
- monitoring the strategic direction of the Group and the attainment of its strategies and objectives in conjunction with the CEO;
- monitoring the operational and financial position and performance of the Company specifically and the Group generally;
- driving corporate performance and delivering shareholder value;
- ensuring a prudential and ethical base to the Group's conduct and activities having regard to the relevant interests of its stakeholders;
- assuring the principal risks faced by the Group are identified and overseeing that appropriate control and monitoring systems are in place to manage the impact of these risks;
- reviewing and approving the Group's internal compliance and control systems and codes of conduct;
- ensuring that the Group's financial and other reporting mechanisms are designed to result in adequate, accurate and timely information being provided to the Board;
- appointing and, where appropriate, removing the CEO, monitoring other key executive appointments, and planning for executive succession;
- overseeing and evaluating the performance of the CEO, and through the CEO, receiving reports on the performance of other senior executives in the context of the Group's strategies and objectives and their attainment;
- reviewing and approving the CEO's and, in conjunction with the CEO, other senior executives' remuneration;
- approving the Group's budgets and business plans and monitoring major capital expenditures, acquisitions and divestitures, and capital management generally;
- ensuring that the Group's financial results are appropriately and accurately reported on in a timely manner in accordance with regulatory requirements;

- as part of its oversight and monitoring function, overseeing that the Group's governance systems and processes are designed and applied to ensure compliance with all Applicable Laws, governmental regulations and accounting standards;
- ensuring that the Group's affairs are conducted with transparency and accountability;
- overseeing the design and implementation of appropriate and effective policies, processes and codes of conduct for the Group (including with respect to ethics, values, conduct, securities trading, disclosure of securities' price sensitive information, employment, remuneration, diversity and otherwise) as well as monitoring and reviewing those policies, processes and codes of conduct from time to time;
- ensuring sound Board succession planning including strategies to ensure the Board is comprised of individuals who are able to discharge the responsibilities of Directors; and
- overseeing shareholder and stakeholder engagement, reporting and information flows.

The Board's role and the Group's corporate governance practices are periodically reviewed and updated as required.

The Board has delegated responsibilities for the day-to-day operational, corporate, financial and administrative activities of the Group to the Managing Director & Chief Executive Officer.

Details of the skills, experience and expertise relevant to the position of each Director who is in office at the date of this document, are included in Section 1.2 of this Part III.

In assessing the composition of the Board, the Directors have followed the ATSC Corporate Governance Principles and Recommendations when assessing the independence of the directors which define an independent director to be a director who:

- is a non-executive director;
- holds less than 5% of the voting shares of the Company and is not an officer of, or otherwise associated directly or indirectly with, a shareholder of more than 5% of the voting shares of the Company;
- within the last three years has not been employed in an executive capacity by the Company or another group member, or been a Director after ceasing to hold any such employment;
- within the last three years has not been a partner, director or senior employee of a material professional adviser or a material consultant to the Company or another group member, or an employee materially associated with the service provided;
- is not a material supplier or customer of the Company or other group member, or an officer of or otherwise associated directly or indirectly with a material supplier or customer;
- has no material contractual relationship with the Company or another member of the Group other than as a Director of the Company;
- has not served on the board for a period which could, or could reasonably be perceived to, materially interfere with the Director's ability to act in the best interests of the Company; and
- is free from any interest and any business or other relationship which could, or could reasonably be perceived to, materially interfere with the Director's ability to act in the best interests of the Company.

Materiality for these purposes is determined on both quantitative and qualitative bases. An amount which is greater than five percent of either the net assets of the Company or an individual director's net worth is considered material for these purposes.

The board has assessed the independence status of the directors and has determined that there are 5 independent directors, being Mr Botha, Ms Broughton, Mr Potts, Ms Shugg and Mr Sullivan.

The membership of the Board, its activities and composition is subject to periodic review. The criteria for determining the identification and appointment of a suitable candidate for the Board includes the quality of the individual, background of experience and achievement, compatibility with other Board members, credibility within the Group's scope of activities, intellectual ability to contribute to the Board duties and physical ability to undertake the Board duties and responsibilities.

Directors are initially appointed by the full Board subject to election by Shareholders at the next annual general meeting. Under the Constitution the tenure of directors (other than the managing director, and only one managing director where the position is jointly held) is subject to reappointment by Shareholders not later than the third anniversary following his last appointment. Subject to the requirements of the Australian Corporations Act 2001, the Board does not subscribe to the principle of retirement age and there is no maximum period of service as a director. A managing director may be appointed for any period and on any terms the directors think fit and, subject to the terms of any agreement entered into, the Board may revoke any appointment.

## **2.2 ASX Corporate Governance Council's Corporate Governance Principles and Recommendations**

The Company currently seeks and, following Admission will, to the extent practicable for a company of its size and nature, continue to seek to follow the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations ("**ASXCGCs**") to the extent practicable for a company of its size and nature.

As at the date of this prospectus, the Company complies with Australian corporate governance requirements applicable to a company listed on the ASX. The ASX Listing Rules require companies to either adopt the ASXCGCs or explain why they have not adopted a recommendation if they consider it inappropriate in the company's circumstances.

## **2.3 Remuneration Committee**

The Remuneration Committee is responsible for recommending, monitoring and reviewing compensation arrangements for the Directors, the CEO, the executive team and Group employees, and making subsequent recommendations to the Board.

Under the Remuneration Committee's terms of reference, its principal functions include:

- (a) reviewing prevailing external remuneration benchmarks for comparable positions, with comparable responsibilities, within comparable companies (revenue, employees, size and spread) including in comparable industries to that of the Group;
- (b) assessing appropriate remuneration policies, levels and packages for Directors, the CEO, and (in consultation with the CEO) other senior executives;
- (c) monitoring the implementation by the Group of such remuneration policies;
- (d) recommending the Group's remuneration policies to the Board so as to:
  - (i) motivate Directors and senior executives to pursue the long-term growth and success of the Group within an appropriate control framework; and
  - (ii) for senior executives, demonstrate a clear relationship between performance and remuneration; and
- (e) reviewing and considering for recommendation to the Board:
  - (i) equity based remuneration plans for senior executives and other employees;

- (ii) superannuation arrangements generally;
- (iii) whether there is any gender or other inappropriate bias in the Company's remuneration policies or practices; and
- (iv) short term incentive and long term incentive arrangements for senior executives.

## 2.4 **Audit and Risk Committee**

The Audit and Risk Committee oversees and makes recommendations to the Board in relation to the Group's financial position, the adequacy of the Group's performance and reporting processes, the establishment and performance of internal and external audit functions and the effectiveness of the Group's systems of risk identification, management and mitigation.

Under the Audit and Risk Committee's terms of reference, its principal functions include:

### *External audit*

- (a) recommending selection, removal (as appropriate) and remuneration of the external auditor and to monitor the external auditor's independence;
- (b) providing instruction to the external auditor including ensuring the scope and adequacy of the external audit;
- (c) overseeing the availability of any assistance as reasonably required by the external auditor;
- (d) receiving external auditor's preliminary audit or review reports;
- (e) overseeing and monitoring implementation of external auditor's recommendations (as accepted); and
- (f) ensuring that the external audit approach covers all financial statement areas where there is a perceived risk of material misstatement.

### *Internal audit*

- (a) overseeing and monitoring the scope and adequacy of the Group's internal controls and compliance requirements to assure integrity in the Group's operations and affairs;
- (b) making recommendations to the Board in relation to the appointment or removal of the internal auditor;
- (c) approving and ensuring resourcing of the internal audit function, as appropriate, including budgetary allocation for staffing and external consulting support (as necessary); and
- (d) reviewing and assessing the performance and objectivity of the Group's internal audit function, as applicable.

### *Financial statements and reporting generally*

- (a) overseeing the adequacy of the Group's corporate reporting processes;
- (b) overseeing whether the Group's financial statements reflect the understanding of the Committee members and whether in their opinion they provide a true and fair view of the financial position and performance of the Group;
- (c) reviewing, the appropriateness of relevant accounting judgements or choices exercised by management in preparing the financial statements;

- (d) overseeing and monitoring the application of accounting policies and reporting of financial information to security holders, regulators and generally; and
- (e) reporting on these matters to the Board, with recommendations as appropriate.

#### *Risk function*

- (a) making recommendations to the Board as to the approval of new policies, or amendments to existing policies, for identifying and managing/mitigating/transferring risk including in accordance with the Company's Enterprise Risk Management Framework;
- (b) making recommendations to the Board as to the approval of new policies, or amendments to existing policies, for business continuity and crisis planning risk management;
- (c) receiving ongoing risk management reports;
- (d) reviewing the Company's Enterprise Risk Management Framework, standards and management processes at least annually to allow the Committee to satisfy itself that they are sound and making recommendations to the Board as to appropriate amendments;
- (e) reviewing and ensuring the Company carries appropriate levels of insurance; and
- (f) reviewing and monitoring terms of insurance policies.

## **2.5 Nomination Committee**

The Nomination Committee ensure Board members are appropriately qualified and experienced to discharge their responsibilities and implements procedures to assess the performance of the CEO and the executive committee.

Under the Nomination Committee's terms of reference, its principal functions include:

- (a) Board and Committee membership, succession planning and performance including through the development and use of a board skills matrix (or similar tool):
  - (i) assessing the mix of skills, experience and diversity that the Board is looking to achieve in the Board's membership and that is currently represented on the Board;
  - (ii) establishing processes for the identification and recruiting of suitable candidates for appointment to the Board and for re-election of existing Directors (as applicable);
  - (iii) assessing the "independence" of each non-executive Director, at least annually, including at or around the time of consideration of Director elections, and as soon as practicable after any material change in relevant circumstances; and
  - (iv) reporting to the Board with a view to the Board regularly assessing whether the "independence" of a Director, including any Director who has served as a Director for more than 10 years, has been compromised;
- (b) Committee terms of reference review and recommendations including with respect to appointment to Committees;
- (c) Development and implementation of a process for evaluation of Board, Committee and Director performance;
- (d) Director induction and professional development including:
  - (i) regularly reviewing whether the Directors as a group have the skills, knowledge and familiarity with the Group and its operating environment required to adequately fulfil their role on the Board and Committees effectively;

- (ii) where gaps are identified, consider what training or development could be undertaken to fill the gaps;
  - (iii) where necessary, providing resources to help develop and maintain Directors' skills and knowledge (including accounting skill and knowledge development for Directors without specialist accounting skills or knowledge to ensure their sufficient understanding of accounting and financial matters to fulfil their responsibilities with respect to the Group's financial statements); and
  - (iv) regularly reviewing the time and commitment required of a non-executive Director and whether Directors are meeting that requirement; and
- (e) Diversity and Inclusion Policy development, monitoring and review, including:
- (i) development, monitoring and review of strategies and programs to promote diversity in the Group consistent with such diversity and inclusion policy; and
  - (ii) monitoring the implementation by the Group of such diversity strategies and programs consistent with such diversity and inclusion policy.

### **3 SECURITIES TRADING POLICY**

The Company will adopt the Securities Trading Policy in relation to the Company's securities in connection with Admission.

The Securities Trading Policy will apply to all Directors and employees of the Group.

Under the Securities Trading Policy, Directors and employees are prohibited from dealing in the Company's securities if they have in their possession information that they know, or ought reasonably to know, is inside information.

## **Part IV**

### **Operating and Financial Review**

The following operating and financial review should be read in conjunction with the financial information set out in Appendix 1 of this document and the other financial information relating to the Company included elsewhere in this document or incorporated by reference into this document.

This review contains forward-looking statements based on the current expectations and assumptions about the Group's future business. Such statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance. The actual investment performance, results of operations, financial condition and dividend policy of the Group, as well as the development of its financing strategies, may differ materially from the impression created by the forward-looking statements contained herein as a result of certain factors including, but not limited to, those discussed in the "Risk Factors" section of this document.

The selected financial information discussed in this Part IV has been extracted without material adjustment from the financial information of the Group as at, and for the six-months ended 31 December 2018 and the three financial years ended 30 June 2018, 2017 and 2016, which were prepared in accordance with International Financial Reporting Standards (IFRS).

## **1 OVERVIEW**

### **1.1 Introduction to the Group**

The Group is a proven gold producer with over 30 years' experience of continuous gold production, exploration, development and innovation throughout Australia and Africa. The Group currently owns three gold mines; (i) the Syama Gold Mine; (ii) the Ravenswood Gold Mine; and (iii) the Bibiani Gold Mine. For the 12-month period ending 30 June 2019, the Group expects to produce 300,000oz of gold (in aggregate) at an AISC of US\$960/oz (A\$1,280/oz). The Group has a pathway to annual gold production in excess of 500,000oz from a Global Mineral Resource base of 16.8Moz (as at 31 December 2018 with the exception of the Tabakoroni Mineral Resource which is stated as at 31 March 2019 following re-estimation work).

The Syama Gold Mine is capable of producing over 300,000oz of gold per annum from existing processing infrastructure. The Group is currently commissioning the world's first fully automated underground gold mine at the Syama Underground Mine with the intention to deliver a low cost, large scale operation with a mine life beyond 2032.

The Ravenswood Gold Mine has historically been an integral part of the Group's business for more than a decade. At the Ravenswood Gold Mine, mining operations at Mt Wright Underground Mine will cease during the December 2019 Quarter as the Group takes steps to transition to a large scale, low cost open pit mining operation which will extend the mine life to at least 2032 as part of the Ravenswood Expansion Project. Proceeding with the Ravenswood Expansion Project is dependent on Board approval which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of the Company. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will continue to process Mt Wright ore and stockpiled ore in the meantime.

It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter.

The Bibiani Gold Mine is a potential long life, high margin operation and represents a growth opportunity for the Group. It is the Company's current expectation that the Board will be in a position to make a decision whether to approve the re-start of the Bibiani Gold Mine during the December 2019 Quarter. A portfolio of strategic investments in African-focused gold exploration companies has



been established to provide a pipeline of future development opportunities, in addition to any external business development opportunities that may arise.

## 1.2 Presentation of Financial Information

As noted in "Important Information", the Consolidated Financial Statements were prepared in compliance with Australian Accounting Standards and IFRS. As such, financial information included herein has been derived as follows:

- the financial information as at and for the six-month period ended 31 December 2018 set forth herein has been derived from the Financial Report for the six-months ended 31 December 2018;
- the financial information as at and for the year ended 30 June 2018 set forth herein has been derived from the June 2018 Financial Report;
- the financial information as at and for the six-month period ended 31 December 2017 set forth herein has been derived from the Half Year Report for the six-months ended 31 December 2017. These accounts were unaudited but reviewed in accordance with ASRE 2410;
- the financial information as at and for the year ended 30 June 2017 set forth herein has been derived from the 2017 Financial Report; and
- the financial information as at and for the year ended 30 June 2016 set forth herein has, unless otherwise indicated, been derived from the 2016 Financial Report. The Group noted a misstatement in the valuation of the Gold in Circuit and Gold Bullion ("GIC") book value as at 30 June 2016 in the preparation of the Half Year Report for the six-months ended 31 December 2016. In certain instances, namely where specific financial statement line items have been impacted by the misstatement in the GIC book value, financial information as at and for the year ended 30 June 2016 has been derived from the 2017 Financial Statements (such individual balances are noted as being impacted by the GIC restatement). In the absence of such labelling, it should be construed that the financial information was not impacted by this restatement.

## 2 PRINCIPAL FACTORS AFFECTING RESULTS OF OPERATIONS

The Directors believe that the factors discussed below have significantly affected, or in the future will significantly affect, the Group's results of operations.

### 2.1 Production levels

The Group's results of operations and financial condition are largely dependent on gold production levels during each reporting period as well as the gold price realised on gold sales and the costs of production. The Group's production levels are driven by the stage of each of its projects and future production levels will, in particular, depend on the satisfactory operation of the its Key Mining Assets. The following table shows the Group's gold production by operation for the periods indicated.

Operation	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
Syama Sulphide (oz)	37,256	51,907	104,395	136,000	129,585
Syama Oxide (oz)	56,053	47,626	89,816	101,830	80,032
Ravenswood (oz)	35,890	43,215	89,975	92,004	105,552
Total (oz)	129,199	142,749	284,186	329,834	315,169

For the March 2019 Quarter, the Group produced 98,105oz.

### 2.2 Ore Reserves and Mineral Resources

The Group's Ore Reserves and Mineral Resources are depleted as it produces gold. The Group's future production growth, therefore, will be dependent upon it successfully discovering or acquiring and developing additional Ore Reserves and Mineral Resources. A summary of the Group's Ore Reserves and Mineral Resources is shown in paragraph 3.1.8 of Part I.

### 2.3 Gold price

The majority of the Group's revenue is derived from the sale of gold, supplemented by the sale of silver produced as a by-product. In the six-months ended 31 December 2018 revenue generated from gold and silver sales amounted to A\$222.8 million (six-months ended 31 December 2017: A\$202.6 million). In the year ended 30 June 2018, revenue generated from gold and silver sales amounts to A\$445.6 million (year ended 30 June 2017: A\$541.2 million).

As gold is the key commodity produced and sold by the Group, the key drivers for the Group's revenue is the amount of gold produced and the price at which it is sold.

The price of gold can vary significantly and is affected by factors which are outside the control of the Group, including in particular, the demand for gold as an investment. History has shown that, as an effective risk diversification and hedging tool, gold often benefits from political instability and economic malaise, serving as a long-standing store of value. Geopolitical tensions, global market volatility and the strength of the US dollar are some of the factors that market analysts and experts consider to have driven the current gold price.

Historic gold prices per troy ounce, in US Dollars, as reported by the London Bullion Market Association (Gold PM fixing prices) are set forth for the periods indicated:

US\$/oz	High	Low
For the period 1 July 2015 to 30 June 2016	1,324.55	1,049.40
For the period 1 July 2016 to 30 June 2017	1,366.25	1,125.70
For the period 1 July 2017 to 30 June 2018	1,354.95	1,211.05
For the period 1 July 2018 to 31 December 2018	1,279.00	1,178.40

The Group's average achieved gold sales price was A\$1,734/oz and A\$1,678/oz in the six-months ended 31 December 2018 and 2017, respectively. The Group's average achieved gold sales price was A\$1,703/oz, A\$1,717/oz and A\$1,624/oz for the years ended 30 June 2018, 2017 and 2016, respectively.

As part of the Group's risk management practices, gold forward sales contracts and other instruments (hedging) may be used from time to time. The total physical gold remaining committed to forward sales contracts was 125,000 oz as at 31 December 2018 and 84,000 oz as at 30 June 2018. Total value of remaining committed gold forward sales contracts was A\$219.5 million as at 31 December 2018 and A\$147.0 million as at 30 June 2018. As at the Latest Practicable Date, the face value of committed gold forward sales contracts was A\$354 million.

### 2.4 Production costs and efficiency of the Group's gold mining operations

The long-term profitability of the Group is dependent upon its ability to maintain low-cost and efficient gold mining operations. The key elements of total cash costs are mining costs, processing costs and administrations costs. Mining, processing and administration costs comprise approximately 24.5%, 49.0% and 24.0% of total cash costs in the six-months ended 31 December 2018, respectively. The key cost drivers affecting cash costs are stripping ratios, production volumes of ore mined and processed, grades of ore processed and recovery rates.

In open pit mining operations, removal of overburden and other waste materials, referred to as "stripping", is required to obtain access to the orebody. Deferred stripping costs are stripping costs incurred during the production phase of a mine that are deferred as part of cost of inventory and are written off to the income statement in the period over which economic benefits related to the stripping activity are realised. Deferred stripping costs are mine-specific and may vary from year to year depending on the mining plan. Stripping activity is sometimes undertaken in preparation for the

next financial year. Stripping costs are then deferred as part of cost of inventory and are written off to the income statement in the following year to match related production.

In mining operations the percentage of the ore which has been mined from the orebody which obtains precious metals after processing activities have occurred is expressed as "recovery rate" in% units. The greater the recovery rate, the greater the concentration of precious metals and hence, output.

## **SYAMA GOLD MINE**

The following table sets forth a breakdown of the total cash costs for the Syama Gold Mine for the periods indicated:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
Sulphide Gold produced (poured), oz	37,256	51,907	104,395	136,000	129,585
Oxide Gold produced (poured), oz	56,053	47,626	89,816	101,830	80,032
Total gold produced (poured), oz	93,309	99,533	194,211	237,830	209,617
Total cash costs, A\$'000	101,520	123,122	232,276	213,096	173,982
Total cash costs per oz, A\$/oz	1,088	1,237	1,196	896	830

In the six-months ended 31 December 2018, the total cash costs per ounce for the Syama Gold Mine were A\$1,088/oz compared to A\$1,237/oz in the six-months ended 31 December 2017. The decrease in total cash costs per ounce by 12.0% was in part driven by an increase in the average grade processed to 2.58g/t Au in the six-months ended 31 December 2018 compared with 2.11g/t Au in the six-months ended 31 December 2017.

In the year ended 30 June 2018, the total cash costs per ounce for the Syama Gold Mine were A\$1,196/oz compared to A\$896/oz in the year ended 30 June 2017. The increase in the total cash costs per ounce was primarily due to lower flotation recoveries associated with the sulphide ore mined from the satellite open pit operations, and the lower head grades of sulphide and oxide ore processed.

In the year ended 30 June 2017, total cash costs for the Syama Gold Mine were A\$896/oz compared to A\$830/oz in the year ended 30 June 2016. The increase in the total cash costs per ounce was primarily due processing of lower grade sulphide ore stockpiles remaining from the Syama Gold Mine open pit operations, offset by improvements made to the oxide processing plant during the year.

In the year ended 30 June 2016, the total cash costs for the Syama Gold Mine were A\$830/oz compared to A\$800/oz in the year ended 30 June 2015. The increase in the total cash costs per ounce was primarily due to the treatment of transitional material resulting in lower head grades and recovery of the oxide ore processed.

The Syama Gold Mine's cash costs are subject to the effect of fluctuations in non-Australian Dollar currencies. The impact of these fluctuations is set out in section 2.5 "Effect of foreign currency exchange rates" below.

## **RAVENSWOOD GOLD MINE**

The following table sets forth a breakdown of the total cash costs for the Ravenswood Gold Mine for the periods indicated:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
Gold produced (poured), oz	35,890	43,215	89,975	92,004	105,552
Total cash costs, A\$'000	60,188	52,549	119,667	115,189	109,035
Total cash costs per oz, A\$/oz	1,677	1,216	1,330	1,252	1,033

In the six-months ended 31 December 2018, the total cash costs per ounce for the Ravenswood Gold Mine were A\$1,677/oz compared to A\$1,216/oz in the six-months ended 31 December 2017. The increase in total cash costs per ounce is a result of processing of low-grade open pit stockpiles compared to the same period in 2017 when higher grade material was processed.

In the year ended 30 June 2018, the total cash costs per ounce for the Ravenswood Gold Mine were A\$1,330/oz compared to A\$1,252/oz in the year ended 30 June 2017. The increase in the total cash costs per ounce was primarily due the processing of lower grade material with a decrease of 22.7% in processed grade, partially offset by cost efficiencies achieved.

In the year ended 30 June 2017, total cash costs for the Ravenswood Gold Mine were A\$1,252/oz compared to A\$1,033/oz in the year ended 30 June 2016. The increase in the total cash costs per ounce was primarily due the decrease in head grade which was directly attributable to the addition of lower grade open pit mining at Nolans East. Overall recoveries decreased to 93.1% (2016: 94.3%) due to the addition of the low grade ore.

In the year ended 30 June 2016, total cash costs for the Ravenswood Gold Mine were A\$1,033/oz compared to A\$940/oz in the year ended 30 June 2015. The increase in the total cash costs per ounce was primarily due to processing of lower head grade material including material sourced as supplementary mill feed from low grade stockpiles, with a decrease of 13.5% in processed grade.

## 2.5 Effect of foreign currency exchange rates

The Group receives proceeds on the sale of its gold production in US Dollars and Australian Dollars and significant costs for the Group are denominated in Australian Dollars, Euros, US Dollars and the local currencies of the Group's projects.

The Group maintains the majority of its cash balances in US Dollars. The Group's interest bearing liabilities, and subsequent interest expenses, are largely denominated in US Dollars. Accordingly, the Group's financial results are affected by fluctuations in exchange rates, in particular, the exchange rate between the US Dollar and Australian Dollar.

Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated at the rates of exchange at that date. Exchange differences in the consolidated financial statements are taken to the income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment in foreign operation hedges. The Group's Audit and Risk Committee continues to manage and monitor foreign exchange currency risk.

The following table sets out the average and closing rates of exchange of the US Dollar and Euro per Australian Dollar applied in the Consolidated Financial Statements for the Group as at and in the six-months ended 31 December 2018 and 2017 and as at and in the years ended 30 June 2018, 2017 and 2016 and the associated foreign exchange gain or loss for the Group for the periods indicated:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
Closing (AUD/USD)	0.7053	0.7800	0.7403	0.7686	0.7440
Average (AUD/USD)	0.7240	0.7791	0.7752	0.7537	0.7282
Closing (AUD/EUR)	0.6110	0.6515	0.6336	0.6728	0.6701
Average (AUD/EUR)	0.6286	0.6623	0.6498	0.6916	0.6560

## 2.6 Acquisitions

There were no significant business acquisitions by the Group during the half year periods ended 31 December 2018 and 2017 nor during the years ended 30 June 2016, 2017 and 2018.

### 3 RESULTS OF OPERATIONS

#### 3.1 Description of key line items

Certain line items in the Group's Consolidated Income Statement are described below.

##### 3.1.1 Revenue

The Group generates the majority of its revenue from the sale of gold and supplemented by the sale of silver as a by-product.

As part of the Group's risk management practices, gold forward sales contracts and other instruments may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Accordingly, the contracts are accounted for as sale contracts with revenue recognised in the period in which the gold commitment was met.

Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible.

The following table sets forth the Group's revenues, by business segment, for the periods indicated:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
	A\$ '000	(unaudited) A\$ '000	A\$ '000	A\$ '000	(restated) A\$ '000
Revenue from gold and silver sales at spot to external customers (Syama Gold Mine)	152,270	135,172	307,092	381,293	372,938
Revenue from gold and silver sales at spot to external customers (Ravenswood Gold Mine)	70,504	67,465	138,463	158,032	180,425
Treasury	-	-	-	1,852	1,261
<b>Gross Revenue</b>	<b>222,774</b>	<b>202,637</b>	<b>445,555</b>	<b>541,177</b>	<b>554,624</b>

##### 3.1.2 Costs of production

The principal components of costs of production are costs incurred as a result of mining and processing activities. Costs of production exclude depreciation, amortization and other operating costs. The Group incurs production costs in USD and in the local currencies of where its projects are located and as such is affected by exchange rate fluctuations. Foreign exchange losses/(gains) is described in further detail in section 2.5 entitled "Effect of foreign currency exchange rates" of this Part IV.

The following table sets forth the Group's costs of production, by business segment, for the periods indicated:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
	A\$ '000	(unaudited) A\$ '000	A\$ '000	A\$ '000	(restated) A\$ '000
<b>Syama Gold Mine</b>					
Costs of production	101,538	126,943	237,453	213,947	174,043
Gold in circuit inventories movement	2,224	(25,695)	(15,310)	(24,022)	34,130
Total Syama Gold Mine costs of production	103,762	101,248	222,143	189,925	208,173
<b>Ravenswood Gold Mine</b>					
Costs of production	60,193	52,553	120,011	115,285	109,054

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
	A\$ '000	(unaudited) A\$ '000	A\$ '000	A\$ '000	(restated) A\$ '000
Gold in circuit inventories movement	5,364	(2,655)	(12,478)	4,113	7,980
Total Ravenswood Gold Mine costs of production	65,557	49,898	107,533	119,398	117,034
<b>Total costs of production</b>	<b>169,319</b>	<b>151,146</b>	<b>329,676</b>	<b>309,323</b>	<b>325,207</b>

### 3.1.3 Interest Income

Interest income is generated on cash balances on term deposits with banks.

### 3.1.4 Finance Costs

Finance costs consists principally of interest expense on interest generating liabilities including bank overdraft and syndicated facilities and finance leases, as well as the accretion of rehabilitation and restoration provisions.

### 3.1.5 Fair value movements and unrealised treasury transactions

Fair value movements comprise of movements in the net realisable value of inventories and obsolete consumables. The Group's accounting policy on inventory recognition and measurement is detailed in section 9.1 "Critical accounting policies" of this Part IV.

Unrealised treasury transactions comprise of unrealised foreign exchange gains/losses including those on intercompany balances and those arising from gold forward sales contracts. details of the Group's foreign exchange rate exposure and sensitivity is described in Section 8.2 "Foreign currency exchange risk management" of this Part IV.

### 3.1.6 Taxation

Taxation consists of (i) current tax, which is tax expected to be payable on the taxable income for the year calculated using rates that have been enacted or substantially enacted by the balance sheet date; and (ii) deferred tax, which arises on temporary differences existing at the balance sheet date between the carrying value of an asset or liability and its tax base.

## 3.2 Selected income statement data

The following sets forth certain income statement data for the Group in the six-months ended 31 December 2018 and 2017 and in the years ended 30 June 2018, 2017 and 2016:

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
	A\$ '000	(unaudited) A\$ '000	A\$ '000	A\$ '000	(restated) A\$ '000
Revenue from contracts with customers for gold and silver sales	222,774	202,637	445,555	541,177	554,624
Cost of production relating to gold sales	(169,319)	(151,146)	(329,676)	(309,323)	(325,207)
Gross profit before depreciation, amortisation and other operating costs	53,455	51,491	115,879	231,854	229,417
Depreciation and amortisation relating to gold sales	(10,110)	(7,159)	(14,417)	(19,727)	(39,121)
Other operating costs relating to gold sales	(18,896)	(13,956)	(32,138)	(35,222)	(35,585)

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017	2018	2017	2016
	A\$ '000	(unaudited) A\$ '000	A\$ '000	A\$ '000	(restated) A\$ '000
Gross profit from operations	24,449	30,376	69,324	176,905	154,711
Interest income	329	2,144	2,595	1,983	47
Other income	13	8	404	69	465
Other expenses	(6)	(2,380)	(2,449)	(202)	(7,741)
Exploration and business development expenditure	(2,924)	(7,096)	(15,686)	(8,430)	(7,626)
Administration and other corporate expenses	(8,498)	(6,154)	(14,133)	(10,913)	(5,970)
Share-based payment expense	(1,346)	(969)	(1,782)	(1,184)	-
Treasury realised gains/(losses)	213	2,745	2,096	4,039	(22,846)
Fair value movements and unrealised treasury transactions	(13,602)	22,523	43,396	9,039	54,098
Share of associates' losses	(476)	(772)	(1,500)	(1,799)	-
Depreciation of non-mine site assets	(47)	(69)	(130)	(83)	(94)
Finance costs	(5,264)	(1,942)	(4,298)	(3,328)	(9,082)
(Loss)/profit before tax	(7,159)	38,414	77,837	166,096	155,962
Tax benefit/(expense) from continuing operations	1,835	-	-	-	-
(Loss)/profit for period from continuing operations	(5,324)	38,414	77,837	166,096	155,962
Profit after tax for the discontinued operation	-	-	-	-	44,770
(Loss)/profit for the period	(5,324)	38,414	77,837	166,096	200,732
<i>Items that may be reclassified subsequently to profit or loss</i>					
Exchange differences on translation of foreign operations:					
Members of the parent	3,460	(4,268)	(1,759)	2,501	(2,005)
Changes in the fair value/realisation of available for sale financial assets, net of tax	-	2,929	(989)	281	59
Transferred to profit and loss – disposed subsidiaries	-	-	-	-	(39,402)
Restatement	-	-	-	-	164
<i>Items that may not be reclassified subsequently to profit or loss</i>					
Exchange differences on translation of foreign operations:					
Non-controlling interest	(246)	(595)	(1,253)	1,120	(2,879)
Changes in the fair value/realisation of financial assets at fair value through other comprehensive income, net of tax	(7,061)	-	-	-	-
Restatement	-	-	-	-	41
Other comprehensive (loss)/income for the year, net of tax	(3,847)	(1,934)	(4,001)	3,902	(44,022)
Total comprehensive	(9,171)	36,480	73,836	169,998	156,710



	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017 (unaudited)	2018	2017	2016 (restated)
	A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000
(loss)/income for the year					

### 3.3 Comparison of the six-months ended 31 December 2018 and 31 December 2017

#### (a) Revenue

In the six-months ended 31 December 2018, total revenue was A\$222.8 million, a A\$20.2 million or 10.0% increase from A\$202.6 million in the six-months ended 31 December 2017. This increase was due to a A\$20.2 million increase in sales of gold and silver.

The sale of gold and silver comprised 100% of total revenue generated in the six-months ended 31 December 2018 and 2017. The physical volume of gold sold was 128,275 ounces in the six-months ended 31 December 2018, a 5.6% increase from 121,480 ounces sold in the six-months ended 31 December 2017.

The Group's average achieved gold sales price was A\$1,734/oz in the six-months ended 31 December 2018, a A\$56/oz or 3.3% increase from A\$1,678/oz in the six-months ended 31 December 2017.

#### (b) Operating expenses

In the six-months ended 31 December 2018, cost of production was A\$169.3 million, a \$18.2 million or 12.0% increase from A\$151.1 million in the six-months ended 31 December 2017. This increase was due to the corresponding increase in gold sold of 5.6% to 128,275 ounces in the six-months ended 31 December 2018 from 121,480 ounces in the six-months ended 31 December 2017 alongside an increase in the costs of production. The AISC increased by 3.9% to A\$1,449/oz in the six-months ended 31 December 2018 from A\$1,395/oz in the six-months ended 31 December 2017.

#### (c) Fair value movements and unrealised treasury transactions

In the six-months ended 31 December 2018, the fair value movements and unrealised treasury transactions were a loss of A\$13.6 million compared to a gain of A\$22.5 million in the six-months ended 31 December 2017. This decrease was due primarily to a A\$29.2 million loss in the net realisable value movement of inventories in the six-months ended 31 December 2018 compared to a A\$8.8 million gain in the six-months ended 31 December 2017.

### 3.4 Comparison of the years ended 30 June 2018 and 30 June 2017

#### (a) Revenue

In the year ended 30 June 2018, total revenue was A\$445.6 million, a A\$95.6 million or 17.7% decrease from A\$541.2 million in the year ended 30 June 2017.

The physical volume of gold sold was 262,381 ounces in the year ended 30 June 2018, a 17.3% decrease from 317,242 ounces sold in the year ended 30 June 2017.

The Group's average achieved gold sales price was A\$1,703/oz in the year ended 30 June 2018, a A\$14/oz or 0.8% decrease from A\$1,717/oz in the year ended 30 June 2017.

#### (b) Operating expenses

In the year ended 30 June 2018, the cost of production was A\$329.7 million, a \$20.4 million or 6.6% increase from A\$309.3 million in the year ended 30 June 2017. This increase was due an increase in the unit cost of production with the AISC increasing by 19.7% to A\$1,355/oz in the year ended 30



June 2018 from A\$1,132/oz in the year ended 30 June 2017. This impact of this unit cost increase on aggregate costs of production was partially offset by the decrease in gold sold of 17.3% to 262,381 ounces in the year ended 30 June 2018 from 317,242 ounces in the year ended 30 June 2017.

(c) Fair value movements and unrealised treasury transactions

In the year ended 30 June 2018, the fair value movements and unrealised treasury transactions was a gain of A\$43.4 million compared to a gain of A\$9.0 million in the year ended 30 June 2017. This increase was due primarily to a A\$30.3 million gain on unrealised intercompany foreign exchange balances (year ended 30 June 2017: A\$5.7 million loss). In the year ended 30 June 2018 no gain or loss was recognised on forward contracts (year ended 30 June 2017: A\$2.6 million gain).

### 3.5 Comparison of the years ended 30 June 2017 and 30 June 2016

(a) Revenue

In the year ended 30 June 2017, total revenue was A\$541.2 million, a A\$13.4 million or 2.4% decrease from A\$554.6 million in the year ended 30 June 2016.

The sale of gold and silver comprised 99.7% of total revenue generated in the year ended 30 June 2017 and 99.8% of total revenue in the year ended 30 June 2016. The physical volume of gold sold was 317,242 ounces in the year ended 30 June 2017, a 6.8% decrease from 340,540 ounces sold in the year ended 30 June 2016.

The Group's average achieved gold sales price was A\$1,717/oz in the year ended 30 June 2017, a A\$93/oz or 5.7% increase from A\$1,624/oz in the year ended 30 June 2016.

(b) Operating expenses

In the year ended 30 June 2017, the cost of production was A\$309.3 million, a \$15.9 million or 4.9% decrease from A\$325.2 million in the year ended 30 June 2016. This decrease was due the corresponding decrease in gold sold of 6.8% to 317,242 ounces in the year ended 30 June 2017 from 340,540 ounces in the year ended 30 June 2016 and a decrease in AISC of 5.7% to A\$1,132/oz in the year ended 30 June 2017 from A\$1,200/oz in the year ended 30 June 2016.

(c) Fair value movements and unrealised treasury transactions

In the year 30 June 2017, the fair value movements and unrealised treasury transactions were a gain of A\$9.0 million compared to a gain of A\$54.1 million in the year ended 30 June 2016. This decrease was primarily due to a gain of A\$11.6 million on net realisable value movement of inventories in the year ended 30 June 2017 (year ended 30 June 2016: A\$26.6 million gain), a A\$5.7 million loss on unrealised intercompany foreign exchange balances in the year ended 30 June 2017 (year ended 30 June 2016: A\$8.7 million gain) and a A\$2.6 million gain on forward contracts in the year ended 30 June 2017 (year ended 30 June 2016: A\$0.4 million loss).

## 4 LIQUIDITY AND CAPITAL RESOURCES

### 4.1 Overview

The Group's principal sources of liquidity and capital resources are revenues from gold and silver as well as existing debt and equity financing. The Group's principal uses of cash have historically been operational costs, capital expenditures on the development of mining operations and repayments of existing debt financing.

## 4.2 Dividends

During the six-months ended 31 December 2018 and 2017 and the years ended 30 June 2018, 2017 and 2016 dividends to Shareholders were declared and paid as set out below:

- Final dividend for the year ended 30 June 2018 of \$0.02 per Share paid 12 October 2018 settled through either cash payment of \$0.02 per share or gold payment equivalent to \$0.02 per share through the Perth Mint.
- Final dividend for the year ended 30 June 2017 of \$0.02 per Share paid 27 October 2017 settled through either cash payment of \$0.02 per share or gold payment equivalent to \$0.02 per share through the Perth Mint.
- Final dividend for the year ended 30 June 2016 of \$0.02 per Share paid 20 October 2016 settled through either cash payment of \$0.02 per share or gold payment equivalent to \$0.02 per share through the Perth Mint.

## 4.3 Net current assets

As at 31 December 2018 and 30 June 2018, the Group had net current assets of A\$120.3 million and A\$210.5 million respectively.

As at 31 December 2018, the Group's current assets mainly consisted of inventories of A\$178.6 million, receivables of A\$56.8 million, cash of A\$38.7 million, financial assets at fair value through other comprehensive income of A\$28.3 million and current tax assets of \$17.6 million. The Group's current liabilities mainly comprised of payables of A\$120.0 million, interest bearing liabilities of A\$68.5 million and provisions of A\$23.3 million.

As at 30 June 2018, the Group's current assets mainly consisted of inventories of A\$234.7 million, receivables of A\$45.1 million, cash of A\$42.4 million, available for sale financial assets of A\$22.9 million and current tax assets of A\$20.8 million. The Group's current liabilities mainly comprised of payables of A\$92.5 million, interest bearing liabilities of A\$47.3 million and provisions of A\$21.2 million.

## 4.4 Cash flow information

	Six-months ended 31 Dec		Year ended 30 June		
	2018	2017 (unaudited)	2018	2017	2016 (restated)
	A\$ '000	A\$ '000	A\$ '000	A\$ '000	A\$ '000
Net cash inflow from/(used in) operating activities	33,849	(24,563)	28,359	186,384	192,797
Net cash inflow from/(used in) investing activities	(181,035)	(93,137)	(268,956)	(127,753)	(43,300)
Net cash inflow from/(used in) financing activities	121,577	(14,844)	(14,845)	135,715	(78,859)
Net increase/(decrease) in cash and cash equivalents	(25,609)	(132,544)	(255,442)	194,346	70,638
Cash at bank and on hand	38,717	149,485	42,445	282,060	79,873
Bank overdraft	(67,298)	(35,138)	(47,282)	(34,558)	(26,456)
Cash and cash equivalents at the end of the period	(28,581)	114,347	(4,837)	247,502	53,417

4.4.1 Net cash inflow from operating activities comparison of the six-months ended 31 December 2018 and 31 December 2017

(a) Net cash inflow from operating activities

Net cash inflow from operating activities was A\$33.8 million in the six-months ended 31 December 2018, compared to net cash outflow of A\$24.6 million in the six-months ended 31 December 2017.

(b) Total cash receipts from operating activities

Total cash receipts, including interest received, from operating activities was A\$223.1 million in the six-months ended 31 December 2018, compared to A\$206.4 million in the six-months ended 31 December 2017.

This increase in both net cash inflow and total cash receipts from operating activities is due to:

- the physical volume of gold sold was 128,275 ounces in the six-months ended 31 December 2018, a 5.6% increase from 121,480 ounces sold in the six-months ended 31 December 2017; and,
- the increase in average achieved gold sales price was A\$1,734/oz in the six-months ended 31 December 2018, a A\$56/oz or 3.3% increase from A\$1,678/oz in the six-months ended 31 December 2017.

(c) Net cash generated from operations before working capital changes

Net cash generated from operations before working capital changes (movements in current trade receivables, trade payables and inventories) was A\$15.8 million in the six-months ended 31 December 2018, compared to A\$29.6 million in the six-months ended 31 December 2017.

(d) Exploration expenditure

Exploration expenditure of A\$2.9 million in the six-months ended 31 December 2018 decreased by A\$4.2 million from A\$7.1 million in the six-months ended 31 December 2017.

(e) Interest payments and receipts

Interest payments of A\$4.9 million in the six-months ended 31 December 2018 increased by A\$3.8 million from A\$1.1 million in the six-months ended 31 December 2017.

Interest received of A\$0.4 million in the six-months ended 31 December 2018 decreased by A\$1.4 million from A\$1.8 million in the six-months ended 31 December 2017.

(f) Income tax paid

Income tax paid of nil in the six-months ended 31 December 2018 decreased from A\$11.3 million in the six-months ended 31 December 2017.

4.4.2 Net cash inflow from operating activities comparison of the years ended 30 June 2018 and 2017

(a) Net cash inflow from operating activities

Net cash inflow from operating activities was A\$28.4 million in the year ended 30 June 2018, compared to A\$186.4 million in the year ended 30 June 2017.

(b) Total cash receipts from operating activities

Total cash receipts, including interest received, from operating activities was A\$449.7 million in the year ended 30 June 2018, compared to A\$547.2 million in the year end 30 June 2017.

This decrease in both net cash inflow and total cash receipts from operating activities is due to:

- the decrease physical volume of gold sold to 262,381 ounces in the year ended 30 June 2018, a 17.3% decrease from 317,242 ounces sold in the year ended 30 June 2017; and,
- the decrease in the Group's average achieved gold sales price to A\$1,703/oz in the year ended 30 June 2018, a A\$14/oz or 0.8% decrease from A\$1,717/oz in the year ended 30 June 2017.

(c) Net cash generated from operations before working capital changes

Net cash generated from operations before working capital changes was A\$46.1 million in the year ended 30 June 2018, compared to A\$172.8 million in the year end 30 June 2017.

(d) Exploration expenditure

Exploration expenditure of A\$15.7 million in the year ended 30 June 2018 increased by A\$7.3 million from A\$8.4 million in the year ended 30 June 2017.

(e) Interest payments and receipts

Interest payments of A\$2.4 million in the year ended 30 June 2018 increased by A\$0.6 million from A\$1.8 million in the year ended 30 June 2017.

Interest received of A\$2.2 million in the year ended 30 June 2018 increased by A\$0.2 million from A\$2.0 million in the year ended 30 June 2018.

(f) Income tax paid

Income tax paid of A\$11.3 million in the year ended 30 June 2018 decreased by A\$0.1 million from A\$11.4 million in the year ended 30 June 2017.

4.4.3 Net cash inflow from operating activities comparison of the years ended 30 June 2017 and 2016

(a) Net cash inflow from operating activities

Net cash inflow from operating activities was A\$186.4 million in the year ended 30 June 2017, compared to A\$192.8 million in the year ended 30 June 2016.

(b) Total cash receipts from operating activities

Total cash receipts, including interest received, from operating activities was A\$547.2 million in the year ended 30 June 2017, compared to A\$554.7 million in the year end 30 June 2016.

This decrease in total cash receipts from operating activities is due to:

- the decrease in gold sold of 6.8% to 317,242 ounces in the year ended 30 June 2017 from 340,540 ounces in the year ended 30 June 2016; partially offset by,
- the increase in the Group's average achieved gold sales price was A\$1,717/oz in the year ended 30 June 2017, a A\$93/oz or 5.7% increase from A\$1,624/oz in the year ended 30 June 2016.

(c) Net cash generated from operations before working capital changes

Net cash generated from operations before working capital changes was A\$172.8 million in the year end 30 June 2017, compared to A\$148.9 million in the year end 30 June 2016.

(d) Exploration expenditure

Exploration expenditure of A\$8.4 million in the year ended 30 June 2017 increased by A\$0.3 million from A\$8.1 million in the year ended 2016.

(e) Interest payments and receipts

Interest payments of A\$1.8 million in the year ended 30 June 2017 decreased by A\$4.2 million from A\$6.0 million in the year ended 30 June 2016.

Interest received of A\$2.0 million in the year ended 30 June 2017 increased by A\$1.9 million from A\$0.1 million in the year ended 30 June 2016.

(f) Income tax paid

Income tax paid of A\$11.4 million in the year ended 30 June 2017 increased from nil in the year ended 30 June 2016.

4.4.4 Net cash used in investing activities

The Group's net cash used in investing activities was A\$181.0 million in the six-months ended 31 December 2018 compared to A\$93.1 million in the six-months ended 31 December 2017.

The Group's net cash used in investing activities was A\$269.0 million, A\$127.8 million and A\$43.3 million in the years ended 30 June 2018, 2017 and 2016, respectively.

Net cash used in investing activities primarily relates to the development of mining projects, purchases of property, plant and equipment and evaluation expenditure which comprised A\$181.9 million and A\$93.0 million in the six-months ended 31 December 2018 and 2017, respectively and A\$238.7 million, A\$119.7 million and A\$44.7 million in the years ended 30 June 2018, 2017 and 2016, respectively. Details of capital development and exploration activities are set out in section 4.5 "Capital, Exploration and Evaluation Expenditures" below.

4.4.5 Net cash inflows from financing activities

The Group's net cash inflow from financing activities was A\$121.6 million in the six-months ended 31 December 2018 and net cash used from financing activities was A\$14.8 million in the six-months ended 31 December 2017. Net cash used was A\$14.8 million, net inflow was A\$135.7 million and net cash used was A\$78.9 million in the years ended 30 June 2018, 2017 and 2016 respectively.

In the six-months ended 31 December 2018 and 2017, cash flows from financing activities primarily comprised of the following categories:

- A\$136.7 million in proceeds from finance facilities in the six-months ended 31 December 2018 as set out in section 8.1 "Borrowings of the Group" below and nil in the six-months ended 31 December 2017.
- A\$15.2 million in dividends paid in the six-months ended 31 December 2018 and A\$14.8 million in the six-months ended 31 December 2017 as set out in section 25.2 "Dividends" above.

In the years ended 30 June 2018 and 30 June 2017, cash flows from financing activities primarily comprised of the following categories:

- A\$14.8 million in dividends paid in the year ended 30 June 2018 and A\$11.2 million in the year ended 30 June 2017 as set out in section 4.2 "Dividends" above.
- Proceeds from issuance of ordinary shares of nil in the year ended 30 June 2018 and A\$150 million in the year ended 30 June 2017.

- Costs from issuance of ordinary shares of nil in the year ended 30 June 2018 and A\$2.8 million in the year ended 30 June 2017.

In the years ended 30 June 2017 and 30 June 2016, cash flows from financing activities primarily comprised of the following categories:

- A\$11.2 million in dividends paid in the year ended 30 June 2017 and nil in the year ended 30 June 2016 as set out in section 4.2 "Dividends" above.
- A\$150 million in proceeds from issuance of ordinary shares in the year ended 30 June 2017 and nil in the year ended 30 June 2016.
- A\$2.8 million in costs from issuance of ordinary shares in the year ended 30 June 2017 and nil in the year 30 June 2016.
- Repayment of borrowings of nil in the year ended 30 June 2017 and A\$74.2 million in the year ended 30 June 2016.
- Repayment of lease liability of \$0.2 million in the year ended 30 June 2017 and A\$4.7 million in the year ended 30 June 2016.

#### 4.5 **Historical capital expenditures**

Below sets out the total amounts of capital expenditure incurred in connection with the Group's mining, development and exploration assets for the six-months ended 31 December 2018 and 2017 and the years ended 30 June 2018, 2017 and 2016.

In the six-months ended 31 December 2018, the Group spent an aggregate of A\$190.4 million in capital expenditures compared to A\$84.3 million in the six-months ended 31 December 2017. The key areas of focus in the six-months ended 31 December 2018 were the development the Syama Underground Mine and the development of the Tabakoroni mine.

In the year ended 30 June 2018, the Group spent an aggregate of A\$192.8 million in capital expenditures. The key areas of focus during this period were the continued development of the Syama Underground Mine with expenditures including the commencement of development underground ore production and the establishment of the first autonomous truck haulage loading level and the commissioning of the initial underground mobile production equipment, which comprises underground drills, loaders, trucks and service vehicles.

In the year ended 30 June 2017, the Group spent an aggregate of A\$119.2 million in capital expenditures. The key areas of focus during this period were the development of the Syama Gold Mine with commencement of first and second production levels and the extended exploration within the Syama Underground Mine region upon discovery of the Nafolo site. At the Ravenswood Gold Mine, continued operations resulted in the commencement of open pit mining at Nolans East

In the year ended 30 June 2016, the Group spent an aggregate of A\$44.6 million in capital expenditures. The key areas of focus during this period were continued open pit mining operations at the Syama Gold Mine and the development of the Mt Wright underground operation at the Ravenswood Gold Mine.

For the 12 months to 30 June 2019, the Company has guided capital expenditures of US\$112 million (A\$150 million) for growth projects at the Syama Gold Mine and the initial expenditure in connection with the proposed Ravenswood Expansion Project which the Company deemed necessary prior to Board approval being received and which will be / have been funded by the Company's existing credit facilities and cash generated from the Group's existing operations.

## 5 FINANCING ARRANGEMENTS

### 5.1 Borrowings of the Group

The table below sets forth the Group's borrowings at 31 December 2018 and 30 June 2018:

	31 December 2018		30 June 2018	
	Liability	Principal amount outstanding	Liability	Principal amount outstanding
	A\$ '000	A\$ '000	A\$ '000	A\$ '000
Bank overdraft	67,298	67,298	47,282	47,282
Insurance premium funding	1,215	1,215	-	-
Borrowings	138,711	141,784	-	-
Total borrowings	207,224	210,297	47,282	47,282
(a) Bank overdraft				

The overdraft facility which is denominated in CFA and has a limit of CFA 27.5 billion is held with the Bank Du Mali SA and is subject to annual revision in approximately September 2019.

#### (b) Syndicated Facility A

The Group entered into a three-year US\$100 million Revolving Loan Facility agreement with Investec Australia Limited on 13 July 2018, summarised at paragraph 14.5 of Part VII (Material Contracts). As part of the process of syndication the facility limit was expanded to US\$150 million available to the Group from 3 January 2019. The financial covenants contained in the facility include interest cover, net debt to EBITA, consolidated gearing and reserve tail ratios and are tested quarterly.

The Facility is secured by the following:

- Cross Guarantee and Indemnity given by Resolute Mining Limited (the Borrower), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- Share Mortgage granted by Resolute Mining Limited over all of its shares in Carpentaria Gold Pty Ltd;
- Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,

- Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

(c) Syndicated Facility B

A\$29.4 million of syndicated facility B, summarised at paragraph 14.5 of Part VII (Material Contracts) has been drawn at the six-months ended 31 December 2018. The financial covenants contained in the facility include interest cover, net debt to EBITA, consolidated gearing and reserve tail ratios and are tested semi-annually.

The Facility is secured by the following:

- Cross Guarantee and Indemnity given by RML (the "Borrower"), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- Share Mortgage granted by RML over all of its shares in Carpentaria Gold Pty Ltd;
- Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,
- Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

## 5.2 Other financing arrangements

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets.

Finance leases held by the Group are included within the table in "8.1 Borrowings of the Group" in Part IV of this Prospectus above.

### *Letter of Credit Facility*

The Group has a Letter of Credit Facility Agreement with Société General Ghana Limited of A\$9.5 million in relation to Environmental Performance Bonds for the Bibiani Project, summarised at paragraph 14.5 of Part VII (Material Contracts). The facility is fully drawn down in the six-months ended 31 December 2018 and expires on 31 December 2019. The Facility is guaranteed by Resolute Mining Limited.



## 6 OFF-BALANCE SHEET ARRANGEMENTS

As at 31 December 2018 and 30 June 2018, the Group had operating leases of A\$8.9 million and A\$16.2 million respectively.

As at 31 December 2018 the Group had amounts due within one year from operating leases of A\$1.8 million and \$7.1 million due between one and five years. As at 30 June 2018 the Group had amounts due within one year from operating leases of A\$3.3 million and \$12.9 million due between one and five years.

## 7 CAPITALISATION AND INDEBTEDNESS

### *Capitalisation*

The table below sets out the capitalisation of the Group as at 31 December 2018. The capitalisation figures have been extracted from the Group's audited financial information as at 31 December 2018 as set out in Appendix 1 of this document.

	<i>As at 31 December 2018</i>
<i>Description</i>	<i>(A\$'000)</i>
<b>Total current debt</b>	
- Guaranteed	-
- Secured	-
- Unguaranteed/unsecured	68,513
<b>Total non-current debt (excluding current portion of long-term debt)</b>	
- Guaranteed	-
- Secured	138,711
- Unguaranteed/Unsecured	-
<b>Total indebtedness</b>	<b>207,224</b>
<b>Shareholder's equity<sup>(1)</sup></b>	
a. Share capital	559,809
b. Legal reserve	-
c. Other reserves	34,956

(1) Shareholder's equity does not include retained earnings

There have been no material changes to the capitalisation of the Group since 31 December 2018. Following the conclusion of the March 2019 Quarter, the Group has drawn down on its US\$150 million revolving credit facility by a further US\$25 million.

#### Indebtedness

The table below sets out the indebtedness of the Group as at 31 March 2019. The indebtedness figures have been extracted from the Group's unaudited management accounts as at 31 March 2019:

	<i>As at 31 March 2019</i>
<i>Description</i>	<i>(A\$'000)</i>
Cash	32,475
Trading Securities	25,131
<b>Liquidity</b>	<b>57,606</b>
<b>Current financial receivable</b>	<b>836</b>
Current Bank debt	55,059
Other current financial debt	6,857
<b>Net current financial indebtedness</b>	<b>61,916</b>
Non current Bank loans	140,871
Other non current loans	5,269
<b>Non-Current financial indebtedness</b>	<b>146,140</b>
<b>Net financial indebtedness</b>	<b>149,614</b>

The Group had no indirect or contingent financial indebtedness as at 31 March 2019. Following the conclusion of the March 2019 Quarter, the Group has drawn down on its US\$150 million revolving credit facility by a further US\$25 million.

## 8 MARKET RISKS

## 8.1 Financial and capital risk management

The Group's activities expose it to a variety of financial risks: market risk (including diesel fuel price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks, where considered appropriate, to minimise potential adverse effects on the financial performance of the Group. The Group may use derivative financial instruments to manage certain risk exposures. Derivatives have been used exclusively for managing financial risks, and not as trading or other speculative instruments.

Risk management is carried out by the Group's Audit and Risk Committee under policies approved by the Board of Directors. The Audit and Risk Committee identifies, evaluates and manages financial risks as deemed appropriate. The Board provides guidance for overall risk management, including guidance on specific areas, such as mitigating commodity price, foreign exchange, interest rate and credit risks, and derivative financial instrument risk.

The Group's and the parent entity's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain a capital structure that is appropriate for the Group's current and/or projected financial position. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders (if any), return capital to shareholders, buy back its shares, issue new shares, borrow from financiers or sell assets to reduce debt.

The Group monitors the adequacy of capital by analysing cash flow forecasts over the term of the LOM for each of its projects. To a lesser extent, gearing ratios are also used to monitor capital. Appropriate capital levels are maintained to ensure that all approved expenditure programs are adequately funded. This funding is derived from an appropriate combination of debt and equity. The gearing ratio at 31 December 2018 was 24% (twelve months ended 30 June 2018: 0%). The Group is not subject to any externally imposed capital management requirements.

The gearing ratio is calculated as net debt divided by total capital. Net debt is defined as interest bearing liabilities less cash, cash equivalents and market value of bullion on hand. Total capital is calculated as 'equity' as shown in the Consolidated Statement of Financial Position (including non-controlling interest) plus net debt.

The following table summarises the post-tax effect of the sensitivity of the Group's debt, cash and capital items on profit and equity at reporting date to movements that are reasonably possible in relation to interest rate risk and foreign exchange currency risk.

	Carrying Amount	Interest rate risk				Foreign exchange risk			
		-1%		+1%		-10%		+10%	
		Profit	Equity	Profit	Equity	Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>31 December 2018</b>									
Cash	38,717	(227)	(227)	227	227	2,221	2,221	(1,817)	(1,817)
Interest bearing liabilities	138,711	(992)	(992)	992	992	11,028	11,028	(9,023)	(9,023)
<b>Total (decrease)/increase</b>		<b>(1,219)</b>	<b>(1,219)</b>	<b>1,219</b>	<b>1,219</b>	<b>13,249</b>	<b>13,249</b>	<b>(10,840)</b>	<b>(10,840)</b>
<b>30 June 2018</b>									
Cash	42,445	(279)	(279)	279	279	2,260	2,260	(1,849)	(1,849)
<b>Total (decrease)/increase</b>		<b>(279)</b>	<b>(279)</b>	<b>279</b>	<b>279</b>	<b>2,260</b>	<b>2,260</b>	<b>(1,849)</b>	<b>(1,849)</b>

## 8.2 Foreign currency exchange risk management

The Group receives proceeds on the sale of its gold production in USD and AUD and significant costs for the Syama Gold Mine and the Bibiani Gold Mine are denominated in AUD, EUR, USD and the local currencies of those projects, and as such movements within these currencies expose the Group to exchange rate risk.

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities denominated in a currency that is not the entity's functional currency. The risk can be measured by performing a sensitivity analysis that quantifies the impact of different assumed exchange rates on the Group's forecast cash flows.

The Group's Audit and Risk Committee continues to manage and monitor foreign exchange currency risk. At present, the Group does not specifically hedge its exposure to foreign currency exchange rate movements.

The following table summarises the sensitivity to a reasonably possible change in foreign exchange rates with all other variables held constant:

	Carrying Amount	Foreign exchange risk			
		-10%		+10%	
		Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>31 December 2018</b>					
Other financial assets	5,824	303	303	(248)	(248)
Loans advanced to other parties	3,749	150	150	(122)	(122)
Loans to subsidiaries	683,685	53,175	53,175	(43,507)	(43,507)
Payables	119,982	(1,489)	(1,489)	1,218	1,218
<b>Total increase/(decrease)</b>		<b>52,139</b>	<b>52,139</b>	<b>(42,659)</b>	<b>(42,659)</b>
<b>30 June 2018</b>					
Other financial assets	3,751	288	288	(236)	(236)
Loans advanced to other parties	5,133	243	243	(199)	(199)
Loans to subsidiaries	574,677	44,697	44,697	(36,570)	(36,570)
Payables	92,278	(1,123)	(1,123)	919	919
<b>Total increase/(decrease)</b>		<b>44,105</b>	<b>44,105</b>	<b>(36,086)</b>	<b>(36,086)</b>

### 8.3 Diesel price risk management

The Group is exposed to movements in the diesel fuel price. The costs incurred purchasing diesel fuel for use by the Group's operations is significant. The Group's Audit and Risk Committee continues to manage and monitor diesel fuel price risk. At present, the Group does not specifically hedge its exposure to diesel fuel price movements.

### 8.4 Credit risk

The Group's exposure to credit risk arises from potential default of the counterparty, with a maximum exposure equal to the carrying amount of the financial assets.

Credit risk is managed on a Group basis. Credit risk predominately arises from cash, cash equivalents, gold bullion held in metal accounts, derivative financial instruments, deposits with banks and financial institutions and receivables from statutory authorities. For derivative financial instruments, management mitigates some credit risk by using a number of different hedging counterparties. Credit risk further arises in relation to financial guarantees given to certain parties. Such guarantees are only provided in exceptional circumstances and are subject to Audit and Risk Committee approval. With the exception of a parent company guarantee provided by the Company to Société General Ghana Limited in relation to their provision of a letter of credit facility, no guarantees have been provided to third parties as at 31 December 2018. The credit quality of financial assets that are

neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

## **8.5 Liquidity risk management**

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities or having the availability of funding through an adequate amount of undrawn committed credit facilities.

## **8.6 Interest rate risk**

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group constantly analyses its interest rate exposure. Within this analysis consideration is given to the potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates. There is no intention at this stage to enter into any interest rate swaps.

# **9 CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

The Group's significant accounting policies are more fully described in the notes to the Consolidated Financial Statements contained in Appendix 1, Parts 1 to 5 of this document. The Group's reported financial condition and results of operations are sensitive to accounting methods, assumptions and estimates that underlie the preparation of the Group's combined Financial Statements. The Group bases its estimates on historical experience, the experience of other companies in the industry and on various other assumptions that it believes to be reasonable, the results of which form the basis for making judgements about the carrying amounts of assets and liabilities and the Group's financial results. The Group's management evaluates its estimates on an ongoing basis. Actual results may differ from these estimates under different assumptions and conditions.

The selection of critical accounting policies, the judgement and other uncertainties affecting application of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing the Group's financial statements. The Group believes that the following critical accounting policies involve the most significant judgements and estimates used in the preparation of its financial statements.

## **9.1 Critical accounting policies**

### **Revenue from gold and other sales**

The Group adopted AASB 15 - Revenue from Contracts with Customers using the modified retrospective approach from 1 July 2018. Revenue from gold and other sales represents revenue from contracts with customers and is recognised at the point in time when the Group transfers control of products to a customer. For sales of gold bullion, control is obtained when the gold is credited to the metals account of the customer. Revenue is recognised at the amount to which the Group expects to be entitled.

Revenue from the sale of by-products such as silver is included in sales revenue.

## **Taxes recognition and measurement**

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and by unused tax losses (if appropriate).

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for deductible temporary differences, unused tax losses and unused tax credits only if it is probable that sufficient future taxable income will be available to utilise those temporary differences and losses.

Deferred tax is not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither taxable profit or loss; or the accounting profit or loss arising from taxable differences related to investment in subsidiaries, associates and interests in joint ventures to the extent that:

- the Group is able to control the reversal of the temporary difference; and
- the temporary difference is not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period. Deferred tax assets and liabilities.

The Company and its wholly-owned Australian controlled entities implemented the tax consolidation legislation as of 1 July 2002 and the entities in the tax consolidated group entered into a tax sharing agreement, which limits the joint and several liability of the wholly owned entities in the case of a default by the head entity, the Company. The entities have also entered into a tax funding agreement under which the wholly owned entities fully compensate the Company for any current tax payable assumed and are compensated by the Company for any current tax receivable.

### **9.2 Mine properties and property, plant and equipment**

#### **(a) Strip Activity Asset**

The Group incurs waste removal costs (stripping costs) in the creation of improved access and mining flexibility in relation to ore to be mined in the future. The costs are capitalised as a stripping activity asset, where certain criteria are met. Once the Group has identified its production stripping for each surface mining operation, it identifies the separate components for the orebodies in each of its mining operations. An identifiable component is a specific volume of the orebody that is made more accessible by the stripping activity. The costs of each component are amortised on a units of production basis in applying a stripping ratio.

#### **(b) Development Expenditure**

##### **(i) Areas in Development**

Costs incurred in preparing mines for production including the required plant infrastructure.

##### **(ii) Areas in Production**

Represent the accumulation of all acquired exploration, evaluation and development expenditure in which economic mining of an Ore Reserve has commenced. Amortisation of costs is provided on the unit-of-production method.

### 9.3 **Exploration and evaluation assets**

#### (a) Recognition and measurement

Exploration expenditure is expensed to the consolidated statement of comprehensive income as and when it is incurred and included as part of cash flows from operating activities. Exploration costs are only capitalised to the consolidated statement of financial position if they result from an acquisition.

Evaluation expenditure is capitalised to the consolidated statement of financial position. Evaluation is deemed to be activities undertaken from the beginning of the pre-feasibility study conducted to assess the technical and commercial viability of extracting a mineral resource before moving into the Development phase. The criteria for carrying forward the costs are:

- such costs are expected to be recouped through successful development and exploitation of the area of interest, or alternatively by its sale; or
- evaluation activities in the area of interest which has not yet reached a state which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing.

Costs carried forward in respect of an area of interest which is abandoned are written off in the year in which the abandonment decision is made.

#### (b) Exploration commitments

It is difficult to accurately forecast the nature or amount of future expenditure, although it will be necessary to incur expenditure in order to retain present interests in mineral tenements. Expenditure commitments on mineral tenure can be reduced by selective relinquishment of exploration tenure or by the renegotiation of expenditure commitments. The level of exploration expenditure expected in the year ended 30 June 2019 for the Group is A\$21.438m (A\$34.178m for the year ended 30 June 2018). This includes the minimum amounts required to retain tenure. There are no material exploration commitments further out than one year.

### 9.4 **Impairment of non-current assets (recognition and impairment)**

The carrying values of non-current assets are reviewed for impairment when indicators of impairment or a reversal of a prior period impairment may exist or changes in circumstances indicate the carrying value may not be recoverable. At a minimum, the Group makes this assessment twice annually at 30 June and 31 December. No indicators of impairment or indicators for reversal of prior period impairment loss were identified.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash generating unit to which the asset belongs and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount. The recoverable amount of an asset is the greater of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

### 9.5 **Interest bearing liabilities**

All loans and borrowings are initially recognised at fair value less transaction costs and subsequently at amortised cost. Any difference between the proceeds received and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method.

#### (a) Finance leases

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease

payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets. Lease payments are allocated between interest expense and reduction in the lease liability. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability.

(b) Interest bearing liabilities

The Group's interest bearing liabilities have a fair value equal to the carrying value.

## 9.6 Contributed equity

(a) Recognition and measurement

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

(b) Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held. Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

(c) Rights of employee share based payment recipients

Each option entitles the holder to purchase one share. The names of all persons who currently hold employee share options or performance rights, granted at any time, are entered into the register kept by the Company, pursuant to Section 215 of the Corporations Act 2001. Persons entitled to exercise these options and holders of performance rights have no right, by virtue of the options, to participate in any share issue by the parent entity or any other body corporate. The Company does not currently have any options on issue.

## 9.7 Inventories

Finished goods (bullion), gold in circuit and stockpiles of unprocessed ore are stated at the lower of cost and estimated net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to ore stockpiles and gold in circuit items of inventory on the basis of weighted average costs. Net realisable value is the estimated selling price in the ordinary course of business (excluding derivatives) less the estimated costs of completion and the estimated costs necessary to make the sale. Consumables have been valued at cost less an appropriate provision for obsolescence. Cost is determined on a first-in-first-out basis.

## 9.8 Other financial assets and liabilities

(a) Financial assets at fair value through other comprehensive income

These financial assets consist of investments in ordinary shares, comprising principally of marketable equity securities. Investments are initially recognised at fair value plus transaction costs. Unrealised gains and losses arising from changes in the fair value of these investments are recognised in equity in the financial assets revaluation reserve. Amounts recognised are not recycled to the statement of comprehensive income in future periods.

The fair value of the listed securities are based on quoted market prices and accordingly is a Level 1 measurement basis on the fair value hierarchy.



(b) Restricted cash

The environmental bond represents a receivable carried at amortised cost using the effective interest method. The Ghanaian Environmental Protection Authority holds A\$3.891m of restricted cash as security for the rehabilitation and restoration provision of Mensin Gold Bibiani Limited's Bibiani Gold Mine. There is no external credit rating basis for the Ghanaian

Environmental Protection Authority. The average interest rate earned on the environmental bond during the period was 0.0% (12 months to June 2018: 0.0%).

(c) Use of derivative instruments to assist in managing gold price risk

As part of the Group's risk management practices, selected financial instruments (such as gold forward sales contracts, gold call options and gold put options) may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible, and in any event, limiting derivative commitments to no more than 50% of the Group's gold reserves. The value of these financial instruments at any given point in time, will in times of volatile market conditions, show substantial variation over the short term. The hedging facilities provided by the Group's counterparties do not contain margin calls. The Group did not hedge account for these instruments.

Movements in fair value are accounted for through the consolidated statement of comprehensive income.

## 9.9 Provisions

### Restoration obligations

The Group records the present value of the estimated cost of obligations, such as those under the consolidated entity's Environmental Policy, to restore operating locations in the period in which the obligation is incurred. The nature of restoration activities includes dismantling and removing structures, rehabilitating mines, dismantling operating facilities, closure of plant and waste sites and restoration, reclamation and revegetation of affected areas.

## 9.10 Areas of judgement in applying accounting policies and key sources of estimation uncertainty

### Revenue from contracts with customers

Judgment is required to determine the point at which the customer obtains control of gold. Factors including transfer of legal title, transfer of significant risks and rewards of ownership and the existence of a present right to payment for the gold typically result in control transferring on delivery of the gold.

### Tax recognition and measurement

The Group records its best estimate of these items based upon the latest information available and management's interpretation of enacted tax laws. Whilst the Group believes it has adequately provided for the outcome of these matters, future results may include favourable or unfavourable adjustments as assessments are made, or resolved.

The recognition basis of deductible temporary differences and unused tax losses in the form of deferred tax assets is reviewed at the end of each reporting period and de-recognised to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Pursuant to the Establishment Convention between the State of Mali and SOMISY (owner of the Syama Gold Mine), there was an income tax holiday for five years post the declaration of “first commercial production” at Syama, which commenced on 1 January 2012. The tax holiday came to an end on 31 December 2016 and taxable profits arising after that date are subject to tax in accordance with the Establishment Convention.

A deferred income tax asset of A\$13.1 million has been recognised at 31 December 2018 in relation to deductible temporary differences. Realisation of sufficient taxable profit in future periods is regarded as probable.

The future benefit will only be obtained if:

- future assessable income is derived of a nature and an amount sufficient to enable the benefit to be realised;
- the conditions for deductibility imposed by tax legislation have been continued to be complied with; and,
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit.

### **Mine properties and property, plant and equipment**

#### **(a) Stripping activity assets**

Judgement is required to identify a suitable production measure to be used to allocate production stripping costs between inventory and any stripping activity asset(s) for each component. The Group considers that the ratio of the expected volume of waste to be stripped for an expected volume of ore to be mined for a specific component of the orebody, to be the most suitable production measure.

An identifiable component is a specific volume of the orebody that is made more accessible by the stripping activity.

Judgement is also required to identify and define these components, and also to determine the expected volumes (e.g. tonnes) of waste to be stripped and ore to be mined in each of these components. These assessments are based on the information available in the mine plan which will vary between mines for a number of reasons, including, the geological characteristics of the orebody, the geographical location and/or financial considerations.

#### **(b) Stripping ratio**

The Group has adopted a policy of deferring production stage stripping costs and amortising them on a units-of-production basis. Significant judgement is required in determining the contained ore units for each mine. Factors that are considered include:

- any proposed changes in the design of the mine;
- estimates of the quantities of ore reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and,
- future cash costs of production and capital expenditure.

(c) Determining the beginning of production

The Group ceases capitalising pre-production costs and begins depreciation and amortisation of mine assets at the point commercial production commences. This is based on the specific circumstances of the project, and considers when the specific asset becomes 'available for use' as intended by management which includes consideration of the following factors:

- the level of re-development expenditure compared to project cost estimates;
- completion of a reasonable period of testing of the mine plant and equipment;
- mineral recoveries, availability and throughput levels at or near expected/feasibility study levels;
- the ability to produce gold into a saleable form (where more than an insignificant amount is produced); and,
- the achievement of continuous production.

**Impairment of non-current assets**

(a) Determination of mineral resources and ore reserves

The determination of reserves impacts the accounting for asset carrying values, depreciation and amortisation rates, deferred stripping costs and provisions for decommissioning and restoration. The information in this report as it relates to ore reserves, mineral resources or mineralisation is reported in accordance with the Aus.IMM "Australian Code for reporting of Identified Mineral Resources and Ore Reserves". The information has been prepared by or under supervision of competent persons as identified by the Code.

There are numerous uncertainties inherent in estimating mineral resources and ore reserves and assumptions that are valid at the time of estimation which may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated.

(b) Impairment of mine properties, plant and equipment

The future recoverability of capitalised mine properties and plant and equipment is dependent on a number of key factors including; gold price, discount rates used in determining the estimated discounted cash flows of Cash Generating Units ("**CGUs**"), foreign exchange rates, the level of proved and probable reserves and measured, indicated and inferred mineral resources that may be included in the determination of fair value less cost to dispose ("**fair value**"), future technological changes which could impact the cost of mining, and future legal changes (including changes to environmental restoration obligations). The costs to dispose are estimated by management based on prevailing market conditions.

When applicable, fair value is estimated based on discounted cash flows using market based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, based on CGU LOM plans. Consideration is also given to analysts' valuations, and the market value of the Company's securities. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy (in accordance with Australian Accounting Standards).

In determining the recoverable amount of CGUs at 30 June 2017, future cash flows were discounted using rates based on the Group's estimated weighted average cost of capital. When it is considered appropriate to do so, an additional premium is applied with regard to the geographic location and

nature of the CGU. LOM operating and capital cost assumptions are based on the Group's latest budget and LOM plans.

(c) Key assumptions

The table below summarises the key assumptions used in the carrying value assessments at 30 June 2017:

<b>Gold price (US\$ per ounce):</b>	2017: US\$1,120 - \$1,270	Commodity price and foreign exchange rates were estimated with reference to external market forecasts, and updated at least twice annually. The rates applied to the valuation had regard to observable market data.
<b>Discount rate% (post tax)</b>	2017: 9% - 11%	In determining the fair value of CGUs, the future cash flows were discounted using rates based on the Group's estimated real weighted average cost of capital, with an additional premium applied having regard to the geographic location of the CGU.
<b>Operating and capital costs:</b>	LOM operating and capital cost assumptions are based on the Group's latest budget and life-of-mine plans.	

### Restoration provision

In determining an appropriate level of provision consideration is given to the expected future costs to be incurred, the timing of these expected future costs (largely dependent on the life of the mine), and the estimated future level of inflation. The discount rate used in the calculation of these provisions is consistent with the risk free rate. The ultimate cost of decommissioning and restoration is uncertain and costs can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine-sites. The expected timing of expenditure can also change, for example in response to changes in reserves or to production rates. Changes to any of the estimates could result in significant changes to the level of provisioning required, which would in turn impact future financial results.

### Share based payments

The Group measures the cost of equity settled share based payment transactions with reference to the fair value at the grant date using a Black Scholes formula or Monte Carlo simulation. The valuations take into account the terms and conditions upon which the instruments were granted such as the exercise price, the term of the option or performance right, the vesting and performance criteria, the impact of dilution, the non-tradeable nature of the option or performance right, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the option or performance right.

## 10 CURRENT TRADING AND PROSPECTS

The majority of the Group's revenue is derived from the sale of gold and silver, the latter being a by-product of the gold production. For the six-months ended 31 December 2018, revenue from gold and silver sales amounted to A\$222.8 million compared to A\$202.6 million for the six-months ended 31 December 2017. Revenue from gold and silver sales amounted to A\$445.6 million, A\$539.3 million and A\$553.4 million for the years ended 30 June 2018, 2017 and 2016, respectively. As gold is the key commodity produced and sold by the Group, the key drivers for the Group's financial performance are the amount of gold produced, the cost of production and the price at which the gold is sold.

For the six-months ended 31 December 2018 the Group produced 129,199 ounces at an average AISC of A\$1,449/oz (six-months ended 31 December 2017: 142,748 ounces AISC A\$1,395/oz). For the three months ended 31 March 2019, the Group produced 98,105 ounces, with production at the Syama Gold Mine alone amounting to 84,552 ounces of gold at an AISC of A\$839/oz. The Group continues to maintain its production guidance for the 12-month period ending 30 June 2019 of 300,000oz of gold (in aggregate) at an AISC of US\$960/oz (A\$1,280/oz).

The Group has a pathway to annual gold production in excess of 500,000oz in the medium-term from a Global Mineral Resource base of 16.8Moz.

The Group's principal asset is the Syama Gold Mine. The Syama Gold Mine is a long-life asset capable of producing more than 300,000 ounces of gold per annum from existing processing infrastructure. The Group is currently commissioning the world's first fully automated underground gold mine at the Syama Gold Mine with the intention of delivering a low cost, large scale operation with a mine life beyond 2032.

At the Ravenswood Gold Mine, Mt Wright continues to produce as the Group takes steps to transition to a large scale, low cost open pit mining operation at Buck Reef West and Sarsfield which will extend the mine life to at least 2032.

The Bibiani Gold Mine is a potential long life, high margin operation and represents a growth opportunity for the Group.

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, in addition to any external business development opportunities that may arise.

The price of gold can vary significantly and is affected by factors which are outside the control of the Group, in particular, the demand for gold as an investment. In order to increase the certainty in respect of part of its future cash flows, the Group has entered into a number of gold forward contracts. As at 31 December 2018, the Group had physical gold 125,000 ounces committed to forward sales contracts with an aggregate value of A\$219.5 million (six-months ended 31 December 2017: 144,000 ounces with an aggregate value of A\$246.3 million). The Group's average realised gold sales price was A\$1,734/oz for the six-months 31 December 2018 (six-months ended 31 December 2017: A\$1,678/oz).

As at 31 March 2019, the Group had net debt of A\$168.5 million (six-months ended 31 December 2018: A\$114.4 million net cash).

ORE RESERVES STATEMENT										
ORE RESERVES	PROVED			PROBABLE			TOTAL RESERVES			Group Share
As at 31 December 2018	Tonnes	Grade	Gold (oz)	Tonnes	Grade	Gold (oz)	Tonnes	Grade	Gold (oz)	Gold (oz)
	(000s)	(g/t Au)	(000s)	(000s)	(g/t Au)	(000s)	(000s)	(g/t Au)	(000s)	(000s)
<i>Australia</i>	<b>100%</b>									
Sarsfield	31,530	0.7	720	18,250	0.7	360	49,780	0.7	1,080	1,080
Buck Reef West	970	1.3	40	18,590	1.0	600	19,570	1.0	640	640
Stockpiles (OP)	360	0.6	10	10	1.6	0	370	0.6	10	10
<b>Sub Total OP</b>	<b>32,860</b>	<b>0.7</b>	<b>760</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,720</b>	<b>0.8</b>	<b>1,720</b>	<b>1,720</b>
Mt Wright	160	2.2	10	0	0.0	0	160	2.2	10	10
Stockpiles (UG)	0	0.0	0	0	0.0	0	0	0.0	0	0
<b>Sub Total UG</b>	<b>160</b>	<b>2.2</b>	<b>10</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>160</b>	<b>2.2</b>	<b>10</b>	<b>10</b>
<b>Australia Total</b>	<b>33,030</b>	<b>0.7</b>	<b>780</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,880</b>	<b>0.8</b>	<b>1,730</b>	<b>1,730</b>
<i>Mali – Sulphide</i>	<b>80%</b>									
Syama Underground	0	0.0	0	35,040	2.7	2,980	35,040	2.6	2,980	2,390
Syama Stockpiles	100	2.5	10	2,270	1.3	100	2,360	1.4	100	80
<b>Sub Total (Sulphides)</b>	<b>100</b>	<b>2.5</b>	<b>10</b>	<b>37,310</b>	<b>2.6</b>	<b>3,080</b>	<b>37,410</b>	<b>2.6</b>	<b>3,090</b>	<b>2,470</b>
Stockpiles (satellite deposits)	970	1.4	40	1,630	1.1	60	2,600	1.2	100	80
<b>Sub Total Satellite Deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>1,630</b>	<b>1.1</b>	<b>60</b>	<b>2,600</b>	<b>1.2</b>	<b>100</b>	<b>80</b>
<i>Mali – Oxide</i>	<b>90%</b>									
Tabakoroni	1,450	3.2	150	640	2.4	50	2,090	3.0	200	180
Tabakoroni Stockpiles	320	2.1	20	0	0.0	0	320	2.1	20	20
<b>Sub Total Tabakoroni</b>	<b>1,770</b>	<b>3.0</b>	<b>170</b>	<b>640</b>	<b>2.4</b>	<b>50</b>	<b>2,410</b>	<b>2.8</b>	<b>220</b>	<b>200</b>
<b>Mali Total</b>	<b>2,830</b>	<b>2.4</b>	<b>220</b>	<b>39,580</b>	<b>2.5</b>	<b>3,180</b>	<b>42,410</b>	<b>2.5</b>	<b>3,410</b>	<b>2,750</b>
<i>Ghana</i>	<b>90%</b>									
Bibiani	0	0.0	0	6,400	3.3	660	6,400	3.3	660	590
<b>Ghana Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>6,400</b>	<b>3.3</b>	<b>660</b>	<b>6,400</b>	<b>3.3</b>	<b>660</b>	<b>590</b>
<b>Total Ore Reserves</b>	<b>35,860</b>	<b>0.9</b>	<b>1,000</b>	<b>82,830</b>	<b>1.8</b>	<b>4,800</b>	<b>118,690</b>	<b>1.5</b>	<b>5,800</b>	<b>5,070</b>

Notes: Ore Reserves are as at 31 December 2018.

1. Differences may occur due to rounding.
2. Reserves at Buck Reef West and Sarsfield are reported above 0.4g/t Au cut-off.
3. Mt Wright Reserves are reported above 2.3g/t Au cut-off.
4. Bibiani Reserves are reported above 2.75g/t Au cut-off.
5. Syama Underground Reserves are reported above 1.9g/t Au cut-off.
6. Tabakoroni Reserves are reported above 1.1g/t Au.
7. Syama Reserves are based on August 2017 Resource model.

# MINERAL RESOURCES STATEMENT

MINERAL RESOURCES	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES			Group Share
As at 31 December 2018	Tonnes	Grade	Gold (oz)	Tonnes	Grade	Gold (oz)	Tonnes	Grade	Gold (oz)	Tonnes	Grade	Gold (oz)	Gold (oz)
	(000s)	(g/t Au)	(000s)	(000s)	(g/t Au)	(000s)	(000s)	(g/t Au)	(000s)	(000s)	(g/t Au)	(000s)	(000s)
<b>Projects where Resolute has a controlling interest</b>													
<b>Australia</b>	<b>100%</b>												
Sarsfield	43,250	0.8	1,120	38,500	0.7	880	22,080	0.7	520	103,830	0.8	2,520	2,520
Buck Reef West	830	1.5	40	36,550	1.0	1,220	8,660	1.0	280	46,040	1.0	1,540	1,540
Sarsfield Mineralised Waste	0	0.0	0	0	0.0	0	33,700	0.4	400	33,700	0.4	400	400
<b>Sub Total OP</b>	<b>44,090</b>	<b>0.8</b>	<b>1,160</b>	<b>75,040</b>	<b>0.9</b>	<b>2,110</b>	<b>64,440</b>	<b>0.6</b>	<b>1,200</b>	<b>183,570</b>	<b>0.8</b>	<b>4,460</b>	<b>4,460</b>
Mt Wright	290	3.6	30	0	0.0	0	470	3.6	60	770	3.7	90	90
Welcome Breccia	0	0.0	0	0	0.0	0	2,040	3.2	210	2,040	3.2	210	210
Stockpiles (UG)	0	0.0	0	10	1.6	0	0	0.0	0	10	1.6	0	0
<b>Sub Total UG</b>	<b>290</b>	<b>3.6</b>	<b>30</b>	<b>10</b>	<b>1.6</b>	<b>0</b>	<b>2,510</b>	<b>3.3</b>	<b>260</b>	<b>2,810</b>	<b>3.3</b>	<b>300</b>	<b>300</b>
<b>Australia Total</b>	<b>44,380</b>	<b>0.8</b>	<b>1,190</b>	<b>75,050</b>	<b>0.9</b>	<b>2,110</b>	<b>66,950</b>	<b>0.7</b>	<b>1,460</b>	<b>186,380</b>	<b>0.8</b>	<b>4,760</b>	<b>4,760</b>
<b>Mali</b>	<b>80%</b>												
Syama Underground	8,740	3.3	930	44,390	3.2	4,580	5,650	2.8	500	58,780	3.2	6,010	4,810
Stockpiles (sulphide)	100	2.5	10	2,270	1.3	100	0	0.0	0	2,360	1.4	100	80
<b>Sub Total (Sulphides)</b>	<b>8,840</b>	<b>3.3</b>	<b>930</b>	<b>46,660</b>	<b>3.1</b>	<b>4,680</b>	<b>5,650</b>	<b>2.8</b>	<b>500</b>	<b>61,140</b>	<b>3.1</b>	<b>6,110</b>	<b>4,890</b>
Satellite Deposits	0	0.0	0	6,840	2.1	460	1,450	2.2	100	8,290	2.1	560	450
Stockpiles (satellite deposits)	970	1.4	40	1,630	1.1	60	50	1.1	0	2,650	1.2	100	80
<b>Sub Total Satellite Deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>8,470</b>	<b>1.9</b>	<b>520</b>	<b>1,500</b>	<b>2.1</b>	<b>100</b>	<b>10,940</b>	<b>1.9</b>	<b>660</b>	<b>530</b>
Old Tailings	0	0.0	0	0	0.0	0	17,000	0.7	370	17,000	0.7	370	290
	<b>90%</b>												
Tabakoroni Open pit	540	5.2	90	410	5.1	70	0	0.0	0	950	5.2	160	140
Tabakoroni Underground	130	4.7	20	1,680	5.2	280	3,360	5.1	550	5,170	5.1	850	760
Tabakoroni Stockpiles	190	3.1	20	0	0	0	0	0	0	190	3.1	20	20
<b>Sub Total Tabakoroni</b>	<b>860</b>	<b>4.7</b>	<b>130</b>	<b>2,090</b>	<b>5.2</b>	<b>350</b>	<b>3,360</b>	<b>5.1</b>	<b>550</b>	<b>6,310</b>	<b>5.1</b>	<b>1,030</b>	<b>930</b>
<b>Mali Total</b>	<b>10,670</b>	<b>3.2</b>	<b>1,100</b>	<b>57,220</b>	<b>3.0</b>	<b>5,550</b>	<b>27,510</b>	<b>1.7</b>	<b>1,510</b>	<b>95,390</b>	<b>2.7</b>	<b>8,160</b>	<b>7,340</b>
<b>Ghana</b>	<b>90%</b>												
Bibiani	0	0.0	0	13,260	3.5	1,490	8,440	3.7	1,010	21,690	3.6	2,500	2,250
<b>Ghana Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>13,260</b>	<b>3.5</b>	<b>1,490</b>	<b>8,440</b>	<b>3.7</b>	<b>1,010</b>	<b>21,690</b>	<b>3.6</b>	<b>2,500</b>	<b>2,250</b>
<b>Controlling Interest Total</b>	<b>55,050</b>	<b>1.3</b>	<b>2,290</b>	<b>145,530</b>	<b>2.0</b>	<b>9,150</b>	<b>102,900</b>	<b>1.2</b>	<b>3,980</b>	<b>303,460</b>	<b>1.6</b>	<b>15,420</b>	<b>14,350</b>
<b>Projects where Resolute has an equity interest</b>													
<b>Sudan (Orca Gold)</b>	<b>16%</b>												
Galat Sufar South	0	0.0	0	11,940	1.3	490	2,670	1.2	100	14,620	1.3	590	590
Wadi Doum	0	0.0	0	680	2.1	40	250	1.3	10	930	1.7	50	50
<b>Sudan Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>12,620</b>	<b>1.3</b>	<b>530</b>	<b>2,920</b>	<b>1.2</b>	<b>110</b>	<b>15,550</b>	<b>1.3</b>	<b>640</b>	<b>640</b>
<b>DRC (Loncor Resources)</b>	<b>27%</b>												
Makapela	0	0.0	0	590	8.7	170	860	5.3	150	1,460	6.7	310	310
<b>DRC (Kilo Goldmines)</b>	<b>27%</b>												
Adumbi	0	0.0	0	0	0.0	0	5,620	2.5	450	5,620	2.5	450	450
<b>DRC Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>590</b>	<b>8.7</b>	<b>170</b>	<b>6,480</b>	<b>2.9</b>	<b>600</b>	<b>7,080</b>	<b>3.4</b>	<b>760</b>	<b>760</b>
<b>Equity Interest Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>13,210</b>	<b>1.6</b>	<b>700</b>	<b>9,400</b>	<b>2.4</b>	<b>710</b>	<b>22,630</b>	<b>1.9</b>	<b>1,400</b>	<b>1,400</b>
<b>Total Mineral Resources</b>	<b>55,050</b>	<b>1.3</b>	<b>2,290</b>	<b>158,740</b>	<b>1.9</b>	<b>9,850</b>	<b>112,300</b>	<b>1.3</b>	<b>4,690</b>	<b>326,090</b>	<b>1.6</b>	<b>16,820</b>	<b>15,750</b>

Notes: Mineral Resources with the exception of Tabakoroni are as at 31 December 2018 and are inclusive of Ore Reserves. Tabakoroni is reported as at 31 March 2019 as a result of re-estimation work which was undertaken following major drilling program.

- Differences may occur due to rounding. Mineral Resources include Ore Reserves.
- Resources are reported above 0.4g/t Au cut-off for Sarsfield and Buck Reef West.
- Mt Wright Resources are reported above 1.8g/t Au cut-off.
- Syama Underground Resources quoted above 1.5g/t Au cut-off.
- Resources for Satellite deposits are reported above 1.5g/t Au cut-off.
- Resources for the Tabakoroni Open Pit are reported above a 1.0g/t Au cut-off and above the current life of mine open pit design.

- Mineral Resources for the Tabakoroni Underground are reported above a 1.5 g/t Au cut-off a below the current life of mine pit design.
- Bibiani Resources are reported above 2.0g/t Au cut-off.
- Galat Sufar South resources reported above a 0.6g/t Au cut-off.
- Wadi Doum resources reported above a 0.6g/t Au cut-off.
- Makapela resources reported above a 2.75g/t Au cut-off.
- Adumbi resources reported above a 0.9g/t Au cut-off.
- Mineral Resources held by Orca Gold, Loncor and Kilo Gold are reported as NI43-101 compliant estimates.

## **Part V**

### **Historical Financial Information**

This part provides the financial information of the Group for the three years ended 30 June 2018, 30 June 2017 and 30 June 2016, as well as the half-year ended 31 December 2018 in accordance with Annex 1, paragraphs 1.1, 1.2 and 20.1 of the Commission Regulation (EC) No 809/2004 ("**Historical Financial Information**").

Appendix 1, Part I contains the Resolute Mining Limited's Consolidated Audited Financial Statements for the half-year ended 31 December 2018

Appendix 1, Part II contains the Resolute Mining Limited's Consolidated Audited Financial Statements for the year ended 30 June 2018

Appendix 1, Part III contains the Resolute Mining Limited's Consolidated Audited Financial Statements for the year ended 30 June 2017

Appendix 1, Part IV contains the Resolute Mining Limited's Consolidated Audited Financial Statements for the year ended 30 June 2016

Appendix 1, Part V contains Resolute Mining Limited's Quarterly Update for the Financial Quarter ended 31 March 2019



**Part VI**  
**Competent Persons Reports**

Appendix 2, Parts I to III contain the Competent Persons Reports for the Syama Gold Mine, the Ravenswood Gold Mine and the Bibiani Gold Mine.

## **Part VII Taxation**

### **1 TAXATION**

This section of the Prospectus provides general information on certain key Australian and UK income tax, Goods & Services Tax and stamp duty consequences that may arise for certain Shareholders in respect of the Shares acquired under this Prospectus.

All information in relation to taxation in this document is intended only as a general guide to the position in each of Australia and the United Kingdom. If you are in any doubt as to your own tax position, or are subject to tax in a jurisdiction other than Australia and the United Kingdom, you should consult your own independent professional adviser immediately.

Shareholders should not rely on these comments as advice in relation to their own particular tax affairs. It is strongly recommended that Shareholders supplement this general information by obtaining specialist tax advice on the consequences of holding and disposing of Shares in their own particular circumstances.

In addition, this information is based on tax legislation, judicial interpretation, and rulings and administrative practices of the revenue authorities in Australia and the UK, each as at the date of this Prospectus. The tax consequences relating to the Shares may therefore be different if the legislation is amended, the courts change their interpretation or the relevant revenue authority changes its practice.

#### **1.1 Tax Residence**

The Company is incorporated in Australia and currently conducts its affairs in such a way that it is regarded solely as a resident of Australia for tax purposes.

As the Company is incorporated in Australia, provided that relevantly the Company continues to be have its place of effective management in Australia, the Company will be a resident of Australia for tax purposes and will not be resident in the United Kingdom for the purpose of the United Kingdom's domestic tax law or a dual resident for the purpose of Australia's domestic tax law.

The summary below is prepared on the assumption that the Company will remain resident solely in Australia for these purposes.

### **2 AUSTRALIAN TAXATION**

The following comments are based on Australian income tax, Goods & Services Tax and stamp duty laws, ruling and administrative practices as at the date of this Prospectus. These may change during the period of ownership of the Shares, with prospective and/or retrospective effect. In addition, there are announced but unenacted changes to tax laws, and unimplemented changes to rulings and administrative practices.

The following is intended only as a descriptive summary and does not purport to be a complete analysis of all of the potential Australian tax implications of owning and disposing of Shares.

The following does not apply to Shareholders that are banks or insurance companies, or Shareholders that are subject to Australia's Taxation of Financial Arrangement rules set out in Division 230 of the Income Tax Assessment Act 1997 (Cth).

The specific tax position of each Shareholder will determine the applicable Australian tax implications for that Shareholder and we recommend each Shareholder consult their own tax adviser concerning the Australian tax implications relating to the Shares.

## 2.1 Acquisition & Disposal

### 2.1.1 Australian Resident Shareholders

The Australian income tax treatment on the acquisition and disposal of Shares will depend upon whether the shares are held on revenue or capital account. This will be a question of fact and each investor will need to consider its own circumstances.

Australian resident Shareholders would hold their shares on revenue account if (for example) they trade in Shares as part of the ordinary course of their business or acquire or hold the Shares with the purpose of making a profit upon a future disposal of the Shares. These Shareholders will be required to include the profit arising from the disposal of their Shares in their assessable income. Conversely, a loss arising from the disposal of Shares on revenue account may be allowed as a deduction from assessable income. Shareholders who include profit made on the disposal of their Shares in their assessable income (or include their loss arising on the disposal of their Shares as an allowable deduction) should not be assessed for tax under the capital gains tax provisions but under the ordinary income tax provisions of the Income Tax Assessment Act 1997.

Generally, other Australian resident Shareholders will hold their Shares on capital account if (for example) they acquire and hold the Shares as a long-term investment and not for the purpose of making a profit upon a future disposal of the Shares. These Australian resident Shareholders should consider the impact of Australian capital gains tax rules on the disposal of their Shares.

These Australian resident Shareholder will derive a capital gain where the proceeds received on disposal exceed the cost base of a Share for capital gains tax purposes. Similarly, a Shareholder will incur a capital loss on the disposal of a Share where the disposal proceeds received are less than the reduced cost base of the Share for capital gains tax purposes. Capital losses can only be used to offset current year capital gains or carried forward to offset future capital gains (providing any required loss recoupment tests are satisfied, where applicable). They cannot be used to reduce non capital income.

The Shareholder acquires an Share on the date the Share is issued or transferred. The cost base of an Share acquired is generally the amount the Shareholder pays to acquire the Share plus any associated costs incurred, including, for example, brokerage. The cost base of the Shares may be reduced as a result of receiving non-assessable distributions from the Company, such as returns of capital.

Where an Australian resident Shareholder has held the Share as a capital asset for at least 12 months the capital gain (after applying any capital losses) may also be reduced by the general capital gains tax discount concession for particular Shareholders. The discount percentage for individual and trusts is 50.0%, and for complying superannuation funds and, in certain circumstances, life insurance companies is 33.3%. Corporate Shareholders and non-Australian resident individual Shareholders are not eligible for the general capital gains tax discount concession.

Any net capital gain (after recoupment of capital losses) is then included in the Shareholder's assessable income. The tax payable will be dependent on the type of Shareholder based on their marginal tax rates.

### 2.1.2 Non-Australian Resident Shareholders

Where non-Australian resident Shareholders hold Shares on revenue account, the profits on the sale of the Shares may be required to be included in the Shareholder's assessable income. This is subject to the application of any relief under Australia's double tax treaties, which may exclude such profits from Australian taxation.

Generally, all other non-Australian resident Shareholders will hold their Shares on capital account. These non-Australian resident Shareholders should consider the impact of Australian capital gains tax rules on the disposal of their Shares. Generally, a resident of a non-Australian country disposing of shares in an Australian company should not be subject to capital gains tax in Australia, subject to the following two exceptions:

- (a) shares are held as part of a trade or business conducted through a permanent establishment in Australia; or
- (b) shares are held in a company where:
  - (i) the shareholder and its associates hold (or have held for a 12 month period during the last 24 months) an interest of 10% or more in the issued capital of (or certain voting rights or rights to distributions from) the company; and
  - (ii) at the time of the disposal, more than 50% of the value of the company's assets are attributable to taxable Australian real property (see definition below).

The definitions of the terms 'associates' and 'taxable Australian real property' for Australian tax purposes are complex. It is recommended that non-Australian tax resident investors seek their own advice as to how these expressions may apply to their circumstances. Broadly, taxable Australian real property includes real property situated in Australia (including a lease of land, if the land is situated in Australia) or a mining, quarrying or prospecting right (to the extent that the right is not real property), if the minerals, petroleum or quarry materials are situated in Australia.

## 2.2 Dividends

Broadly, dividends paid on Shares may be "franked" or "unfranked". Franked dividends have franking credits attached. These credits represent underlying Australian corporate tax that has been paid on the profits distributed. To the extent a dividend is "unfranked" no franking credits are attached.

The residency status of the Shareholder, and whether a dividend is franked or unfranked, will have different income tax implications as set out below.

### 2.2.1 Australian Resident Shareholders

Australian resident Shareholders will include dividends received, together with any attached franking credits, in their assessable income. Subject to certain integrity measures, the Australian resident Shareholder may then be entitled to a franking tax offset equal to the amount of franking credits attached to the dividend.

Generally, to be eligible for the franking credit or franking tax offset, the Shareholder must satisfy the holding period rule and the related payments rule.

Under the holding period rule, the Shareholder must have held the Shares at risk for at least 45 days continuously (not counting the day of acquisition or disposal) in the period commencing the day after the Shares were acquired and ending on the 45th day after the Shares become ex-dividend. However, this rule should not apply where the tax offset entitlement does not exceed A\$5,000 (US\$3457) in respect of all dividends received during the income year in which the dividend is paid. Special rules apply to trusts and beneficiaries.

Under the related payments rule, a different testing period applies where the Shareholder has made, or is under an obligation to make, a related payment in relation to the dividend. The related payment rule requires the Shareholder to have held the Shares at risk for the continuous 45 day period as above but within the limited period commencing on the 45th day before, and ending on the 45th day after, the day the Shares become ex-dividend. Shareholders should seek professional advice to determine whether these requirements, as they apply to them, have been satisfied.

Dividend washing rules can apply such that no tax offset is available (nor is an amount required to be included in your assessable income) for a dividend received. Shareholders should consider the impact of these rules having regard to their own personal circumstances.

Individual and complying superannuation funds Shareholders may receive a tax refund to the extent the franking tax offset exceeds their tax liability for the income year.

For a corporate entity Shareholder, where the franking tax offset exceeds the company's tax payable for an income year, the balance of the tax offset may be grossed up and carried forward as a tax loss that can be used to reduce taxable income in the future years. The receipt of a franked dividend will also generally give rise to a credit in the corporate entity's franking account to the extent the dividend is franked.

#### 2.2.2 Non-Australian Resident Shareholders

Fully franked dividends paid to Non-Australian resident shareholders are generally not subject to Australian withholding tax. Dividends that are not fully franked dividends will be subject to withholding tax on the unfranked portion, except to the extent that (for example) the dividend is declared to be "conduit foreign income" (in essence income and gains that have a foreign source from an Australian perspective which would include dividends received from non-Australian subsidiaries).

To the extent unfranked dividends are not paid out of conduit foreign income, dividend withholding tax will apply at the rate of 30% (unless a lower withholding tax rate applies under a double tax treaty).

For example, in the case of residents of the UK, the rate is generally reduced to 15% under the Australia - UK double tax treaty (this rate may differ in certain circumstances).

The Company will provide Shareholders with statements that indicate the extent to which dividends are franked, paid out of conduit foreign income, and the amount of tax (if any) withheld by the Company.

Generally, a non-Australian resident holder of Shares (who is not also a tax resident of Australia and who does not hold Shares as a business asset through a permanent establishment in Australia) with no other Australian source income or gains is not required to file an Australian tax return.

#### 2.3 Australian Stamp Duty

While the Shares remain quoted on the ASX or LSE, the acquisition or disposal of Shares will generally not have any stamp duty implications in Australia.

Australian stamp duty however may arise if a person, together with related persons, acquires or holds a significant interest in the company (90% or greater interest) while the company is listed on the ASX or the LSE.

#### 2.4 Australian Goods and Services Tax (GST)

While the Shares remain quoted on the ASX or LSE the acquisition or disposal of Shares should not have any direct GST implications in Australia.

Shareholders will generally not be entitled to claim full input tax credits for GST included in any costs associated with acquiring, holding or disposing of Shares.

Shareholders who are registered for GST will need to consider their individual circumstances as to whether they are entitled to claim input tax credits for GST incurred on expenses related to acquiring or disposing of Shares.

#### 2.5 Other Matters

Shareholders are not obliged to notify the Company of their Australian Tax File Number (or Australian Business Number if carrying on an enterprise) in respect of Shares held.

However, failure to do so may result in the Company being required to withhold tax at the highest marginal rate (currently 45%) plus Medicare levy (currently 2%) from certain dividends paid.

### **3 UNITED KINGDOM TAXATION CONSIDERATIONS**

The following statements are intended only as a general guide to certain UK tax considerations and do not purport to be a complete analysis of all potential UK tax consequences of acquiring, holding or disposing of Shares. The following statements are based on the Issuer's understanding of current UK tax legislation as applied in England and Wales and HMRC's generally published practice (which may not be binding on HMRC) as at the date of this Prospectus, both of which may change, possibly with retroactive effect. They apply only to Shareholders who are resident (and in the case of individual Shareholders, domiciled) for tax purposes in (and only in) the UK (except insofar as express reference is made to the treatment of non-UK residents), who hold their Shares as an investment (other than under an individual savings account), and who are the absolute beneficial owners of both their Shares and any dividends paid on them. The tax position of certain categories of Shareholders who are subject to special rules (such as persons acquiring Shares in connection with employment, dealers in securities, insurance companies and collective investment schemes and those who hold 10% or more of the Shares and those who are non-UK domiciled individuals) or trustees and beneficiaries as regards shares held in trust is not considered.

Any persons who are in any doubt about their taxation position or who may be subject to tax in a jurisdiction other than the UK are strongly recommended to consult their own professional advisers.

#### **3.1 United Kingdom Taxation of Chargeable Gains**

##### **3.1.1 UK tax resident Shareholders**

If UK tax resident Shareholders sell or otherwise dispose of all or some of the Shares at a gain, they may, depending on their circumstances and subject to any available exemption or relief, incur a liability to UK tax on chargeable gains. The gain will be calculated as the difference between the sale proceeds and any allowable costs and expenses, including the original acquisition cost of the Shares.

Subject to any available exemption or relief, UK resident individual Shareholders will pay capital gains tax at the rate of 10% (for basic rate taxpayers) or 20% (for higher or additional rate tax payers) on any gain. UK resident individual Shareholders may benefit from certain reliefs and allowances (including a personal annual exemption allowance, which for the 2019-2020 tax year exempts the first £12,000 of gains from tax) depending on their circumstances.

For UK resident corporate Shareholders any chargeable gain will be within the charge to corporation tax, currently at a rate of 19%, reducing to 17% from 1 April 2020.

#### **3.2 Non-UK tax resident Shareholders**

Shareholders who are not resident for tax purposes in the UK will not generally be subject to UK tax on chargeable gains arising on a disposal of Shares unless the Shareholders are carrying on a trade, profession or vocation in the UK through a branch or agency (or, in the case of corporate Shareholders, a permanent establishment) in connection with which the Shares are used, held or acquired.

Such Shareholders may be subject to foreign taxation on any gain under local law.

Individual Shareholders who have ceased to be resident for tax purposes in the UK for a period of five years or less and who dispose of all or part of their Shares during that period may be liable to CGT on their becoming, once again, resident for tax purposes in the UK, subject to available exemptions or reliefs.

#### **3.3 Taxation of Dividends**

Liability to UK tax on dividends will depend upon the individual circumstances of a Shareholder.

UK individual Shareholders will be liable to income tax in respect of dividends received from the Company, UK individual Shareholders will generally benefit from an allowance in the form of an

exemption from tax for the first £2,000 of dividend income received in the 2019-2020 tax year ("**Dividend Allowance**"). To the extent that distributions are received in excess of an individual's Dividend Allowance, basic, higher and additional rate taxpayers will have to pay income tax on the distributions received at a rate of 7.5%, 32.5% and 38.1% respectively for the 2019-2020 tax year.

Corporate Shareholders resident in the United Kingdom for tax purposes will be subject to corporation tax on receipt of any dividends unless the dividends fall within one of the exempt classes set out in Part 9A of the Corporation Tax Act 2009. It is likely that most dividends paid on the Shares to UK tax resident corporate Shareholders would (subject to anti-avoidance rules) fall within one of those exempt classes and would qualify for exemption from corporation tax. However, it should be noted that the exemptions are not comprehensive and are also subject to anti-avoidance rules. Such Shareholders, however, are advised to consult their independent professional tax advisers to determine whether such dividends will be subject to UK corporation tax.

Where dividends do not fall within any of the exempt classes, they will be subject to UK corporation tax in the hands of UK resident corporate Shareholders at the applicable corporation tax rate, currently at a rate of 19%, reducing to 17% from 1 April 2020.

To the extent that dividends are not exempt, UK resident corporate Shareholders may be able to obtain credit for any withholding tax and any underlying tax paid by the Company, subject to certain conditions. The UK has complex double tax relief where UK resident companies receive dividends from non-UK resident companies and therefore UK resident corporate Shareholders should seek further advice on these issues.

### 3.4 **Stamp duty and stamp duty reserve tax (SDRT)**

The statements below are intended as a general guide to the current position under UK tax law. They do not apply to certain intermediaries who may be eligible for relief from stamp duty or SDRT, or to persons connected with depositary arrangements or clearance services (or, in either case, their nominees or agents), who may be liable to stamp duty or SDRT at a higher rate.

#### 3.4.1 Treatment of the transfer of Shares into CREST

Admission of the Shares to the standard segment of the Official List should not give rise to a liability to stamp duty or SDRT on the basis that the Admission does not involve a change in title or beneficial ownership in the Shares for consideration.

No stamp duty or SDRT should arise on the transfer of the Shares to the Depositary (or one of its subsidiaries), to hold in its capacity as Depositary, nor on the subsequent issue by the Depositary to that transferor of Depositary Interests representing the underlying Shares in an uncertificated form (which are eligible for settlement through CREST) provided that there is no change in beneficial ownership of the Shares.

Where there is a transfer of Shares into CREST (where Depositary Interests are issued) and there is a change in beneficial ownership of the Shares, no charge to SDRT should arise on the basis that the central management and control of the Company currently takes place, and will continue to take place outside the UK, the register of members of the Company is, and will be, maintained outside the UK, and the underlying Shares are, and will continue to be, listed on a recognised stock exchange (such as ASX).

Assuming that no document of transfer is executed for such a transfer no stamp duty should arise.

#### 3.4.2 Treatment of the trading of Depositary Interests within CREST

Where Depositary Interests are traded (wholly within CREST), no charge to SDRT should arise on the basis that the central management and control of the Company currently takes place and will continue to take place outside the UK, the register of members of the Company is, and will be, maintained outside the UK, and the underlying Shares are, and will continue to be, listed on a recognised stock exchange (such as ASX).

Since any transfer of the Depositary Interests will be wholly within CREST, and no documents of transfer will be executed, no charge to stamp duty should arise on the transfer of Depositary Interests (wholly within CREST).

#### 3.4.3 Treatment of the transfer of Shares outside CREST and trading of the underlying Shares

Where there is a transfer of Shares outside CREST (which may involve a collapse of the Depositary Interests) and there is a change in beneficial ownership of the Shares no UK stamp duty should generally be payable, provided that any instrument of transfer is not executed in the UK and is kept outside the UK and does not relate to any property situated, or to any matter or thing done or to be done in the UK. If this is not the case, the transfer of the Shares will generally be subject to UK stamp duty (at the rate of 0.5% of the amount or value of the consideration given for the transfer, rounded up, where necessary, to the nearest £5). The purchaser usually pays the UK stamp duty.

Stamp duty is not a directly enforceable tax. As such, any stamp duty which may arise should not generally be required to be paid in respect of transfers of Shares, unless the document of transfer is required to be relied upon as evidence in a UK court or for other official purposes in the UK. However, where the stamp duty is paid late, interest and penalties may arise.

Provided that the register of members of the Company continues to be maintained outside the UK and the Shares are not paired with shares or marketable securities issued by a body corporate incorporated in the UK, no SDRT should be generally chargeable in respect of any agreement to transfer the Shares.



## Part VIII Additional Information

### 1 INCORPORATION AND STATUS OF THE COMPANY

- 1.1 The Company is an Australian public company limited by shares that was incorporated on 8 June 2001 and admitted to the official list of the ASX on 11 January 1979. The Company is incorporated and registered in Australia under the Australian Corporations Act 2001 with an Australian Company Number of 097 088 689
- 1.2 The Company's legal and commercial name is Resolute Mining Limited.
- 1.3 The Company is domiciled in Australia. The Company's registered office is at Level 2, 15-17 William Street, Perth WA 6000. The telephone number of the Company's registered office is +61 8 9261 6100.
- 1.4 The Company's principal place of business is Level 2, 15-17 William Street, Perth WA 6000.
- 1.5 The principal legislation under which the Company operates and under which the Shares have been created is the Australian Corporations Act 2001 and the regulations made thereunder.

### 2 SHARE CAPITAL

- 2.1 As at the Latest Practicable Date prior to the date of this document) the issued share capital of the Company was 758,094,588 Shares.
- 2.2 The issued share capital of the Company immediately following Admission will be 758,094,588 Shares (subject to the issue of any Shares on the exercise of Performance Rights).
- 2.3 Shares have no nominal or par value and are recorded at their issue price less any costs associated with issuing the shares. All Shares are fully paid. Shares issued pursuant to the exercise of Unlisted Options are recorded at their exercise price less any costs associated with issuing the shares. Shares issued pursuant to the conversion of Performance Rights are recorded at their conversion price (being nil).
- 2.4 Under the Australian Corporations Act 2001, the Company does not have an authorised share capital and there is generally no limit under the Australian Corporations Act 2001 or the Constitution on the power of the Directors to issue Shares or other securities.
- 2.5 The following changes in the share capital of the Company have taken place between 1 July 2015 and the Latest Practicable Date:

Date	Details	Issue Price or Consideration (A\$)	Number of Shares (#)
<b>1 Jul 2015</b>	<b>Opening Balance</b>	<b>N/a</b>	<b>641,189,223</b>
28 Aug 2015	Conversion of Performance Rights	N/a	393,771
23 Jun 2016	Conversion of Convertible Notes	1.06	14,050,000
<b>30 Jun 2016</b>	<b>Balance at 30 June 2016</b>	<b>N/a</b>	<b>655,632,994</b>
1 Aug 2016	Exercise of Unlisted Options	1.18	130,000
31 Aug 2016	Conversion of Performance Rights	N/a	3,158,402
3 Oct 2016	Share Placement	1.96	76,530,612
27 Oct-2016	Share issue as consideration for acquisition	1.67	1,457,867
4 Nov 2016	Shares issue to consultants	1.67	72,893

<b>Date</b>	<b>Details</b>	<b>Issue Price or Consideration (A\$)</b>	<b>Number of Shares (#)</b>
<b>30 Jun 2017</b>	<b>Balance at 30 June 2017</b>	<b>N/a</b>	<b>736,982,768</b>
05 Sep 2017	Conversion of Performance Rights	N/a	4,494,827
<b>30 Jun 2018</b>	<b>Balance at 30 June 2018</b>	<b>N/a</b>	<b>741,477,595</b>
13 Jul 2018	Share issue as consideration for acquisition	N/a	11,283,047
24 Aug 2018	Conversion of Performance Rights	N/a	4,751,446
30 Jan 2019	Share issue as consideration for acquisition	N/a	582,500
<b>Latest Practicable Date</b>	<b>Closing Balance</b>		<b>758,094,588</b>

## 2.6 Performance Rights

As at the Latest Practicable Date, 8,991,040 Performance Rights are convertible into 8,991,040 Shares for no additional consideration and on the occurrence of certain specified performance conditions with various expiry dates ranging from 30 June 2019 to 30 June 2021.

Please refer to Section 5 of this Part VIII for more details of the Performance Rights.

## 2.7 Save as disclosed in this Part VIII

- (a) the Company does not have in issue any securities not representing share capital;
- (b) no shares of the Company are currently in issue with a fixed date on which entitlement to a dividend arises and there are no arrangements in force whereby future dividends are waived or agreed to be waived;
- (c) the Company does not hold any treasury shares and no Shares are held by, or on behalf of, any member of the Group;
- (d) no Shares have been issued otherwise than as fully paid;
- (e) no share or loan capital of the Company has, since 1 July 2015 to the Latest Practicable Date, been issued or agreed to be issued, or is now proposed to be issued, fully or partly paid, either for cash or for a consideration other than cash, to any person;
- (f) the Company has no outstanding convertible securities, exchangeable securities or securities with warrants;
- (g) no commissions, discounts, brokerages or other special terms have been granted by the Company or any other member of the Group in connection with the issue or sale of any share or loan capital of any such company; and
- (h) no share or loan capital of the Company is under option or agreed conditionally or unconditionally to be put under option.

## 2.8 The Shares will be in registered form. No temporary documents of title will be issued and prior to the issue of definitive certificates, transfers will be certified against the register.

## 2.9 **Rights attaching to Shares**

The rights attaching to Shares arise from a combination of the Constitution, statute and general law. Section 3 below contains a summary of certain provisions of the Constitution relation to the Shares.

Shareholders should be aware that there are certain situations under statute and the general law where they may be deprived of their rights attaching to Shares. In particular, if the Company is under the control of an administrator, due to concerns relating to the solvency of the Company, the administrator has the power under the Australian Corporations Act 2001 to compulsorily transfer shares from shareholders to third parties, such as creditors, without the consent of shareholders, provided leave of a court has been obtained. A court is only permitted to grant an administrator leave for the compulsory transfer of the shares if satisfied that the transfer does not unfairly prejudice the interests of shareholders. This will typically occur where evidence is presented to the court that the shares in the Company have no residual value to shareholders and that shareholders would be unlikely to receive any distribution if the Company were placed into liquidation.

The rights of a shareholder to freely transfer their shares is also limited when a liquidator has been appointed to wind up the Company. If the Company is in liquidation, a transfer of shares will not be effective unless a shareholder obtains the consent of the liquidator or an order of a court authorising the transfer, such consent or authorisation being provided where the transfer of shares is in the best interests of the Company's creditors as a whole.

Shares issued following the conversion of Unlisted Options or the conversion of Performance Rights or Convertible Notes will rank equally in all respects with the Company's existing Shares.

## **3 CONSTITUTION**

The clauses of the Constitution contain the internal rules of the Company and define matters such as the rights, duties and powers of its shareholders and Directors, including provisions, inter alia, to the following effect (when read in conjunction with the Australian Corporations Act 2001 and ASX Listing Rules).

### 3.1 **Objects**

The Constitution does not contain any limitations on the Company's objects and purposes.

### 3.2 **Voting rights**

Subject to any rights or restrictions at the time being attached to any shares or class of shares of the Company, each Shareholder is entitled to receive notice of, attend and vote at a general meeting. Resolutions of Shareholders put to a vote at a general meeting will be decided by a show of hands (which is the raising of hands to indicate voting for or against a resolution) unless a poll is demanded. On a show of hands each eligible Shareholder present has one vote. However, where a person present at a general meeting represents personally or by proxy, attorney or representative more than one Shareholder, on a show of hands that person is entitled to one vote only despite the number of Shareholders the person represents.

If a poll is demanded pursuant to the Constitution, each eligible Shareholder has one vote for each Share held and a fraction of a vote for each partly paid share determined by the amount paid up on that share.

### 3.3 **Restrictions on voting**

A holder of restricted shares on issue from time to time is not entitled to any voting rights in respect of those restricted shares which would result in a breach of the ASX Listing Rules or a breach of a restriction agreement. A Shareholder is only entitled to a fraction of one vote equal to the proportion which has been paid up for each Share. Shareholders who have not paid any calls due and payable in respect of their shares are not entitled to vote on any resolution in respect of those shares.

As at the Latest Practicable Date, there are no issued restricted shares in the Company and it is expected that there will continue to be no issued restricted shares immediately after Admission.

A Shareholder is not entitled to vote on any resolution at a meeting where the vote is prohibited by the Australian Corporations Act 2001, the ASX Listing Rules, and an order of a court of competent jurisdiction or any other Applicable Law.

A holder of a preference share only has the right to vote:

- (a) during a period during which a dividend (or part of a dividend) in respect of the share is in arrears;
- (b) on a proposal to reduce the share capital of the Company;
- (c) on a resolution to approve the terms of a buy-back agreement;
- (d) on a proposal that affects rights attached to the share;
- (e) on a proposal to wind up the Company;
- (f) on a proposal for the disposal of the whole of the property, business and undertaking of the Company;
- (g) during the winding up of the Company; or
- (h) in any other circumstance as the Board determines prior to the allotment of preference shares.

As at the Latest Practicable Date, there are no issued preference shares in the Company and it is expected that there will continue to be no issued preference shares immediately after Admission.

### 3.4 **Dividends**

Subject to and in accordance with the Australian Corporations Act 2001, the ASX Listing Rules, the rights of any preference shares and to the rights of the holders of any shares created or raised under any special arrangement as to dividend, the Directors may from time to time declare dividend to be paid to the shareholders entitled to the dividend. Subject to the rights of any preference shares and to the rights of the holders of any shares created or raised under any special arrangement as to dividend, the dividend as declared shall be payable on all shares according to the proportion that the amount paid on the shares bears to the total issue price of the share.

### 3.5 **Return of capital**

Subject to any rights or restrictions attached to a class of shares, on a winding up of the Company, any surplus assets of the Company remaining after payment of its debts are divisible among Shareholders in proportion to the number of fully paid shares held by them (and a partly paid shares is counted as a fraction of a fully paid shares equal to the

proportion which the amount paid on it bears to the total issue price of the share). The liquidator may, with the sanction of a special resolution, distribute among shareholders the whole or any part of the property of the Company and decide how to distribute the property as between shareholders or different classes of shareholders.

### 3.6 **Variation of rights**

Class rights attaching to a particular class of shares may be varied or cancelled with the consent in writing of holders of 75% of the shares in that class or by a special resolution of the holders of shares in that class.

### 3.7 **Transfer of shares**

A Shareholder may transfer a share by any means permitted by the Australian Corporations Act 2001 or by law.

Subject to the ASX Settlement Operating Rules, the transferor is deemed to remain the holder of the shares concerned until the transfer is registered and the name of the transferee is entered in the register in respect of those shares.

The Company may refuse to register any transfer of shares, including where:

- (a) required by law, the ASX Listing Rules or a Court order;
- (b) the transfer is a breach of Australian law and ASX has agreed to place a holding lock on the shares or to the Company refusing the transfer;
- (c) the transfer if by a physical transfer form, a law related to stamp duty prohibits the Company from registering the transfer; and
- (d) shares are purported to be transferred pursuant to a proportional takeover offer where shareholder approval if such offer has not been given. Further details of the proportional takeover regime is set out at paragraph 3.9 of this part VIII.

The Company must give notice of any refusal to register a transfer of shares, and the reasons for the refusal, to the person who lodged the transfer (if not the same person).

Save as aforesaid, the Constitution contains no restrictions as to the free transferability of fully paid shares.

### 3.8 **Alteration of capital and purchase of own shares**

The issue of shares in the capital of the Company and options over unissued shares by the Company is under the control of the Directors, subject to the Australian Corporations Act 2001, ASX Listing Rules and any rights attached to any special class of shares.

Shares may be converted or cancelled with shareholder approval and the Company's share capital may be reduced in accordance with the requirements of the Australian Corporations Act 2001 and the ASX Listing Rules.

The Company may buy back shares in itself on terms and at such times determined by the Directors in accordance with the requirements of the Australian Corporations Act 2001.

### 3.9 **Proportional Takeover**

A proportional takeover bid is one in which the offer or offers only to buy a specified proportion of each shareholders' shares.

The Constitution provides for Shareholder approval of any proportional takeover bid for the shares. Subject to the ASX Listing Rules and ASX Settlement Operating Rules, the provisions

require the Directors to refuse to register any transfer of shares made in acceptance of a proportional takeover offer until the requisite shareholder approval has been obtained.

The perceived advantages of including proportional takeover provisions in the Constitution are that such provisions may:

- (a) enhance the bargaining power of Directors in connection with any potential sale of the Company;
- (b) improve corporate management by eliminating the possible threat of a hostile takeover through longer term planning;
- (c) make it easier for Directors to discharge their fiduciary and statutory duties to the Company and its shareholders to advise and guide in the event of a proportional bid occurring; and
- (d) strengthen the position of shareholders of the Company in the event of a takeover, assuming the takeover will result in a sharing of wealth between the offeror and shareholders, as the more cohesive shareholders are in determining their response the stronger they are. A requirement for approval can force shareholders to act in a more cohesive manner. Where shareholders know that a bid will only be successful if a specified majority of shareholders accept the offer, they have less to fear by not tendering to any offer which they think is too low.

The perceived disadvantages of including proportional takeover provisions in the Constitution include the following:

- (e) a vote on approval of a specific bid suffers from a bias in favour of the incumbent Board;
- (f) the provisions are inconsistent with the principle that a share in a public company should be transferable without the consent of other shareholders; and
- (g) a shareholder may lack a sufficient financial interest in any particular company to have an incentive to determine whether the proposal is appropriate.

To comply with the Australian Corporations Act 2001, the proportional takeover provisions must be renewed by Shareholders in a general meeting at least every three years to remain in place. Shareholders adopted the current Constitution which contained the proportional takeover provisions in 2017.

### 3.10 **Disposal of less than a Marketable Parcel**

The Constitution contains provisions enabling the Board to procure the disposal of Shares where the Shareholder holds less than a marketable parcel of shares within the meaning of the ASX Listing Rules (being a parcel of shares with a market value of less than A\$500 (US\$346)). To invoke this procedure, the Board must first give notice to the relevant Shareholder holding less than a marketable parcel of shares, who may then elect not to have his or her shares sold by notifying the Company.

### 3.11 **General meetings**

#### 3.11.1 Annual general meetings

Directors may call a meeting of Shareholders whenever they think fit. Shareholders may call a meeting in accordance with the Australian Corporations Act 2001. A meeting may be held in two or more places linked together by audio-visual communication devices. A quorum for a meeting of Shareholders is two eligible Shareholders entitled to vote at that meeting.

The Company must hold an annual general meeting in accordance with the Australian Corporations Act 2001 and the ASX Listing Rules.

#### 3.11.2 Orderly conduct of meetings

The chairman of a meeting of Shareholders is responsible for the general conduct and procedures to be adopted at the general meeting. The chairman may:

- (a) subject to the Australian Corporations Act 2001, at any time terminate discussion or debate on any matter being considered by the meeting, where the chairman considers it necessary or desirable for the proper and orderly conduct of the meeting;
- (b) subject to the Australian Corporations Act 2001 eject a Shareholder from the meeting at any time the chairman considers it is necessary or desirable for the proper and orderly conduct of the meeting;
- (c) may require the adoption of any procedure which is in the chairman's opinion necessary or desirable for properly and orderly debate or discussion and the proper and orderly casting or recording of votes at the meeting,

and a decision by the chairman under this rule is final.

#### 3.11.3 Notice of general meetings

The Company is required to provide Shareholders with 28 days' notice of any general meeting of Shareholders, unless a shorter period of time is permitted under the Australian Corporations Act 2001. The notice of meeting must include the date and time of the meeting and the general nature of the business of the meeting. Notice of the meeting must be provided to all Shareholders, Directors, alternative Directors and any auditors of the Company.

#### 3.11.4 Quorum

A quorum for a meeting of Shareholders is two Shareholders who have the right to be present and to vote on at least 1 item of business to be considered at the meeting.

#### 3.11.5 Chairman

At each general meeting, the chairman of the Board or, if he is absent or unwilling, one of the other Directors who is appointed by a majority of the Board shall preside as chairman of the meeting. If at a meeting a chairman has not been elected by the Board or is the elected chairman by the Board is not willing to chair the meeting, the Shareholders present and eligible to vote must elect another person to act as chairman of the meeting.

#### 3.11.6 Directors entitled to attend and speak

All Directors are entitled to attend and speak at all meetings of Shareholders.

#### 3.11.7 Adjournment

The chairman of a meeting of Shareholders at which a quorum is present:

- (a) may adjourn it to another time and place; and
- (b) must adjourn it if directed by ordinary resolution of the meeting.

No other person other than the chairman of the meeting may adjourn the meeting. The Company is only required to give notice of a meeting of Shareholders resumed from an adjourned meeting if the period of adjournment exceeds 1 month. The only business that

may be transacted at a meeting resumed after an adjournment is the business left unfinished immediately before the adjournment.

#### 3.11.8 Method of voting and demand for poll

Unless a poll is requested, a resolution put to vote at a meeting of Shareholders must be decided on a show of hands.

A poll may be demanded on any resolution at a meeting of Shareholders (except a resolution concerning the election of the chairman of a meeting), before or immediately after the results of the vote on the resolution, by:

- (a) the chairman of the meeting; or
- (b) at least five Shareholders entitled to vote on the resolution; or
- (c) Shareholders entitled to cast at least 5% of the votes that may be cast on the resolution on a poll;

and a demand for a poll by a person as proxy for a Shareholder shall be as valid as if the demand were made by the Shareholder himself.

The Chairman's declaration of a decision on a show of hands is final.

#### 3.11.9 Taking a poll

A poll demand on a resolution at a meeting of Shareholders, other than for the adjournment of the meeting, must be taken in the manner and at the time and place directed by the chairman. If the resolution is for the adjournment of the meeting, the poll must be taken immediately.

A demand for a poll may be withdrawn.

#### 3.11.10 Cancellation and postponement

Directors may at any time postpone or cancel a meeting of Shareholders by giving notice as soon as practicable to the ASX.

A meeting of Shareholders called at the request of a Shareholder in accordance with the Australian Corporations Act 2001 must not be cancelled by the Directors without the consent of the Shareholder who requested the meeting.

#### 3.11.11 Proxies

An eligible Shareholder may appoint a proxy to attend and vote at the meeting on the Shareholder's behalf. The Constitution contains provisions specifying the manner of lodgement of proxy instruments. An eligible Shareholder may appoint an individual or corporation to act as its representative.

#### 3.11.12 Form of proxy

An appointment of a proxy is valid if it is signed by a Shareholder making the appointment and contains:

- (a) the name and address of that Shareholder;
- (b) the name of the Company;
- (c) the name of the proxy or name of the office held by the proxy; and



- (d) the meeting of Shareholders at which the proxy may be used.

#### 3.11.13 Deposit of proxy

The appointment of a proxy is effective only if the instrument effecting the appointment is received by the Company at its registered office or is transmitted to and received at a fax number at that office (or another address including electronic address specified for the purpose in the relevant notice of meeting) not less than:

- (a) 48 hours before the time for which the meeting was called; or
- (b) for an adjourned meeting, 48 hours before the resumption of the meeting.

#### 3.11.14 Notice of revocation of proxy

Unless the Company has received a notice of revocation of a proxy not less than 48 hours before the time scheduled for the commencement of a meeting, a vote cast at the meeting by the appointed proxy is valid, even if before the proxy votes:

- (a) the Shareholders has sold their shares; or
- (b) the Shareholder revoked the appointment of that proxy.

### 3.12 **Directors**

#### 3.12.1 Number

The Board may decide the number of Directors (not counting alternate Directors) but that number must be at least three.

#### 3.12.2 Appointment of Directors

The Directors may appoint any person as a Director at any time except during a general meeting.

Subject to the Constitution, section 201E of the Australian Corporations Act 2001 and any maximum number of Directors, the Company may, by ordinary resolution, appoint any person as a Director.

A Director need not be a Shareholder.

#### 3.12.3 Retirement of directors

A Director must retire from office no later than the longer of:

- (a) the third annual general meeting of the Company following the Director's appointment; or
- (b) three years following that Director's last election or appointment.

At each annual general meeting, one third of the Directors (rounded down to the nearest whole number) who are not the Managing Director or Directors required to retire by rotation, must retire.

The Directors to retire shall be those Directors who have held their office as Director the longest period of time since their last election or appointment to that office but, as between persons who have held office for the same period of time, those to retire shall (unless they otherwise agree among themselves) be determined by lot.

The retirement provisions of the Constitution do not apply to the managing Director of the Company, or if more than one, the managing Director of the Company determined by the Directors.

#### 3.12.4 Position of retiring directors

A Director who retires from office under the Constitution is eligible for re-election.

#### 3.12.5 Removal of Directors

The Company may, by ordinary resolution, remove any Director from office.

A Director may resign from office by giving the Company notice in writing.

#### 3.12.6 Vacation of office of Director

A Director automatically ceases to be a Director if the Director:

- (a) becomes of unsound mind or physically or mentally incapable of performing the functions of that office;
- (b) fails to attend Board meetings (either personally or by an alternate Director) for a continuous period of 3 months without leave of absence from the Board;
- (c) the Director resigns by notice in writing to the Company or is removed from office under the Constitution;
- (d) becomes disqualified from managing corporations under the Australian Corporations Act 2001 and is not given permission or leave to manage the Company under the Australian Corporations Act 2001;
- (e) ceases to be eligible to act as a Director as a result of the Director becoming the auditor of the Company or is a partner, director or employee of the Company; or
- (f) is not permitted to be a Director by the Australian Corporations Act 2001 (or an order made under the Australian Corporations Act 2001).

#### 3.12.7 Managing Director

The board may appoint one or more directors as Managing Director, for a specified term (but not for life) or without specifying a term. The Board may delegate any of the powers of the Board to a managing director on the terms and subject to any restrictions the Board decides and may revoke the delegation at any time. A Director appointed as a managing director shall automatically cease to hold that position if the managing director ceases to be a Director.

#### 3.12.8 Power to appoint alternate Directors

A Director (other than an alternate Director) may appoint a person who is approved by the Board (without the vote of the appointor) to act as an alternate Director for a specified period or each time the appointor is unable to attend a Board meeting or at as a Director.

The appointing Director may revoke the appointment of his or her alternate Director at any time. Any appointment of an alternative Director ceases if the appointor ceases to be a Director.

### 3.12.9 Directors' interests

A Director may:

- (a) hold any office or place of profit or employment (except as auditor) in the Company;
- (b) be a member or creditor of any corporation (including the Company) or partnership, other than the auditor;
- (c) enter into an agreement with the Company,

and retain the benefits of doing so if the Director discloses in accordance with the Australian Corporations Act 2001 the interest giving rise to those benefits.

If a Director discloses his or her interest in accordance with the Australian Corporations Act 2001:

- (a) the Director may, subject to the Applicable Law, be counted in a quorum at a Board meeting that considers the contract or arrangement in which that Director has an interest;
- (b) the Director may, subject to the Applicable Law, vote on any matter that relates to the contract or arrangement;
- (c) the Company may proceed with the contract or arrangement that relates to the Director's interest;
- (d) the Director may participate in the execution of any relevant document by or on behalf of the Company in respect of the contract or arrangement;
- (e) the Director may retain the benefits under the contract or arrangement even though the Director has the interest; and
- (f) the Company cannot avoid the contract or arrangement merely because of the existence of the Director's interest.

The Director must give to the Company the information which the Company is required by the Listing Rules to disclose to ASX in respect of:

- (a) notifiable interests of the Director; and
- (b) changes to the notifiable interests of the Director,

in the form which the Company is required to tell ASX under the Listing Rules.

### 3.12.10 Benefits and Remuneration

The Company may pay non-executive Directors a maximum of the total amount as determined by the Shareholders in a general meeting and such sum must not be paid by way of commission on, or percentage of, profits or operating revenue.

Subject to any contract with the Company and the Listing Rules, the Board may fix the remuneration of executive Directors. That remuneration may consist of salary, bonuses or any other elements but must not be a commission on, or percentage of, profits or operating revenue.

The Company may give, or agreed to give, a person a benefit in connection with that person's, or someone else's, retirement from a board or managerial office in the Company.

#### 3.12.11 Powers of the Board

The business of the Company is managed by or under the direction of the Directors. The Directors may exercise every right, power or capacity of the Company except those that the Australian Corporations Act 2001, Listing Rules or the Constitution requires the Company to exercise in a general meeting.

In accordance with the Australian Corporations Act 2001, the Constitution provides for execution of documents by the Company without the use of the Company's common seal.

#### 3.12.12 Indemnity of officers

To the extent permitted by law, the Company indemnifies every person who is or has been an officer of the Company (and its wholly owned subsidiaries) against a liability incurred by that person in his or her capacity as an officer of the Company (and its wholly owned subsidiaries). Indemnities not permitted under the Australian Corporations Act 2001 include where a liability is owed to a third party and did not arise out of conduct in good faith. A similar indemnity is provided in respect of legal proceedings. The Company may also pay the premiums on Directors' and officers' liability insurance.

#### 3.12.13 Committees and Delegates

The Directors may delegate any of their powers (including the power to delegate) to a committee of Directors, a Director, an employee of the Company or any other person.

The Directors may revoke or vary any power so delegated.

#### 3.12.14 Board meetings

A Director may convene a Board meeting at any time and the Company Secretary must convene a Board meeting on request of any Director.

#### 3.12.15 Notice of Board meetings

The convenor of each Board meeting must give reasonable notice of the meeting to each Director and alternative Director. Failure to give notice to, or non-receipt of notice by, a Director does not result in a Board meeting being invalid.

#### 3.12.16 Quorum

The quorum for a Board meeting is two Directors, unless the Board decides otherwise.

#### 3.12.17 Voting

A resolution of Directors is determined by a majority of votes. If there is an equality of votes, the chairman of the meeting has the casting vote on the resolution (unless only two Directors are entitled to vote or the chairman of the meeting is not entitled to vote).

#### 3.12.18 Telephone and video conference meetings

A meeting of Directors may be held by using any means of audio or audio-visual communication. If a meeting is held in 2 or more places linked together by technology:

- (a) the meeting is treated as held at the place at which the greatest number of the Directors present at the meeting is located; or
- (b) if an equal number of Directors is located in each of 2 or more places, at the place where the chairman of the meeting is located.

#### 3.12.19 Resolutions in writing

The Directors may pass a resolution in writing signed by all Directors entitled to vote on the resolution containing a statement that the Directors are in favour of the resolution set out in the document. Separate copies of the document may be used for the written resolution provided that the wording of the resolution and the statement is identical in each copy.

## **4 SETTLEMENT IN THE UK**

### **4.1 CREST**

CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by a written instrument.

The Company has entered into depositary arrangements to enable investors to settle and pay for interests in Shares through the CREST system. Pursuant to arrangements put in place by the Company, the Depositary will hold the Shares on trust for the investors and will issue dematerialised Depositary Interests to CREST accounts representing the underlying Shares.

### **4.2 Depositary Interest Arrangements**

The Depositary Interests are independent securities constituted under English law and are held on a register maintained by the Depositary. The Depositary Interests have the same ISIN number as the Shares which they represent and do not require a separate listing on the London Stock Exchange.

The Depositary Interests were created pursuant to and issued on the terms of the Deed Poll. Prospective holders of Depositary Interests should note that they will have no rights in respect of the underlying Shares, or the Depositary Interests representing them, against CREST or its subsidiaries. The Deed Poll also sets out the procedure for holders of Depositary Interests to vote at general meetings of the Company and to exercise their rights as Shareholders. Each Depositary Interest will be treated as one Share for the purposes of determining, for example, eligibility for any dividends.

Shares will be transferred to the Custodian and the Depositary will issue Depositary Interests to participating Shareholders and provide the necessary custodial services.

In relation to those Shares held by Shareholders in uncertificated form, although the Company's register shows the Custodian as the legal holder of the Shares, the beneficial interest in the Shares remains with the Depositary Interest Holder (the Shareholder), who has the benefit of all the rights attaching to the Shares as if the Depositary Interest Holder were named on the certificated share register itself.

Each Depositary Interest will be treated as one Share for the purposes of determining, for example, eligibility for any dividends. The Depositary Interests have the same ISIN number as the underlying Shares. The Depositary Interests can then be traded and settlement will be within the CREST system in the same way as any other CREST securities.

## **5 PERFORMANCE RIGHTS PLAN**

This section gives a brief outline of the Performance Rights Plan (the "**Plan**") and its terms and conditions.

### **5.1 Eligible Participants**

The Plan is open to full time and part-time employees of the Group, executive Directors of any member of the Group, and any other person who is declared by the Board to be eligible to participate in the Plan. Eligible employees may request that some or all of their Performance Rights are held by a Nominee (as defined in the Plan), however the Board has sole discretion to accept or reject a Nominee.

## 5.2 **Instruments**

The Plan allows the Board to grant Performance Rights, with each Performance Right representing a right to acquire one Share, provided that the relevant vesting conditions are satisfied.

## 5.3 **Equity pool**

The number of Performance Rights granted under the Plan (Awards), and the number of Shares underlying any Awards, granted on any day must not exceed the maximum permitted under any ASIC Class Order (including, without limitation, ASIC CO 14/1000) providing relief from the disclosure regime of the Australian Corporations Act 2001 to ensure compliance with any such ASIC Class Order.

## 5.4 **Grant of Performance Rights**

The individual grants of Performance Rights to those eligible to participate in the Plan will be as determined by the Board in its sole and absolute discretion, subject to any necessary Shareholder approvals. In line with current market practice, the CEO is currently provided with a LTI allocation equal to 100% of fixed remuneration and other employees are provided with a LTI allocation equal to 10-65% of fixed remuneration, depending on the participant's level of seniority. As noted previously, these Performance Rights are broader than just the senior executive group.

## 5.5 **Grant date**

The timing and frequency of the grant of Performance Rights will be as determined by the Board in its sole and absolute discretion.

## 5.6 **Exercise price**

Performance Rights will be granted with a nil exercise price.

## 5.7 **Life of Performance Rights**

Unless otherwise determined by the Board in its sole and absolute discretion, Performance Rights granted will have a maximum life of 15 years, such that if they are not exercised before the 15 year anniversary of their grant (Expiry Date) they will lapse.

## 5.8 **Transferability of Performance Rights**

Performance Rights will not be transferable, other than:

- (a) to a nominated party of a participant, where the Board determines that the participant may do so:
- (b) with the prior consent of the Board: or
- (c) on a participant's death, to the participant's legal personal representative.

## 5.9 **Rights attaching to Performance Rights**

Participants will have no voting or dividend rights until performance Rights are exercised and the participants hold Shares.

## 5.10 **Vesting conditions**

The vesting of Performance Rights will be conditional on the satisfaction of any vesting conditions which the Board has determined will attach to any Performance Rights.

#### 5.11 **Vesting notification**

When a Performance Right vests, the Company will issue a vesting notification to the relevant participant, after which the vested Performance Right will be exercised upon completion by the participant of an exercise notice within a period specified by the Board.

#### 5.12 **Lapsing conditions**

Unless otherwise determined by the Board in its sole and absolute discretion, any unvested Performance Rights will lapse on the earlier of:

- (a) the cessation of a participant's employment or office (subject to the rules governing cessation of employment summarised below);
- (b) where a participant has acted fraudulently, dishonestly or wilfully breaching their duties;
- (c) if an applicable vesting condition and/or performance hurdle are not, or, in the opinion of the Board, cannot be, achieved by the relevant time; or
- (d) the Expiry Date.

#### 5.13 **Cessation of employment or office**

On cessation of employment:

- (a) Performance Rights that have vested but have not been exercised will continue in force and remain exercisable in accordance with the Plan until the expiry date, unless the Board in its sole and absolute discretion determines otherwise, including where the employee has been terminated for serious misconduct and other reasons justifying termination without notice; and
- (b) unvested Performance Rights will be forfeited unless the Board in its sole and absolute discretion determines otherwise, including where the employee has been terminated due to death, retirement due to ill health and genuine redundancy. In such cases the Board may determine whether any vesting conditions and/or performance hurdles applicable to those Performance Rights have been satisfied and if so that vesting may be on a pro rata basis over the employee's service period during the vesting period. Any such Performance Right will be not be determined or exercisable until the end of the vesting period.

#### 5.14 **Rights attaching to Shares**

All Shares acquired by participants upon the exercise of Performance Rights will rank equally with existing Shares on and from the date of acquisition.

#### 5.15 **Disposal restrictions on Shares**

Prior to the grant of any Performance Rights, the Board may impose disposal restrictions on Shares acquired by participants following the exercise of Performance Rights, for example, by way of the use of an employee share trust or an Australian Securities Exchange holding lock. During any Share disposal restriction period, participants will have full dividend and voting rights.

#### 5.16 **Change of control event**

A change of control event occurs if:

- (a) a person or entity becomes a legal or beneficial owner of 50% or more of the issued share capital of the Company; or



- (b) a person or entity becomes entitled to, acquires, holds or has an equitable interest in more than 50% of the issued share capital of the Company.

In the event of a change of control event occurring, the Board may determine, in its sole and absolute discretion, the manner in which all unvested and vested Performance Rights will be dealt with.

#### 5.17 **Bonus issues**

Subject to the Listing Rules, if there is a bonus issue to the holder of Shares, then the number of Shares over which a Performance Right is exercisable will be increased by the number of Shares which the holder of the Performance Right would have received if the Performance Right had been exercised before the record date for the bonus issue.

#### 5.18 **Pro rata issues**

If the Company makes a pro rata issue to the holder of Shares, then due to Performance Rights having a nil exercise price, no adjustment will be required.

#### 5.19 **Reorganisation**

In the event of any reorganisation (including consolidation, sub-division, reduction, return or cancellation) of the issue capital of the Company, the number of Performance Rights to which each participant is entitled will be changed in accordance with the Listing Rules.

#### 5.20 **Buy-back**

The Company may buy-back Performance Rights and/or Shares acquired upon exercise of Performance Rights in accordance with the rules of the Plan.

### 6 **DIRECTOR INTERESTS**

- 6.1 In addition to their directorships in the Group, the Directors and senior managers of the Company currently hold, and have during the five years preceding the date of this document held, the following directorships or partnerships:

Name	Position	Current directorships, or partnerships	Past directorships or partnerships
<b>DIRECTORS</b>			
Mr Marthinus (Martin) Botha	Non-Executive Chairman	Sberbank CIB (UK) Ltd Zeta Resources Limited Perfect Channel Limited Firstbird Partners Limited Duplia Ltd Kusaidia Ltd	-
Mr John Welborn	Managing Director and CEO	Australia-Africa Minerals and Energy Group Ltd Orbital Corporation Limited Equatorial Resources Limited Equatorial (ROC) Pty Ltd Equatorial Exploration Pty Ltd Equatorial (Africa) Pty Ltd RGW Projects Pty Ltd 1193287 B.C. Ltd	Mineral Investments Pty Ltd Prairie Mining Limited Noble Mineral Resources Limited
Ms Yasmin Broughton	Non-Executive Director	Electricity Generation and Retail Corporation (trading as	Food and Fibre International Limited

Name	Position	Current directorships, or partnerships	Past directorships or partnerships
		Synergy) Insurance Commission of Western Australia Edge Employment Solutions Inc. Presbyterian Ladies College Foundation Perth Curtin University School of Management Advisory Board A.C.N. 617 002 347 Pty Ltd	Cybergym Global Limited
Mr Mark Potts	Non-Executive Director	iCetana Pty Ltd Potts Investments Pty Ltd	Decimal Pty Ltd Decimal Software Pty Ltd Decimal Technology and Systems Pty Ltd Simpla Pty Ltd Filter Squad Pty Ltd VGW Holdings Limited
Ms Sabina Shugg	Non-Executive Director	Australian Prospectors & Miners Hall of Fame Ltd Mining Hall of Fame Pty Ltd Curtin University Foundation Board One Hundred Ounces to the Ton Pty Ltd WIMWA Events Pty Ltd	Austmine Ltd
Mr Peter Sullivan	Non-Executive Director	GME Resources Limited Zeta Resources Limited Panoramic Resources Limited Bligh Resources Limited Niwest Limited Alliance Mining Commodities Limited Alliance Mining Commodities Guinee SA AMCL Holdings Pty Ltd Frenchwood Pty Ltd GME Investments Pty Ltd Golden Cliffs NL Hardrock Capital Pty Ltd Kumarina Resources Pty Ltd S R Mining Pty Ltd Zeta Investments Pty Ltd	Australia-Africa Minerals and Energy Group Ltd Pan Pacific Petroleum (South Aust) Pty Ltd Pan Pacific Petroleum (JPDA 06-103) Pty Ltd Pan Pacific Petroleum Vietnam (121) Pty Ltd Pan Pacific Petroleum Pty Ltd Repsol Oil & Gas Vietnam 07/03 Pty Ltd WM Holdings Limited WM Petroleum Limited
<b>SENIOR MANAGERS</b>			
Lee-Anne de Bruin	Chief Financial Officer	None	Australian Gold Alliance Pty Ltd GMK Investments Pty Ltd Goldfields Power Pty Ltd Kepala Burung Offshore Pty Ltd Kimberley Diamonds Ltd Kimberley Mining Services Pty Ltd Kimphil Pty Ltd Newmont AP Power Pty Ltd Newmont Asia Pty Ltd

Name	Position	Current directorships, or partnerships	Past directorships or partnerships
			Newmont Australia Holdings Pty Ltd Newmont Australia Pty Ltd Newmont Boddington Gold Pty Ltd Newmont Boddington Pty Ltd Newmont Capital Pty Ltd Newmont Exploration Pty Ltd Newmont Gold Marketing & Finance Pty Ltd Newmont Gold Pty Ltd Newmont International Exploration Pty Ltd Newmont Landco Pty Ltd Newmont Mining Finance Pty Ltd Newmont Mining Holdings Pty Ltd Newmont Mining Services Pty Ltd Newmont NGL Holdings Pty Ltd Newmont Pacific Energy Pty Ltd Newmont Pajingo Pty Ltd Newmont Power Pty Ltd Newmont Tanami Pty Ltd Newmont Woodcutters Pty Ltd Newmont Yandal Operations Pty Ltd NP Kalgoorlie Pty Ltd Saddleback Investments Pty Ltd Wirralie Gold Mines Pty Ltd
David Kelly	Acting Chief Operating Officer	Manas Resources Limited Predictive Discovery Limited	Optimum Capital Pty Ltd Renaissance Minerals Limited
Amber Stanton	General Counsel and Company Secretary	Australia-Africa Minerals and Energy Group Ltd	K&L Gates Partnership

6.2 As at the Latest Practicable Date the interests (all of which unless stated, are beneficial) or are interests of a person connected with the Directors or Senior Managers were as follows:

Name of Director	Number of Shares	Percentage of issued share capital on admission
<b>DIRECTORS</b>		
Mr Marthinus (Martin) John Botha	Nil	Nil
Mr John Paul Welborn	4,550,000	0.60
Ms Yasmin Broughton	Nil	Nil
Mr Mark Stephen Potts	26,825	0.004
Ms Sabina Jane Shugg	Nil	Nil
Mr Peter Ross Sullivan	2,340,674	0.31
<b>SENIOR MANAGERS</b>		

Name of Director	Number of Shares	Percentage of issued share capital on admission
Lee-Anne de Bruin	Nil	Nil
David Kelly	20,000	Nil
Amber Stanton	Nil	Nil

Name of Director	Security	Vesting Date	Number Held	Number Vested
Mr John Paul Welborn	Performance Rights	30-Jun-2019	564,000	Nil
Mr John Paul Welborn	Performance Rights	30-Jun-2019	600,000	Nil
Mr John Paul Welborn	Performance Rights	30-Jun-2020	1,000,000	Nil
Mr John Paul Welborn	Performance Rights	30-Jun-2020	587,500	Nil
Mr John Paul Welborn	Performance Rights	30-Jun-2021	277,559	Nil
Mr John Paul Welborn	Performance Rights	31-Dec-2021	698,690	Nil

6.3 As at the date of this Prospectus, none of the Directors or Senior Managers have at any time within the last five years:

- (a) had any convictions (whether spent or unspent) in relation to offences involving fraud or dishonesty;
- (b) been the subject of any official public incrimination and/or sanctions by statutory or regulatory authorities (including designated professional bodies) or been disqualified by a court from acting as a director of a company or from acting in the management or conduct of the affairs of any company;
- (c) save as disclosed at paragraph 6.9 below, been a director or senior manager of a company which has been put into receivership, compulsory liquidation, administration, company voluntary arrangement or any composition or arrangement with its creditors generally or any class of its creditors; or
- (d) been the subject of any bankruptcy or been subject to an individual voluntary arrangement or a bankruptcy restrictions order.

6.4 No Director or senior manager has any interest in any transactions which are or were unusual in their nature or conditions or which are or were significant to the business of the Group and which were effected by any member of the Group in the current or immediately preceding financial year or which were effected during an earlier financial year and which remain in any respect outstanding or unperformed.

6.5 Save as disclosed, there are no arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any Director or senior manager was selected.

6.6 Save as disclosed, there are no restrictions agreed by any Director or senior manager on the disposal within a certain period of time of their holdings in the Company's securities.

6.7 Save as disclosed, there are no outstanding loans or guarantees provided by any member of the Group for the benefit of any of the Directors or senior managers nor are there any

loans or any guarantees provided by any of the Directors or senior managers for any member of the Group.

6.8 No Director or senior manager has any conflict of interest between duties to the Company and his private interests or other duties.

6.9 In October 2015, Peter Sullivan and John Welborn were directors of Resolute Pty Limited, a subsidiary of the Company, which, as part of a Group reorganisation entered into voluntary administration. In September 2013, John Welborn was a director of Noble Mineral Resources Ltd which entered into voluntary administration.

## **7 INTERESTS OF MAJOR SHAREHOLDERS**

7.1 As at the Latest Practicable Date, the Company is aware of the following persons who, in addition to the Directors and Senior Management set out in paragraph 6.3, directly or indirectly, were interested in 3% or more of the Company's capital or voting rights:

	<b><i>Before Admission</i></b>		<b><i>Following Admission</i></b>	
<i>Name</i>	<i>Number of Shares</i>	<i>Percentage of voting rights</i>	<i>Number of Shares</i>	<i>Percentage of voting rights</i>
ICM Limited	130,724,654	17.24%	130,724,654	17.24%
Van Eck Associates Corporation	85,332,518	11.02%	85,332,518	11.02%
Dimensional Fund Advisors	46,503,913	6.40%	46,503,913	6.40%
L1 Capital Pty Ltd	36,173,935	4.77%	36,173,935	4.77%
The Vanguard Group Inc	27,393,203	3.61%	27,393,203	3.61%
Wellington Management Company LLP	26,346,212	3.48%	26,346,212	3.48%

7.2 Save as disclosed in paragraphs 6.2 and 7.1 above, the Company is not aware of any person who directly or indirectly, jointly or severally, exercises or could exercise control over the Company nor is it aware of any arrangements, the operation of which may at a subsequent date result in a change of control of the Company.

7.3 The persons including the Directors and the Senior Managers, referred to in paragraphs 6.2 and 7.1, do not have voting rights that differ from those of other Shareholders.

## **8 DIRECTORS' SERVICE AGREEMENTS AND LETTERS OF APPOINTMENT AND SENIOR MANAGER REMUNERATION**

8.1 The Managing Director and Chief Executive Officer provides his services to the Company pursuant to a service contract.

8.2 Mr John Paul Welborn has an employment agreement with the Resolute Corporate Services Pty Ltd dated 1 July 2015 confirming the terms and conditions of his appointment. Mr Welborn's appointment will terminate:

- (a) immediately on death or retirement;
- (b) immediately if the Company gives notice of dismissal for:
  - (i) serious conduct or neglect in the discharge of duties or breach of employment contract;
  - (ii) conviction of any criminal offence (other than an offence that does not affect the Director's position); or
  - (iii) unsoundness of mind or the Director becomes unable or unavailable to perform the services required by the Company;
- (c) on the expiry of six-months' notice given by Mr Welborn to the Company; and
- (d) on the expiry of 12 months' notice given by the Company to Mr Welborn.

Mr Welborn is currently entitled to receive fixed remuneration of A\$800,000 (US\$553,040) per annum for the performance of his duties (inclusive of salary, superannuation, costs of non-salary benefits). Mr Welborn is also entitled to participate in the Company's incentive plans.

8.3 Each of the non-executive Directors has a letter of appointment with the Company, details of which are set out below.

8.3.1 Mr Marthinus (Martin) John Botha, Non-Executive Director, has a letter of appointment with the Company dated 5 February 2014 confirming the terms and conditions of his appointment as a Non-Executive Director and a variation letter dated 20 September 2017 confirming the terms and conditions of his appointment as Non-Executive Chairman. Mr Botha's appointment will cease if he advises the Company in writing of his resignation, if he is not elected by shareholders as and when required by the ASX Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution. Mr Botha currently receives a fee of A\$180,000 (US\$124,434) per annum for his Board duties (including for service on any committees of the Board) as Non-Executive Director and Chairman. Mr Botha will be entitled to additional fees or other amounts as the Board determines for services performed outside the scope of ordinary duties of a Director.

8.3.2 Ms Yasmin Broughton, Non-Executive Director, has a letter of appointment with the Company dated 29 June 2017 confirming the terms and conditions of his appointment. Ms Broughton's appointment will cease if she advises the Company in writing of her resignation, if she is not elected by shareholders as and when required by the ASX Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution. Ms Broughton currently receives a fee of A\$100,000 (US\$69,130) per annum for her Board duties (including for service on any committees of the Board) and an additional fee of A\$15,000 (US\$10,370) for her role as Chair of the Audit and Risk Committee. Ms Broughton will be entitled to additional fees or other amounts as the Board determines for services performed outside the scope of ordinary duties of a Director.

8.4 Mr Mark Potts, Non-Executive Director, has a letter of appointment with the Company dated 29 June 2017 confirming the terms and conditions of his appointment. Mr Potts' appointment will cease if he advises the Company in writing of his resignation, if he is not elected by shareholders as and when required by the ASX Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution. Mr Potts currently receives a fee of A\$100,000 (US\$69,130) per annum for his Board duties (including for service on any committees of the Board). Mr Potts will be entitled to additional fees or other amounts as the Board determines for services performed outside the scope of ordinary duties of a Director.

- 8.5 Ms Sabina Shugg, Non-Executive Director, has a letter of appointment with the Company dated 28 August 2018 confirming the terms and conditions of her appointment. Ms Shugg's appointment will cease if she advises the Company in writing of her resignation, if she is not elected by shareholders as and when required by the ASX Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution. Ms Shugg currently receives a fee of A\$100,000 (US\$69,130) per annum for her Board duties (including for service on any committees of the Board). Ms Shugg will be entitled to additional fees or other amounts as the Board determines for services performed outside the scope of ordinary duties of a Director.
- 8.6 Mr Peter Ross Sullivan, Non-Executive Director, has a letter of appointment with the Company dated 29 June 2015 confirming the terms and conditions of his appointment. Mr Sullivan's appointment will cease if he advises the Company in writing of his resignation, if he is not elected by shareholders as and when required by the ASX Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution. Mr Sullivan currently receives a fee of A\$100,000 (US\$69,130) per annum for his Board duties (including for service on any committees of the Board) and an additional fee of A\$10,000 (US\$6,913) for his role as Chair of the Remuneration Committee. Mr Sullivan will be entitled to additional fees or other amounts as the Board determines for services performed outside the scope of ordinary duties of a Director.

## 9 DIRECTORS' REMUNERATION

### *Directors*

- 9.1 Under the terms of their service contracts, letters of appointment and applicable incentive plans, in the six-month period ended 31 December 2018, the Directors were remunerated as set out below:

	Remuner- ation (A\$)	Non- Mon- etary Benefits	Short Term Incentive & Annual Leave Expense (A\$)	Share Based Payments (Performanc e Rights)	Long Service Leave Expense	Post- employment benefits (A\$)	Total (A\$)
<b>Directors</b>							
Mr Marthinus (Martin) Botha	87,500	Nil	Nil	Nil	Nil	Nil	87,500
Mr John Welborn	340,000	5,070	149,256 <sup>1</sup>	525,514	8,878	12,500	1,041,218
Ms Yasmin Broughton	45,000	Nil	Nil	Nil	Nil	Nil	45,000
Mr Mark Potts	45,000	Nil	Nil	Nil	Nil	Nil	45,000
Ms Sabina Shugg <sup>2</sup>	25,952	Nil	Nil	Nil	Nil	Nil	25,952
Mr Peter Ross Sullivan	36,161	4,935	Nil	Nil	Nil	3,904	45,000

<sup>1</sup> This amount includes a cash short term incentive of \$121,918 and an annual leave expense of \$27,338.

<sup>2</sup> Ms Shugg was appointed on 7 September 2018.

### *Non-Executive Directors*

- 9.2 The Board's policy is for fees to Non-Executive Directors to be no greater than market rates for comparable companies for time, commitment and responsibilities. The Board determines payments to the Non-Executive Directors and reviews their remuneration annually, based on market practice, duties and accountability. Independent external advice is sought when required.

- 9.3 The maximum aggregate amount of fees that can be paid to Non-Executive Directors is subject to approval by shareholders at a General Meeting. An amount not exceeding the amount determined is then divided between the Directors as agreed. The latest determination was at the Annual General Meeting held on 29 November 2016 when the shareholders approved an aggregate remuneration of A\$1,000,000 (US\$691,300) per year. Fees for Non-Executive Directors are not linked to the performance of the economic entity.
- 9.4 Fees for the Chairman are presently A\$180,000 (US\$124,434) per annum and fees for Non-Executive Directors' are presently set at A\$100,000 (US\$69,130) per annum. These fees cover main Board activities only. The Remuneration Chair receives an additional A\$10,000 (US\$6,913) fee and the Audit and Risk Committee Chair receives an additional A\$15,000 (US\$10,370) fee to perform those roles.
- 9.5 Each Non-Executive Director's appointment will cease if he or she advises the Company in writing of his or her resignation, if he or she is not elected by shareholders as and when required by the Listing Rules or as otherwise determined in accordance with the Australian Corporations Act 2001 or pursuant to the Constitution.

## 10 SENIOR MANAGEMENT REMUNERATION

The aggregate of the remuneration paid and benefits in kind (including bonus payments) paid by any member of the Group to the Senior Managers in respect of the financial year ended 30 June 2018 was A\$4,656,845 (US\$3,609,966).

## 11 THE COMPANY AND ITS SUBSIDIARIES

- 11.1 The Company is the holding company of the Group and has the following principal subsidiaries:

<b><i>Name</i></b>	<b><i>Country of registration or incorporation</i></b>	<b><i>Principal activity</i></b>	<b><i>Percentage of issued share capital held by the Company and (if different) proportion of voting power held</i></b>
ACN 627 384 098 Pty Ltd	Australia	Holding Company	100%
Amber Gold Cote d'Ivoire SARL	Cote d'Ivoire	Mineral Exploration	100%
Carpentaria Gold Pty Ltd	Australia	Mining & Exploration - Ravenswood Project	100%
Drilling and Mining Services Limited	Ghana	Mining & Drilling Services	100%
Excalibur Cote d'Ivoire SARL	Cote d'Ivoire	Mineral Exploration	100%
Resolute Corporate Services Pty Ltd	Australia	Corporate Office & Management	100%
Nimba Resources SARL	Cote d'Ivoire	Mineral Exploration	100%
Noble Mining Ghana Limited	Ghana	Holding Company	100%



<b><i>Name</i></b>	<b><i>Country of registration or incorporation</i></b>	<b><i>Principal activity</i></b>	<b><i>Percentage of issued share capital held by the Company and (if different) proportion of voting power held</i></b>
Resolute (Bibiani) Pty Ltd	Australia	Dormant Holding Company	100%
Resolute Burkina Faso Pty Ltd	Australia	Holding Company	100%
Resolute Burkina Faso SARL	Burkina Faso	Mineral Exploration	100%
Resolute Canada Pty Ltd	Australia	Holding Company	100%
Resolute Canada 2 Pty Ltd	Australia	Holding Company	100%
Resolute (CDI Holdings) Pty Ltd	Australia	Dormant Holding Company	100%
Resolute Cote d'Ivoire SARL	Cote d'Ivoire	Mineral Exploration	100%
Resolute Egypt (Australia) Pty Ltd	Australia	Holding Company	100%
Resolute Egypt (Australia) 2 Pty Ltd	Australia	Holding Company	100%
Resolute Egypt Pty Ltd	Egypt	Mineral Exploration	100%
Resolute Exploration SARL	Mali	Mineral Exploration	100%
Resolute (Finkolo) Pty Limited	Australia	Holding Company	100%
Resolute (Ghana) Limited	Ghana	Mineral Exploration	100%
Resolute Mali S.A.	Mali	Mineral Exploration	100%
Resolute (Somisy) Pty Limited	Australia	Holding Company	100%
Resolute Sudan Pty Ltd	Australia	Holding Company	100%
Resolute Sudan 2 Pty Ltd	Australia	Holding Company	100%
Resolute (Treasury) Pty Ltd	Australia	Cash & Handing Company	100%
RSG Tanzania Pty Ltd	Australia	Holding Company	100%
RSG Tanzania 2 Pty	Australia	Holding Company	100%

<b>Name</b>	<b>Country of registration or incorporation</b>	<b>Principal activity</b>	<b>Percentage of issued share capital held by the Company and (if different) proportion of voting power held</b>
Ltd			
Geb and Nut Resources SARL	Cote d'Ivoire	Mineral Exploration	80%
Mensin Gold Bibiani Limited	Ghana	Owner & Operator of Bibiani Gold Mine	100%
Société des Mines de Finkolo SA.	Mali	Mining & Exploration – Tabakoroni Project	100%
Société des Mines de Syama S.A.	Mali	Mining & Exploration – Syama Project	80%

Note:

The Company's shareholding in Geb and Nut Resources SARL is subject to a dispute.

<sup>2</sup> The Government of Ghana is entitled to a 10% free carried interest in Mensin.

<sup>3</sup> The Government of Mali is entitled to a 10% free carried interest in SOMIFI which Resolute (Finkolo) Pty will be required to transfer to it following a request in order for the Government to participate in the Tabakoroni project as referred to in paragraph 3.1.1 of Part I of the document . The Government of Mali also has the right to purchase an additional 10% interest in cash.

## 12 TAKEOVER REGIMES

### 12.1 The City Code, the Australian Corporations Act 2001 and the Australian Foreign Acquisitions and Takeovers Act

The Company is incorporated in, has its registered office and is resident in Australia, and has its place of central management outside of the United Kingdom, the Channel Islands or the Isle of Man. Accordingly, transactions involving the Shares will not be subject to the provisions of the City Code which regulates takeovers in the UK. However, Chapter 6 of the Australian Corporations Act 2001 contains provisions that are similar or analogous to certain provisions of the City Code.

Upon Admission, the Company will be subject to the provisions of Chapter 5 of the DTRs.

### 12.2 Australia

The takeover provisions of the Australian Corporations Act 2001 apply to dealings in the Shares and other securities. Subject to certain exceptions, the Australian Corporations Act 2001 prohibits the acquisition of a relevant interest in the voting shares of an Australian company that is either listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders if, as a result of the acquisition, the voting power of the acquirer (or any other person) would increase from 20% or below to more than 20%. Similarly, such an acquisition is forbidden if any person who already has more than 20% but less than 90% of the voting power increases their voting power in the target company. However, it is not mandatory for a person who exceeds these thresholds to make a takeover bid for all the Shares.

A person's voting power for these purposes is equal to the aggregate relevant interest of the person and their associates in the voting shares of the relevant company. In relation to the Company, the Shares are the only class of voting shares in the Company.

A person has a relevant interest in a share if they have the power to control disposal of that share or to control the exercise of the right to vote in respect of that share. A person also has a relevant interest in any share held by a body corporate or managed investment scheme they control or in which they have voting power above 20%. These concepts are broad and, for example, a person can have a relevant interest and voting power in a share as a result of an agreement to purchase the share (even a conditional agreement) or a call option to acquire the share.

There are several exceptions which allow acquisitions which would otherwise be prohibited from taking place. These exceptions include acquisitions (provided certain requirements are met):

- (a) under a formal takeover offer in which all shareholders can participate;
- (b) with the approval of a majority of shareholders who are not parties to the transaction, given at a general meeting of the company;
- (c) in 3% increments every six-months (provided that the acquirer has had voting power of at least 19% in the company at all times during the six-months prior to the acquisition);
- (d) pro rata offers of new shares in which all shareholders can participate; or
- (e) by an underwriter or sub-underwriter to offers of securities in the company in certain circumstances. There has never been any official public takeover bids in respect of the Company's shares.

The Australian Foreign Acquisitions and Takeovers Act generally prohibits a "foreign person" (generally, any person or entity that is not an Australian resident but including any Australian company in which a "foreign person" has voting power of at least 20% or two or more "foreign persons" hold an aggregate interest of at least 40%), together with its associates, from either directly or indirectly acquiring an interest in 20% or more of the issued shares, or controlling 20% or more of the voting power, of an Australian business valued at more than A\$261 million (US\$180.4 million) (or increasing its interest above that level), without first giving notice to the Australian Treasurer through the Foreign Investment Review Board, and complying with certain other requirements, and either the Australian Treasurer having stated that there is no objection to the acquisition or a statutory period has expired without the Australian Treasurer objecting. Lower thresholds and more stringent requirements apply where the person acquiring the interest is considered a foreign government investor, or where the investor is acquiring an interest in Australian land.

The Australian Foreign Acquisitions and Takeovers Act also applies to any acquisition by a "foreign person" where two or more "foreign persons" (together with their associates), even if unrelated to each other, in aggregate hold or control, or as a result of the acquisition would hold or control, 40% or more of the issued shares or voting power in an Australian company. While a prior notification obligation generally does not arise in respect of such an acquisition (provided that the 20% threshold described above is not exceeded as a result of the acquisition), the Australian Treasurer may, if he considers that the acquisition is contrary to Australia's national interest, make orders, including to require the acquirer to divest its shares in the company. It is possible, but not obligatory, to make a voluntary notification to the Australian Treasurer of an acquisition of shares where this 40% threshold is exceeded that will compel consideration of the proposed acquisition. If such a notification is made in the prescribed manner, and no objection is taken by the Australian Treasurer within prescribed time periods, then the Australian Treasurer will not be empowered to make a divestiture or other order in relation to the relevant acquisition.

The Australian Government has also published additional policies relating to foreign investment, including a policy requiring notification to the Foreign Investment Review Board of any proposed direct investment by a foreign government or its agency (including

sovereign wealth funds and state owned enterprises), or by a company in which a such an entity has an interest in 20% or more of the issued shares or voting power.

### 12.3 **Scheme of Arrangement**

In addition to takeover bids, the other main method of acquiring all of the voting shares of an Australian listed company is a scheme of arrangement. A scheme of arrangement is a statutory procedure under the Australian Corporations Act 2001 that allows a company to reorganise its capital structure to give effect to a proposal, such as transferring all of the voting shares in a company to a bidder.

Unlike a takeover bid, a scheme of arrangement is a legal process involving the target company and its shareholders consenting to a proposal that will bind all shareholders. For a scheme of arrangement to bind all shareholders, the following majority approvals must be obtained from shareholders:

- (a) head count test – a simple majority in number (more than 50%) of the shareholders who vote; and
- (b) voted shares test – at least 75% of the total number of votes cast.

The scheme of arrangement must also be approved by an Australian court, having regard to whether the majority approvals for shareholders have been achieved.

The advantage of a scheme of arrangement compared to a takeover bid is that a change of control of the company can be effected by achieving the above majority approvals, which does not require the unanimous agreement of all shareholders.

Unlike a takeover bid, the bidder has a limited role in a scheme of arrangement as the process is controlled by the target company whose co-operation is required to put forward the bidder's proposal before a meeting of the target company's shareholders. The co-operation of the target company means that it would be difficult for a bidder to effect a change of control by a hostile scheme of arrangement. For these reasons, the bidder's role in a scheme of arrangement is generally confined to:

- (a) making the proposal to acquire all the shares in the target company by scheme of arrangement;
- (b) negotiating and entering into a scheme implementation agreement setting out the obligations of the target and bidder to co-operate to give effect to implementation of the scheme of arrangement; and
- (c) providing input into the target company's explanatory statement to shareholders which explains why the target company is proposing the scheme of arrangement.

Once the terms of the scheme implementation are agreed, the target will then draft a notice of meeting to shareholders, commonly referred to as a scheme booklet, explaining the terms of the proposed scheme of arrangement and containing all information shareholders require when deciding whether to approve the scheme of arrangement. The Scheme Booklet is then lodged with the Australian corporate regulator, ASIC, for review.

Following ASIC's review of the scheme booklet, the target will apply to an Australian court for an order to convene a meeting of its shareholders to consider and vote on the proposed scheme of arrangement. After the approval of an Australian court is received, the Scheme Booklet is despatched to the target company's shareholders and a shareholders meeting convened to consider the proposed scheme of arrangement.

If the target company's shareholders approve the scheme of arrangement at the meeting, the target company will then notify ASIC and apply for a second hearing before an Australian Court seeking approval of the scheme of arrangement. The Australian Court then

has the discretion to either approve or decline the scheme of arrangement, but will not substitute its assessment of the merits of the scheme of arrangement for that of the majority shareholders who voted in favour of it. Shareholders of the target company may appear at the second hearing and petition the Australian Court to not approve the proposed scheme of arrangement if they believe prejudices their interests or that it has not met legal requirements. ASIC may also appear at the second hearing if it objects to the proposed scheme.

Once the scheme of arrangement is approved by the Australian Court, it becomes legally binding on all shareholders of the target company, including those who voted against the scheme or omitted to vote as soon as the Court's order is lodged with ASIC. Following which, the scheme will be implemented according to its terms.

#### **12.4 Squeeze out**

The Australian Corporations Act 2001 provides that a person who has made a takeover bid which results in, at the end of the offer period, that person (and its associates) having a relevant interest in at least 90% of the issued shares and having acquired 75% (by number) of the shares that the person offered to acquire under the bid, may compulsorily acquire any remaining shares it does not hold at the same price offered under the bid, within one month after the end of the offer period. In addition, and even if a takeover bid has not been made, a person who otherwise lawfully acquires a relevant interest in at least 90% of the issued shares is able to acquire the remaining shares for fair value (as determined by an independent expert).

#### **12.5 Sell out**

The Australian Corporations Act 2001 permits a minority shareholder to require an offeror to acquire its shares if the offeror has a relevant interest in at least 90% (by number) of the issued shares that the person offered to acquire under the bid.

### **13 NOTIFICATIONS OF SHAREHOLDINGS**

#### **United Kingdom**

The provisions of DTR 5 will apply to the Company and its Shareholders once its shares are admitted to the Official List. DTR 5 sets out the notification requirements for Shareholders and the Company where the voting rights of a Shareholder exceed, reach or fall below the thresholds of 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75%.

DTR 5 provides that disclosure by a Shareholder to the Company must be made within four trading days of the event giving rise to the notification requirement and the Company must release details to a regulatory information service as soon as possible following receipt of a notification and by no later than the end of the trading day following such receipt.

#### **Australia**

Whilst the Company remains listed on ASX, the Australian Corporations Act 2001 requires Shareholders to notify the Company and ASX if they acquire voting power in 5% or more of the issued share capital of the Company, of any changes of 1% or more in their holding while they have a voting power of 5% or more, and if they cease to have voting power of 5% or more.

### **14 MATERIAL CONTRACTS**

In addition to the Mining Licences and Mining Conventions set out in Part II the following contracts (not being contracts entered into in the ordinary course of business) have been entered into by members of the Group in the two years immediately preceding the date of this document or which are expected to be entered into prior to Admission and which are,

or may be, material or contain any provision under which any member of the Group has any obligation or entitlement which is, or may be, material to the Group as at the date of this document.

#### 14.1 **Depositary Interest Deed Poll**

Prospective subscribers for and purchasers of the Shares are referred to the Deed Poll available for inspection at the offices of the Depositary or by written request to the Depositary (subject to a reasonable copying charge). In summary, the Deed Poll contains, amongst other things, provisions to the following effect which are binding on holders of Depositary Interests.

The Depositary will hold (itself or through its nominated Custodian), as bare trustee, the Shares issued by the Company and all and any rights and other securities, property and cash attributable to the Shares and pertaining to the Depositary Interests for the benefit of the holders of the relevant Depositary Interests.

Holders of the Depositary Interests warrant, among other things, that the securities in the Company transferred or issued to the Custodian on behalf of the Depositary and for the account of the holders of Depositary Interests are free and clear of all liens, charges, encumbrances or third party interests and that such transfers or issues are not in contravention of the Constitution nor any contractual obligation, law or regulation. The holder of Depositary Interests indemnifies the Depositary for any losses it incurs as a result of breach of this warranty.

The Depositary and the Custodian must pass on to Depositary Interest holders and exercise on behalf of Depositary Interest holders all rights and entitlements received or to which they are entitled in respect of the Shares which are capable of being passed on or exercised. Rights and entitlements to cash distributions, to information to make choices and elections and to attend and vote at meetings shall, subject to the Deed Poll, be passed on to the holders of Depositary Interests upon being received by the Custodian and in the form in which they are received by the Custodian together with any amendments and additional documentation necessary to effect such passing on.

The Depositary shall re-allocate any Shares or distributions which are allocated to the Custodian and which arise automatically out of any right or entitlement of Shares already held by the Custodian to holders of Depositary Interests pro rata to the Shares held for their respective accounts provided that the Depositary shall not be required to account for any fractional entitlements arising from such re-allocation and shall donate the aggregate fractional entitlements to charity.

The Deed Poll contains provisions excluding and limiting the Depositary's liability. For example, the Depositary shall not be liable to any holder of Depositary Interests or to any other person for liabilities in connection with the performance or non-performance of its obligations under the Deed Poll or otherwise, except to the extent that any losses result from its own negligence or wilful default or fraud. Furthermore, except in the case of personal injury or death, the Depositary's liability to a holder of Depositary Interests will be limited to the lesser of:

- (a) the value of the Shares and other deposited property properly attributable the Depositary Interests to which the liability relates; and
- (b) that proportion of £5 million which corresponds to the portion which the amount the Depositary would otherwise be liable to pay to the Depositary Interest holder bears to the aggregate of the amounts the Depositary would otherwise be liable to pay to all such holders in respect of the same act, omission or event which gave rise to such liability or, if there are no such amounts, £5 million.

The Depositary is not liable for any losses attributable to or resulting from the Company's negligence or wilful default or fraud or that of the CREST operator.

The Depositary is entitled to charge holders of Depositary Interest fees and expenses for the provision of its services under the Deed Poll.

Each holder of Depositary Interests is liable to indemnify the Depositary and any Custodian (and their agents, officers and employees) against all liabilities arising from or incurred in connection with, or arising from any act related to, the Deed Poll so far as they relate to the property held for the account of Depositary Interests held by that holder, other than those resulting from the wilful default, negligence or fraud of the Depositary, or the Custodian or any agent, if such Custodian or agent is a member of the Depositary's group, or, if not being a member of the same group, the Depositary shall have failed to exercise reasonable care in the appointment and continued use and supervision of such Custodian or agent.

The Depositary may compulsorily withdraw the Depositary Interests (and the holders of Depositary Interests shall be deemed to have requested their cancellation) if certain events occur. These events include, amongst other things, where the Depositary believes that ownership of the Depositary Interests may result in a taxation or pecuniary, fiscal or material regulatory disadvantage to the Depositary or the Custodian or where the Depositary Interests are held by a person in breach of the law or the Constitution. If these events occur the Depositary shall make such arrangements for the deposited property as it sees fit, including sale of the deposited property and delivery of the net proceeds thereof to the holder of the Depositary Interests in question.

The Depositary may terminate the Deed Poll by giving not less than 90 days' prior notice. During such notice period holders may cancel their Depositary Interests and withdraw their deposited property and, if any Depositary Interests remain outstanding after termination, the Depositary must as soon as reasonably practicable, among other things, deliver the deposited property in respect of the Depositary Interests to the relevant Depositary Interest holders or, at its discretion, sell all or part of such deposited property. It shall, as soon as reasonably practicable deliver the net proceeds of any such sale, after deducting any sums due to the Depositary, together with any other cash held by it under the Deed Poll pro rata to holders of Depositary Interests in respect of their Depositary Interests.

The Depositary or the Custodian may require from any holder, or former or prospective holder, information as to the capacity in which Depositary Interests are owned or held and the identity of any other person with any interest of any kind in such Depositary Interests or the underlying Shares and holders are bound to provide such information requested. Furthermore, to the extent that the Constitution requires disclosure to the Company of, or limitations in relation to, beneficial or other ownership of, or interests of any kind whatsoever, in the Shares, the holders of Depositary Interests are to comply with such provisions and with the Company's instructions with respect thereto.

Holders of Depositary Interests are responsible for the payment of any tax, including stamp duty reserve tax on the transfer of their Depositary Interests.

## 14.2 **Depositary Agreement**

A depositary services and custody services agreement dated 14 May 2019 between the Company and the Depositary (the "**Depositary Agreement**") relating to the Depositary's appointment as Depositary and Custodian in relation to the Shares and the provision of depositary and custodian services in connection with the Depositary Interests.

The Depositary agrees that it will comply, and will procure certain other persons comply, with the terms of the Deed Poll and that it and they will perform their obligations in good faith and with all reasonable skill, diligence and care. The Depositary assumes certain specific obligations, including the obligation to arrange for the Depositary Interests to be admitted to CREST as participating securities and to provide copies of and access to the register of Depositary Interests. The Depositary will either itself or through its appointed Custodian hold the deposited property on trust (which includes the Shares represented by the Depositary Interests) for the benefit of the holders of the Depositary Interests as tenants in common, subject to the terms of the Deed Poll. The Company agrees to provide

such assistance, information and documentation to the Depositary as is reasonably required by the Depositary for the purposes of performing its duties, responsibilities and obligations under the Deed Poll and the Depositary Agreement. In particular, the Company is to supply the Depositary with all documents it sends to its Shareholders so that the Depositary can distribute the same to all holders of Depositary Interests. The agreement sets out the procedures to be followed where the Company is to pay or make a dividend or other distribution.

The Company is to indemnify the Depositary for any loss it may suffer as a result of performing of the Depositary Agreement except to the extent that any losses result from the Depositary's own negligence, fraud or wilful default. The Depositary is to indemnify the Company for any loss the Company may suffer as a result of in connection with the Depositary's fraud, negligence or wilful default save that the aggregate liability of the Depositary to the Company over any 12 month period shall in no circumstances whatsoever exceed twice the amount of the fees payable to the Depositary in any 12 month period in respect of a single claim or in the aggregate.

The Depositary appointment may be terminated by either party giving not less than six-months' notice.

In the event of termination, the parties agree to phase out the Depositary's operations in an efficient manner without adverse effect on the Shareholders and the Depositary shall deliver to the Company (or as it may direct) all documents, papers and other records relating to the Depositary Interests which is in its possession and which is the property of the Company.

The Company is to pay certain fees and charges, including a set-up fee, an annual fee, a fee based on the number of Depositary Interest per year and certain CREST related fees.

The Depositary is also entitled to recover reasonable out-of-pocket fees and expenses.

#### 14.3 **Toll Treatment Agreement**

SOMIFI, entered into a Toll Treatment Agreement with SOMISY, dated 28 October 2018. The agreement commenced on 28 October 2018 and expires until terminated by either party.

SOMISY will treat the ore delivered to the Syama Gold Mine plant so as to produce doré bars in accordance with SOMISY's good industry practice and will use its best endeavours to maximise the gold recovery from SOMIFI's ore.

All SOMIFI ore processed by SOMISY will be weighed, sampled and assayed in accordance with good industry practice to ensure that the amount of gold recovered from SOMIFI's ore is accurately recorded and accounted for.

SOMISY will arrange for all doré bars produced from SOMISY and SOMIFI ore to be transported under the SOMISY export licence and refined under the SOMISY refinery contract. SOMIFI's proportion of the refined gold will be credited to the SOMIFI metals account.

SOMIFI will pay to SOMISY on a monthly basis:

- (a) a toll treatment fee based on:
  - (i) SOMIFI's proportion of total actual costs incurred by SOMISY in processing both SOMISY and SOMIFI milled oxide ore, with a mark up of 10%; and
  - (ii) SOMIFI's proportion of total actual costs incurred by SOMISY in processing both SOMISY and SOMIFI milled sulphide ore, with a mark up of 10%;



- (b) a capital contribution charge to compensate SOMISY for the reduction in value of the relevant Syama Gold Mine processing plant during the term of the arrangement including a mark up of 10%; and
- (c) a reimbursement of limited additional costs if they are incurred by SOMISY in treating SOMIFI ore that does not meet required size or other specifications.

The above consideration is inclusive of all costs incurred by SOMISY in treating SOMIFI ore.

The parties will review the consideration at least annually to ensure that the consideration payable by SOMIFI continues to fairly compensate SOMISY for its underlying costs in processing SOMIFI ore.

SOMIFI is responsible for the timely payment of all government and third party royalties payable in connection with SOMIFI ore, or the production or sale of doré bars or refined gold produced from SOMIFI ore. SOMIFI will pay royalties when it sells bullion from its metals account after it has been refined by the refinery.

SOMISY will keep accurate records of all ore treated by it in accordance with good industry practice, and will make those records available to SOMIFI upon request.

#### 14.4 **Management Agreement**

SOMISY and SOMIFI entered into a management agreement dated 28 October 2018 pursuant to which SOMISY will provide management services, including back office and corporate services, to SOMIFI for the Tabakoroni Gold Mine. The agreement commences on 28 October 2018 and continues until terminated by either party or by mutual agreement.

A management fee will be payable by SOMIFI which will include a mark up of 10%.

The management services fee will be calculated as SOMIFI's proportion of:

- (a) administration costs, being the total actual administration costs at the Syama Gold Mine (excluding SOMIFI Only Costs) incurred during the month with a mark up of 10%;
- (b) mining costs, being SOMIFI's proportion of total actual mining costs (other than mining services and haulage costs and SOMIFI Only Costs) incurred during the month with a mark up of 10%; and
- (c) SOMIFI only costs, being costs that are incurred by SOMISY in relation to the Tabakoroni Project only and which are not for the benefit of the Syama Gold Mine incurred during the month with a mark up of 10%.

#### 14.5 **Syndicated Facility Agreement - Amendment Agreement**

Pursuant to a Syndicated Facility Agreement between the Company, Investec Australia Finance Pty Ltd, BNP Paribas, Nedbank Limited, London Branch, Citibank N.A, Sydney Branch and others dated 13 July 2018 and amended on 21 December 2018 ("**Syndicated Facility Agreement**"), the Company has access to a debt facility comprising:

- (a) a US dollar revolving credit facility in an aggregate amount of US\$150 million ("**Facility A**"); and
- (b) a letter of credit facility in an aggregate amount of A\$35 million ("**Facility B**").

Without Investec Finance Australia Pty Ltd's prior written consent, each facility may only be used for the following purposes:

- (a) **Facility A:** for general corporate and working capital purposes of the Group and for no other purpose without the prior written consent of Investec Australia Finance Pty Ltd; and
- (b) **Facility B:** to meet the environmental performance bonding requirement for the Ravenswood project as required by the Queensland Department of Environment and Heritage Protection and for no other purpose, without the prior written consent of Citibank N.A., Sydney Branch.

The Company may draw down Facility A in an unlimited number of segments ("**Segment**"). Each Segment must be between US\$5 million and a whole multiple of US\$1 million or the undrawn commitments of Facility A.

The Company is liable to pay interest on the outstanding principal amount in arrears on the last day of each funding period (being 30, 60 or 90 days after the drawn down date as selected by the Company pursuant to the Syndicated Facility Agreement) ("**Funding Period**") and on repayment of all or the relevant part of a Segment.

The interest rate is calculated with reference to normal commercial terms.

The Company must repay each Segment of Facility A on the last day of its Funding Period.

The Company must procure the return for cancellation of all outstanding letters of credit the subject of Facility B on 31 December 2019.

The Syndicated Facility Agreement contains customary review events and events of default for an agreement of its nature.

#### 14.6 **Mining Contract**

SOMIFI entered into a Mining Contract with AMS dated 31 May 2018 (the "**AMS Mining Contract**").

In accordance with the AMS Mining Contract, AMS will undertake works generally comprising mining at the Tabakoroni mine project by open pit method and maintaining adequate, undiluted and timely supply of ore to the site stockpiles. The ore will then be road hauled to the Syama Gold Mine treatment plant (the "**Works**").

SOMIFI must pay AMS for the Works conducted under the AMS Mining Contract within 30 days from the end of the month in which the work is performed. The amount payable is calculated in accordance with a formula prescribed in the AMS Mining Contract, comprising fixed costs, variable costs, a performance payment and payment of approved variations.

The AMS Mining Contract will terminate on 31 May 2020, unless it is extended for a period of 12 months in accordance with the AMS Mining Contract.

SOMIFI may terminate the contract for convenience at any time by giving AMS 30 days' notice to that effect.

The AMS Mining Contract contains customary events of default for an agreement of this nature.

#### 14.7 **Equipment Rental Agreement**

SOMISY entered into an equipment rental agreement with Aggreko International Projects Limited (Aggreko) dated 2 May 2017 (as varied on 6 February 2018 and 22 February 2019) for the rental of diesel power generation plants and equipment to produce up to 21MW of power for the Company's Syama gold mine in Mali until 16 March 2021.

If the agreement is terminated due to a default by the Company during the term, Aggreko is entitled to 75% of the rental fee for the remainder of the term. There is also a schedule of termination fees payable by the Company on a pro rata basis if the agreement is terminated due to a force majeure event during the term.

The agreement requires the Company to provide a US\$1,061,658 bank guarantee for its obligations under the agreement and rent for the power generation plants is paid on a monthly basis at a commercial rate agreed by the parties. Interest is payable on any late payments by the Company in addition to Aggreko's right to suspend lease of the power generation equipment or draw on the bank guarantee.

The agreement also contains customary terms for an agreement of this nature such as obligations on the Company to maintain the site on which the equipment is kept, supply fuel and water for the operation of the power generation plants and obligations on Aggreko to commission the power generation plants to the Company's specifications and provision of spare parts. There are also mutual indemnities and limitations on liability provisions equal to 25% of the annual rent due under the agreement and standard termination events including for defaults by either party.

#### 14.8 **Technical, Operational and Maintenance Services Agreement**

SOMISY has also entered into a technical, operation and maintenance services agreement with Aggreko Mali dated 2 May 2017 (as varied on 6 February 2018 and 22 February 2019) for the maintenance and servicing of the diesel power generation plants rented from Aggreko pursuant to the equipment rental agreement described above until 16 March 2021.

If the agreement is terminated due to a default by the Company during the term, Aggreko is entitled to all of the remaining service fees for the remainder of the term.

A service fee is payable on a monthly basis based on fixed and variable fees depending on power generated during a week at a commercial rate agreed by the parties. Interest is payable on any late payments by the Company in addition to Aggreko Mali's right to suspend services.

The agreement also contains customary terms for an agreement of this nature such as obligations on the Company to maintain the site and supply fuel and water and obligation on Aggreko Mali to supply personnel and conduct maintenance and servicing of the power generation plants. There are also mutual indemnities and limitations on liability provisions equal to 25% of the annual value of the service fees due under the agreement and standard termination events including for defaults by either party.

#### 14.9 **Underground Mining Contract**

SOMISY has entered into the Underground Mining Contract with Rock Underground SARL, ("**RUGS**") dated 21 June 2016 ("**Underground Mining Contract**").

In accordance with the Underground Mining Contract, RUGS will undertake works generally comprising the underground development at the Company's Syama mine project (the "**Works**").

SOMISY must pay RUGS for the Works conducted under the Underground Mining Contract at the end of each calendar month. The amount payable is calculated in accordance with a formula prescribed in the Underground Mining Contract, comprising fixed costs, variable costs, a performance payment and payment of approved variations.

The RUGS Mining Contract is due to terminate on 8 September 2019, however SOMISY has an option to extend the contract by one additional period of up to 30 months by providing RUGS with at least three months' notice prior to the expiration of the term.

SOMISY may terminate the contract for convenience at any time by giving RUGS 90 days' notice to that effect. In these circumstances SOMISY must pay to RUGS all amounts outstanding for works completed, the costs of goods ordered, demobilisation costs and the termination fee. As at the date of this prospectus, the maximum amount payable for the termination fee is US\$57,051.

The Mining Contract contains customary events of default for an agreement of this nature.

On 23 May 2018, the parties varied the Underground Mining Contract to provide additional works at the Syama Gold Mine. Pursuant to the deed of variation, after the termination date of the Underground Mining Contract, RUGS may, at its discretion, elect for SOMISY to purchase any plant and equipment which is mobilised to site as a result of the variation. The maximum amount payable for the plant and equipment SOMISY in these circumstances will be US\$4.11 million.

#### 14.10 **Beneficiation Plant Haulage Contract**

The Company's subsidiary, Carpentaria Gold Pty Ltd has entered into the Beneficiation Plant Haulage Contract with Simmco dated 28 August 2018 (Haulage Contract).

In accordance with the Haulage Contract Simmco will provide haulage services in association with the Company's Ravenswood Gold Mine processing plant (the "**Services**").

The Haulage Contract will terminate on 30 September 2019 unless extended for a period of six-months in accordance with the Haulage Contract.

Carpentaria must pay for the Services at the end of each calendar month. The amount payable are calculated in accordance with a formula in the Haulage Contract, comprising a fixed monthly overhead fee and variable haulage and dayworks rates.

Carpentaria may terminate the Haulage Contract at any time by giving Simmco 30 days' notice to that effect. In these circumstances Carpentaria must pay to Simmco all amounts associated with removing plant and equipment, transporting personnel and the termination fee. As at the date of this Prospectus, the maximum amount payable for the termination fee is A\$600,000.

#### 14.11 **Fuel Supply and Management Agreement**

SOMISY has entered into a fuel supply agreement with Total Mali dated 22 February 2019 ("**Fuel Supply and Management Agreement**"). The contract commences on 1 April 2019 and expires on 31 December 2022. The expiry date may be extended for one 12 month period at the election of SOMISY.

Pursuant to the Fuel Supply and Management Agreement, Total Mali will supply approximately 70% of SOMISY's annual consumption of fuel to the Syama Gold Mine over a three year period and manage the storage facilities, the refuelling station facilities used to dispense fuel and all related facilities. There is no minimum fuel order quantity obligation on SOMISY.

Title will pass to SOMISY once the fuel enters the fuel facilities (unless the fuel fails to comply with specifications under the Fuel Supply and Management Agreement). Risk will remain with Total Mali following delivery to the fuel facilities and during storage and will pass to SOMISY once the fuel is supplied to an authorised consumer and dispensed to their vehicles and equipment on site. SOMISY has the right to reject fuel that does not meet specifications.

Total Mali will have sole operating responsibility of the fuel facilities and will have possession of parts of the Syama Gold Mine site upon which the fuel facilities are located on a non-exclusive basis.

If Total Mali fails to deliver fuel or maintain a minimum level of inventory, SOMISY is entitled to use a third party to obtain a replacement quantity. SOMISY can recover the incremental cost of the replacement quantity in excess of the cost SOMISY would have incurred for that quantity from Total Mali under the contract. SOMISY may also claim other losses as a result of Total Mali's supply failure.

Total Mali will provide appropriate security services for parts of the Syama Gold Mine site upon which the fuel facilities are located.

Each party has a right to terminate if:

- (a) the other party is in material breach and the defaulting party fails to remedy the breach within a certain period of time after receiving a written notice requiring the breach to be remedied;
- (b) the other party fails to procure or maintain the required insurance; or
- (c) an event of insolvency.

SOMISY has a right to terminate if:

- (d) Total Mali obtains fuel from a source other than an approved depot without SOMISY's consent;
- (e) Total Mali fails to deliver fuel at the times and in the quantities required (including failing to maintain a minimum level of inventory);
- (f) it becomes aware of any actual or alleged fraud by Total Mali (without notice to Total Mali); or
- (g) if it believes Total Mali has breached its business ethics obligations (with notice to Total Mali) or there is an event of force majeure for a continuous period of six-months.

#### 14.12 **Fuel Supply Agreement**

SOMISY has entered into a fuel supply agreement with Yara dated 22 February 2019 ("**Fuel Supply Agreement**"). The contract commences on 1 April 2019 and expires on 31 December 2022. The expiry date may be extended for one 12 month period at the election of SOMISY.

Pursuant to the Fuel Supply Agreement, Yara will supply approximately 30% of SOMISY's annual consumption of fuel to the Syama Gold Mine over a three year period. There is no minimum fuel order quantity obligation on SOMISY.

Title and risk will pass to SOMISY once the fuel enters the fuel facilities (unless the fuel fails to comply with specifications under the Fuel Supply Agreement). SOMISY has the right to reject fuel that does not meet specifications.

If Yara fails to deliver fuel or maintain a minimum level of inventory, SOMISY is entitled to use a third party to obtain a replacement quantity. SOMISY can recover the incremental cost of the replacement quantity in excess of the cost SOMISY would have incurred for that quantity from Yara under the contract. SOMISY may also claim other losses as a result of Yara's supply failure.

Each party has a right to terminate if:

- (a) the other party is in material breach and the defaulting party fails to remedy the breach within a certain period of time after receiving a written notice requiring the breach to be remedied;

- (b) the other party fails to procure or maintain the required insurance; or
- (c) an event of insolvency.

SOMISY has a right to terminate if:

- (d) Yara obtains fuel from a source other than an approved depot without SOMISY's consent;
- (e) Yara fails to deliver fuel at the times and in the quantities required (including failing to maintain a minimum level of inventory);
- (f) it becomes aware of any actual or alleged fraud by Yara (without notice to Yara); or
- (g) if it believes Yara has breached its business ethics obligations (with notice to Yara) or there is an event of force majeure for a continuous period of six-months.

#### 14.13 **Sandvik Framework Agreement**

SOMISY entered into the Syama Automation Project: Framework Agreement (the "**Framework Agreement**") with Sandvik Mining and Construction Mali SARL dated 10 January 2018 to establish a strategic relationship for both parties to work together to supply, install and commission automated equipment and software for the Syama Project on a mutually beneficial basis.

Under the Framework Agreement, purchase orders and service orders (as applicable) may be issued by SOMISY to order the provision of automated equipment, software and ancillary services (including equipment maintenance). Purchase orders and service orders can be entered into by pre-agreed members of the Sandvik group, in addition to Sandvik Mining and Construction Mali SARL.

The term of the Framework Agreement is three years commencing on 10 January 2018. Any purchase orders or service orders issued under the Framework Agreement before the expiry of the term will continue after that date until the expiry of the term relevant to that purchase order or service order. Each party can terminate for convenience by giving the other party 180 days' notice at any time following the second anniversary of the date that steady state production is achieved. Steady state production is the stage of progress in the completion of the automation scope when the site acceptance test has been successfully completed.

The agreement requires Sandvik to provide a parent company guarantee and indemnity in favour of the Company in relation to the obligations of the Sandvik group relating to the Framework Agreement.

Sandvik's standard warranty terms are included in the Framework Agreement subject to a number of negotiated exceptions. SOMISY has equipment rejection rights that can be exercised within seven days after site acceptance tests are passed. The parties are currently negotiating a service order under the Framework Agreement for maintenance and inventory management services to be performed by Sandvik in relation to the equipment.

### 15 **RELATED PARTY TRANSACTIONS**

The related party transactions being transactions which, as a single transaction or in their entirety, are or may be material to the Company and have been entered into by the Company or any other member of the Group during the period commencing on the period covered by the historical financial information and up-to-date of this document, whether or not they have been terminated, are set out in:

- (a) notes E.8 and E.10 of the Group Financial Information for the year ended 30 June 2016;
- (b) note E.11 of the Group Financial Information for the year ended 30 June 2017;
- (c) note E.10 of the Group Financial Information for the year ended 30 June 2018; and
- (d) note E.10 of the Group Financial Information for the six months period ended 31 December 2018,

set out at Appendix 1 and there are no further significant transactions subsequent to 31 December 2018 requiring disclosure.

## 16 WORKING CAPITAL

The Company is of the opinion that the working capital available to the Group is sufficient to cover the Group's present requirements, that is for at least 12 months from the date of this Prospectus.

## 17 ENVIRONMENTAL ISSUES

As far as the Directors are aware, save for as disclosed in the CPRs, there are no material environmental issues that may affect the Group or the Group's utilisation of its tangible assets.

## 18 LITIGATION

- 18.1 Save as disclosed at paragraphs 18.2 to 18.10 below, there are not and have not been any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Company is aware) during a period covering at least the previous 12 months, which may have, or have had in the recent past, a significant effect on the Group's financial position or profitability.
- 18.2 In June 2014, Mensin, Drilling and Mining Services Limited and Noble Mining Ghana Limited entered into court approved Schemes of Arrangement ("**Scheme**") with their creditors and employees. With the endorsement of the Ghanaian government, the Scheme enabled the Group to secure the ultimate ownership of the Bibiani Gold Mine, with protection from those liabilities which had been incurred at a time when the mine was owned by Noble.
- 18.3 Under the Scheme, 'Commercial Production' was to be achieved by June 2019. If not, the Bibiani Gold Mine was to be sold and the proceeds paid in satisfaction of the costs incurred in effecting the sale, then in satisfaction of the interim funding provided by the Group, then to pay certain of the intercompany debt (which is due to the Group), then to pay creditors and the balance of the intercompany debts due to the Group, pro rata. Due to the timeframes facing the Group, Commercial Production will not be able to be achieved by June 2019. Therefore, in order to enable the Group to have the opportunity to complete its investigations as to the feasibility of mining at the Bibiani Gold Mine, and then to commence mining in an appropriate timeframe, it was necessary to amend the Scheme, so that the 'trigger' to the obligation to sell the Bibiani Gold Mine is changed, and to extend the date for achieving that trigger by three years.
- 18.4 The only way to achieve such an outcome was for the creditors and the Court to approve an amended Scheme (the "**Amended Scheme**"). In February 2019, the Court approved the convening of a meeting of creditors to consider the Amended Scheme, and on 3 April 2019, the creditors who attended the meeting or voted by proxy unanimously approved the Amended Scheme. At the second Court hearing on 29 May 2019, the Court approved the Amended Scheme. The significant effects of the amendment to the Scheme are that:

- a) upon the Amended Scheme becoming operative on 13 June 2019 (the “**Operative Date**”), the Group is obliged to fund the next instalment due to the creditors of the Scheme companies;
  - b) the Group will not be obliged to sell Bibiani in the short term, and will only be obliged to do so if, within three years, it has not affected a sale of gold mined from Bibiani; and
  - c) therefore, the Group will now have three years in which to complete its investigations into the feasibility of mining at Bibiani and then undertake the necessary works to commence mining.
- 18.5 If the Company makes a final investment decision to proceed with the re-start of the Bibiani Gold Mine within three years of the Operative Date, the Company is confident that it will be able to affect a sale of gold mined from the mine during that period, thereby satisfying the requirement under the Amended Scheme to avoid a sale of Bibiani. There is, however, a risk that this requirement is not satisfied, which, in the absence of a further extension to the Scheme, would require the Bibiani Gold Mine to be sold.
- 18.6 If Company is required to sell the Bibiani Gold Mine, the proceeds from any such sale would be paid out in the following order:
- (1) in satisfaction of the costs incurred in effecting the sale;
  - (2) in satisfaction of the interim funding provided by the Group;
  - (2) to repay certain of the intercompany debt (which is due to the Group); and
  - (3) to pay creditors and the balance of the intercompany debts due to the Group, pro rata.
- 18.7 In practice, the Board would either approve the investment required for a re-start of the Bibiani Gold Mine or the Group would continue to hold the Bibiani Gold Mine on care and maintenance pending a Board decision to proceed with the investment required for a re-start. If, after three years from the Operative Date, the Board has not approved the investment required for a re-start of the Bibiani Gold Mine and the Group has not affected a sale of gold mined from the Bibiani Gold Mine, it would, in the absence of a further extension to the Amended Scheme, be required to effect a sale of the Bibiani Gold Mine.
- 18.8 Notwithstanding the Scheme’s approval by the court, the creditors, and the Ghanaian Minister of Mines, two Ghanaian creditors have sought to circumvent the operation of the Scheme and are seeking to enforce a winding up order against Mensin, on the basis of judgement debts (being debts that have been determined by the Court to be owing) incurred prior to implementation of the Scheme. The Group is defending Mensin’s right to unencumbered ownership of the Bibiani Gold Mine which was a key element of the Scheme supported by both Resolute and the Ghanaian government. If the Group is unsuccessful in defending the litigation by the two Ghanaian creditors, the effect on the Group may be that the judgement amounts, less the amounts paid to those creditors under the Scheme will need to be paid. The amount outstanding is estimated to be approximately US\$880,000 plus interest since March 2018 for one of the creditors and approximately US\$656,000 plus interest since October 2013 for the other creditor, totalling approximately US\$1.6 million. If Mensin is unsuccessful defending the litigation, Mensin may be able to avoid being wound up by immediately paying the judgement amounts, however there is a risk that the winding up may proceed in any case. Mensin would be able to pay the US\$1.6 million, subject to judgement debts, if required.
- 18.9 SOMISY is a party to proceedings being brought against it by a former fuel supplier to SOMISY at the Syama Gold Mine. The claim relates to a contractual dispute about responsibility for taxes and for obtaining tax certificates and SOMISY has set off such taxes against the sums due to the supplier by SOMISY. The former fuel supplier is claiming payment of the withheld sums and SOMISY is counterclaiming an amount for the additional



taxes. Should SOMISY be unsuccessful in defending the claim brought by the former fuel supplier and in its counterclaim, SOMISY considers its maximum exposure to be approximately A\$3.6m (before costs and interest).

- 18.10 SOMISY has received a judgement from a claim brought by the Institut National de Prévoyance Sociale of approximately A\$2.4m for contributions of compulsory health insurance (AMO) by SOMISY. SOMISY was exempted by its Establishment Convention from paying these compulsory health insurance obligations and therefore disputes the merits of this claim and has lodged an appeal against the decision. Should SOMISY be unsuccessful in its appeal proceedings, SOMISY considers its maximum exposure to be approximately A\$2.4m (before costs and interest).

## **19 SIGNIFICANT CHANGE**

There has been no significant change in the financial or trading position of the Group since 31 December 2018, the date to which the last audited financial information of the Group was prepared.

## **20 GENERAL**

- 20.1 Optiro have given and not withdrawn their written consent to the issue of this document with the inclusion in it of their reports in Appendix 2 and the references to their reports and to their name in the form and in the context in which it is included and have authorised the contents of Part VI of this document. Optiro have no material interest in the Company.
- 20.2 No material change has occurred since the effective date of each of the CPRs, being 31 December 2018, with the exception of the Mineral Resource estimates for Tabakoroni included in the CPR for Syama, which have an effective date of 31 March 2019, the omission of which would make any of the CPRs misleading.
- 20.3 Where third party information has been referenced in this document, the source of that third party information has been disclosed. All information in this document that has been sourced from third parties has been accurately reproduced and, as far as the Company is aware and able to ascertain from information published by such third parties, no facts have been omitted which would render the reproduced information inaccurate or misleading.
- 20.4 Save as otherwise disclosed in this document there are no patents or other intellectual property rights, licences, industrial, commercial or financial contracts or new manufacturing processes which are material to the Group's business or profitability.
- 20.5 The Ordinary Shares are currently listed on ASX and traded on ASX in accordance with the ASX Listing Rules, the ASX Settlement Rules and the Australian Corporations Act 2001.

## **21 DOCUMENTS AVAILABLE FOR INSPECTION**

Copies of the following documents will be available for inspection at the offices of Bryan Cave Leighton Paisner LLP during normal business hours on any weekday (except Saturdays, Sundays and public holidays) from the date of this document until 17 July 2019:

- (a) the Constitution;
- (b) the written consent referred to in paragraph 20.1 of this Part VIII;
- (c) the historical financial information referred to in Appendix 1; and
- (d) the reports prepared by Optiro set out in Appendix 2;
- (e) this document.

Dated: 17 June 2019

## **Part IX Definitions**

The following definitions apply throughout this document, unless the context otherwise requires:

**"2006 Act"** means the UK Companies Act 2006.

**"ACN"** means Australian Company Number.

**"Admission"** means admission of the Shares to the standard listing segment of the Official List and to trading on the London Stock Exchange's Main Market for listed securities becoming effective.

**"Amended Scheme"** has the meaning given to it in paragraph 18.4 of Part VIII.

**"Applicable Law"** means the Australian Corporations Act 2001, the ASX Listing Rules and the ASTC Operating Rules.

**"ASIC"** means the Australian Securities and Investments Commission.

**"ASTC Operating Rules"** means the ASX Settlement Operating Rules, as operated by ASX.

**"ASX"** means ASX Limited (ACN 008 624 691) or the financial market conducted by it as the context requires.

**"ASXCGCs"** means the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations.

**"ASX Listing Rules"** means the official listing rules of ASX as from time to time amended or waived in their application to a party.

**"ASX Settlement"** means ASX Settlement Pty Limited (ACN 008 504 532).

**"ASX Settlement Rules"** means the rules of ASX Settlement.

**"Australia"** means the Commonwealth of Australia.

**"Australian Corporations Act 2001"** means the Australian Corporations Act 2001 (Cth).

**"Australian Foreign Acquisitions and Takeovers Act"** means the Australian Foreign Acquisitions and Takeovers Act 1975 (Cth).

**"A\$" or "Australian Dollar"** and **"Australian cents"** mean Australian dollars, the lawful currency of Australia.

**"Australian Registrar"** means Computershare Investor Services Pty Limited.

**"Australian Treasurer"** means the Treasurer of the Commonwealth of Australia.

**"Bibiani Gold Mine"** means the mine situated in the western Bibiani, Ghana, which the Company is currently undertaking operational readiness planning activities with a view to re-starting mining activities (subject to Board approval), which is owned by Mensin.

**"CEO"** means the chief executive officer of the Company.

**"certificated"** or **"in uncertificated form"** means not in uncertificated form (that is, not in CREST).

**"CGT"** means capital gains tax.

**"CHESS"** means the Clearing House Electronic Subregister System operated by ASX Settlement in accordance with the ASX Settlement Rules.

**"City Code"** means the UK City Code on Takeovers and Mergers as amended from time to time.

**"Company"** or **"Resolute"** means Resolute Mining Limited.

**"Computershare"** Computershare Investor Services Pty Limited.

**"Constitution"** means the constitution of the Company as amended from time to time.

**"CPR"** or **"CPRs"** means the competent persons reports prepared in respect of the Company's projects at the Bibiani Gold Mine, the Ravenswood Gold Mine and the Syama Gold Mine by Optiro.

**"CREST"** means the relevant system (as defined in the CREST Regulations) in respect of which Euroclear is the Operator (as defined in the CREST Regulations) in accordance with which securities may be held and transferred in uncertificated form.

**"CREST Regulations"** means the Uncertificated Securities Regulations 2001 (SI 2001/3755).

**"Custodian"** means the Depositary or a subsidiary or third party appointed by the Depositary.

**"Deed Poll"** means the deed poll entered into by the Company on 10 May 2019 in connection with the Depositary Interest arrangements.

**"Depositary"** means Computershare Investor Services PLC.

**"Depositary Interest Holder"** means a holder of Depositary Interests from time to time.

**"Depositary Interests"** means a dematerialised depositary interest which represents an entitlement to Shares.

**"Directors"** or **"Board"** means the directors of the Company from time to time, of which the names of the current directors of the Company are set out on page 33 of this document.

**"DTRs"** means the Disclosure Guidance and Transparency Rules sourcebook published by the FCA from time to time.

**"Euroclear"** means Euroclear UK & Ireland Limited, the operator of CREST.

**"FCA"** means the Financial Conduct Authority of the UK.

**"Financial Information"** means the Historical Financial Information and the Interim Financial Information.

**"Foreign Investment Review Board"** means the Foreign Investment Review Board of Australia.

**"FSMA"** means Financial Services and Markets Act 2000.

**"GH¢"** means Ghanaian cedi, the lawful currency of Ghana.

**"Group"** means the Company and its subsidiaries from time to time.

**"GST"** means Australian goods and services tax.

**"Historical Financial Information"** means the Group's financial information for the years ended 30 June 2016, 30 June 2017, 30 June 2018, the six-month period ended 31 December 2018 and for the March 2019 Quarter as set out in Appendix 1, Parts 1 to 5 of this document.

**"HMRC"** means Her Majesty's Revenue and Customs (which shall include its predecessors, the Inland Revenue and HM Customs and Excise).

**"IFRS"** means International Financial Reporting Standards as endorsed by the European Union.

**"JORC"** means the code for Reporting of Mineral Resources and Ore Reserves published by the Australasian Joint Ore Reserves Committee, 2012 edition.

**"Latest Practicable Date"** means 14 June 2019, being the latest practicable date prior to the publication of this Prospectus.

**"Listing Rules"** means the official listing rules of the London Stock Exchange as from time to time amended or waived in their application to a party.

**"London Stock Exchange" or "LSE"** means London Stock Exchange plc.

**"Main Market"** means the main market of the London Stock Exchange.

**"MAR"** means the Market Abuse Regulation (EU) 596/2014.

**"Mensin"** means Mensin Gold Bibiani Limited, a subsidiary of Resolute Mining Limited (90%) and the Government of Ghana (10%).

**"Member States"** means a member state of the European Union, from time to time.

**"Mineral Resource"** means mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Ore Reserves may subsequently be defined by the consideration and application of modifying factors.

**"NPV"** means net present value.

**"Official List"** means the Official List of the FCA.

**"Optiro"** means Optiro Pty Limited.

**"Prospectus Rules"** means the rules made pursuant to section 73A of the FSMA.

**"Ravenswood Gold Mine"** means the mine located approximately 95km south-west of Townsville and 65km east of Charters Towers in north-east Queensland, Australia, which is a subsidiary of Carpentaria Gold Pty Ltd.

**"Rule 144A"** means Rule 144A adopted by the SEC under the US Securities Act.

**"SEC"** means the United States Securities and Exchange Commission.

**"Securities Trading Policy"** means the Company's securities trading policy to be adopted upon the Standard Listing Application being submitted to the FCA.

**"Shareholder"** means a holder of Shares.

**"Shares"** means the ordinary shares of no par value in the Company having the rights set out in the Constitution.

**"SOMIFI"** means the Company's subsidiary, Société des Mines de Finkolo S.A.

**"SOMISY"** means the Company's subsidiary, Société des Mines de Syama S.A.

**"Standard List Application"** means the application for admission of securities made to the FCA in accordance with Listing Rule 3.3.2R(1).

**"subsidiary undertakings"** means as defined in section 1162 of the 2006 Act.

**"Syama Gold Mine"** means the mine, currently owned and operated by SOMIFY, located in the south of Mali, West Africa approximately 30km from the Côte d'Ivoire border and 300km southeast of the capital Bamako, comprising of the Syama Underground Mine, multiple open pit satellite mines and an extensive exploration package.

**"Syama Underground Mine"** means the mine, which previously operated as an open pit mining operation and is currently operating as an underground mine, located at Syama Gold Mine.

**"UK"** means the UK of Great Britain and Northern Ireland.

**"UK Corporate Governance Code"** means the UK Corporate Governance Code published by the Financial Reporting Council from time to time.

**"uncertificated"** or **"in uncertificated form"** means Shares recorded on the Company's share register as being held in uncertificated form in CREST and title to which, by virtue of the CREST Regulations, may be transferred by means of CREST.

**"US"** or **"United States"** means the United States of America, its territories and possessions, any state or political sub-division of the United States of America, the District of Columbia and all other areas subject to the jurisdiction of the United States of America.

**"USD"** or **"US\$"** means United States Dollars, the lawful currency of the United States.

**"US Securities Act"** means the US Securities Act of 1933.

**"£"** and **"p"** means respectively pounds and pence sterling, the lawful currency of the UK.

All references to legislation in this document are to the legislation of England and Wales unless the contrary is indicated. Any reference to any provision of any legislation shall include any amendment, modification, re-enactment or extension thereof.

Words importing the singular shall include the plural and vice versa, and words importing the masculine gender shall include the feminine or neutral gender.

**Appendix 1**  
**Historical Financial Information**

**Part 1**

**Group Financial Information for the year ended 30 June 2016**

**Part 2**

**Group Financial Information for the year ended 30 June 2017**

**Part 3**

**Group Financial Information for the year ended 30 June 2018**

**Part 4**

**Group Financial Information for the six months period ended 31 December 2018**

**Part 5**

**Quarterly Activities Report for the period ended 31 March 2019**

## **APPENDIX 1 PART 1**

**GROUP FINANCIAL INFORMATION  
FOR THE YEAR ENDED 30 JUNE 2016**

## **Auditor's Independence Declaration to the Directors of Resolute Mining Limited**

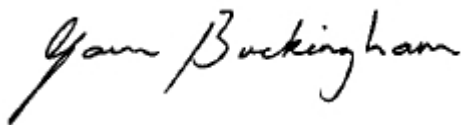
As lead auditor for the audit of Resolute Mining Limited for the year ended 30 June 2016, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Resolute Mining Limited and the entities it controlled during the financial year.



Ernst & Young



Gavin Buckingham  
Partner  
30 August 2016



## Consolidated Statement of Comprehensive Income

	Note	2016 \$'000	2015 \$'000
<b>Continuing Operations</b>			
Revenue from gold and silver sales	A.1	554,624	459,147
Costs of production relating to gold sales	A.1	(313,217)	(256,935)
Gross profit before depreciation, amortisation and other operating costs		<u>241,407</u>	<u>202,212</u>
Depreciation and amortisation relating to gold sales	A.1	(39,121)	(101,493)
Other operating costs relating to gold sales	A.1	(35,585)	(29,800)
Gross profit from operations		166,701	70,919
Other income	A.1	512	12,135
Other expenses	A.1	(7,741)	(1,084)
Exploration and business development expenditure	A.1	(7,626)	(7,327)
Administration and other corporate expenses	A.1	(5,970)	(6,820)
Treasury - realised losses	A.1	(22,846)	(579)
Fair value movements and unrealised treasury transactions	A.1	54,303	(47,860)
Asset impairment expenses	A.1	-	(571,601)
Depreciation of non mine site assets	A.1	(94)	(102)
Finance costs	A.1	(9,082)	(11,063)
<b>Profit/(loss) before tax from continuing operations</b>		<b>168,157</b>	<b>(563,382)</b>
Tax expense	A.4	-	(105)
<b>Profit/(loss) for the year from continuing operations</b>		<b><u>168,157</u></b>	<b><u>(563,487)</u></b>
<b>Discontinued Operation</b>			
Profit/(loss) after tax for the discontinued operation	E.6	44,770	(5,273)
<b>Profit/(loss) for the year</b>		<b><u>212,927</u></b>	<b><u>(568,760)</u></b>
<b>Profit/(loss) attributable to:</b>			
Members of the parent		181,713	(502,637)
Non-controlling interest	E.4	31,214	(66,123)
		<b><u>212,927</u></b>	<b><u>(568,760)</u></b>

## Consolidated Statement of Comprehensive Income (continued)

	Note	2016 \$'000	2015 \$'000
Profit/(loss) for the year (brought forward)		212,927	(568,760)
<b>Other comprehensive (loss)/income</b>			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Members of the parent		(2,005)	41,361
- Transferred to profit and loss - disposed subsidiaries		(39,402)	-
Changes in the fair value/realisation of available for sale financial assets, net of tax		59	(11,615)
<i>Items that may not be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Non-controlling interest		(2,879)	1,739
<b>Other comprehensive (loss)/income for the period, net of tax</b>		(44,227)	31,485
<b>Total comprehensive income/(loss) for the period</b>		<b>168,700</b>	<b>(537,275)</b>
<b>Total comprehensive income/(loss) attributable to:</b>			
Members of the parent		140,365	(469,413)
Non-controlling interest		28,335	(67,862)
		<b>168,700</b>	<b>(537,275)</b>
<b>Earnings/(loss) per share for net profit/(loss) attributable to the ordinary equity holders of the parent:</b>			
Basic earnings/(loss) per share	A.3	<b>28.31 cents</b>	<b>(78.39) cents</b>
Diluted earnings/(loss) per share	A.3	<b>27.59 cents</b>	<b>(78.39) cents</b>
<b>Earnings/(loss) per share for net profit/(loss) from continuing operations attributable to the ordinary equity holders of the parent:</b>			
Basic earnings/(loss) per share		<b>21.34 cents</b>	<b>(77.57) cents</b>
Diluted earnings/(loss) per share		<b>20.79 cents</b>	<b>(77.57) cents</b>

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

## Consolidated Statement of Financial Position

	Note	2016 \$'000	2015 \$'000
<b>Current assets</b>			
Cash	C.1	79,873	9,885
Receivables	D.1	7,005	11,451
Inventories	D.2	186,012	194,606
Available for sale financial assets	D.3	427	114
Other current assets		2,177	3,535
<b>Total current assets</b>		<b>275,494</b>	<b>219,591</b>
<b>Non current assets</b>			
Receivables	D.1	-	558
Other financial assets	D.3	3,699	3,584
Exploration and evaluation	B.2	46,292	33,951
Development	B.1	117,190	90,469
Property, plant and equipment	B.1	61,656	66,318
<b>Total non current assets</b>		<b>228,837</b>	<b>194,880</b>
<b>Total assets</b>		<b>504,331</b>	<b>414,471</b>
<b>Current liabilities</b>			
Payables	D.4	33,367	36,485
Interest bearing liabilities	C.2	26,678	99,430
Provisions	D.6	28,328	32,151
Financial derivative liabilities	D.3	151	-
Unearned revenue	D.5	-	3,307
<b>Total current liabilities</b>		<b>88,524</b>	<b>171,373</b>
<b>Non current liabilities</b>			
Financial derivative liabilities	D.3	264	-
Interest bearing liabilities	C.2	-	14,286
Provisions	D.6	65,139	63,586
<b>Total non current liabilities</b>		<b>65,403</b>	<b>77,872</b>
<b>Total liabilities</b>		<b>153,927</b>	<b>249,245</b>
<b>Net assets</b>		<b>350,404</b>	<b>165,226</b>
<b>Equity attributable to equity holders of the parent</b>			
Contributed equity	C.4	395,198	380,305
Reserves	C.5	33,263	73,026
Accumulated losses		(32,080)	(213,793)
<b>Total equity attributable to equity holders of the parent</b>		<b>396,381</b>	<b>239,538</b>
<b>Non-controlling interest</b>	E.4	(45,977)	(74,312)
<b>Total equity</b>		<b>350,404</b>	<b>165,226</b>

The above consolidated statement of financial position should be read in conjunction with the accompanying notes.

## Consolidated Statement of Changes in Equity

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes equity reserve	Share options equity reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2015</b>	380,305	(127)	384	5,987	10,507	56,275	(213,793)	(74,312)	165,226
Profit for the period	-	-	-	-	-	-	181,713	31,214	212,927
Other comprehensive loss, net of tax	-	59	-	-	-	(41,407)	-	(2,879)	(44,227)
Total comprehensive (loss)/income for the period, net of tax	-	59	-	-	-	(41,407)	181,713	28,335	168,700
Shares issued	14,893	-	-	-	-	-	-	-	14,893
Share-based payments to employees	-	-	-	-	1,585	-	-	-	1,585
<b>At 30 June 2016</b>	395,198	(68)	384	5,987	12,092	14,868	(32,080)	(45,977)	350,404
<b>At 1 July 2014</b>	380,305	11,488	-	5,987	7,695	14,914	292,049	(13,133)	699,305
Loss for the period	-	-	-	-	-	-	(502,637)	(66,123)	(568,760)
Other comprehensive (loss)/income, net of tax	-	(11,615)	-	-	-	41,361	-	1,739	31,485
Total comprehensive (loss)/income for the period, net of tax	-	(11,615)	-	-	-	41,361	(502,637)	(64,384)	(537,275)
Equity portion of compound financial instruments, net of tax and transaction costs	-	-	384	-	-	-	-	-	384
Changes in the proportion held by non-controlling interest	-	-	-	-	-	-	(3,205)	3,205	-
Share-based payments to employees	-	-	-	-	2,812	-	-	-	2,812
<b>At 30 June 2015</b>	380,305	(127)	384	5,987	10,507	56,275	(213,793)	(74,312)	165,226

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

## Consolidated Cash Flow Statement

	Note	2016 \$'000	2015 \$'000
<b>Cash flows from operating activities</b>			
Receipts from customers		554,624	462,232
Payments to suppliers, employees and others		(347,715)	(384,817)
Exploration expenditure		(8,115)	(8,998)
Interest paid		(6,043)	(6,252)
Interest received		46	27
Income tax paid		-	(331)
Net cash flows from operating activities	C.1	192,797	61,861
<b>Cash flows used in investing activities</b>			
Payments for property, plant & equipment		(13,709)	(6,690)
Proceeds from sale of available for sale financial assets		-	23,252
Payments for development activities		(18,339)	(59,507)
Payments for evaluation activities		(12,669)	(33,200)
Proceeds from sale of property, plant & equipment		4,078	2,258
Proceeds from sale of other assets		-	3,087
Payments for other financial assets		(254)	-
Other investing activities		(2,407)	(1,899)
Net cash flows used in investing activities		(43,300)	(72,699)
<b>Cash flows from financing activities</b>			
Repayment of borrowings		(74,171)	(11,228)
Repayment of lease liability		(4,688)	(5,461)
Proceeds from finance facilities		-	14,411
Net cash flows used in financing activities		(78,859)	(2,278)
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>70,638</b>	<b>(13,116)</b>
Cash and cash equivalents at the beginning of the financial year		(19,735)	(7,344)
Exchange rate adjustment		2,514	725
<b>Cash and cash equivalents at the end of the period</b>		<b>53,417</b>	<b>(19,735)</b>
Cash and cash equivalents comprise the following:			
Cash at bank and on hand	C.1	79,873	9,885
Bank overdraft	C.2	(26,456)	(29,620)
		53,417	(19,735)

The above consolidated cash flow statement should be read in conjunction with the accompanying notes.

## About this Report

The financial report of Resolute Mining Limited and its controlled entities (“Resolute”, “consolidated entity” or the “Group”) for the year ended 30 June 2016 was authorised for issue in accordance with a resolution of the Directors on 25 August 2016.

Resolute Mining Limited (the parent entity) is a for profit company limited by shares incorporated and domiciled in Australia whose shares are publicly traded on the Australian Securities Exchange. The nature of the operations and principal activities of the Group are described in the directors’ report and in the segment information in Note A.1. There has been no significant change in the nature of those activities during the year.

### Statement of Compliance

This general purpose financial report has been prepared in accordance with Australian Accounting Standards, other authoritative pronouncements of the Australian Accounting Board and the Corporations Act 2001. The financial report complies with Australian Accounting Standards as issued by the Australian Accounting Standards Board and International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. The accounting policies are consistent with those disclosed in the 30 June 2015 Financial Report, except for the impact of all new or amended Standards and Interpretations. The adoption of these Standards and Interpretations did not result in any significant changes to the Group’s accounting policies.

The financial report includes financial information for Resolute Mining Limited (“RML”) as an individual entity and the consolidated entity consisting of RML and its subsidiaries. Where appropriate, comparative information has been reclassified.

### Basis of Preparation

These financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) at fair value through profit and loss.

The financial report comprises the financial statements of the Group and its subsidiaries as at 30 June each year. Subsidiaries are fully consolidated from the date on which control is obtained by the Group and cease to be consolidated from the date at which control is transferred out of the Group. Profit or loss and each component of other comprehensive income (“OCI”) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group’s accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Interests in associates are equity accounted and are not part of the consolidated Group.

### Rounding of Amounts

The financial report has been prepared in Australian dollars and all values are rounded to the nearest thousand dollars (\$’000) unless otherwise stated.

## About this Report

### Currency

Items in the financial statements of each of the Group's entities are measured in their respective functional currencies. Resolute Mining Limited's functional and presentation currency is Australian dollars.

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated at the rates of exchange ruling at that date. Exchange differences in the consolidated financial statements are taken to the income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

Translation differences on non-monetary items, such as equities held at fair value through profit or loss, are reported as part of the fair value gain or loss. Translation differences on non-monetary items, such as equities classified as available-for-sale financial assets, are included in the fair value reserve in equity.

The results and financial position of all the Group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the date of that consolidated statement of financial position;
- income and expenses for each consolidated statement of comprehensive income are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and,
- all resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold or borrowings repaid, a proportionate share of such exchange differences are recognised in the consolidated statement of comprehensive income as part of the gain or loss on sale.

### Financial and Capital Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including gold price risk, diesel fuel price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks, where considered appropriate, to minimise potential adverse effects on the financial performance of the Group. The Group may use derivative financial instruments to manage certain risk exposures. Derivatives have been used exclusively for managing financial risks, and not as trading or other speculative instruments.

Risk management is carried out by the Group's Financial Risk Management Committee under policies approved by the Board of Directors. The Financial Risk Management Committee identifies, evaluates and manages financial risks as deemed appropriate. The Board provides guidance for overall risk management, including guidance on specific areas, such as mitigating commodity price, foreign exchange, interest rate and credit risks, and derivative financial instrument risk.

#### Foreign exchange risk management

The Group receives multiple currency proceeds on the sale of its gold production and significant costs for the Syama Gold Project and the Bibiani Project are denominated in AUD, USD and the local currencies of those projects, and as such movements within these currencies expose the Group to exchange rate risk.

## About this Report

### **Financial and Capital Risk Management (continued)**

#### Foreign exchange risk management (continued)

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities denominated in a currency that is not the entity's functional currency. The risk can be measured by performing a sensitivity analysis that quantifies the impact of different assumed exchange rates on the Group's forecast cash flows.

The Group's Financial Risk Management Committee continues to manage and monitor foreign exchange currency risk. At present, the Group does not specifically hedge its exposure to foreign currency exchange rate movements.

#### Diesel price risk management

The Group is exposed to movements in the diesel fuel price. The costs incurred purchasing diesel fuel for use by the Group's operations is significant. The Group's Financial Risk Management Committee continues to manage and monitor diesel fuel price risk. At present, the Group does not specifically hedge its exposure to diesel fuel price movements.

The below risks arise in the normal course of the Group's business. Risk information can be found in the following sections:

Section C	Capital risk
Section C	Interest rate risk
Section C	Liquidity risk
Section D	Credit risk



## Notes to the Financial Statements **A: Earnings for the Year**

### In this section

Results and the performance of the Group, with segmental information highlighting the core areas of the Group's operations. It also includes details about the Group's tax position.

### **A.1 Segment revenues and expenses**

#### Operating segment information

The Group has identified three operating segments based on the internal reports that are reviewed and used by the chief executive officer and his executive team (the chief operating decision maker) in assessing performance and in determining the allocation of resources.

Operating segments are identified by management as being operating mine sites and are managed separately and operate in different regulatory and economic environments.

Performance is measured based on gold sold and cost of production per ounce. The accounting policies used by the Group in reporting segments are the same as those used in the preparation of financial statements.

Inter-entity gold sales are recognised based on the prevailing spot price. The price is aimed to reflect what the segment would have achieved if it sold its gold to external parties at arm's length.

Income tax expense is calculated based on the segment operating net profit using a notional charge of the respective tax jurisdiction. No effect is given for taxable or deductible temporary differences.

The following items and associated assets and liabilities are not allocated to operating segments as they are not considered part of the core operations of any segment:

- Realised and unrealised treasury transactions, including derivative contract transactions;
- Finance costs - including adjustments on provisions due to discounting; and,
- Net gains/losses on disposal of available-for-sale investments.

#### Recognition and measurement

##### Revenue from gold and other sales

Revenue is recognised when the risk and reward of ownership has passed from the Group to an external party and the selling price can be determined with reasonable accuracy. Sales revenue represents gross proceeds receivable from the customer.

Revenue from the sale of by-products such as silver is included in sales revenue.

##### Interest

Revenue is recognised as interest accrues using the effective interest method.

##### Borrowing costs

Borrowing costs incurred for the construction of any qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Other borrowing costs are expensed and are included in profit or loss as part of borrowing costs.

The capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to the entity's outstanding borrowings during the period.

## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

**For the year ended 30 June 2016**

	UNALLOCATED (b)					
	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	TOTAL \$'000
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	180,425	372,938	-	-	1,261	554,624
<b>Total segment gold and silver sales revenue</b>	<b>180,425</b>	<b>372,938</b>	<b>-</b>	<b>-</b>	<b>1,261</b>	<b>554,624</b>
Costs of production	(109,054)	(174,043)	-	-	-	(283,097)
Gold in circuit inventories movement	(7,980)	(22,140)	-	-	-	(30,120)
Costs of production relating to gold sales	(117,034)	(196,183)	-	-	-	(313,217)
Royalty expense	(9,014)	(24,684)	-	-	-	(33,698)
Operational support costs	-	(1,876)	-	(11)	-	(1,887)
Other operating costs relating to gold sales	(9,014)	(26,560)	-	(11)	-	(35,585)
Other management and administration expenses	(1,722)	(1,718)	-	(1,490)	-	(4,930)
Share-based payments expense	-	-	-	(1,040)	-	(1,040)
Administration and other corporate expenses	(1,722)	(1,718)	-	(2,530)	-	(5,970)
Exploration and business development expenditure	(2,894)	(345)	(1,845)	(2,542)	-	(7,626)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>49,761</b>	<b>148,132</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>192,226</b>
Amortisation of evaluation, development and rehabilitation costs	(16,908)	(2,977)	-	-	-	(19,885)
Depreciation of mine site properties, plant and equipment	(11,253)	(7,983)	-	-	-	(19,236)
Depreciation and amortisation relating to gold sales	(28,161)	(10,960)	-	-	-	(39,121)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>21,600</b>	<b>137,172</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>153,105</b>

## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

**For the year ended 30 June 2016**

			UNALLOCATED (b)			
	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	TOTAL \$'000
<b>Segment operating result before treasury, other income/(expenses) and tax (brought forward)</b>	<b>21,600</b>	<b>137,172</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>153,105</b>
Interest income	-	-	-	-	47	47
Profit on sale of available for sale financial assets	-	-	-	-	99	99
Other income	23	-	-	-	343	366
Total other income	23	-	-	-	489	512
Interest and fees	-	-	-	-	(7,960)	(7,960)
Rehabilitation and restoration provision accretion	-	-	-	-	(1,122)	(1,122)
Finance costs	-	-	-	-	(9,082)	(9,082)
Realised foreign exchange loss	-	-	-	-	(22,333)	(22,333)
Realised loss on repayment of gold prepay loan	-	-	-	-	(513)	(513)
Treasury - realised losses	-	-	-	-	(22,846)	(22,846)
Inventories net realisable value movements and obsolete consumables	95	26,504	-	-	-	26,599
Other	-	2,231	-	-	-	2,231
Unrealised foreign exchange gain	-	-	-	-	17,221	17,221
Unrealised losses on forward contracts	-	-	-	-	(415)	(415)
Unrealised foreign exchange gain on intercompany balances	-	-	-	-	8,667	8,667
Fair value movements and unrealised treasury transactions	95	28,735	-	-	25,473	54,303
Loss on sale of property, plant and equipment	-	-	-	-	(585)	(585)
Withholding tax expenses	-	(7,092)	-	(64)	-	(7,156)
Other expenses	-	(7,092)	-	(64)	(585)	(7,741)
Depreciation of non mine site assets	-	-	-	(94)	-	(94)
Profit after tax for the discontinued operation	-	-	-	44,770	-	44,770
<b>Profit/(loss) for the year</b>	<b>21,718</b>	<b>158,815</b>	<b>(1,845)</b>	<b>39,529</b>	<b>(5,290)</b>	<b>212,927</b>

# Notes to the Financial Statements **A: Earnings for the Year**

## A.1 Segment revenues and expenses (continued)

<u>For the year ended 30 June 2015</u>	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	UNALLOCATED (b)		TOTAL \$'000
				CORP/OTHER \$'000	TREASURY \$'000	
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	147,272	310,761	-	-	1,114	459,147
<b>Total segment gold and silver sales revenue</b>	<b>147,272</b>	<b>310,761</b>	<b>-</b>	<b>-</b>	<b>1,114</b>	<b>459,147</b>
Costs of production	(97,547)	(177,851)	-	-	-	(275,398)
Gold in circuit inventories movement	4,139	14,324	-	-	-	18,463
Costs of production relating to gold sales	(93,408)	(163,527)	-	-	-	(256,935)
Royalty expense	(7,360)	(20,953)	-	-	-	(28,313)
Operational support costs	-	(1,487)	-	-	-	(1,487)
Other operating costs relating to gold sales	(7,360)	(22,440)	-	-	-	(29,800)
Other management and administration expenses	(1,420)	(1,898)	-	(1,835)	-	(5,153)
Share-based payments expense	-	-	-	(1,667)	-	(1,667)
Administration and other corporate expenses	(1,420)	(1,898)	-	(3,502)	-	(6,820)
Exploration and business development expenditure	(2,116)	(491)	-	(4,720)	-	(7,327)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>42,968</b>	<b>122,405</b>	<b>-</b>	<b>(8,222)</b>	<b>1,114</b>	<b>158,265</b>
Amortisation of evaluation, development and rehabilitation costs	(19,998)	(30,219)	-	-	-	(50,217)
Depreciation of mine site properties, plant and equipment	(15,480)	(35,796)	-	-	-	(51,276)
Depreciation and amortisation relating to gold sales	(35,478)	(66,015)	-	-	-	(101,493)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>7,490</b>	<b>56,390</b>	<b>-</b>	<b>(8,222)</b>	<b>1,114</b>	<b>56,772</b>

# Notes to the Financial Statements **A: Earnings for the Year**

## A.1 Segment revenues and expenses (continued)

<u>For the year ended 30 June 2015</u>	UNALLOCATED (b)					TOTAL
	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	
<b>Segment operating result before treasury, other income/(expenses) and tax (brought forward)</b>	<b>7,490</b>	<b>56,390</b>	<b>-</b>	<b>(8,222)</b>	<b>1,114</b>	<b>56,772</b>
Interest income	-	-	-	-	26	26
Dividend income	-	-	-	-	64	64
Profit on sale of property, plant and equipment	45	-	-	-	-	45
Profit on sale of available for sale financial assets	-	-	-	-	11,921	11,921
Other income	32	-	-	-	47	79
Total other income	77	-	-	-	12,058	12,135
Interest and fees	-	-	-	-	(9,967)	(9,967)
Rehabilitation and restoration provision accretion	-	-	-	-	(1,096)	(1,096)
Finance costs	-	-	-	-	(11,063)	(11,063)
Impairment of property, plant, equipment, exploration, evaluation and development	-	(472,401)	(78,703)	(9,935)	-	(561,039)
Impairment of accounts receivable	-	(10,231)	-	-	-	(10,231)
Impairment of gold equity investments	-	-	-	(331)	-	(331)
Asset impairment expenses	-	(482,632)	(78,703)	(10,266)	-	(571,601)
Realised foreign exchange gain	-	-	-	-	237	237
Realised loss on repayment of gold prepay loan	-	-	-	-	(816)	(816)
Treasury - realised losses	-	-	-	-	(579)	(579)
Inventories net realisable value movements and obsolete consumables	(1,003)	(7,386)	-	-	-	(8,389)
Unrealised foreign exchange loss	-	-	-	-	(12,519)	(12,519)
Unrealised foreign exchange loss on intercompany balances	-	-	-	-	(26,952)	(26,952)
Fair value movements and unrealised treasury transactions	(1,003)	(7,386)	-	-	(39,471)	(47,860)
Loss after tax for the discontinued operation	-	-	-	(5,273)	-	(5,273)
Depreciation of non mine site assets	-	-	-	(102)	-	(102)
Withholding tax expenses	-	(1,000)	100	(184)	-	(1,084)
Tax expense	-	-	-	(105)	-	(105)
<b>Profit/(Loss) for the year</b>	<b>6,564</b>	<b>(434,628)</b>	<b>(78,603)</b>	<b>(24,152)</b>	<b>(37,941)</b>	<b>(568,760)</b>

(a) Revenue from external sales for each reportable segment is derived from several customers.

(b) This information does not represent an operating segment as defined by AASB 8, however this information is analysed in this format by the Chief Operating Decision Maker, and forms part of the reconciliation of the results and positions of the operating segments to the financial statements.

## Notes to the Financial Statements **A: Earnings for the Year**

### A.2 Dividends paid or proposed

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Proposed dividends on ordinary shares:</b>		
Final dividend for 2016: 1.7 cents per share (2015: nil)	11,148	-

The dividend has not been provided for in the 30 June 2016 financial statements.

### A.3 Earnings/(loss) per share

<b>Basic earnings/(loss) per share</b>		
Profit/(loss) attributable to ordinary equity holders of the parent for basic earnings per share (\$'000)	181,713	(502,637)
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	641,788,233	641,189,223
<b>Basic earnings/(loss) per share (cents per share)</b>	<b>28.31</b>	<b>(78.39)</b>
<b>Diluted earnings/(loss) per share</b>		
Profit/(loss) used in calculation of diluted earnings per share (\$'000)	181,713	(502,637)
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	641,788,233	641,189,223
Weighted average number of notional shares used in determining diluted EPS (i)	16,874,755	n/a
Weighted average number of ordinary shares outstanding during the period used in the calculation of diluted EPS	658,662,988	641,189,223
Number of potential ordinary shares that are not dilutive and hence not included in calculation of diluted EPS	675,400	18,656,733
<b>Diluted earnings/(loss) per share (cents per share)</b>	<b>27.59</b>	<b>(78.39)</b>

### Measurement

Basic earnings per share ("EPS") is calculated as net profit attributable to members, adjusted to exclude costs of servicing equity (other than dividends) and preference share dividends, divided by the weighted average number of ordinary shares, adjusted for any bonus element.

Diluted EPS is calculated as the net profit attributable to members, adjusted for:

- costs of servicing equity (other than dividends) and;
- the after tax effect of dividends and interest associated with dilutive potential ordinary shares that have been recognised as expenses; and,
- other non-discretionary changes in revenues or expenses during the period that would result from the dilution of potential ordinary shares

divided by the weighted average number of ordinary shares and dilutive potential ordinary shares, adjusted for any bonus element.

- i) Dilutive instruments have not been included in the calculation of diluted earnings per share for 2015 because the result for the year was a loss.
- ii) Between the reporting date and the date of completion of these financial statements there have been the following transactions involving ordinary shares or potential ordinary shares:
  - a) 130,000 fully paid ordinary shares were issued to Level 2 employees as a result of two employee option holders exercising their options by paying \$1.18 per share.

## Notes to the Financial Statements **A: Earnings for the Year**

### A.3 Earnings/(loss) per share (continued)

#### Information on the classification of securities

Options and performance rights granted to employees (including Key Management Personnel) as described in E.10 are considered to be potential ordinary shares and have been included in the determination of diluted earnings per share to the extent they are dilutive. These securities have not been included in the determination of basic earnings per share.

### A.4 Taxes

	2016 \$'000	2015 \$'000
(a) Income tax expense		
Deferred tax expense from continuing operations	-	(105)
Current income tax benefit from discontinued operation	-	1,057
Total tax expense	<u>-</u>	<u>(952)</u>
(b) Numerical reconciliation of income tax expense to prima facie tax expense		
Profit/(loss) from continuing operations before income tax expense	168,157	(563,382)
Profit/(loss) from discontinued operation before income tax expense	44,770	(6,330)
Profit/(loss) before income tax expense	<u>212,927</u>	<u>(569,712)</u>
Prima facie income tax expense/(benefit) at 30% (2015: 30%)	63,879	(170,914)
(Deduct)/add:		
- (unrecognised tax losses and other temporary differences utilised) / tax losses and other temporary differences not recognised	(18,091)	251,432
- difference on foreign exchange gain from divestment of discontinued operation	(12,746)	-
- effect of different rates of tax on overseas income	(35,197)	(82,460)
- effect of share based payments expense not deductible	1,054	1,502
- prior year over provision	-	(1,132)
- other	1,101	620
Income tax expense attributable to net profit/(loss)	<u>-</u>	<u>(952)</u>
Reconciled as:		
Income tax expense attributable to continuing operations	-	105
Income tax benefit attributable to a discontinued operation	-	(1,057)
	<u>-</u>	<u>(952)</u>
(c) Amounts recognised directly in equity		
Amounts debited/(credited) directly to equity	<u>-</u>	<u>(105)</u>

## Notes to the Financial Statements **A: Earnings for the Year**

### A.4 Taxes

	2016 \$'000	2015 \$'000
(d) Tax losses (tax effected)		
- Revenue losses		
Australia	43,924	46,559
Tanzania (divested during the year)	-	10,787
Mali	65,471	63,289
Ghana	39,466	37,326
	<u>148,861</u>	<u>157,961</u>
- Capital losses		
Australia	<u>54,717</u>	<u>49,789</u>
Total tax losses not used against deferred tax liabilities for which no deferred tax asset has been recognised (potential tax benefit at the prevailing tax rates of the respective jurisdictions) (tax effected)	<u>203,578</u>	<u>207,750</u>
(e) Movements in the deferred tax assets balance		
Balance at the beginning of the year	-	-
(Charged)/credited to equity	(165)	105
Credited/(charged) to the income statement	<u>165</u>	<u>(105)</u>
Balance as at the end of the year	<u>-</u>	<u>-</u>
The deferred tax assets balance comprises temporary differences attributable to:		
Receivables	87,344	227,782
Inventories	1,086	8,963
Available for sale financial assets	8,846	8,981
Mineral exploration and development interests	175,895	168,546
Property, plant and equipment	54,498	52,192
Payables	752	730
Provisions	22,938	21,341
Interest bearing liabilities	-	4,726
Temporary differences not recognised	<u>(340,532)</u>	<u>(486,612)</u>
	10,827	6,649
Set off of deferred tax liabilities pursuant to set off provisions	<u>(10,827)</u>	<u>(6,649)</u>
Net deferred tax assets	<u>-</u>	<u>-</u>



# Notes to the Financial Statements **A: Earnings for the Year**

## **A.4 Taxes (continued)**

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
(f) Movements in the deferred tax liabilities balance		
There were no movements in the deferred tax liabilities balance in the current or prior year.		
The deferred tax liabilities balance comprises temporary differences		
Receivables	1,082	-
Inventories	2,304	-
Mineral exploration and development interests	7,436	6,644
Property, plant and equipment	5	5
	<hr/> 10,827	<hr/> 6,649
Set off of deferred tax liabilities pursuant to set off provisions	(10,827)	(6,649)
Net deferred tax liabilities	<hr/> -	<hr/> -

(g) The equity balance comprises temporary differences attributable to:

Convertible notes equity reserve	194	194
Option equity reserve	2,566	2,566
Unrealised loss reserve	(20)	(38)
Net temporary differences in equity	<hr/> 2,740	<hr/> 2,722
Set-off of deferred tax liabilities pursuant to set-off provisions	20	38
Total temporary differences in equity	<hr/> 2,760	<hr/> 2,760

### **FRANKING CREDITS**

The amount of franking credits available for subsequent financial years is as follows. The amount has been determined using a tax rate of 30%.

108	103
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## **Recognition and measurement**

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and by unused tax losses (if appropriate).

The Group records its best estimate of these items based upon the latest information available and management's interpretation of enacted tax laws. Whilst the Group believes it has adequately provided for the outcome of these matters, future results may include favourable or unfavourable adjustments as assessments are made, or resolved.

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for deductible temporary differences, unused tax losses and unused tax credits only if it is probable that sufficient future taxable income will be available to utilise those temporary differences and losses.

## Notes to the Financial Statements **A: Earnings for the Year**

### **A.4 Taxes (continued)**

#### **Recognition and measurement**

Deferred tax is not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither taxable profit or loss; or the accounting profit or loss arising from taxable differences related to investment in subsidiaries, associates and interests in joint ventures to the extent that:

- the Group is able to control the reversal of the temporary difference; and
- the temporary difference is not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period. Deferred tax assets and liabilities are offset only if certain criteria are met. Income taxes relating to items recognised directly in equity are recognised in equity.

#### Tax consolidation

RML and its wholly-owned Australian controlled entities implemented the tax consolidation legislation as of 1 July 2002 and the entities in the tax consolidated group entered into a tax sharing agreement, which limits the joint and several liability of the wholly owned entities in the case of a default by the head entity, Resolute Mining Limited. The entities have also entered into a tax funding agreement under which the wholly owned entities fully compensate Resolute Mining Limited for any current tax payable assumed and are compensated by Resolute Mining Limited for any current tax receivable.

#### **Key estimates and judgements**

The recognition basis of deductible temporary differences and unused tax losses in the form of deferred tax assets is reviewed at the end of each reporting period and de-recognised and to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Pursuant to the Establishment Convention between the State of Mali and Societe des Mines de Syama S.A. (owner of the Syama gold mine), there is an income tax holiday for 5 years post the declaration of "first commercial production" at Syama, which commenced on 1 January 2012.

A deferred income tax asset has not been recognised for these amounts at reporting date as realisation of the benefit is not regarded as probable. The future benefit will only be obtained if:

- (i) future assessable income is derived of a nature and an amount sufficient to enable the benefit to be realised;
- (ii) the conditions for deductibility imposed by tax legislation have been continued to be complied with; and,
- (iii) no changes in tax legislation adversely affect the consolidated entity in realising the benefit.

#### Unrecognised temporary differences

As at 30 June 2016, aggregate unrecognised temporary differences of \$4.460m (2015: \$16.883m) are in respect of investments in foreign controlled entities for which no deferred tax assets have been recognised for amounts which arise upon translation of their financial statements.

## Notes to the Financial Statements **B: Production and Growth Assets**

### In this section

Included in this section is relevant information about recognition, measurement, depreciation, amortisation and impairment considerations of the core producing and growth (exploration and evaluation) assets of Resolute.

### **B.1 Mine properties and property, plant and equipment**

#### **Recognition and measurement**

##### Stripping activity asset

The Group incurs waste removal costs (stripping costs) in the creation of improved access and mining flexibility in relation to ore to be mined in the future. The costs are capitalised as a stripping activity asset, where certain criteria are met. Once the Group has identified its production stripping for each surface mining operation, it identifies the separate components for the ore bodies in each of its mining operations. An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity. The costs of each component are amortised on a units of production basis in applying a stripping ratio.

##### Development expenditure

###### (i) Areas in Development

Costs incurred in preparing mines for production including the required plant infrastructure.

###### (ii) Areas in Production

Represent the accumulation of all acquired exploration, evaluation and development expenditure in which economic mining of a mineral reserve has commenced. Amortisation of costs is provided on the unit-of-production method.

##### Property, plant and equipment

Property, plant and equipment are stated at cost less any accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises:

- Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and,
- The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is provided on a straight-line basis on all property plant and equipment other than land. Major depreciation periods are:

	Life	Method
Motor vehicles	3 years	Straight line
Office equipment	3 years	Straight line
Plant and equipment	Life of mine years	Straight line

## Notes to the Financial Statements **B: Production and Growth Assets**

### **B.1 Mine properties and property, plant and equipment (continued)**

#### **Key estimates and judgements**

##### Stripping activity assets

Judgement is required to identify a suitable production measure to be used to allocate production stripping costs between inventory and any stripping activity asset(s) for each component. The Group considers that the ratio of the expected volume of waste to be stripped for an expected volume of ore to be mined for a specific component of the ore body, to be the most suitable production measure. An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity.

Judgement is also required to identify and define these components, and also to determine the expected volumes (e.g. tonnes) of waste to be stripped and ore to be mined in each of these components. These assessments are based on the information available in the mine plan which will vary between mines for a number of reasons, including, the geological characteristics of the ore body, the geographical location and/or financial considerations.

##### Stripping ratio

The Group has adopted a policy of deferring production stage stripping costs and amortising them on a units-of-production basis. Significant judgement is required in determining the contained ore units for each mine. Factors that are considered include:

- Any proposed changes in the design of the mine;
- estimates of the quantities of ore reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and,
- future cash costs of production and capital expenditure.

##### Determining the beginning of production

The Group ceases capitalising pre-production costs and begins depreciation and amortisation of mine assets at the point commercial production commences. This is based on the specific circumstances of the project, and considers when the mine's plant becomes 'available for use' as intended by management which includes consideration of the following factors:

- the level of redevelopment expenditure compared to project cost estimates;
- completion of a reasonable period of testing of the mine plant and equipment;
- mineral recoveries, availability and throughput levels at or near expected/feasibility study levels;
- the ability to produce gold into a saleable form (where more than an insignificant amount is produced); and,
- the achievement of continuous production.

Estimation of mineral reserves and resources – refer to **B3**

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.1 Mine properties and property, plant and equipment (continued)

	Plant and Equipment					Development expenditure			
						In production			
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	Mine Properties	Striping Activity Asset	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
30 June 2016									
Opening write down value	8,481	47,930	920	2,876	6,111	66,318	87,458	3,011	90,469
Additions	-	13,617	-	92	-	13,709	21,137	39,781	60,918
Disposals	-	(114)	-	(152)	(450)	(716)	(2,774)	-	(2,774)
Depreciation expense	(713)	(16,006)	(128)	(151)	(2,375)	(19,373)	-	-	-
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(13,365)	(13,365)
Amounts charged to amortisation and finance costs	-	-	-	-	-	-	(18,470)	-	(18,470)
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	(623)	-	(623)
Foreign currency translation	248	1,360	19	79	12	1,718	1,388	(353)	1,035
At 30 June net of accumulated depreciation	8,016	46,787	811	2,744	3,298	61,656	88,116	29,074	117,190
30 June 2016									
Cost	15,814	403,499	3,365	7,012	26,167	455,857	442,288	42,439	484,727
Accumulated depreciation and impairment	(7,798)	(356,712)	(2,554)	(4,268)	(22,869)	(394,201)	(354,172)	(13,365)	(367,537)
Net carrying amount	8,016	46,787	811	2,744	3,298	61,656	88,116	29,074	117,190

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.1 Mine properties and property, plant and equipment (continued)

	Plant and Equipment					Development expenditure			
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	In production		Development
							Mine Properties	Striping Activity Asset	Striping Activity Asset
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<u>30 June 2015</u>									
Opening write down value	9,039	215,929	1,233	2,578	11,730	<b>240,509</b>	369,099	21,106	67,120
Additions	-	6,903	242	309	-	<b>7,454</b>	57,672	18,646	24,821
Transfers to inventory	-	-	-	-	-	-	(4,782)	-	-
Impaired during the year	-	(140,999)	-	-	(1,778)	<b>(142,777)</b>	(283,483)	(8,168)	(93,222)
Disposals	(149)	(1,150)	(178)	(110)	(453)	<b>(2,040)</b>	-	-	-
Depreciation expense	(1,531)	(45,659)	(535)	(361)	(3,362)	<b>(51,448)</b>	-	-	-
Amounts amortised to costs of production relating to gold sales costs	-	-	-	-	-	-	-	(28,270)	-
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	(52,219)	-	-
Foreign currency translation	-	-	-	-	-	-	3,195	-	-
At 30 June net of accumulated depreciation	1,122	12,906	158	460	(26)	<b>14,620</b>	(2,024)	(303)	1,281
	8,481	47,930	920	2,876	6,111	<b>66,318</b>	87,458	3,011	0
<u>30 June 2015</u>									
Cost	15,545	384,236	3,943	7,051	28,383	<b>439,158</b>	423,160	39,450	93,222
Accumulated depreciation and impairment	(7,064)	(336,306)	(3,023)	(4,175)	(22,272)	<b>(372,840)</b>	(335,702)	(36,439)	(93,222)
Net carrying amount	8,481	47,930	920	2,876	6,111	<b>66,318</b>	87,458	3,011	-

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.2 Exploration and evaluation assets

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
Exploration and evaluation (at cost)		
Balance at the beginning of the year	33,951	42,665
- Expenditure during the year	10,404	20,142
- Adjustments to rehabilitation obligations	1,431	(1,365)
- Impaired during the year	-	(33,389)
- Foreign currency translation	506	5,898
Balance at the end of the year	<b>46,292</b>	<b>33,951</b>

### Recognition and measurement

Exploration expenditure is expensed to the consolidated statement of comprehensive income as and when it is incurred and included as part of cash flows from operating activities. Exploration costs are only capitalised to the consolidated statement of financial position if they result from an acquisition.

Evaluation expenditure is capitalised to the consolidated statement of financial position. Evaluation is deemed to be activities undertaken from the beginning of the pre-feasibility study conducted to assess the technical and commercial viability of extracting a mineral resource before moving into the Development phase. The criteria for carrying forward the costs are:

- Such costs are expected to be recouped through successful development and exploitation of the area of interest, or alternatively by its sale; or
- Evaluation activities in the area of interest which has not yet reached a state which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing.

Costs carried forward in respect of an area of interest which is abandoned are written off in the year in which the abandonment decision is made.

### Exploration commitments

It is difficult to accurately forecast the nature or amount of future expenditure, although it will be necessary to incur expenditure in order to retain present interests in mineral tenements. Expenditure commitments on mineral tenure can be reduced by selective relinquishment of exploration tenure or by the renegotiation of expenditure commitments. The approximate level of exploration expenditure expected in the year ending 30 June 2017 for the consolidated entity is approximately \$18.720m (2016: \$11.825m). This includes the minimum amounts required to retain tenure. There are no material exploration commitments further out than one year.

# Notes to the Financial Statements **B: Production and Growth Assets**

## **B.3 Impairment of non-current assets**

### **Recognition and measurement**

#### Impairment testing

The carrying values of non-current assets are reviewed for impairment when indicators of impairment exist or changes in circumstances indicate the carrying value may not be recoverable. At a minimum the Group performs its impairment testing twice annually at 30 June and 31 December.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount. The recoverable amount of an asset is the greater of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

#### Recognised Impairment

No impairment was recognised in 2016. Furthermore, the assessment carried out for 30 June 2016 also concluded that a reversal of prior period impairment charges would be inappropriate.

In 2015, the Group carried out recoverable amount assessments for all of its cash generating units ("CGUs"), and this resulted in impairment charges for Syama, Bibiani and the Nyakafuru tenement (the latter which had been included in the Corporate/Other segment). Included in the events which triggered a review were a lower USD gold price, significant revision of the life-of-mine plan at the Syama Gold Mine, and the sustained difference in the carrying amount of the net assets of the group and its quoted market capitalisation.

The key change to the life-of-mine plan at Syama over the 2014/2015 year was the cessation of the Stage 2 cutback and the decision to exploit the ore reserves beneath the Stage 1 open cut pit by way of an underground mining operation. After reflecting the write-down of certain assets arising from the Group's revised operating plans, the Group conducted carrying value analysis and non-current asset impairments of \$561 million, as summarised in the table below:

	<b>2015 \$'000</b>			
	<b>Syama</b>	<b>Bibiani</b>	<b>Nyakafuru</b>	<b>Total</b>
Exploration and evaluation expenditure	23,978	-	9,411	33,389
Development expenditure	358,720	25,628	524	384,872
Property, plant and equipment	89,703	53,075	-	142,778
Total impairment	472,401	78,703	9,935	561,039
Tax	-	-	-	-
Total impairment (after tax)	472,401	78,703	9,935	561,039

### **Key estimates and judgements**

#### Determination of mineral resources and ore reserves

The determination of reserves impacts the accounting for asset carrying values, depreciation and amortisation rates, deferred stripping costs and provisions for decommissioning and restoration. The information in this report as it relates to ore reserves, mineral resources or mineralisation is reported in accordance with the Aus.IMM "Australian Code for reporting of Identified Mineral Resources and Ore Reserves". The information has been prepared by or under supervision of competent persons as identified by the Code.



## Notes to the Financial Statements **B: Production and Growth Assets**

### **B.3 Impairment of non-current assets (continued)**

#### **Key estimates and judgements**

##### Determination of mineral resources and ore reserves

There are numerous uncertainties inherent in estimating mineral resources and ore reserves and assumptions that are valid at the time of estimation which may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated. The reserves and resources for each project and area of interest is set out in the Annual Report.

##### Impairment of mine properties, plant and equipment

The future recoverability of capitalised mine properties and plant and equipment is dependent on a number of key factors including; gold price, discount rates used in determining the estimated discounted cash flows of CGUs, foreign exchange rates, the level of proved and probable reserves and measured, indicated and inferred mineral resources, the estimated value of unmined inferred mineral properties included in the determination of fair value less cost to dispose ("fair value"), future technological changes which could impact the cost of mining, and future legal changes (including changes to environmental restoration obligations). The costs to dispose have been estimated by management based on prevailing market conditions.

Fair value is estimated based on discounted cash flows using market based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, based on CGU life-of-mine (LOM) plans. Consideration is also given to analysts' valuations, and the market value of the Company's securities. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy. When LOM plans do not fully utilise existing mineral properties for a CGU, and options exist for the future extraction and processing of all or part of those resources, an estimate of the value of mineral properties is included in the determination of fair value. The Group considers this valuation approach to be consistent with the approach taken by market participants.

The Group has estimated its unmined resource values based on a dollar value per gold equivalent ounce basis individually for each CGU, taking into account a range of factors although principally the current market rate for similar resources. However, where the value per ounce from the other reserves/resources included in the CGU's discounted cash flow model (if applicable) is less than this market rate determination, the lower value per ounce from the CGU's discounted cash flow model is used when calculating that CGU's value of unmined ounces. The value per ounce is also discounted accordingly for any future costs which would be required to exploit the insitu resources.

In determining the fair value of CGUs, future cash flows were discounted using rates based on the Group's estimated weighted average cost of capital. When it is considered appropriate to do so, an additional premium is applied with regard to the geographic location and nature of the CGU. Life-of-mine operating and capital cost assumptions are based on the Group's latest budget and LOM plans. Operating cost assumptions reflect the expectation that costs will, over the long term, have a degree of positive correlation to the prevailing commodity price and exchange rate assumptions.

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.3 Impairment of non-current assets (continued)

#### Key estimates and judgements

##### Key Assumptions:

The table below summarises the key assumptions used in the year end carrying value assessments:

Gold price (US\$ per ounce):	2016: \$1,050 - \$1,280 (2015: \$1,070 - \$1,310)	Commodity price and foreign exchange rates are estimated with reference to external market forecasts, and updated at least twice annually. The rates applied to the valuation have regard to observable market data.
Discount rate % (post tax)	2016: 10% - 16% (2015: 10% - 13%)	In determining the fair value of CGUs, the future cash flows were discounted using rates based on the Group's estimated real weighted average cost of capital, with an additional premium applied having regard to the geographic location of the CGU.
Value of unmined resources (US\$ per ounce):	2016: \$68 - \$83 (2015: \$0 - \$43)	Of the individual CGUs that recognised impairments, Syama applied a discount rate in a range of 10%-13%, whilst Bibiani and Nyakafuru's recoverable amount was determined in the prior year using the estimated value of unmined resources.
Operating and capital costs:	Life-of-mine operating and capital cost assumptions are based on the Group's latest budget and life-of-mine plans. Operating cost assumptions reflect the expectation that costs will, over the long term, have a degree of positive correlation to the prevailing commodity price and exchange rate assumptions.	

##### Sensitivity analysis

Any variation in the key assumptions used to determine fair value would result in a change of the assessed fair value. It is estimated that changes in the key assumptions would have the following approximate impact on the fair value of each CGU that has been subject to impairment in the accounts:

Change of:	Syama \$'000				Bibiani \$'000			
	Increase		Decrease		Increase		Decrease	
	2016	2015	2016	2015	2016	2015	2016	2015
2.5% - gold price	85,343	79,742	(90,473)	(100,636)	N/A	N/A	N/A	N/A
1.0% - discount rate	(25,247)	(11,394)	27,473	12,545	N/A	N/A	N/A	N/A
2.5% - value of unmined resources	N/A	N/A	N/A	N/A	4,716	(2,430)	(4,716)	2,430

Changes in the specific assumptions above are assumed to move in isolation, while all other assumptions are held constant.

## Notes to the Financial Statements **B: Production and Growth Assets**

### **B.4 Segment expenditure, assets and liabilities**

<u>For the year ended 30 June 2016</u>	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	TOTAL \$'000
Capital expenditure	6,586	28,705	9,283	675	-	45,250
Segment assets in continuing operations	59,682	343,042	63,736	37,871	-	504,331
Segment liabilities in continuing operations	47,226	81,677	17,114	7,910	-	153,927
<u>For the year ended 30 June 2015</u>	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	TOTAL \$'000
Capital expenditure	10,377	54,913	19,111	6	-	84,407
Segment assets in continuing operations	91,723	249,644	52,653	18,989	-	413,009
Segment assets in discontinued operation	-	-	-	1,462	-	1,462
<b>Total segment assets</b>	<b>91,723</b>	<b>249,644</b>	<b>52,653</b>	<b>20,451</b>	<b>-</b>	<b>414,471</b>
Segment liabilities in continuing operations	44,603	92,244	17,148	6,541	82,936	243,472
Segment liabilities in discontinued operation	-	-	-	5,773	-	5,773
<b>Total segment liabilities</b>	<b>44,603</b>	<b>92,244</b>	<b>17,148</b>	<b>12,314</b>	<b>82,936</b>	<b>249,245</b>

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### In this section

Cash, debt and capital position of the Group at the end of the reporting period.

#### C.1 Cash

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Cash at bank and on hand	79,873	9,885
Reconciliation to cash flow statement		
For the purpose of the cash flow statement, cash and cash equivalents comprise the following at 30 June:		
Cash at bank and on hand	79,873	9,885
Bank overdraft	(26,456)	(29,620)
	<b>53,417</b>	<b>(19,735)</b>

The credit quality of cash and cash equivalents can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

#### Cash at bank & short term deposits

##### *Counterparties with external credit ratings*

A	79,285	9,074
BBB	113	226

##### *Counterparties without external credit ratings*

	475	585
<b>Total cash at bank &amp; short term deposits</b>	<b>79,873</b>	<b>9,885</b>

### Recognition and measurement

Cash and cash equivalents in the statement of financial position comprise cash at bank and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are stated at face value in the statement of financial position.

#### Fair value and foreign exchange risk

The carrying amount of cash and cash equivalents approximates their fair value.

The Group held A\$37.0 million of cash and cash equivalents at 30 June 2016 (2015: A\$4.9 million) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. These exposures are predominantly US dollars (2016: A\$28.1 million; 2015: A\$3.4 million equivalent) and Euro (2016: A\$8.6 million; 2015: A\$1.2 million equivalent).

Average interest rates earned on cash and cash equivalents during the period was 0.7% (2015: 0.8%).

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.1 Cash (continued)

#### Reconciliation of net profit/(loss) from continuing operations after income tax to the net operating cash flows

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
<b>Net profit/(loss) from ordinary activities after income tax</b>	212,927	(568,760)
<b>Add/(deduct):</b>		
Share based payments including employee long term incentive costs	1,040	1,667
Dividend income	-	(64)
Profit on sale of inventory	-	(2,027)
Loss/(profit) on sale of property, plant and equipment	585	(225)
Profit on sale of available for sale financial assets	(99)	(11,921)
Rehabilitation and restoration provision accretion	1,122	1,115
Rehabilitation and restoration provision adjustment from non operating	-	(1,763)
Rehabilitation and restoration cash expenditure	(93)	(5,053)
Depreciation and amortisation	39,215	101,595
Gain on sale of the Resolute Pty Ltd group	(46,151)	-
Foreign exchange (gains)/losses	(25,888)	39,538
Realised foreign exchange losses on debt repayments	20,795	-
Foreign exchange loss on deregistration of controlled entity	3,086	-
Inventory net realisable value movements	(26,599)	8,389
Impairment of development	-	418,262
(Reversal of provision)/impairment of accounts receivable	(529)	11,042
Impairment of property, plant and equipment	-	142,777
Impairment of gold equity investments	-	331
Non cash finance costs	577	2,698
<b>Changes in operating assets and liabilities:</b>		
Decrease/(increase) in receivables	5,811	(16,744)
Decrease/(increase) in inventories	43,361	(48,273)
Decrease/(increase) in prepayments	1,231	(771)
Increase in stripping activity asset	(26,487)	(13,311)
Decrease in payables	(5,247)	(7,512)
Decrease in current tax balances	-	(1,404)
(Decrease)/increase in operating provisions	(5,858)	12,275
<b>Net operating cash flows</b>	<b>192,798</b>	<b>61,861</b>

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.1 Cash (continued)

#### Cash flow by segment

				UNALLOCATED (b)		
	RAVENSWOOD (AUSTRALIA) \$'000	SYAMA (MALI) \$'000	BIBIANI (GHANA) \$'000	CORP/OTHER \$'000	TREASURY \$'000	TOTAL \$'000
<b><u>For the year ended 30 June 2016</u></b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	51,833	107,784	(11,994)	(5,658)	(95,930)	46,035
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold shipped but unsold and held in metal accounts						22,074
Mark to market movement in gold unsold						84
Movement in bank overdraft, including foreign exchange movements						3,164
Exchange rate adjustment in cash on hand						1,655
Cash flows from discontinued operation						(2,374)
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>70,638</b>

#### **For the year ended 30 June 2015**

Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	26,928	14,554	(38,139)	(2,742)	26,214	26,815
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold shipped but unsold and held in metal accounts						(18,265)
Mark to market movement in gold unsold						(153)
Movement in bank overdraft, including foreign exchange movements						(3,730)
Exchange rate adjustment in cash on hand						(597)
Cash flows from discontinued operation						(17,186)
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>(13,116)</b>

# Notes to the Financial Statements **C: Cash, Debt and Capital**

## C.2 Interest bearing liabilities

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current</b>		
Lease liabilities - ref C3.1	222	4,519
Bank overdraft - ref C3.2	26,456	29,620
Borrowings - ref C3.3	-	65,291
	<b>26,678</b>	<b>99,430</b>
<b>Non-Current</b>		
Lease liabilities - ref C3.1	-	222
Convertible notes - ref C3.4	-	14,064
	<b>-</b>	<b>14,286</b>

## Recognition and measurement

All loans and borrowings are initially recognised at fair value less transaction costs and subsequently at amortised cost. Any difference between the proceeds received and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method.

The component of convertible notes that exhibit characteristics of a liability are recognised as a liability net of transaction costs. On issuance of the convertible notes, the fair value of the liability component is determined using a market rate for an equivalent non-convertible bond and that amount is carried as a long-term liability on an amortised cost basis until extinguished on conversion or redemption. The accretion of the liability due to the passage of time is recognised as a finance cost. The remainder of the proceeds received from the issue of the convertible notes are allocated to the conversion option that is recognised and included in shareholders' equity, net of transaction costs. The carrying amount of the conversion option is not re-measured in subsequent periods.

Interest on the liability component of the instruments is recognised as an expense in the consolidated statement of comprehensive income except for when the borrowing costs are associated with a qualifying asset, in which case the borrowing costs are capitalised and amortised over the useful life of the qualifying asset.

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets. Lease payments are allocated between interest expense and reduction in the lease liability. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability.

The Group's interest bearing liabilities have a fair value of \$26.816m (2015: \$118.302m) compared to the carrying value of \$26.678m (2015: \$113.716m). The differences between the fair value and carrying amount are capitalised borrowing costs.

The total assets of the entities over which security exists amounts to \$481.143m. \$61.395m of these assets relate to property plant and equipment.

The Group held nil interest bearing liabilities at 30 June 2016 (2015: A\$65 million) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. The 2015 exposure was entirely US dollars. Average interest rates charged on interest bearing liabilities at period end was 8.0% (2015: 6.1%).

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### **C.2 Interest bearing liabilities (continued)**

#### **Maturity profile of interest-bearing liabilities**

The maturity profile of the Group's interest-bearing liabilities in total and for finance leases is as follows:

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Borrowings</b>		
Due within 1 to 3 months	-	17,408
Due within 4 months to one year	28,047	85,175
Due between one and five years	-	18,834
Total contractual repayments	28,047	121,417
Less finance charges	(1,369)	(7,701)
Total interest bearing liabilities	26,678	113,716
<b>Finance Leases</b>		
Due within one year	224	4,738
Due between one and five years	-	223
Total minimum lease payments	224	4,961
Less finance charges	(2)	(220)
Present value of minimum lease payments	222	4,741

### **C.3 Financing facilities**

#### **C3.1 Hire-purchase agreements**

Carpentaria Gold Pty Ltd ("CGPL"), a wholly owned subsidiary of RML, entered into hire purchase agreements with the Commonwealth Bank of Australia for the purchase of mining equipment which is being used at Mt Wright, Ravenswood. Monthly instalments are required under the terms of the contracts which expire in August 2016. RML has provided an unsecured parent entity guarantee to this financier in relation to this finance facility.

#### **C3.2 Bank overdraft**

This facility is in place and is subject to an annual revision in approximately June 2017. The maximum limit of this facility is \$34.200m (AUD equivalent), and as at 30 June 2016 \$7.745m (AUD equivalent) of the facility was unused.



## Notes to the Financial Statements **C: Cash, Debt and Capital**

### **C.3 Financing facilities (continued)**

#### **C3.3 Syndicated facilities**

RML has entered into a Letter of Credit Facility Agreement with Citibank N.A. (relating to the Ravenswood Project) and a Letter of Credit Facility Agreement with Société Générale Ghana Limited (relating to the Bibiani Project). The facilities comprise A\$27.828m of Environmental Performance Bond Facilities. Both of these facilities are fully drawn and expire on 31 December 2016.

The Citibank N.A. Letter of Credit Facility Agreement and hedging facilities provided by Investec Bank Plc and Citibank N.A. are secured by the following:

- (i) Cross Guarantee and Indemnity given by RML ("the Borrower"), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- (ii) Share Mortgage granted by RML over all of its shares in Carpentaria Gold Pty Ltd;
- (iii) Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- (iv) Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- (v) Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- (vi) Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- (vii) Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,
- (viii) Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

Pursuant to the Syndicated Facilities Agreement and Letter of Credit Facility Agreement with Citibank N.A., the following ratios are required:

- (i) (Interest Cover Ratio): the ratio of EBITDA to Net Interest Expense will be greater than 5.00 times;
- (ii) (Net Debt to EBITDA): the ratio of Net Debt to EBITDA will be less than 2.00 times;
- (iii) (Consolidated Gearing): the ratio of Net Debt to Equity will be less than 1.00 times;
- (iv) (Loan Life Cover Ratio): will be equal to or greater than 1.50:1; and,
- (v) (Reserve Tail Ratio): will exceed 30%.

There have been no breaches of these ratios. The Société Générale Ghana Limited Letter of Credit Facility Agreement is supported by a guarantee provided by Resolute Mining Limited.

#### **C3.4 Convertible Notes**

On 15 December 2014, the Group issued 15,000,000 unsecured convertible notes which had a coupon rate of 10% p.a., payable quarterly in arrears, raising \$15m (less costs). The notes were convertible into ordinary shares, one for one, at the option of the holder and were not due to be repaid until their expiry in December 2017.

In April 2016, a decision was made to approach note holders to allow for early redemption of the notes. An Amendment Deed to the Notes Trust Deed was authorised by a special resolution passed by Holders of at least 75% of the Notes and, following the consent received from the Company's secured credit providers, was executed. On the 23 June 2016, 14,050,000 note holders chose to convert into ordinary shares with the balance redeeming for \$1.06 per Note, which was comprised of the principal component and early redemption fee.

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.4 Contributed Equity

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Ordinary share capital:	395,198	380,305
655,632,994 ordinary fully paid shares (2015: 641,189,223)		
Movements in contributed equity, net of issuing costs:		
Balance at the beginning of the year	380,305	380,305
Conversion of convertible notes into 14,050,000 shares at \$1.06 per share	14,893	-
Balance at the end of the year	<b>395,198</b>	<b>380,305</b>

### Recognition and measurement

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

#### Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held. Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

#### Rights of employee share based payment recipients

Refer to E.10 for details of the employee share based payment plans which includes option and performance rights plans. Each option entitles the holder to purchase one share. The names of all persons who currently hold employee share options or performance rights, granted at any time, are entered into the register kept by the Company, pursuant to Section 215 of the Corporations Act 2001. Persons entitled to exercise these options and holders of performance rights have no right, by virtue of the options, to participate in any share issue by the parent entity or any other body corporate.

### C.5 Other reserves

<b>Reserve</b>	<b>Nature and purpose</b>
Net unrealised gain/(loss) reserve	This reserve records fair value changes on available for sale investments.
Convertible notes equity reserve	This reserve records the value of the equity portion (conversion rights) of the convertible notes.
Share options equity reserve	The equity reserve records transactions between owners as owners.
Employee equity benefits reserve	This reserve is used to recognise the fair value of options and performance rights granted over the vesting period of the securities provided to employees.
Foreign currency translation reserve	Represents exchange differences arising on translation of foreign controlled entities.

# Notes to the Financial Statements **C: Cash, Debt and Capital**

## Key financial and capital risks in this section

### Liquidity risk management

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, or having the availability of funding through an adequate amount of undrawn committed credit facilities.

### Interest rate risk management

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group constantly analyses its interest rate exposure. Within this analysis consideration is given to the potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates. There is no intention at this stage to enter into any interest rate swaps.

### Capital risk management

The Group's and the parent entity's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain a capital structure that is appropriate for the Group's current and/or projected financial position. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders (if any), return capital to shareholders, buy back its shares, issue new shares, borrow from financiers or sell assets to reduce debt.

The Group monitors the adequacy of capital by analysing cash flow forecasts over the term of the Life of Mine for each of its projects. To a lesser extent, gearing ratios are also used to monitor capital. Appropriate capital levels are maintained to ensure that all approved expenditure programs are adequately funded. This funding is derived from an appropriate combination of debt and equity. The gearing ratio at 30 June 2016 is 0% (2015: 36%). The Group is not subject to any externally imposed capital requirements.

The gearing ratio is calculated as net debt divided by total capital. Net debt is defined as interest bearing liabilities less cash, cash equivalents and market value of bullion on hand. Total capital is calculated as 'equity' as shown in the Consolidated Statement of Financial Position (including non-controlling interest) plus net debt.

The following table summarises the post-tax effect of the sensitivity of the Group's debt, cash and capital items on profit and equity at reporting date to movements that are reasonably possible in relation to interest rate risk and foreign exchange currency risk.

	Carrying Amount \$'000	Interest rate risk				Foreign exchange risk			
		-1%	+1%	-10%	+10%				
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
<b>30 June 2016</b>									
Cash	79,873	(350)	(350)	350	350	4,218	4,218	(3,451)	(3,451)
Total increase/(decrease)		(350)	(350)	350	350	4,218	4,218	(3,451)	(3,451)
<b>30 June 2015</b>									
Cash	9,885	(34)	(34)	34	34	578	578	(473)	(473)
Interest bearing liabilities	113,716	-	-	-	-	(5,078)	(5,078)	4,155	4,155
Total increase/(decrease)		(34)	(34)	34	34	(4,500)	(4,500)	3,682	3,682

## Notes to the Financial Statements **D: Other assets and liabilities**

### In this section

Other assets and liabilities position at the end of the reporting period.

#### D.1 Receivables

	2016 \$'000	2015 \$'000
<b>Current</b>		
Trade receivables	7,005	11,451
	<b>7,005</b>	<b>11,451</b>
<b>Non-Current</b>		
Trade receivables	-	10,851
Allowance for impairment loss	-	(10,293)
	<b>-</b>	<b>558</b>

The credit quality of receivables can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

#### Trade receivables

*Counterparties with external credit ratings*

AA+	157	294
<i>Counterparties without external credit ratings *</i>		
Group 1	6,848	11,159
Group 2	-	10,849

<b>Total trade receivables</b>	<b>7,005</b>	<b>22,302</b>
--------------------------------	--------------	---------------

\*Group 1 refers to existing counterparties with no defaults in the past. Group 2 refers to existing counterparties where difficulty in recovering these debts in the past has been experienced.

### Recognition and measurement

Trade receivables are initially recognised at fair value and subsequently at amortised cost less a provision for any uncollectible debts. Trade receivables are due for settlement no more than 30 days from the date of recognition.

#### Fair value and foreign exchange risk

The carrying amount of receivables approximates their fair value.

The Group held nil receivables at 30 June 2016 (2015: A\$1.7 million) in currencies other than Australian dollars or in a different currency to that of the functional currency of the company which holds the item. In 2015, the exposure was predominantly Tanzanian shillings (2016: nil; 2015: A\$1 million equivalent).

## Notes to the Financial Statements **D: Other assets and liabilities**

### **D.1 Receivables (continued)**

Movements in the allowance for impairment loss is as follows:

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
At start of year	(10,293)	(12,478)
Reversal of provision/(Charge for the year)	529	(11,044)
Recognised as a bad debt	-	13,167
Divestment of discontinued operation	10,427	-
Foreign exchange translation	(663)	62
<b>At end of year</b>	<b>-</b>	<b>(10,293)</b>

As at 30 June, the aging analysis of current and non-current sundry debtors is as follows:

0-30 days	2,462	6,295
31-60 days	1,624	2,822
61-90 days	42	1,574
61-90 days (Past due but not impaired)	-	101
+91 days (Past due but not impaired)	2,876	1,217
+91 days (Considered impaired)	-	10,293
<b>Total</b>	<b>7,005</b>	<b>22,302</b>

Payment terms on amounts past due but not impaired have not been re-negotiated, however the Group maintains direct contact with the relevant debtor and is satisfied that net receivables will be collected in full.

### **D.2 Inventories**

Ore stockpiles		
-At cost	30,699	18,226
-At net realisable value	14,972	13,500
Total ore stockpiles	45,671	31,726
Gold bullion on hand - at cost <sup>1</sup>	16,164	29,769
Gold in circuit - at cost	73,683	75,971
Consumables at cost	50,494	57,140
	<b>186,012</b>	<b>194,606</b>

<sup>1</sup> Resolute retains 12,632oz of gold bullion on hand at 30 June 2016 with a market value of \$22m (2015: 28,840oz with a market value of \$44m).

### **Recognition and measurement**

Finished goods (bullion), gold in circuit and stockpiles of unprocessed ore are stated at the lower of cost and estimated net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to ore stockpiles and gold in circuit items of inventory on the basis of weighted average costs. Net realisable value is the estimated selling price in the ordinary course of business (excluding derivatives) less the estimated costs of completion and the estimated costs necessary to make the sale. Consumables have been valued at cost less an appropriate provision for obsolescence. Cost is determined on a first-in-first-out basis.

## Notes to the Financial Statements **D: Other assets and liabilities**

### D.3 Financial assets and liabilities

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Available for sale financial assets</b>		
Shares at fair value - listed	427	114
<b>Other financial assets</b>		
Environmental bond - restricted cash	3,699	3,584
<b>Financial derivative liabilities</b>		
Gold forwards at fair value - current	151	-
Gold forwards at fair value - non-current	264	-
	<b>415</b>	<b>-</b>

Gold forward sales are deliverable at an average price of A\$1,800 an ounce for a total of 36,000 ounces between November 2016 and October 2017 at the rate of 3,000 ounces per month.

### Recognition and measurement

#### Available-for-sale financial assets

Available for sale financial assets consist of investments in ordinary shares. Comprising principally of marketable equity securities, they are classified as non-current assets unless management intends to dispose of the investment within 12 months of the consolidated statement of financial position date. Investments are initially recognised at fair value plus transaction costs. Unrealised gains and losses arising from changes in the fair value of classified as available-for-sale are recognised in equity in the available-for-sale investments revaluation reserve. A significant or prolonged decline in the fair value of a security results in the impairment charge being removed from equity and recognised in the consolidated statement of comprehensive income.

The fair value of the listed securities are based on quoted market prices and accordingly is a level 1 measurement basis on the fair value hierarchy.

#### Restricted cash

The environmental bond represents a receivable carried at amortised cost using the effective interest method. The Ghanaian Environmental Protection Authority holds \$3.699m (AUD equivalent) of restricted cash as security for the rehabilitation and restoration provision of Mensin Gold Bibiani Limited's Bibiani project. There is no external credit rating basis for the Ghanaian Environmental Protection Authority. The average interest rate earned on the environmental bond during the period was 0.0% (2015: 0.4%).

#### Use of derivative instruments to assist in managing gold price risk

As part of the Group's risk management practices, selected financial instruments (such as gold forward sales contracts, gold call options and gold put options) may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible, and in any event, limiting derivative commitments to no more than 50% of the Group's gold reserves. The value of these financial instruments at any given point in time, will in times of volatile market conditions, show substantial variation over the short term. The hedging facilities provided by the Group's counterparties do not contain margin calls. The Group does not hedge account for these instruments.

No gold was delivered into forward sales contracts during the year or in the prior year. Movements in fair value are accounted for through the consolidated statement of comprehensive income.

## Notes to the Financial Statements **D: Other assets and liabilities**

### **D.4 Payables**

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Trade creditors	11,547	15,742
Accruals	21,820	20,743
	<b>33,367</b>	<b>36,485</b>

### **Recognition and measurement**

Liabilities for trade creditors and other amounts are carried at amortised cost which is the amount initially recognised, minus repayments whether or not billed to the consolidated entity.

Payables to related parties are carried at the principal amount. Interest, when charged by the lender, is recognised as an expense on an accruals basis. Payables are non-interest bearing and generally settled on 30-90 day terms. Due to the short term nature of these payables, their carrying value is assumed to approximate their fair value.

### **D.5 Unearned revenue**

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Gold prepay loan	-	3,307

### **Recognition and measurement**

In October 2013, Resolute drew down on a US\$20 million extension on an existing secured loan facility jointly provided by Barclays Bank PLC ("Barclays") and Investec Bank Plc ("Investec"). The loan was repaid in gold ounces in 24 equal instalments of 660 ounces per month between November 2013 and October 2015 inclusive.

The secured loan was classified as unearned revenue on the Statement of Financial Position as Barclays and Investec prepaid Resolute for a fixed quantity of gold ounces. Resolute had a legal obligation to deliver gold ounces, and recognised revenue as and when it made the repayments in gold ounces.



## Notes to the Financial Statements **D: Other assets and liabilities**

### D.6 Provisions

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current</b>		
Site restoration	1,503	510
Employee entitlements <sup>1</sup>	26,111	25,581
Dividend payable	83	83
Withholding taxes	240	4,916
Other provisions	391	1,061
	<b>28,328</b>	<b>32,151</b>
<b>Non-Current</b>		
Site restoration	63,864	62,097
Employee entitlements	1,275	1,489
	<b>65,139</b>	<b>63,586</b>

<sup>1</sup> Resolute Mining's 80% owned subsidiary Societe des Mines de Syama SA ("SOMISY") received notifications from the Nationale de Prévoyance Sociale ("INPS") alleging SOMISY owed contributions to the INPS department on salaries paid by SOMISY to its expatriate employees between January 2005 and July 2013. Malian Legislation requires the remittance of 24% of an employee's gross salary and a mandatory health insurance levy to the INPS department and is a form of social tax. In accordance with the Establishment Convention between SOMISY and the State of Mali, SOMISY is exempt from paying INPS contributions and the mandatory health insurance levy on expatriate employees during the Syama Mine Development Period. In accordance with the Establishment Convention, SOMISY did not remit INPS on expatriate salaries during the Mine Development Period, and then commenced remitting INPS on expatriate salaries after the cessation of the Mine Development Period. SOMISY has acted in accordance with the Establishment Convention at all times. The INPS department's claims are for the period during the Mine Development Period only, so SOMISY has no additional or ongoing exposures related to this matter.

SOMISY unsuccessfully appealed against this INPS assessment, with a Malian Court of Appeal ruling in favour of the INPS department on the basis that it was not a government department and hence not a party to the Establishment Convention, so it was not obliged to follow its terms and conditions. As a result of the Court ruling and subsequent failed attempts to negotiate an immediate settlement, the Resolute group recorded a A\$15m current liability in its June 2015 Financial Statements. Recent attempts by the INPS to collect the assessed amounts triggered further negotiations between the INPS and SOMISY and in June 2016, a Settlement Agreement was executed by the parties to record an agreed instalment plan that will see SOMISY fully discharge this disputed liability by paying A\$11.7m to INPS in quarterly instalments between 1 July 2016 and 30 June 2018. The instalments payable are A\$4.9m in the September 2016 quarter, A\$1.5m in the December 2016 quarter followed by 6 quarterly instalments of A\$0.9m each. The Settlement Agreement incorporated the waiving of some penalties included in the assessments and has reduced the quantum of the liability recorded in the Resolute group's accounts as at 30 June 2016 by approximately A\$3.3m to A\$11.7m.

Resolute continues to strongly dispute the validity of the INPS assessments and negotiations with the State of Mali are ongoing to recover the INPS contributions paid or to be paid to ensure the State of Mali does not breach the terms of the Establishment Convention. Up to 30 June 2016, CFA 1.947b (A\$4.357m) has been paid to the INPS department (paid in the year ended 30 June 2013) and successful negotiations will see the monies paid to date returned to SOMISY.



## Notes to the Financial Statements **D: Other assets and liabilities**

### **D.6 Provisions (continued)**

#### **Recognition and measurement**

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a borrowing cost.

#### Employee benefits

Provision is made for employee benefits accumulated as a result of employees rendering services up to the end of the reporting period. These benefits include wages, salaries, termination gratuity and relocation costs, annual leave and long service leave.

#### Restoration obligations

The Group records the present value of the estimated cost of obligations, such as those under the consolidated entity's Environmental Policy, to restore operating locations in the period in which the obligation is incurred. The nature of restoration activities includes dismantling and removing structures, rehabilitating mines, dismantling operating facilities, closure of plant and waste sites and restoration, reclamation and revegetation of affected areas.

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Site restoration</b>		
Balance at the beginning of the year	62,607	63,451
Rehabilitation and restoration provision accretion	1,122	1,115
Change in scope of restoration provision	808	45
Utilised during the year	(93)	(5,053)
Foreign exchange translation	1,164	3,049
Divestment of discontinued operation	(241)	-
Balance at the end of the year	<b>65,367</b>	<b>62,607</b>
<b>Reconciled as:</b>		
Current provision	1,503	510
Non-current provision	63,864	62,097
Total provision	<b>65,367</b>	<b>62,607</b>

### **Key estimates and judgements**

#### Restoration

In determining an appropriate level of provision consideration is given to the expected future costs to be incurred, the timing of these expected future costs (largely dependent on the life of the mine), and the estimated future level of inflation. The discount rate used in the calculation of these provisions is consistent with the risk free rate. The ultimate cost of decommissioning and restoration is uncertain and costs can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine-sites. The expected timing of expenditure can also change, for example in response to changes in reserves or to production rates. Changes to any of the estimates could result in significant changes to the level of provisioning required, which would in turn impact future financial results.

# Notes to the Financial Statements **D: Other assets and liabilities**

## Key financial and capital risks in this section

### Interest rate risk, diesel price risk and foreign exchange risk management

Refer to About the Report and Section C for details of how these risks are managed.

### Credit risk management

The Group's exposure to credit risk arises from potential default of the counterparty, with a maximum exposure equal to the carrying amount of the financial assets.

Credit risk is managed on a Group basis. Credit risk predominately arises from cash, cash equivalents (refer to C1), gold bullion held in metal accounts, derivative financial instruments, deposits with banks and financial institutions and receivables from statutory authorities. For derivative financial instruments, management mitigates some credit risk by using a number of different hedging counterparties. Credit risk further arises in relation to financial guarantees given to certain parties. Such guarantees are only provided in exceptional circumstances and are subject to Financial Risk Management Committee approval. With the exception of those items disclosed in C3 and a Resolute Mining parent company guarantee provided to Macquarie Bank Limited relating to their provision of a hedging facility, no guarantees have been provided to third parties as at the reporting date. The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

The following table summarises the post-tax effect of the sensitivity of the Group's other asset and liability items not previously reported on profit and equity at reporting date to movements that are reasonably possible in relation to commodity risk and foreign exchange currency risk:

	Carrying Amount \$'000	Foreign exchange risk				Gold price risk			
		-10%	+10%	-10%	+10%	-10%	+10%	-10%	+10%
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
<b>30 June 2016</b>									
Available for sale financial assets	427	-	-	-	-	(30)	(30)	30	30
Other financial assets	3,699	288	288	(235)	(235)	-	-	-	-
Payables	33,368	(339)	(339)	277	277	-	-	-	-
Total increase/(decrease)		(51)	(51)	42	42	(30)	(30)	30	30
<b>30 June 2015</b>									
Trade and other receivables	12,009	78	78	(64)	(64)	-	-	-	-
Available for sale financial assets	114	-	-	-	-	(8)	(8)	8	8
Other financial assets	3,584	279	279	(228)	(228)	-	-	-	-
Payables	36,485	(242)	(242)	198	198	-	-	-	-
Total increase/(decrease)		115	115	(94)	(94)	(8)	(8)	8	8

# Notes to the Financial Statements **E: Other items**

## In this section

Information on items which require disclosure to comply with Australian Accounting Standards and the Australian Corporations Act 2001. This section includes group structure information and other disclosures.

## E.1 Contingent liabilities

### Contingent liabilities

#### Amounts Potentially Payable to historical Bibiani Creditors

In June 2014, Mensin Gold Bibiani Limited, Drilling and Mining Services Limited and Noble Mining Ghana Limited (collectively referred to as the "Companies") entered into court approved Schemes of Arrangement ("Scheme") with their creditors and employees ("Scheme Creditors"). The Scheme outlines the timing and amounts of payments to be made by the Companies to a Scheme Fund and a Future Fund who in turn are responsible for making payments to the Scheme Creditors. The Scheme Creditors arise from transactions that occurred prior to the Companies becoming part of the Resolute group. The Scheme Fund and the Future Fund are administered by Ferrier Hodgson.

The implementation of the Scheme has had the effect of removing from the Companies' balance sheets all historical liabilities relating to amounts payable to Scheme Creditors and replacing this with an obligation to fund the Scheme Fund and Future Fund as and when necessary. The unconditional obligations to make payments to the Scheme Fund have been paid prior to 30 June 2016. In addition to those recorded payments and liabilities, the following contingent liabilities to provide funding to the Scheme Fund and Future Fund exist at year end:

- Potential payment to the Scheme Fund of US\$3.600m (\$4.854m) if, following receipt of the Feasibility Study, the board of Resolute, in its absolute discretion, makes a decision to proceed with the development of Bibiani; and
- Potential payment to a Future Fund of up to US\$7.800m (\$10.516m) conditional upon the generation of Free Cashflow from Bibiani mine operations for the period of 5 years from the date that Commercial Production is declared. Free Cashflow means 25% of the sum of Project Revenue for that period less Permitted Payments for that period, which includes:
  - operational expenses and capital costs paid in connection with the mining operations; and,
  - repayment of principal and interest relating to funds advanced by Resolute up to the commencement of mining operations.

## E.2 Leases and other commitments

### Operating leases

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
Due within one year	608	525
Due between one and five years	613	1,045
Aggregate lease expenditure contracted for at balance date but not provided for	<b>1,221</b>	<b>1,570</b>

## Notes to the Financial Statements **E: Other items**

### **E.2 Leases and other commitments (continued)**

#### **Commitments**

Other commitments not disclosed elsewhere in this report include:

##### Randgold/Syama Royalty

Pursuant to the terms of the Syama Sale and Purchase agreement, Randgold Resources Limited will receive a royalty on Syama production, where the gold price exceeds US\$350 per ounce, of US\$10 per ounce on the first million ounces of gold production attributable to Resolute Mining Limited ("RML") and US\$5 per ounce on the next three million attributable ounces of gold production. As at 30 June 2016, Resolute's 80% attributable share of Syama's project to date gold production was 903,599 ounces of gold.

##### Other contracted expenditure commitments

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Due within one year	-	1,155
Aggregate lease expenditure contracted for at balance date but not provided for	-	<b>1,155</b>

### **E.3 Auditor remuneration**

	<b>2016</b> <b>\$</b>	<b>2015</b> <b>\$</b>
Auditing	182,000	320,000
Taxation planning advice and review and other services	21,950	89,800
	<b>203,950</b>	<b>409,800</b>

Amounts received or due and receivable by a related overseas office of Ernst & Young, from entities in the consolidated entity or related entities:

Auditing (Ernst & Young, Ghana and Tanzania)	38,800	210,375
Total amounts received or due and receivable by Ernst & Young globally	242,750	620,175

Amounts received or due and receivable by non Ernst & Young firms for auditing

	67,130	32,055
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# Notes to the Financial Statements **E: Other items**

## E.4 Subsidiaries and non-controlling interests

### Subsidiaries

The following were controlled entities during the year and have been included in the consolidated accounts. All entities in the consolidated entity carry on business in their place of incorporation.

Name of Controlled Entity and Country of Incorporation	Consolidated Entity Company Holding the Investment	Percentage of Shares Held by Consolidated Entity	
		2016 %	2015 %
Amber Gold Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Carpentaria Gold Pty Ltd, Aust.	Resolute Mining Limited	100	100
Drilling and Mining Services Limited, Ghana	Resolute (Bibiani) Limited	100	100
Excalibur Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Goudhurst Pty Ltd, Aust. (a)	Resolute (Treasury) Pty Ltd	100	100
Mabangu Exploration Limited, Tanzania	Resolute (Tanzania) Limited	-	100
Mabangu Mining Limited, Tanzania	Resolute (Tanzania) Limited	-	100
Mensin Gold Bibiani Limited, Ghana	Resolute (Bibiani) Limited	90	90
Nimba Resources SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	-
Noble Mining Ghana Limited, Ghana	Resolute (Bibiani) Limited	100	100
Resolute (Bibiani) Limited, Jersey (a)	Resolute Mining Limited	100	100
Resolute (CDI Holdings) Limited, Jersey (a)	Resolute Mining Limited	100	100
Resolute CI SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Resolute Exploration SARL, Mali	Resolute (Finkolo) Limited	100	100
Resolute (Finkolo) Limited, Jersey (a)	Resolute Mining Limited	100	100
Resolute (Ghana) Limited, Ghana	Resolute Mining Limited	100	100
Resolute Mali S.A., Mali	Resolute (Somisy) Limited	100	100
Resolute Pty Ltd, Aust.	Resolute Mining Limited	-	100
Resolute (Somisy) Limited, Jersey (a)	Resolute Mining Limited	100	100
Resolute (Tanzania) Limited, Tanzania	Resolute Pty Ltd	-	100
Resolute (Treasury) Pty Ltd, Aust. (a)	Resolute Mining Limited	100	100
Societe des Mines de Finkolo SA, Mali	Resolute (Finkolo) Limited	85	85
Societe des Mines de Syama S.A., Mali	Resolute (Somisy) Limited	80	80

(a) Entities not separately audited. Entity's audit scope is limited to the purpose of inclusion in the consolidated entity's accounts.

### Material partly owned subsidiaries

	2016 \$'000	2015 \$'000
<b>Accumulated share of (deficiency)/equity attributable to material Non-Controlling Interest:</b>		
Societe des Mines de Syama SA ("Somisy")	(46,838)	(76,020)
Mensin Gold Bibiani Limited ("Mensin")	(2,211)	(1,497)
Societe des Mines de Finkolo SA ("Finkolo")	3,072	3,205
<b>Total Non-Controlling Interest</b>	<b>(45,977)</b>	<b>(74,312)</b>
<b>Profit/(loss) allocated to material Non-Controlling Interest:</b>		
Somisy	31,380	(58,431)
Mensin	(23)	(7,692)
Finkolo	(144)	-
<b>Total Non-Controlling Interest</b>	<b>31,214</b>	<b>(66,123)</b>

## Notes to the Financial Statements **E: Other items**

### E.4 Subsidiaries and non-controlling interests (continued)

The summarised financial information of subsidiaries with non-controlling interests is provided below. This information is based on amounts before inter-company eliminations.

Summarised Statement of Comprehensive Income	2016	2015	2016	2015	2016	2015
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
	<i>Somisy</i>		<i>Mensin</i>		<i>Finkolo</i>	
Revenue	372,938	310,761	-	-	-	-
Gain/(loss) for the period	156,902	(292,157)	(236)	(71,830)	(957)	-
Total comprehensive income/(loss) for the period	156,902	(292,157)	(236)	(71,830)	(957)	-
<b>Summarised Statement of Financial Position</b>						
Current assets	240,457	194,043	3,341	3,570	42	37
Non-current assets	157,936	115,610	58,856	47,067	21,897	21,341
Current liabilities	(59,054)	(70,333)	(2,203)	(1,514)	(29)	(9)
Non-current liabilities - External	(33,237)	(32,169)	(14,504)	(12,674)	-	-
Non-current liabilities - Intra Resolute Mining Limited Group	(502,507)	(540,643)	(424,356)	(403,406)	(25,542)	(23,961)
Total (deficiency)/equity	(196,405)	(333,492)	(378,866)	(366,957)	(3,632)	(2,592)
	<i>Somisy</i>		<i>Mensin</i>		<i>Finkolo</i>	
<b>Summarised Statement of Cash Flow</b>						
Operating	125,041	63,640	(2,377)	(2,777)	(1,013)	(1,380)
Investing	(17,257)	(49,086)	(9,617)	(35,362)	(567)	(496)
Net increase/(decrease) in cash and cash equivalents	107,784	14,554	(11,994)	(38,139)	(1,580)	(1,876)

### E.5 Joint operations

The consolidated entity has an interest in the following material joint operations whose principal activities are to explore for gold.

<u>Entity Holding Interest</u>	<u>Other Participant/Joint Operation</u>	<u>Percentage of Interest Held</u>	
		2016	2015
		%	%
Resolute Mining Limited	Etruscan Resources Bermuda Ltd/N'Gokoli Est JV <sup>1</sup>	60%	60%
Mabangu Mining Limited	Sub Sahara Resources (Tanzania) Limited/Nyakafuru JV <sup>1</sup>	0%	66%
Mabangu Mining Limited	Yellowstone Limited /Mega JV	0%	49%
Resolute (Tanzania) Limited	ABG Exploration Limited/GP West JV <sup>1</sup>	0%	70%

<sup>1</sup> Interests in joint operations greater than 50% have been accounted for as joint operations as all decision making requires unanimous agreement.

## Notes to the Financial Statements **E: Other items**

### **E.6 Discontinued operations**

On 12 December 2014, the formal handover of the Golden Pride site and all remaining infrastructure to the Madini Institute to set up a mining institute of learning was completed, as agreed with the Government of Tanzania. This ended Resolute's presence on site at Golden Pride after 15 years and production of over 2.2 million ounces of gold. This arm of the business, previously represented as the Golden Pride operating segment, has been classified as a discontinued operation and is no longer presented as a segment.

In October 2015, Resolute completed the divestment of Resolute Pty Ltd, the company holding all of Resolute's subsidiaries, assets, liabilities, contingent liabilities, and mineral rights in Tanzania (the "RPL group"). Resolute entered into an agreement with Cienega S.A.R.L. whereby Cienega S.A.R.L. acquired the RPL group for nominal initial consideration, with a potential deferred consideration equal to 50% of the proceeds of the sale of any mineral rights, related physical assets, and other specific legal actions.

The results for the year are presented below:

	<b>2016</b>	<b>2015</b>
	<b>\$'000</b>	<b>\$'000</b>
Revenue	-	3,085
Expenses	(1,381)	(8,606)
Gain on sale of the Resolute Pty Ltd group (i)	46,151	
Accounts receivable impairment expenses and inventory net realisable value movements	-	(809)
Profit/(loss) before tax from a discontinued operation	44,770	(6,330)
Tax benefit	-	1,057
<b>Profit/(loss) for the period from a discontinued operation</b>	<b>44,770</b>	<b>(5,273)</b>

*Earnings/(loss) per share:*

Basic earnings/(loss) per share of discontinued operation	<b>6.97 cents</b>	<b>(0.82) cents</b>
Diluted earnings/(loss) per share of discontinued operation	<b>6.80 cents</b>	<b>(0.82) cents</b>

The net cash flows of the discontinued operation are as follows:

Operating cash flows	(2,374)	(17,186)
Financing cash flows	-	-
<b>Net cash outflow</b>	<b>(2,374)</b>	<b>(17,186)</b>

(i) The net liabilities of the RPL Group sold for nil consideration totalled \$3.615 million. Additionally, the RPL Group's accumulated foreign exchange gain recognised in equity was \$42.488 million and has now been recycled to profit and loss.

### **E.7 Subsequent events**

On 1 August 2016, 130,000 fully paid ordinary shares were issued to Level 2 employees as a result of two employee option holders exercising their options by paying \$1.18 per share. As at the date of this report 655,762,994 shares were on issue.

On 30 August 2016, the Company announced a final dividend on ordinary shares in respect of the 2016 financial year of 1.7 cents per share. The dividend has not been provided for in the 30 June 2016 financial statements.



## Notes to the Financial Statements **E: Other items**

### E.8 Related party disclosures

- (i) RML is the ultimate Australian holding company and there is no controlling entity of RML at 30 June 2016.
- (ii) During the year ended 30 June 2016, 200,000 ordinary fully paid shares were issued to Mr Welborn upon conversion of his convertible notes.
- (iii) During the year ended 30 June 2016, 500 ordinary fully paid shares were issued to Mr Beilby upon conversion of his convertible notes.
- (iv) During the year ended 30 June 2015, 500 convertible notes were issued at \$1.00 per note to each of Mr Beilby, Mr Fitzgerald and Mr Venn.

### E.9 Parent entity information

	<b>2016</b> <b>\$'000</b>	<b>2015</b> <b>\$'000</b>
Current assets	73	326
Total assets	306,678	215,214
Current liabilities	(646)	(66,647)
Total liabilities	(651)	(80,716)
Net assets	<u>306,027</u>	<u>134,498</u>
Issued capital	395,196	380,305
Accumulated losses	(100,906)	(257,497)
Convertible note equity reserve	549	549
Share option equity reserve	5,793	5,793
Employee equity benefits reserve	5,364	5,364
Reserves - unrealised gain/(loss)	31	(16)
Total shareholders equity	<u>306,027</u>	<u>134,498</u>
Profit/(loss) of Resolute Mining Limited	156,591	(382,307)
Total comprehensive profit/(loss) of Resolute Mining Limited	156,591	(382,307)

Refer to E1 for the contingent liabilities and commitments of Resolute Mining Limited. The parent company guarantees provided by Resolute Mining Limited as outlined in C3 have a nil written down value as at 30 June 2016 (2015: nil).

### E.10 Employee benefits and share based payments

#### Employee benefits charged to profit and loss

Salaries	58,833	65,181
Superannuation	2,870	3,029
Share based payments expense	1,716	2,489
	<u>63,419</u>	<u>70,699</u>

#### Share based payments

Equity-based compensation benefits are provided to employees via the Group's share option plan and performance rights plan. The Group determines the fair value of securities issued as an expense in the profit and loss over the vesting period with a corresponding increase in equity.



# Notes to the Financial Statements **E: Other items**

## **E.10 Employee benefits and share based payments (continued)**

### Key management personnel

Details of remuneration provided to key management personnel are as follows:

	<b>2016</b>	<b>2015</b>
	<b>\$</b>	<b>\$</b>
Short-term employee benefits	2,931,464	3,044,367
Post-employment benefits	431,383	177,634
Long-term employment benefits	41,878	53,902
Share-based payments	407,916	1,304,005
	<b>3,812,641</b>	<b>4,579,908</b>

### **Key estimates and judgements**

#### Share based payments

The Group measures the cost of equity settled share based payment transactions with reference to the fair value at the grant date using a Black Scholes formula or Monte Carlo simulation. The valuations take into account the terms and conditions upon which the instruments were granted such as the exercise price, the term of the option or performance right, the vesting and performance criteria, the impact of dilution, the non-tradeable nature of the option or performance right, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the option or performance right.

### Employee share option plan

The maximum number of options that can be issued under the Employee Share Option Plan is capped at 5% of the ordinary shares on issue. The options do not provide any dividend or voting rights. The options are not quoted on the ASX. One third of the options issued pursuant to the Plan are able to be exercised 6 months after issue, a further one third 18 months after issue and the remaining one third 30 months after issue.

Employees will only be able to exercise the options allocated to them if they meet certain performance criteria.

Option Category	<b>2016</b>			<b>2015</b>			Fair value of option at grant date
	Opening Number of Options	Lapsed During the Year	Closing Number of Options	Opening Number of Options	Lapsed During the Year	Closing Number of Options	
H	-	-	-	450,000	(450,000)	-	
I	33,000	(33,000)	-	39,000	(6,000)	33,000	0.61
J	90,000	(90,000)	-	90,000	-	90,000	0.73
K	2,000,000	(2,000,000)	-	2,000,000	-	2,000,000	0.70
L	756,333	(756,333)	-	815,666	(59,333)	756,333	0.72
M	130,000	-	130,000	130,000	-	130,000	0.66
N	647,400	(102,000)	545,400	689,400	(42,000)	647,400	0.98
	<b>3,656,733</b>	<b>(2,981,333)</b>	<b>675,400</b>	<b>4,214,066</b>	<b>(557,333)</b>	<b>3,656,733</b>	

Weighted average exercise price

1.46	1.39	1.72	1.42	1.18	1.46
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The weighted average remaining contractual life for the share options outstanding as at 30 June 2016 is 0.5 years (2015: 0.57 years).

# Notes to the Financial Statements **E: Other items**

## **E.10 Employee benefits and share based payments (continued)**

### Performance rights plan

A Performance Rights Plan was approved by shareholders and implemented in 2012. The performance rights plan is broken down between:

<b>Performance rights plan category</b>		<b>Type of employee</b>	
Level 1		Executives and Operations General Managers	
Level 2		Employees that report to a Level 1 employee	

<b>Plan category</b>	<b>Grant and frequency<sup>1</sup></b>	<b>Performance measures</b>	<b>Performance period</b>
Level 1	Annually set at 75% of fixed remuneration for the CEO, 50% for Executives and 30% for Operations General Managers	<ul style="list-style-type: none"> <li>• 75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>• 25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 2	Annually set at 20% of fixed remuneration	<ul style="list-style-type: none"> <li>• Service</li> </ul>	3 years

<sup>1</sup> Grant sizes have been changed from 1 July 2016 onwards. Refer to the Remuneration Report for further details.

	<b>Issue Date</b>	<b>Total Number</b>	<b>Fair Value per Right at Grant Date</b>	<b>Vesting Date</b>
<b>Performance rights on issue</b>				
Level 1	1/07/2013	3,153,596	\$0.43	30/06/2016
Level 1	1/07/2014	2,250,597	\$0.50	30/06/2017
Level 2	27/08/2014	1,502,764	\$0.56	30/06/2016
Level 1	1/07/2015	5,083,995	\$0.25	30/06/2018
Level 2	28/08/2015	4,883,803	\$0.25	30/06/2017
As at 30 June 2016		16,874,755	\$0.35	

### Changes during current period

Increase through issue of performance rights to eligible employees (Level 1)	5,588,771	\$0.25	30/06/2018
Increase through issue of performance rights to eligible employees (Level 2)	5,838,967	\$0.25	30/06/2017
Decrease through conversion of shares upon vesting of performance rights (Level 1)	(393,771)	\$1.46	30/06/2015
Decrease through lapsing of performance rights (Level 1)	(1,193,207)	\$1.46	30/06/2015
Decrease through lapsing of performance rights (Level 1)	(23,147)	\$0.43	30/06/2016
Decrease through lapsing of performance rights (Level 1)	(135,237)	\$0.50	30/06/2017
Decrease through lapsing of performance rights (Level 1)	(504,776)	\$0.25	30/06/2018
Decrease through lapsing of performance rights (Level 2)	(16,518)	\$0.56	30/06/2016
Decrease through lapsing of performance rights (Level 2)	(955,164)	\$0.25	30/06/2017

## Notes to the Financial Statements **E: Other items**

### **E.10 Employee benefits and share based payments (continued)**

The following table lists the key variables used in the valuation of performance rights:

Hurdle	For the year ended 30 June 2016				For the year ended 30 June 2015			
	Reserve and resources rights	TSR rights	Service rights	Total	Reserve and resources rights	TSR rights	Service rights	Total
Number of performance rights issued	1,397,193	4,191,578	5,838,967	11,427,738	772,107	2,316,321	1,544,023	4,632,451
Underlying share price (\$)	0.31	0.31	0.25		0.62	0.62	0.56	
Exercise price (\$)	-	-	-		-	-	-	
Risk free rate	2.08%	2.08%	1.79%		2.64%	2.64%	2.53%	
Volatility factor	78%	78%	74%		64%	64%	62%	
Dividend yield	0%	0%	0%		0%	0%	0%	
Period of the rights from grant date (years)	3	3	2		3	3	2	
<b>Effect of performance hurdles</b>	<b>Not reflected in valuation due to non-market condition</b>	<b>Reflected in valuation through Monte Carlo simulation</b>	<b>Weighted average</b>		<b>Not reflected in valuation due to non-market condition</b>	<b>Reflected in valuation through Monte Carlo simulation</b>	<b>Weighted average</b>	
Value of performance right at grant date (Level 1)	\$0.31	\$0.23	\$0.25		\$0.61	\$0.47	\$0.50	
Value of performance right at grant date (Level 2)	\$0.25	n/a	\$0.25		\$0.56	n/a	\$0.56	

### **E.11 Other accounting policies**

#### Derivatives

Derivatives are categorised as held for trading unless they are designated as hedges. Assets in this category are classified as current assets or liabilities if they are either held for trading or are expected to be realised within 12 months of the consolidated statement of financial position date. Items of this nature are recorded at their fair values through profit or loss.

#### Investments in associates

The Group's investment in associates is accounted for using the equity method of accounting in the consolidated financial statements. An associate is an entity over which the Group has significant influence and that are neither subsidiaries nor joint arrangements.

When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables and loans, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

# Notes to the Financial Statements **E: Other items**

## **E.11 Other accounting policies**

### New and amended Accounting Standards and Interpretations issued but not yet effective

A number of new Standards, amendment of Standards and interpretations have recently been issued but are not yet effective and have not been adopted by the Group as at the financial reporting date. The potential effect of these Standards is yet to be fully determined. However, it is not expected that the new or amended Standards will significantly affect the Group's accounting policies, financial position or performance, except for the following:

<b>Title</b>	<b>Application Date for Group</b>	<b>Detail</b>
AASB 9 – Financial Instruments	1 July 2018	A finalised version of AASB 9 which contains accounting requirements for financial instruments, replacing AASB 139 Financial Instruments: Recognition and Measurement. The standard contains requirements in the areas of classification and measurement, impairment, hedge accounting and de-recognition.
AASB 2014-3 - Accounting for Acquisitions of Interests in Joint Operations (AASB1 & AASB11)	1 July 2018	AASB 11 Joint Arrangements now provides guidance on the accounting for acquisitions of interests in joint operations in which the activity constitutes a business. The impact of this change to the Group is that such acquisitions will be accounted for as business combinations and not asset acquisitions.
AASB 15 - Revenue from Contracts with Customers	1 July 2018	AASB 15 provides a single, principles-based five-step model to be applied to all contracts with customers. Guidance is provided on topics such as the point in which revenue is recognised, accounting for variable consideration, costs of fulfilling and obtaining a contract and various related matters. New disclosures about revenue are also introduced.
AASB16 – Leases	1 July 2019	IFRS 16 provides a new lessee accounting model which requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee measures right-of-use assets similarly to other non-financial assets and lease liabilities similarly to other financial liabilities. Assets and liabilities arising from a lease are initially measured on a present value basis. The measurement includes non-cancellable lease payments (including inflation-linked payments), and also includes payments to be made in optional periods if the lessee is reasonably certain to exercise an option to extend the lease, or not to exercise an option to terminate the lease. IFRS 16 contains disclosure requirements for lessees.

# Independent auditor's report to the members of Resolute Mining Limited

## Report on the financial report

We have audited the accompanying financial report of Resolute Mining Limited, which comprises the consolidated statement of financial position as at 30 June 2016, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration of the consolidated entity comprising the company and the entities it controlled at the year's end or from time to time during the financial year.

## Directors' responsibility for the financial report

The directors of the company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal controls as the directors determine are necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error. In the notes to the financial report, the directors also state, in accordance with Accounting Standard AASB 101 Presentation of Financial Statements, that the financial statements comply with International Financial Reporting Standards.

## Auditor's responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. Those standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance about whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the entity's preparation and fair presentation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Independence

In conducting our audit we have complied with the independence requirements of the Corporations Act 2001. We have given to the directors of the company a written Auditor's Independence Declaration, a copy of which is included in the directors' report.

## Opinion

In our opinion:

- a. the financial report of Resolute Mining Limited is in accordance with the *Corporations Act 2001*, including:
  - i giving a true and fair view of the consolidated entity's financial position as at 30 June 2016 and of its performance for the year ended on that date; and
  - ii complying with Australian Accounting Standards and the Corporations Regulations 2001; and

**Financial Report**  
for the year ended 30 June 2016

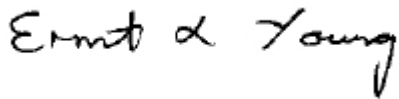
- b. the financial report also complies with International Financial Reporting Standards as disclosed in the notes to the financial report.

**Report on the remuneration report**

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2016. The directors of the company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

**Opinion**

In our opinion, the Remuneration Report of Resolute Mining Limited for the year ended 30 June 2016, complies with section 300A of the *Corporations Act 2001*.



Ernst & Young



Gavin Buckingham  
Partner  
Perth  
30 August 2016

## **APPENDIX 1 PART 2**

**GROUP FINANCIAL INFORMATION  
FOR THE YEAR ENDED 30 JUNE 2017**

## Auditor's independence declaration to the Directors of Resolute Mining Limited

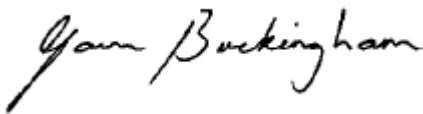
As lead auditor for the audit of Resolute Mining Limited for the year ended 30 June 2017, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Resolute Mining Limited and the entities it controlled during the financial year.



Ernst & Young



Gavin Buckingham  
Partner  
23 August 2017



## Consolidated Statement of Comprehensive Income

	Note	2017 \$'000	(Restated) 2016 \$'000
<b>Continuing Operations</b>			
Revenue from gold and silver sales	A.1	541,177	554,624
Costs of production relating to gold sales	A.1	(309,323)	(325,207)
<b>Gross profit before depreciation, amortisation and other operating costs</b>		<b>231,854</b>	<b>229,417</b>
Depreciation and amortisation relating to gold sales	A.1	(19,727)	(39,121)
Other operating costs relating to gold sales	A.1	(35,222)	(35,585)
<b>Gross profit from operations</b>		<b>176,905</b>	<b>154,711</b>
Other income	A.1	2,052	512
Other expenses	A.1	(202)	(7,741)
Exploration and business development expenditure	A.1	(8,430)	(7,626)
Administration and other corporate expenses	A.1	(12,097)	(5,970)
Treasury - realised gains (losses)	A.1	4,039	(22,846)
Fair value movements and unrealised treasury transactions	A.1	9,039	54,098
Share of associate' losses	A.1	(1,799)	-
Depreciation of non-mine site assets	A.1	(83)	(94)
Finance costs	A.1	(3,328)	(9,082)
<b>Profit before tax from continuing operations</b>		<b>166,096</b>	<b>155,962</b>
Tax expense	A.1	-	-
<b>Profit for the year from continuing operations</b>		<b>166,096</b>	<b>155,962</b>
<b>Discontinued Operation</b>			
Profit after tax for the discontinued operation	E.7	-	44,770
<b>Profit for the year</b>		<b>166,096</b>	<b>200,732</b>
<b>Profit attributable to:</b>			
Members of the parent		136,371	171,957
Non-controlling interest	E.5	29,725	28,775
		<b>166,096</b>	<b>200,732</b>

## Consolidated Statement of Comprehensive Income (continued)

	Note	2017 \$'000	(Restated) 2016 \$'000
Profit for the year (brought forward)		166,096	200,732
<b>Other comprehensive income/(loss)</b>			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Members of the parent		2,501	(2,005)
- Restatement of comparatives		-	164
- Transferred to profit and loss - disposed subsidiaries		-	(39,402)
Changes in the fair value/realisation of available for sale financial assets, net of tax		281	59
<i>Items that may not be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Non-controlling interest		1,120	(2,879)
- Restatement of comparatives		-	41
<b>Other comprehensive income/(loss) for the year, net of tax</b>		<b>3,902</b>	<b>(44,022)</b>
<b>Total comprehensive income for the year</b>		<b>169,998</b>	<b>156,710</b>
<b>Total comprehensive income attributable to:</b>			
Members of the parent		139,153	130,773
Non-controlling interest		30,845	25,937
		<b>169,998</b>	<b>156,710</b>
<b>Earnings per share for net profit attributable to the ordinary equity holders of the parent:</b>			
Basic earnings per share	A.3	<b>19.05 cents</b>	<b>26.79 cents</b>
Diluted earnings per share	A.3	<b>18.61 cents</b>	<b>26.11 cents</b>
<b>Earnings per share for net profit from continuing operations attributable to the ordinary equity holders of the parent:</b>			
Basic earnings per share		<b>19.05 cents</b>	<b>19.82 cents</b>
Diluted earnings per share		<b>18.61 cents</b>	<b>19.31 cents</b>

## Consolidated Statement of Financial Position

	Note	2017 \$'000	(Restated) 2016 \$'000
<b>Current assets</b>			
Cash	C.1	282,060	79,873
Receivables	D.1	5,748	7,005
Inventories	D.2	202,074	174,022
Available for sale financial assets	D.3	3,595	427
Financial derivative assets	D.3	2,214	-
Other current assets		2,679	2,177
<b>Total current assets</b>		<b>498,370</b>	<b>263,504</b>
<b>Non current assets</b>			
Investments in associates	E.4	5,840	-
Deferred tax assets	A.4	15,333	-
Other financial assets	D.3	3,651	3,699
Exploration and evaluation	B.2	64,879	46,292
Development	B.1	159,612	117,190
Property, plant and equipment	B.1	90,068	61,656
<b>Total non current assets</b>		<b>339,383</b>	<b>228,837</b>
<b>Total assets</b>		<b>837,753</b>	<b>492,341</b>
<b>Current liabilities</b>			
Payables	D.4	65,152	33,367
Interest bearing liabilities	C.2	34,558	26,678
Provisions	D.5	18,726	28,328
Current tax liabilities		3,979	-
Financial derivative liabilities	D.3	-	151
<b>Total current liabilities</b>		<b>122,415</b>	<b>88,524</b>
<b>Non current liabilities</b>			
Financial derivative liabilities	D.3	-	264
Provisions	D.5	66,140	65,139
<b>Total non current liabilities</b>		<b>66,140</b>	<b>65,403</b>
<b>Total liabilities</b>		<b>188,555</b>	<b>153,927</b>
<b>Net assets</b>		<b>649,198</b>	<b>338,414</b>
<b>Equity attributable to equity holders of the parent</b>			
Contributed equity	C.4	544,987	395,198
Reserves	C.5	38,408	33,427
Retained earnings/(accumulated losses)		83,333	(41,836)
<b>Total equity attributable to equity holders of the parent</b>		<b>666,728</b>	<b>386,789</b>
<b>Non-controlling interest</b>	E.5	<b>(17,530)</b>	<b>(48,375)</b>
<b>Total equity</b>		<b>649,198</b>	<b>338,414</b>

## Consolidated Statement of Changes in Equity

	Contributed equity \$'000	Net unrealised gain/(loss) reserve \$'000	Convertible notes equity reserve \$'000	Share options equity reserve \$'000	Employee equity benefits reserve \$'000	Foreign currency translation reserve \$'000	Retained earnings/ (accumulated losses) \$'000	Non-controlling interest \$'000	Total \$'000
<b>At 1 July 2016</b>	<b>395,198</b>	<b>(68)</b>	<b>384</b>	<b>5,987</b>	<b>12,092</b>	<b>14,868</b>	<b>(32,080)</b>	<b>(45,977)</b>	<b>350,404</b>
Restatement of comparatives (Note E.13)	-	-	-	-	-	164	(9,756)	(2,398)	(11,990)
<b>At 1 July 2016 (restated)</b>	<b>395,198</b>	<b>(68)</b>	<b>384</b>	<b>5,987</b>	<b>12,092</b>	<b>15,032</b>	<b>(41,836)</b>	<b>(48,375)</b>	<b>338,414</b>
Profit for the year	-	-	-	-	-	-	136,371	29,725	166,096
Other comprehensive loss, net of tax	-	281	-	-	-	2,501	-	1,120	3,902
<b>Total comprehensive (loss)/income for the year, net of tax</b>	<b>-</b>	<b>281</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,501</b>	<b>136,371</b>	<b>30,845</b>	<b>169,998</b>
Shares issued	152,697	-	-	-	-	-	-	-	152,697
Share issue costs	(2,908)	-	-	-	-	-	-	-	(2,908)
Dividends paid	-	-	-	-	-	-	(11,202)	-	(11,202)
Share-based payments to employees	-	-	-	-	2,199	-	-	-	2,199
<b>At 30 June 2017</b>	<b>544,987</b>	<b>213</b>	<b>384</b>	<b>5,987</b>	<b>14,291</b>	<b>17,533</b>	<b>83,333</b>	<b>(17,530)</b>	<b>649,198</b>

## Consolidated Statement of Changes in Equity (continued)

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes equity reserve	Share options equity reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings/(accumulated losses)	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2015</b>	<b>380,305</b>	<b>(127)</b>	<b>384</b>	<b>5,987</b>	<b>10,507</b>	<b>56,275</b>	<b>(213,793)</b>	<b>(74,312)</b>	<b>165,226</b>
Profit for the year as reported on 30 June 2016	-	-	-	-	-	-	181,713	31,214	212,927
Restatement of comparatives (Note E.13)	-	-	-	-	-	-	(9,756)	(2,439)	(12,195)
<b>Restated profit for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>171,957</b>	<b>28,775</b>	<b>200,732</b>
Other comprehensive income/(loss), net of tax as reported on 30 June 2016	-	59	-	-	-	(41,407)	-	(2,879)	(44,227)
Restatement of comparatives (Note E.13)	-	-	-	-	-	164	-	41	205
<b>Restated other comprehensive loss, net of tax</b>	<b>-</b>	<b>59</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(41,243)</b>	<b>-</b>	<b>(2,838)</b>	<b>(44,022)</b>
<b>Total comprehensive (loss)/income for the year, net of tax</b>	<b>-</b>	<b>59</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(41,243)</b>	<b>171,957</b>	<b>25,937</b>	<b>156,710</b>
Shares issued	14,893	-	-	-	-	-	-	-	14,893
Share-based payments to employees	-	-	-	-	1,585	-	-	-	1,585
<b>At 30 June 2016</b>	<b>395,198</b>	<b>(68)</b>	<b>384</b>	<b>5,987</b>	<b>12,092</b>	<b>15,032</b>	<b>(41,836)</b>	<b>(48,375)</b>	<b>338,414</b>

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

## Consolidated Cash Flow Statement

	Note	2017 \$'000	(Restated) 2016 \$'000
<b>Cash flows from operating activities</b>			
Receipts from customers		545,159	554,624
Payments to suppliers, employees and others		(339,181)	(347,715)
Exploration expenditure		(8,430)	(8,115)
Interest paid		(1,818)	(6,043)
Interest received		2,022	46
Income tax paid		(11,368)	-
<b>Net cash flows from operating activities</b>	<b>C.1</b>	<b>186,384</b>	<b>192,797</b>
<b>Cash flows used in investing activities</b>			
Payments for property, plant & equipment		(37,326)	(13,709)
Payments for development activities		(61,809)	(18,339)
Payments for evaluation activities		(20,602)	(12,669)
Proceeds from sale of property, plant & equipment		2,233	4,078
Payments for other financial assets		(7,492)	(254)
Other investing activities		(2,757)	(2,407)
<b>Net cash flows used in investing activities</b>		<b>(127,753)</b>	<b>(43,300)</b>
<b>Cash flows from/(used in) financing activities</b>			
Proceeds from issuing ordinary shares		150,000	-
Costs of issuing ordinary shares		(2,849)	-
Repayment of borrowings		-	(74,171)
Repayment of lease liability		(234)	(4,688)
Dividend paid		(11,202)	-
<b>Net cash flows from/(used in) financing activities</b>		<b>135,715</b>	<b>(78,859)</b>
<b>Net increase in cash and cash equivalents</b>		<b>194,346</b>	<b>70,638</b>
Cash and cash equivalents at the beginning of the financial year		53,417	(19,735)
Exchange rate adjustment		(261)	2,514
<b>Cash and cash equivalents at the end of the period</b>		<b>247,502</b>	<b>53,417</b>
Cash and cash equivalents comprise the following:			
Cash at bank and on hand	C.1	282,060	79,873
Bank overdraft	C.2	(34,558)	(26,456)
		<b>247,502</b>	<b>53,417</b>

The above consolidated cash flow statement should be read in conjunction with the accompanying notes.

## About this Report

The financial report of Resolute Mining Limited and its controlled entities ("Resolute", "consolidated entity" or the "Group") for the year ended 30 June 2017 was authorised for issue in accordance with a resolution of the Directors on 23 August 2017.

Resolute Mining Limited (the parent entity) is a for profit company limited by shares incorporated and domiciled in Australia whose shares are publicly traded on the Australian Securities Exchange. The nature of the operations and principal activities of the Group are described in the directors' report and in the segment information in Note A.1. There has been no significant change in the nature of those activities during the year.

## Statement of Compliance

This general purpose financial report has been prepared in accordance with Australian Accounting Standards, other authoritative pronouncements of the Australian Accounting Board and the Corporations Act 2001. The financial report complies with Australian Accounting Standards as issued by the Australian Accounting Standards Board and International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. The accounting policies are consistent with those disclosed in the 30 June 2016 Financial Report, except for the impact of all new or amended Standards and Interpretations. The adoption of these Standards and Interpretations did not result in any significant changes to the Group's accounting policies.

The financial report includes financial information for Resolute Mining Limited ("RML") as an individual entity and the consolidated entity consisting of RML and its subsidiaries. Where appropriate, comparative information has been reclassified.

## Basis of Preparation

These financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) at fair value through profit and loss.

The financial report comprises the financial statements of the Group and its subsidiaries as at 30 June each year. Subsidiaries are fully consolidated from the date on which control is obtained by the Group and cease to be consolidated from the date at which control is transferred out of the Group. Profit or loss and each component of other comprehensive income ("OCI") are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Interests in associates are equity accounted and are not part of the consolidated Group.

## Rounding of Amounts

The financial report has been prepared in Australian dollars and all values are rounded to the nearest thousand dollars (\$'000) unless otherwise stated.

## Currency

Items in the financial statements of each of the Group's entities are measured in their respective functional currencies. Resolute Mining Limited's functional and presentation currency is Australian dollars.

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated at the rates of exchange ruling at that date. Exchange differences in the consolidated financial statements are taken to the income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

Translation differences on non-monetary items, such as equities held at fair value through profit or loss, are reported as part of the fair value gain or loss. Translation differences on non-monetary items, such as equities classified as available-for-sale financial assets, are included in the fair value reserve in equity.

## About this Report (continued)

The results and financial position of all the Group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the date of that consolidated statement of financial position;
- income and expenses for each consolidated statement of comprehensive income are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and,
- all resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold or borrowings repaid, a proportionate share of such exchange differences are recognised in the consolidated statement of comprehensive income as part of the gain or loss on sale.

## Financial and Capital Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including gold price risk, diesel fuel price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks, where considered appropriate, to minimise potential adverse effects on the financial performance of the Group. The Group may use derivative financial instruments to manage certain risk exposures. Derivatives have been used exclusively for managing financial risks, and not as trading or other speculative instruments.

Risk management is carried out by the Group's Audit and Risk Committee under policies approved by the Board of Directors. The Audit and Risk Committee identifies, evaluates and manages financial risks as deemed appropriate. The Board provides guidance for overall risk management, including guidance on specific areas, such as mitigating commodity price, foreign exchange, interest rate and credit risks, and derivative financial instrument risk.

### Foreign exchange risk management

The Group receives multiple currency proceeds on the sale of its gold production and significant costs for the Syama Gold Project and the Bibiani Project are denominated in AUD, USD and the local currencies of those projects, and as such movements within these currencies expose the Group to exchange rate risk.

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities denominated in a currency that is not the entity's functional currency. The risk can be measured by performing a sensitivity analysis that quantifies the impact of different assumed exchange rates on the Group's forecast cash flows.

The Group's Audit and Risk Committee continues to manage and monitor foreign exchange currency risk. At present, the Group does not specifically hedge its exposure to foreign currency exchange rate movements.

### Diesel price risk management

The Group is exposed to movements in the diesel fuel price. The costs incurred purchasing diesel fuel for use by the Group's operations is significant. The Group's Audit and Risk Committee continues to manage and monitor diesel fuel price risk. At present, the Group does not specifically hedge its exposure to diesel fuel price movements.

The below risks arise in the normal course of the Group's business. Risk information can be found in the following sections:

Section C	Capital risk
Section C	Interest rate risk
Section C	Liquidity risk
Section D	Credit risk



## Notes to the Financial Statements A: Earnings for the Year

### In this section

Results and the performance of the Group, with segmental information highlighting the core areas of the Group's operations. It also includes details about the Group's tax position.

### A.1 Segment revenues and expenses

#### Operating segment information

The Group has identified three operating segments based on the internal reports that are reviewed and used by the chief executive officer and his executive team (the chief operating decision maker) in assessing performance and in determining the allocation of resources.

Operating segments are identified by management as being operating mine sites and are managed separately and operate in different regulatory and economic environments.

Performance is measured based on gold sold and cost of production per ounce. The accounting policies used by the Group in reporting segments are the same as those used in the preparation of financial statements.

The following items and associated assets and liabilities are not allocated to operating segments as they are not considered part of the core operations of any segment:

- Realised and unrealised treasury transactions, including derivative contract transactions;
- Finance costs - including adjustments on provisions due to discounting; and,
- Net gains/losses on disposal of available-for-sale investments.

#### Recognition and measurement

##### Revenue from gold and other sales

Revenue is recognised when the risk and reward of ownership has passed from the Group to an external party and the selling price can be determined with reasonable accuracy. Sales revenue represents gross proceeds receivable from the customer.

Revenue from the sale of by-products such as silver is included in sales revenue.

##### Interest

Interest revenue is recognised as interest accrues using the effective interest method.

##### Borrowing costs

Borrowing costs incurred for the construction of any qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Other borrowing costs are expensed and are included in profit or loss as part of borrowing costs.

The capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to the entity's outstanding borrowings during the period.

## Notes to the Financial Statements A: Earnings for the Year

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2017	Ravenswood (Australia) \$'000	Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Unallocated (b)		Total \$'000
				Corporate/ Other \$'000	Treasury \$'000	
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	158,032	381,293	-	-	1,852	541,177
<b>Total segment gold and silver sales revenue</b>	<b>158,032</b>	<b>381,293</b>	<b>-</b>	<b>-</b>	<b>1,852</b>	<b>541,177</b>
Costs of production	(115,285)	(213,947)	-	-	-	(329,232)
Gold in circuit inventories movement	(4,113)	24,022	-	-	-	19,909
Costs of production relating to gold sales	(119,398)	(189,925)	-	-	-	(309,323)
Royalty expense	(7,912)	(24,687)	-	-	-	(32,599)
Operational support costs	(196)	(2,427)	-	-	-	(2,623)
Other operating costs relating to gold sales	(8,108)	(27,114)	-	-	-	(35,222)
Other management and administration expenses	(2,561)	(2,182)	-	(6,170)	-	(10,913)
Share-based payments expense	-	-	-	(1,184)	-	(1,184)
Administration and other corporate expenses	(2,561)	(2,182)	-	(7,354)	-	(12,097)
Exploration and business development expenditure	(3,993)	(1,643)	(1,053)	(1,741)	-	(8,430)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>23,972</b>	<b>160,429</b>	<b>(1,053)</b>	<b>(9,095)</b>	<b>1,852</b>	<b>176,105</b>
Amortisation of evaluation, development and rehabilitation costs	(7,807)	(3,238)	-	-	-	(11,045)
Depreciation of mine site properties, plant and equipment	(2,025)	(6,657)	-	-	-	(8,682)
Depreciation and amortisation relating to gold sales	(9,832)	(9,895)	-	-	-	(19,727)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>14,140</b>	<b>150,534</b>	<b>(1,053)</b>	<b>(9,095)</b>	<b>1,852</b>	<b>156,378</b>

## Notes to the Financial Statements A: Earnings for the Year

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2017	Ravenswood (Australia) \$'000	Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Unallocated (b)		Total \$'000
				Corporate/ Other \$'000	Treasury \$'000	
Segment operating result before treasury, other income/(expenses) and tax (brought forward)	14,140	150,534	(1,053)	(9,095)	1,852	156,378
Interest income	-	-	-	-	1,983	1,983
Profit on sale of available for sale financial assets	-	-	-	-	-	-
Other income	-	-	-	-	69	69
Total other income	-	-	-	-	2,052	2,052
Interest and fees	-	-	-	-	(2,146)	(2,146)
Rehabilitation and restoration provision accretion	-	-	-	-	(1,182)	(1,182)
Finance costs	-	-	-	-	(3,328)	(3,328)
Realised foreign exchange loss	-	-	-	-	(841)	(841)
Realised gains on forward contracts	-	-	-	-	4,016	4,016
Realised gain on available for sale investments	-	-	-	-	864	864
Treasury - realised gains	-	-	-	-	4,039	4,039
Inventories net realisable value movements and obsolete consumables	1,132	10,292	224	-	-	11,648
Unrealised foreign exchange gain	-	-	-	-	446	446
Unrealised gains on forward contracts	-	-	-	-	2,629	2,629
Unrealised foreign exchange loss on intercompany balances	-	-	-	-	(5,684)	(5,684)
Fair value movements and unrealised treasury transactions	1,132	10,292	224	-	(2,609)	9,039
Gain/(loss) on sale of property, plant and equipment	(45)	-	(170)	22	-	(193)
Withholding tax expenses	-	-	-	(9)	-	(9)
Other expenses	(45)	-	(170)	13	-	(202)
Share of associates' losses	-	-	-	-	(1,799)	(1,799)
Depreciation of non mine site assets	-	-	-	(83)	-	(83)
<b>Profit/(loss) for the year</b>	<b>15,227</b>	<b>160,826</b>	<b>(999)</b>	<b>(9,165)</b>	<b>207</b>	<b>166,096</b>

## Notes to the Financial Statements A: Earnings for the Year

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2016	Ravenswood (Australia) \$'000	(Restated) Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Unallocated (b)		(Restated) Total \$'000
				Corporate /Other \$'000	Treasury \$'000	
<b>Revenue</b>			-	-		
Gold and silver sales at spot to external customers (a)	180,425	372,938	-	-	1,261	554,624
<b>Total segment gold and silver sales revenue</b>	<b>180,425</b>	<b>372,938</b>			<b>1,261</b>	<b>554,624</b>
Costs of production	(109,054)	(174,043)	-	-	-	(283,097)
Gold in circuit inventories movement	(7,980)	(34,130)	-	-	-	(42,110)
Costs of production relating to gold sales	(117,034)	(208,173)	-	-	-	(325,207)
Royalty expense	(9,014)	(24,684)	-	-	-	(33,698)
Operational support costs	-	(1,876)	-	(11)	-	(1,887)
Other operating costs relating to gold sales	(9,014)	(26,560)	-	(11)	-	(35,585)
Other management and administration expenses	(1,722)	(1,718)	-	(1,490)	-	(4,930)
Share-based payments expense	-	-	-	(1,040)	-	(1,040)
Administration and other corporate expenses	(1,722)	(1,718)	-	(2,530)	-	(5,970)
Exploration and business development expenditure	(2,894)	(345)	(1,845)	(2,542)	-	(7,626)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>49,761</b>	<b>136,142</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>180,236</b>
Amortisation of evaluation, development and rehabilitation costs	(16,908)	(2,977)	-	-	-	(19,885)
Depreciation of mine site properties, plant and equipment	(11,253)	(7,983)	-	-	-	(19,236)
Depreciation and amortisation relating to gold sales	(28,161)	(10,960)	-	-	-	(39,121)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>21,600</b>	<b>125,182</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>141,115</b>

## Notes to the Financial Statements A: Earnings for the Year

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2016	Ravenswood (Australia) \$'000	(Restated) Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Unallocated (b)		(Restated) Total \$'000
				Corporate /Other \$'000	Treasury \$'000	
<b>Segment operating result before treasury, other income/(expenses) and tax (brought forward)</b>	<b>21,600</b>	<b>125,182</b>	<b>(1,845)</b>	<b>(5,083)</b>	<b>1,261</b>	<b>141,115</b>
Interest income	-	-	-	-	47	47
Profit on sale of available for sale financial assets	-	-	-	-	99	99
Other income	23	-	-	-	343	366
<b>Total other income</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>489</b>	<b>512</b>
Interest and fees	-	-	-	-	(7,960)	(7,960)
Rehabilitation and restoration provision accretion	-	-	-	-	(1,122)	(1,122)
<b>Finance costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(9,082)</b>	<b>(9,082)</b>
Realised foreign exchange loss	-	-	-	-	(22,333)	(22,333)
Realised loss on repayment of gold prepay loan	-	-	-	-	(513)	(513)
<b>Treasury - realised losses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(22,846)</b>	<b>(22,846)</b>
Inventories net realisable value movements and obsolete consumables	95	26,299	-	-	-	26,394
Other	-	2,231	-	-	-	2,231
Unrealised foreign exchange gain	-	-	-	-	17,221	17,221
Unrealised losses on forward contracts	-	-	-	-	(415)	(415)
Unrealised foreign exchange gain on intercompany balances	-	-	-	-	8,667	8,667
<b>Fair value movements and unrealised treasury transactions</b>	<b>95</b>	<b>28,530</b>	<b>-</b>	<b>-</b>	<b>25,473</b>	<b>54,098</b>
Loss on sale of property, plant and equipment	-	-	-	-	(585)	(585)
Withholding tax expenses	-	(7,092)	-	(64)	-	(7,156)
<b>Other expenses</b>	<b>-</b>	<b>(7,092)</b>	<b>-</b>	<b>(64)</b>	<b>(585)</b>	<b>(7,741)</b>
Depreciation of non mine site assets	-	-	-	(94)	-	(94)
Profit after tax for the discontinued operation	-	-	-	44,770	-	44,770
<b>Profit/(loss) for the year</b>	<b>21,718</b>	<b>146,620</b>	<b>(1,845)</b>	<b>39,529</b>	<b>(5,290)</b>	<b>200,732</b>

## Notes to the Financial Statements A: Earnings for the Year

### A.1 Segment revenues and expenses (continued)

(a) Revenue from external sales for each reportable segment is derived from several customers.

(b) This information does not represent an operating segment as defined by AASB 8, however this information is analysed in this format by the Chief Operating Decision maker, and forms part of the reconciliation of the results and positions of the operating segments to the financial statements.

### A.2 Dividends paid or proposed

	2017 \$'000	2016 \$'000
<b>Proposed dividends on ordinary shares:</b>		
Final dividend for 2017: 2.0 cents per share (2016: 1.7 cents per share)	14,740	11,148

The dividend has not been provided for in the 30 June 2017 financial statements.

### A.3 Earnings per share

	2017	(Restated) 2016
<b>Basic earnings per share</b>		
Profit attributable to ordinary equity holders of the parent for basic earnings per share (\$'000)	136,371	171,957
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	716,015,281	641,788,233
<b>Basic earnings per share (cents per share)</b>	<b>19.05</b>	<b>26.79</b>
<b>Diluted earnings per share</b>		
Profit used in calculation of diluted earnings per share (\$'000)	136,371	171,957
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	716,015,281	641,788,233
Weighted average number of notional shares used in determining diluted EPS	16,653,016	16,874,755
Weighted average number of ordinary shares outstanding during the period used in the calculation of diluted EPS	732,653,297	658,662,988
Number of potential ordinary shares that are not dilutive and hence not included in calculation of diluted EPS	-	675,400
<b>Diluted earnings per share (cents per share)</b>	<b>18.61</b>	<b>26.11</b>

### Measurement

Basic earnings per share ("EPS") is calculated as net profit attributable to members, adjusted to exclude preference share dividends, divided by the weighted average number of ordinary shares, adjusted for any bonus element.

Diluted EPS is calculated as the net profit attributable to members, adjusted for:

- the after tax effect of dividends and interest associated with dilutive potential ordinary shares that have been recognised as expenses; and,
- other non-discretionary changes in revenues or expenses during the period that would result from the dilution of potential ordinary shares
- divided by the weighted average number of ordinary shares and dilutive potential ordinary shares, adjusted for any bonus element.

## Notes to the Financial Statements A: Earnings for the Year

### A.3 Earnings per share (continued)

#### Information on the classification of securities

Options and performance rights granted to employees (including Key Management Personnel) as described in E.11 are considered to be potential ordinary shares and have been included in the determination of diluted earnings per share to the extent they are dilutive. These securities have not been included in the determination of basic earnings per share.

### A.4 Taxes

	2017 \$'000	(Restated) 2016 \$'000
<b>a) Income tax expense</b>		
Current tax expense	15,333	-
Deferred tax benefit	(15,333)	-
<b>Total tax expense</b>	-	-
<b>b) Numerical reconciliation of income tax expense to prima facie tax expense</b>		
Profit from continuing operations before income tax expense	166,096	155,962
Profit from discontinued operation before income tax expense	-	44,770
Profit before income tax expense	166,096	200,732
Prima facie income tax expense at 30% (2016: 30%)	49,829	60,220
(Deduct)/add:		
- (unrecognised tax losses and other temporary differences utilised)	(35,323)	(14,432)
- difference on foreign exchange gain from divestment of discontinued operation	-	(12,746)
- effect of different rates of tax on overseas income	(15,705)	(35,197)
- effect of share based payments expense not deductible	526	1,054
- other	673	1,101
<b>Income tax expense attributable to net profit</b>	-	-

## Notes to the Financial Statements A: Earnings for the Year

### A.4 Taxes (continued)

	2017 \$'000	2016 \$'000
<i>c) Tax losses (tax effected)</i>		
Revenue losses		
Australia	12,767	43,924
Mali <sup>1</sup>	-	65,471
Ghana	36,676	39,466
	49,443	148,861
Capital losses		
Australia	50,084	54,717
<b>Total tax losses not used against deferred tax liabilities for which no deferred tax asset has been recognised (potential tax benefit at the prevailing tax rates of the respective jurisdictions) (tax effected)</b>	<b>99,527</b>	<b>203,578</b>

<sup>1</sup> Resolute received tax advice confirming the availability of carried forward tax losses in Mali in the form of deferred capital allowances. Subsequent analysis has indicated that these deductions may have been required to be set against the taxable profits that were realised during the tax exemption period that came to an end on 31 December 2016. Resolute is in the process of concluding this analysis and has taken the conservative position of reducing the carried forward tax losses in Mali to nil. As the deferred tax asset in respect of the carried forward losses had not been recognised, this has no impact on either the Consolidated Statement of Comprehensive Income for the year ended 30 June 2017 or the Consolidated Statement of Financial Position as at 30 June 2017.

<i>d) Movements in the deferred tax assets balance</i>		
Balance at the beginning of the year	-	-
(Charged)/credited to equity	-	(165)
Credited/(charged) to the income statement	15,333	165
<b>Balance as at the end of the year</b>	<b>15,333</b>	<b>-</b>
The deferred tax assets balance comprises temporary differences attributable to:		
Receivables	84,715	87,344
Inventories	1,009	1,086
Available for sale financial assets	9,154	8,846
Mineral exploration and development interests	150,377	175,895
Property, plant and equipment	54,729	54,498
Payables	11	752
Provisions	21,844	22,938
Temporary differences not recognised	(289,257)	(340,532)
	32,582	10,827
Set off of deferred tax liabilities pursuant to set off provisions	(17,249)	(10,827)
<b>Net deferred tax assets</b>	<b>15,333</b>	<b>-</b>



## Notes to the Financial Statements A: Earnings for the Year

### A.4 Taxes (continued)

	2017 \$'000	2016 \$'000
<i>e) Movements in the deferred tax liabilities balance</i>		
There were no movements in the deferred tax liabilities balance in the current or prior year		
The deferred tax liabilities balance comprises temporary differences attributable to:		
Receivables	889	1,082
Inventories	8,191	2,304
Mineral exploration and development interests	8,169	7,436
Property, plant and equipment	-	5
	17,249	10,827
Set off of deferred tax liabilities pursuant to set off provisions	(17,249)	(10,827)
<b>Net deferred tax liabilities</b>	<b>-</b>	<b>-</b>
<i>f) The equity balance comprises temporary differences attributable to:</i>		
Convertible notes equity reserve	194	194
Option equity reserve	2,566	2,566
Unrealised loss reserve	64	(20)
Net temporary differences in equity	2,824	2,740
Set-off of deferred tax liabilities pursuant to set-off provisions	(64)	20
<b>Total temporary differences in equity</b>	<b>2,760</b>	<b>2,760</b>
<b>FRANKING CREDITS</b>		
The amount of franking credits available for subsequent financial years is as follows. The amount has been determined using a tax rate of 30%.	108	108

### Recognition and measurement

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and by unused tax losses (if appropriate).

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for deductible temporary differences, unused tax losses and unused tax credits only if it is probable that sufficient future taxable income will be available to utilise those temporary differences and losses.

## Notes to the Financial Statements A: Earnings for the Year

### A.4 Taxes (continued)

#### Recognition and measurement

Deferred tax is not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither taxable profit or loss; or the accounting profit or loss arising from taxable differences related to investment in subsidiaries, associates and interests in joint ventures to the extent that:

- the Group is able to control the reversal of the temporary difference; and
- the temporary difference is not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period. Deferred tax assets and liabilities are offset only if certain criteria are met. Income taxes relating to items recognised directly in equity are recognised in equity.

#### Tax consolidation

RML and its wholly-owned Australian controlled entities implemented the tax consolidation legislation as of 1 July 2002 and the entities in the tax consolidated group entered into a tax sharing agreement, which limits the joint and several liability of the wholly owned entities in the case of a default by the head entity, Resolute Mining Limited. The entities have also entered into a tax funding agreement under which the wholly owned entities fully compensate Resolute Mining Limited for any current tax

#### Key estimates and judgements

The Group records its best estimate of these items based upon the latest information available and management's interpretation of enacted tax laws. Whilst the Group believes it has adequately provided for the outcome of these matters, future results may include favourable or unfavourable adjustments as assessments are made, or resolved.

The recognition basis of deductible temporary differences and unused tax losses in the form of deferred tax assets is reviewed at the end of each reporting period and de-recognised to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Pursuant to the Establishment Convention between the State of Mali and Societe des Mines de Syama S.A. (owner of the Syama gold mine), there was an income tax holiday for 5 years post the declaration of "first commercial production" at Syama, which commenced on 1 January 2012. The tax holiday came to an end on 31 December 2016 and taxable profits arising after that date are subject to tax in accordance with the Establishment Convention.

A deferred income tax asset of \$15.3 million has been recognised at 30 June 2017 in relation to deductible temporary differences. Realisation of sufficient taxable profit in future periods is regarded as probable based on the amount of taxable income generated in the six months to 30 June 2017 following the end of the tax holiday.

The future benefit will only be obtained if:

- (i) future assessable income is derived of a nature and an amount sufficient to enable the benefit to be realised;
- (ii) the conditions for deductibility imposed by tax legislation have been continued to be complied with; and,
- (iii) no changes in tax legislation adversely affect the consolidated entity in realising the benefit.

#### Unrecognised temporary differences

As at 30 June 2017, aggregate unrecognised temporary differences of \$5.260m (2016: \$4.510m restated) are in respect of investments in foreign controlled entities for which no deferred tax assets have been recognised for amounts which arise upon consolidation of their financial statements.

payable assumed and are compensated by Resolute Mining Limited for any current tax receivable.

## Notes to the Financial Statements B: Production and Growth Assets

### In this section

Included in this section is relevant information about recognition, measurement, depreciation, amortisation and impairment considerations of the core producing and growth (exploration and evaluation) assets of Resolute.

### B.1 Mine properties and property, plant and equipment

#### Recognition and measurement

##### Stripping activity asset

The Group incurs waste removal costs (stripping costs) in the creation of improved access and mining flexibility in relation to ore to be mined in the future. The costs are capitalised as a stripping activity asset, where certain criteria are met. Once the Group has identified its production stripping for each surface mining operation, it identifies the separate components for the ore bodies in each of its mining operations. An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity. The costs of each component are amortised on a units of production basis in applying a stripping ratio.

##### Development expenditure

###### a. Areas in Development

Costs incurred in preparing mines for production including the required plant infrastructure.

###### b. Areas in Production

Represent the accumulation of all acquired exploration, evaluation and development expenditure in which economic mining of a mineral reserve has commenced. Amortisation of costs is provided on the unit-of-production method.

##### Property, plant and equipment

Property, plant and equipment are stated at cost less any accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises:

- Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and,
- The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is provided on a straight-line basis on all property plant and equipment other than land.

Major depreciation periods are:

	Life	Method
Motor vehicles	3 years	Straight line
Office equipment	3 years	Straight line
Plant and equipment	Life of mine years / unit of production	Straight line

## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

#### Key estimates and judgements

##### Stripping activity assets

Judgement is required to identify a suitable production measure to be used to allocate production stripping costs between inventory and any stripping activity asset(s) for each component. The Group considers that the ratio of the expected volume of waste to be stripped for an expected volume of ore to be mined for a specific component of the ore body, to be the most suitable production measure.

An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity.

Judgement is also required to identify and define these components, and also to determine the expected volumes (e.g. tonnes) of waste to be stripped and ore to be mined in each of these components. These assessments are based on the information available in the mine plan which will vary between mines for a number of reasons, including, the geological characteristics of the ore body, the geographical location and/or financial considerations.

##### Stripping ratio

The Group has adopted a policy of deferring production stage stripping costs and amortising them on a units-of-production basis. Significant judgement is required in determining the contained ore units for each mine. Factors that are considered include:

- Any proposed changes in the design of the mine;
- estimates of the quantities of ore reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and,
- future cash costs of production and capital expenditure.

##### Determining the beginning of production

The Group ceases capitalising pre-production costs and begins depreciation and amortisation of mine assets at the point commercial production commences. This is based on the specific circumstances of the project, and considers when the specific asset becomes 'available for use' as intended by management which includes consideration of the following factors:

- the level of redevelopment expenditure compared to project cost estimates;
- completion of a reasonable period of testing of the mine plant and equipment;
- mineral recoveries, availability and throughput levels at or near expected/feasibility study levels;
- the ability to produce gold into a saleable form (where more than an insignificant amount is produced); and,
- the achievement of continuous production.

Estimation of mineral reserves and resources – refer to B.3

## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

	Plant and Equipment						Development Expenditure In production		
	Buildings \$'000	Plant & Equipment \$'000	Motor Vehicles \$'000	Office Equipment \$'000	Leased Assets \$'000	Total \$'000	Mine Properties \$'000	Striping Activity Asset \$'000	Total \$'000
<b>30 June 2017</b>									
Opening write down value	8,016	46,787	811	2,744	3,298	<b>61,656</b>	88,116	29,074	<b>117,190</b>
Additions	-	40,032	-	306	-	<b>40,338</b>	62,245	42,111	<b>104,356</b>
Reversal of impairment	-	408	11	-	-	<b>419</b>	-	-	-
Disposals	-	(662)	(13)	-	(963)	<b>(1,638)</b>	-	-	-
Depreciation expense	(160)	(7,876)	(40)	(125)	(1,638)	<b>(9,839)</b>	-	-	-
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(54,818)	<b>(54,818)</b>
Amortisation expense	-	-	-	-	-	-	(9,198)	-	<b>(9,198)</b>
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	1,327	-	<b>1,327</b>
Foreign currency translation	(219)	(1,146)	(19)	(80)	596	<b>(868)</b>	1,151	(396)	<b>755</b>
<b>At 30 June net of accumulated depreciation</b>	<b>7,637</b>	<b>77,543</b>	<b>750</b>	<b>2,845</b>	<b>1,293</b>	<b>90,068</b>	<b>143,641</b>	<b>15,971</b>	<b>159,612</b>
<b>30 June 2017</b>									
Cost	15,582	435,206	3,319	7,216	24,813	<b>486,136</b>	507,011	70,789	<b>577,800</b>
Accumulated depreciation and impairment	(7,945)	(357,663)	(2,569)	(4,371)	(23,520)	<b>(396,068)</b>	(363,370)	(54,818)	<b>(418,188)</b>
<b>Net carrying amount</b>	<b>7,637</b>	<b>77,543</b>	<b>750</b>	<b>2,845</b>	<b>1,293</b>	<b>90,068</b>	<b>143,641</b>	<b>15,971</b>	<b>159,612</b>

## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

	Plant and Equipment						Development expenditure In production		
	Buildings \$'000	Plant & Equipment \$'000	Motor Vehicles \$'000	Office Equipment \$'000	Leased Assets \$'000	Total \$'000	Mine Properties \$'000	Striping Activity Asset \$'000	Total \$'000
<b>30 June 2016</b>									
Opening write down value	8,481	47,930	920	2,876	6,111	<b>66,318</b>	87,458	3,011	<b>90,469</b>
Additions	-	13,617	-	92	-	<b>13,709</b>	21,137	39,781	<b>60,918</b>
Disposals	-	(114)	-	(152)	(450)	<b>(716)</b>	(2,774)	-	<b>(2,774)</b>
Depreciation expense	(713)	(16,006)	(128)	(151)	(2,375)	<b>(19,373)</b>	-	-	-
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(13,365)	<b>(13,365)</b>
Amortisation expense	-	-	-	-	-	-	(18,470)	-	<b>(18,470)</b>
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	(623)	-	<b>(623)</b>
Foreign currency translation	248	1,360	19	79	12	<b>1,718</b>	1,388	(353)	<b>1,035</b>
<b>At 30 June net of accumulated depreciation</b>	<b>8,016</b>	<b>46,787</b>	<b>811</b>	<b>2,744</b>	<b>3,298</b>	<b>61,656</b>	<b>88,116</b>	<b>29,074</b>	<b>117,190</b>
<b>30 June 2016</b>									
Cost	15,814	403,499	3,365	7,012	26,167	<b>455,857</b>	442,288	42,439	<b>484,727</b>
Accumulated depreciation and impairment	(7,798)	(356,712)	(2,554)	(4,268)	(22,869)	<b>(394,201)</b>	(354,172)	(13,365)	<b>(367,537)</b>
<b>Net carrying amount</b>	<b>8,016</b>	<b>46,787</b>	<b>811</b>	<b>2,744</b>	<b>3,298</b>	<b>61,656</b>	<b>88,116</b>	<b>29,074</b>	<b>117,190</b>

## Notes to the Financial Statements B: Production and Growth Assets

### B.2 Exploration and evaluation assets

Exploration and evaluation (at cost)	2017 \$'000	2016 \$'000
Balance at the beginning of the year	46,292	33,951
- Expenditure during the year	19,835	10,404
- Adjustments to rehabilitation obligations	(17)	1,431
- Foreign currency translation	(1,231)	506
<b>Balance at the end of the year</b>	<b>64,879</b>	<b>46,292</b>

### Recognition and measurement

Exploration expenditure is expensed to the consolidated statement of comprehensive income as and when it is incurred and included as part of cash flows from operating activities. Exploration costs are only capitalised to the consolidated statement of financial position if they result from an acquisition.

Evaluation expenditure is capitalised to the consolidated statement of financial position. Evaluation is deemed to be activities undertaken from the beginning of the pre-feasibility study conducted to assess the technical and commercial viability of extracting a mineral resource before moving into the Development phase. The criteria for carrying forward the costs are:

- Such costs are expected to be recouped through successful development and exploitation of the area of interest, or alternatively by its sale; or
- Evaluation activities in the area of interest which has not yet reached a state which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing.

Costs carried forward in respect of an area of interest which is abandoned are written off in the year in which the abandonment decision is made.

### Exploration commitments

It is difficult to accurately forecast the nature or amount of future expenditure, although it will be necessary to incur expenditure in order to retain present interests in mineral tenements. Expenditure commitments on mineral tenure can be reduced by selective relinquishment of exploration tenure or by the renegotiation of expenditure commitments. The level of exploration expenditure expected in the year ending 30 June 2018 for the consolidated entity is approximately \$34.178m (2016: \$18.720m). This includes the minimum amounts required to retain tenure. There are no material exploration commitments further out than one year.

## Notes to the Financial Statements B: Production and Growth Assets

### B.3 Impairment of non-current assets

#### Recognition and measurement

##### Impairment testing

The carrying values of non-current assets are reviewed for impairment when indicators of impairment or a reversal of a prior period impairment may exist or changes in circumstances indicate the carrying value may not be recoverable. At a minimum the Group makes this assessment twice annually at 30 June and 31 December.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount. The recoverable amount of an asset is the greater of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

##### Recognised Impairment

No impairment was recognised in 2017. Furthermore, the assessment carried out for 30 June 2017 also concluded that a

#### Key estimates and judgements

##### Determination of mineral resources and ore reserves

The determination of reserves impacts the accounting for asset carrying values, depreciation and amortisation rates, deferred stripping costs and provisions for decommissioning and restoration. The information in this report as it relates to ore reserves, mineral resources or mineralisation is reported in accordance with the Aus.IMM "Australian Code for reporting of Identified Mineral Resources and Ore Reserves". The information has been prepared by or under supervision of competent persons as identified by the Code.

There are numerous uncertainties inherent in estimating mineral resources and ore reserves and assumptions that are valid at the time of estimation which may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated.

##### Impairment of mine properties, plant and equipment

The future recoverability of capitalised mine properties and plant and equipment is dependent on a number of key factors including; gold price, discount rates used in determining the estimated discounted cash flows of Cash Generating Units ("CGUs"), foreign exchange rates, the level of proved and probable reserves and measured, indicated and inferred mineral resources that may be included in the determination of fair value less cost to dispose ("fair value"), future technological changes which could impact the cost of mining, and future legal changes (including changes to environmental restoration obligations). The costs to dispose have been estimated by management based on prevailing market conditions.

Fair value is estimated based on discounted cash flows using market based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, based on CGU life-of-mine (LOM) plans. Consideration is also given to analysts' valuations, and the market value of the Company's securities. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy (in accordance with Australian Accounting Standards).

reversal of prior period impairment charges would not be supported.



## Notes to the Financial Statements B: Production and Growth Assets

### Key estimates and judgements

#### Impairment of mine properties, plant and equipment (continued)

In determining the recoverable amount of CGUs, future cash flows were discounted using rates based on the Group's estimated weighted average cost of capital. When it is considered appropriate to do so, an additional premium is applied with regard to the geographic location and nature of the CGU. LOM operating and capital cost assumptions are based on the Group's latest budget and LOM plans.

#### Key Assumptions:

The table below summarises the key assumptions used in the year end carrying value assessments:

Gold price (US\$ per ounce):	2017: \$1,210- \$1,270 (2016: \$1,050 - \$1,280)	Commodity price and foreign exchange rates are estimated with reference to external market forecasts, and updated at least twice annually. The rates applied to the valuation have regard to observable market data.
Discount rate % (post tax)	2017: 9% - 11% (2016: 10% - 16%)	In determining the fair value of CGUs, the future cash flows were discounted using rates based on the Group's estimated real weighted average cost of capital, with an additional premium applied having regard to the geographic location of the CGU.
Operating and capital costs:	Life-of-mine operating and capital cost assumptions are based on the Group's latest budget and life-of-mine plans.	

### B.3 Impairment of non-current assets (continued)

### B.4 Segment expenditure, assets and liabilities

For the year ended 30 June 2017	Ravenswood (Australia) \$'000	Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Corp/ Other \$'000	Treasury \$'000	Total \$'000
Capital expenditure	13,797	87,665	17,731	3,225	-	122,418
Segment assets in continuing operations	77,314	385,712	78,405	296,322	-	837,753
Segment liabilities in continuing operations	58,228	105,623	16,221	8,483	-	188,555

For the year ended 30 June 2016	Ravenswood (Australia) \$'000	Syama (Mali) \$'000	Bibiani (Ghana) \$'000	Corp/ Other \$'000	Treasury \$'000	Total \$'000
Capital expenditure	6,586	28,705	9,283	675	-	45,250
Segment assets in continuing operations (restated)	59,682	331,052	63,736	37,871	-	492,341
Segment liabilities in continuing operations	47,226	81,677	17,114	7,910	-	153,927

## Notes to the Financial Statements c: Cash, Debt and Capital

### In this section

Cash, debt and capital position of the Group at the end of the reporting period.

### C.1 Cash

	2017 \$'000	2016 \$'000
Cash at bank and on hand	282,060	79,873
Reconciliation to cash flow statement		
For the purpose of the cash flow statement, cash and cash equivalents comprise the following at 30 June:		
Cash at bank and on hand	282,060	79,873
Bank overdraft	(34,558)	(26,456)
	<b>247,502</b>	<b>53,417</b>

The credit quality of cash and cash equivalents can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

<b>Cash at bank and short term deposits</b>		
<i>Counterparties with external credit ratings</i>		
A+	191,881	79,271
AA-	89,155	14
B	75	113
<i>Counterparties without external credit ratings</i>	949	475
<b>Total cash at bank and short term deposits</b>	<b>282,060</b>	<b>79,873</b>

### Recognition and measurement

Cash and cash equivalents in the statement of financial position comprise cash at bank and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are stated at face value in the statement of financial position.

### Fair value and foreign exchange risk

The carrying amount of cash and cash equivalents approximates their fair value.

The Group held A\$5.8 million of cash and cash equivalents at 30 June 2017 (2016: A\$37 million) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. These exposures are predominantly US dollars (2017: A\$3.8 million; 2016: A\$28.1 million equivalent) and Euro (2017: A\$1.5 million; 2016: A\$8.6 million equivalent).

Average interest rates earned on cash and cash equivalents during the period was 2.2% (2016: 0.7%).

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.1 Cash (continued)

Reconciliation of net profit from continuing operations after income tax to the net operating cash flows

	2017 \$'000	(Restated) 2016 \$'000
<b>Net profit from ordinary activities after income tax</b>	166,096	200,732
<b>Add/(deduct):</b>		
Share based payments including employee long term incentive costs	1,184	1,040
Loss on sale of property, plant and equipment	193	585
Profit on sale of available for sale financial assets	(200)	(99)
Rehabilitation and restoration provision accretion	1,182	1,122
Rehabilitation and restoration cash expenditure	(1,783)	(93)
Depreciation and amortisation	19,811	39,215
Gain on sale of the Resolute Pty Ltd group	-	(46,151)
Foreign exchange (gains)/losses	5,238	(25,888)
Realised foreign exchange losses on debt repayments	-	20,795
Foreign exchange loss on deregistration of controlled entity	-	3,086
Inventory net realisable value movements	(11,424)	(14,404)
Realised gain on investment in associate	(864)	-
Unrealised gain on forwards contracts	(2,629)	
Reversal of provision of accounts receivable	-	(529)
Share of associates' losses	1,799	-
Non cash finance costs	61	577
<b>Changes in operating assets and liabilities:</b>		
Decrease in receivables	1,557	5,811
Decrease/(increase) in inventories	(15,610)	43,156
Decrease in prepayments	1,196	1,231
Decrease/(increase) in stripping activity asset	12,645	(26,487)
(Decrease)/increase in payables	27,678	(5,044)
Decrease in current tax balances	3,118	-
Increase in deferred tax balances	(15,333)	-
Decrease in operating provisions	(7,531)	(5,858)
<b>Net operating cash flows</b>	<b>186,384</b>	<b>192,797</b>

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.1 Cash (continued)

#### Cash flow by segment

	Ravenswood (Australia) \$'000	Syama (Ghana) \$'000	Bibiani (Ghana) \$'000	Unallocated (b)		Total \$'000
				Corp/ Other \$'000	Treasury \$'000	
<b>For the year ended 30 June 2017</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	16,646	48,160	(16,089)	(20,460)	151,903	180,160
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold shipped but unsold and held in metal accounts						22,071
Mark to market movement in gold unsold						(31)
Movement in bank overdraft, including foreign exchange movements						(8,102)
Exchange rate adjustment in cash on hand						248
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>194,346</b>
<b>For the year ended 30 June 2016</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	51,833	107,784	(11,994)	(5,658)	(95,930)	46,035
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold shipped but unsold and held in metal accounts						22,074
Mark to market movement in gold unsold						84
Movement in bank overdraft, including foreign exchange movements						3,164
Exchange rate adjustment in cash on hand						1,655
Cash flows from discontinued operation						(2,374)
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>70,638</b>

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.2 Interest bearing liabilities

	2017 \$'000	2016 \$'000
<b>Current</b>		
Lease liabilities	-	222
Bank overdraft - ref C3.1	34,558	26,456
	<b>34,558</b>	<b>26,678</b>

### Recognition and measurement

All loans and borrowings are initially recognised at fair value less transaction costs and subsequently at amortised cost. Any difference between the proceeds received and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method.

Resolute has a Security Trust Deed in place with various banks. The total assets of the entities over which security exists amounts to \$805.901m (2016: \$481.143m). \$88.078m (2016: 61.395m) of these assets relate to property plant and equipment.

#### Finance leases

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets. Lease payments are allocated between interest expense and reduction in the lease liability. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability.

#### Interest bearing liabilities

The Group's interest bearing liabilities have a fair value of \$34.558m (2016: \$26.816m) compared to the carrying value of \$34.558m (2016: \$26.678m). The differences between the fair value and carrying amount are capitalised borrowing costs.

The Group held nil interest bearing liabilities at 30 June 2017 (2016: Nil) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. Average interest rates charged on interest bearing liabilities at period end was 8.0% (2016: 8.0%).

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.2 Interest bearing liabilities (continued)

#### Maturity profile of interest-bearing liabilities

The maturity profile of the Group's interest-bearing liabilities in total and for finance leases is as follows:

	2017 \$'000	2016 \$'000
<b>Borrowings</b>		
Due within 1 to 3 months	-	-
Due within 4 months to one year	35,918	28,047
Due between one and five years	-	-
Total contractual repayments	35,918	28,047
Less finance charges	(1,360)	(1,369)
<b>Total interest bearing liabilities</b>	<b>34,558</b>	<b>26,678</b>
<b>Finance Leases</b>		
Due within one year	-	224
Total minimum lease payments	-	224
Less finance charges	-	(2)
<b>Present value of minimum lease payments</b>	<b>-</b>	<b>222</b>

### C.3 Financing facilities

#### C3.1 Bank overdraft

The current facility with the Bank Du Mali SA is in place and is subject to an annual revision in approximately June 2018. As at 30 June 2017 nil of the facility was unused.

#### C3.2 Syndicated facilities

RML has entered into a Letter of Credit Facility Agreement with Citibank N.A. (relating to the Ravenswood Project) and a Letter of Credit Facility Agreement with Société General Ghana Limited (relating to the Bibiani Project). The facilities comprise A\$27.070m of Environmental Performance Bond Facilities. Both of these facilities are fully drawn and expire on 31 December 2019.

The Citibank N.A. Letter of Credit Facility Agreement and hedging facilities provided by Investec Bank Plc and Citibank N.A. are secured by the following:

- (i) Cross Guarantee and Indemnity given by RML ("the Borrower"), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- (ii) Share Mortgage granted by RML over all of its shares in Carpentaria Gold Pty Ltd;
- (iii) Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- (iv) Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- (v) Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- (vi) Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- (vii) Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,
- (viii) Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.3 Financing facilities (continued)

#### C3.2 Syndicated facilities (continued)

Pursuant to the Syndicated Facilities Agreement and Letter of Credit Facility Agreement with Citibank N.A, the following ratios are required:

- (i) (Interest Cover Ratio): the ratio of EBITDA to Net Interest Expense will be greater than 5.00 times;
- (ii) (Net Debt to EBITDA): the ratio of Net Debt to EBITDA will be less than 2.00 times;
- (iii) (Consolidated Gearing): the ratio of Net Debt to Equity will be less than 1.00 times;
- (iv) (Loan Life Cover Ratio): will be equal to or greater than 1.50:1; and,
- (v) (Reserve Tail Ratio): will exceed 30%.

There have been no breaches of these ratios. The Societe General Ghana Limited Letter of Credit Facility Agreement is supported by a guarantee provided by Resolute Mining Limited.

### C.4 Contributed Equity

	2017 \$'000	2016 \$'000
Ordinary share capital:	544,987	395,198
736,982,768 ordinary fully paid shares (2016: 655,632,994)		
Movements in contributed equity, net of issuing costs:		
Balance at the beginning of the year	395,198	380,305
Placement of shares to institutional investors (net of costs)	147,092	-
Shares issued pursuant to the Osisko Share Purchase Agreement (net of costs) <sup>1</sup>	2,544	-
Exercise of 130,000 unlisted options at \$1.18 per share	153	-
Conversion of convertible notes into 14,050,000 shares at \$1.06 per share	-	14,893
<b>Balance at the end of the year</b>	<b>544,987</b>	<b>395,198</b>

<sup>1</sup>This relates to the purchase of 21,868,000 shares in Kilo Goldmines which resulted in the issue of 1,457,867 Resolute shares.

### Recognition and measurement

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

### Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held. Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

### Rights of employee share based payment recipients

Refer to E.11 for details of the employee share based payment plans which includes option and performance rights plans. Each option entitles the holder to purchase one share. The names of all persons who currently hold employee share options or performance rights, granted at any time, are entered into the register kept by the Company, pursuant to Section 215 of the Corporations Act 2001. Persons entitled to exercise these options and holders of performance rights have no right, by virtue of the options, to participate in any share issue by the parent entity or any other body corporate.

## Notes to the Financial Statements c: Cash, Debt and Capital

### C.5 Other reserves

Reserve	Nature and purpose
Net unrealised gain/(loss) reserve	This reserve records fair value changes on available for sale investments.
Convertible notes equity reserve	This reserve records the value of the equity portion (conversion rights) of the convertible notes.
Share options equity reserve	The equity reserve records the fair value of share options issued.
Employee benefits equity reserve	This reserve is used to recognise the fair value of options and performance rights granted over the vesting period of the securities provided to employees.
Foreign currency translation reserve	Represents exchange differences arising on translation of foreign controlled entities.

### Key financial and capital risks in this section

#### Liquidity risk management

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, or having the availability of funding through an adequate amount of undrawn committed credit facilities.

#### Interest rate risk management

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group constantly analyses its interest rate exposure. Within this analysis consideration is given to the potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates. There is no intention at this stage to enter into any interest rate swaps.

#### Capital risk management

The Group's and the parent entity's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain a capital structure that is appropriate for the Group's current and/or projected financial position. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders (if any), return capital to shareholders, buy back its shares, issue new shares, borrow from financiers or sell assets to reduce debt.

The Group monitors the adequacy of capital by analysing cash flow forecasts over the term of the Life of Mine for each of its projects. To a lesser extent, gearing ratios are also used to monitor capital. Appropriate capital levels are maintained to ensure that all approved expenditure programs are adequately funded. This funding is derived from an appropriate combination of debt and equity. The gearing ratio at 30 June 2017 is 0% (2016: 0%). The Group is not subject to any externally imposed capital requirements.

The gearing ratio is calculated as net debt divided by total capital. Net debt is defined as interest bearing liabilities less cash, cash equivalents and market value of bullion on hand. Total capital is calculated as 'equity' as shown in the Consolidated Statement of Financial Position (including non-controlling interest) plus net debt.

The following table summarises the post-tax effect of the sensitivity of the Group's debt, cash and capital items on profit and equity at reporting date to movements that are reasonably possible in relation to interest rate risk and foreign exchange currency risk.

	Carrying Amount \$'000	Interest rate risk				Foreign exchange risk			
		-1%		+1%		-10%		+10%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
<b>30 June 2017</b>									
Cash	282,060	1,965	1,965	1,965	1,965	560	560	(458)	(458)
<b>Total increase/(decrease)</b>		<b>1,965</b>	<b>1,965</b>	<b>1,965</b>	<b>1,965</b>	<b>560</b>	<b>560</b>	<b>(458)</b>	<b>(458)</b>
<b>30 June 2016</b>									
Cash	79,873	(350)	(350)	350	350	4,218	4,218	(3,451)	(3,451)
<b>Total increase/(decrease)</b>		<b>(350)</b>	<b>(350)</b>	<b>350</b>	<b>350</b>	<b>4,218</b>	<b>4,218</b>	<b>(3,451)</b>	<b>(3,451)</b>



## Notes to the Financial Statements D: Other assets and liabilities

### In this section

Other assets and liabilities position at the end of the reporting period.

### D.1 Receivables

	2017 \$'000	2016 \$'000
<b>Current</b>		
Trade receivables	5,748	7,005
	<b>5,748</b>	<b>7,005</b>

The credit quality of receivables can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

	2017 \$'000	2016 \$'000
<i>Counterparties with external credit ratings</i>		
AA+	511	157
<i>Counterparties without external credit ratings *</i>		
Group 1	5,237	6,848
<b>Total trade receivables</b>	<b>5,748</b>	<b>7,005</b>

\*Group 1 refers to existing counterparties with no defaults in the past. Group 2 refers to existing counterparties where difficulty in recovering these debts in the past has been experienced.

### Recognition and measurement

Trade receivables are initially recognised at fair value and subsequently at amortised cost less a provision for any uncollectible debts. Trade receivables are due for settlement no more than 30 days from the date of recognition.

### Fair value and foreign exchange risk

The carrying amount of receivables approximates their fair value.

The Group held \$5.3m receivables at 30 June 2017 (2016: Nil) in currencies other than Australian dollars or in a different currency to that of the functional currency of the company which holds the item.

## Notes to the Financial Statements D: Other assets and liabilities

### D.1 Receivables (continued)

Movements in the allowance for impairment loss is as follows:

	2017 \$'000	2016 \$'000
At start of year	-	(10,293)
Reversal of provision/(Charge for the year)	-	529
Recognised as a bad debt	-	-
Divestment of discontinued operation	-	10,427
Foreign exchange translation	-	(663)
At end of year	-	-
As at 30 June, the aging analysis of current and non-current sundry debtors is as follows:		
0-30 days	3,298	2,462
31-60 days	270	1,624
61-90 days	627	42
61-90 days (Past due but not impaired)	1,132	-
+91 days (Past due but not impaired)	376	2,877
+91 days (Considered impaired)	45	-
<b>Total</b>	<b>5,748</b>	<b>7,005</b>

Payment terms on amounts past due but not impaired have not been re-negotiated, however the Group maintains direct contact with the relevant debtor and is satisfied that net receivables will be collected in full.

### D.2 Inventories

	2017 \$'000	(Restated) 2016 \$'000
Ore stockpiles		
-At cost	37,411	30,699
-At net realisable value	20,829	14,972
Total ore stockpiles	58,240	45,671
Gold bullion on hand - at cost <sup>1</sup>	209	11,460
Gold in circuit - at cost	90,527	66,397
Consumables at cost	53,098	50,494
	<b>202,074</b>	<b>174,022</b>

<sup>1</sup> Resolute retains 244oz of gold bullion on hand at 30 June 2017 with a market value of \$0.4m (2016: 12,632oz with a market value of \$22m).

### Recognition and measurement

Finished goods (bullion), gold in circuit and stockpiles of unprocessed ore are stated at the lower of cost and estimated net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to ore stockpiles and gold in circuit items of inventory on the basis of weighted average costs. Net realisable value is the estimated selling price in the ordinary course of business (excluding derivatives) less the estimated costs of completion and the estimated costs necessary to make the sale. Consumables have been valued at cost less an appropriate provision for obsolescence. Cost is determined on a first-in-first-out basis.

## Notes to the Financial Statements D: Other assets and liabilities

### D.3 Other financial assets and liabilities

	2017	2016
	\$'000	\$'000
<b>Available for sale financial assets</b>		
Shares at fair value - listed	3,595	427
<b>Other financial assets</b>		
Environmental bond - restricted cash (face value approximates fair value)	3,570	3,699
Other	81	-
	<b>3,651</b>	<b>3,699</b>
<b>Financial derivative assets</b>		
Gold forwards at fair value - current	2,214	-
<b>Financial derivative liabilities</b>		
Gold forwards at fair value - current	-	151
Gold forwards at fair value - non-current	-	264
	<b>-</b>	<b>415</b>

Gold forward sales are deliverable at an average price of A\$1,800 an ounce for a total of 12,000 ounces between July 2017 and October 2017 at the rate of 3,000 ounces per month.

### Recognition and measurement

#### Available-for-sale financial assets

Available for sale financial assets consist of investments in ordinary shares. Comprising principally of marketable equity securities, they are classified as non-current assets unless management intends to dispose of the investment within 12 months of the consolidated statement of financial position date. Investments are initially recognised at fair value plus transaction costs. Unrealised gains and losses arising from changes in the fair value of classified as available-for-sale are recognised in equity in the available-for-sale investments revaluation reserve. A significant or prolonged decline in the fair value of a security results in the impairment charge being removed from equity and recognised in the consolidated statement of comprehensive income.

The fair value of the listed securities are based on quoted market prices and accordingly is a level 1 measurement basis on the fair value hierarchy.

#### Restricted cash

The environmental bond represents a receivable carried at amortised cost using the effective interest method. The Ghanaian Environmental Protection Authority holds \$3.570m (AUD equivalent) of restricted cash as security for the rehabilitation and restoration provision of Mensin Gold Bibiani Limited's Bibiani project. There is no external credit rating basis for the Ghanaian Environmental Protection Authority. The average interest rate earned on the environmental bond during the period was 0.0% (2016: 0.0%).

#### Use of derivative instruments to assist in managing gold price risk

As part of the Group's risk management practices, selected financial instruments (such as gold forward sales contracts, gold call options and gold put options) may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible, and in any event, limiting derivative commitments to no more than 50% of the Group's gold reserves. The value of these financial instruments at any given point in time, will in times of volatile market conditions, show substantial variation over the short term. The hedging facilities provided by the Group's counterparties do not contain margin calls. The Group did not hedge account for these instruments.

Movements in fair value are accounted for through the consolidated statement of comprehensive income.

## Notes to the Financial Statements D: Other assets and liabilities

### D.4 Payables

	2017 \$'000	2016 \$'000
Trade creditors	36,331	11,547
Accruals	28,821	21,820
	<b>65,152</b>	<b>33,367</b>

### Recognition and measurement

Liabilities for trade creditors and other amounts are carried at amortised cost which is the amount initially recognised, minus repayments whether or not billed to the consolidated entity.

Payables to related parties are carried at the principal amount. Interest, when charged by the lender, is recognised as an expense on an accruals basis. Payables are non-interest bearing and generally settled on 30-90 day terms. Due to the short term nature of these payables, their carrying value is assumed to approximate their fair value.

### D.5 Provisions

	2017 \$'000	2016 \$'000
<b>Current</b>		
Site restoration	715	1,503
Employee entitlements <sup>1</sup>	16,806	26,111
Dividend payable	135	83
Withholding taxes	262	240
Other provisions	808	391
	<b>18,726</b>	<b>28,328</b>
<b>Non-Current</b>		
Site restoration	64,710	63,864
Employee entitlements	1,430	1,275
	<b>66,140</b>	<b>65,139</b>

<sup>1</sup> Resolute Mining's 80% owned subsidiary Societe des Mines de Syama SA ("SOMISY") received notifications from the Nationale de Prévoyance Sociale ("INPS") alleging SOMISY owed contributions to the INPS department on salaries paid by SOMISY to its expatriate employees between January 2005 and July 2013. Malian Legislation requires the remittance of 24% of an employee's gross salary and a mandatory health insurance levy to the INPS department and is a form of social tax. In accordance with the Establishment Convention between SOMISY and the State of Mali, SOMISY is exempt from paying INPS contributions and the mandatory health insurance levy on expatriate employees during the Syama Mine Development Period. In accordance with the Establishment Convention, SOMISY did not remit INPS on expatriate salaries during the Mine Development Period, and then commenced remitting INPS on expatriate salaries after the cessation of the Mine Development Period. SOMISY has acted in accordance with the Establishment Convention at all times. The INPS department's claims are for the period during the Mine Development Period only and SOMISY's position is that it is not liable for payments during that period.

## Notes to the Financial Statements D: Other assets and liabilities

### D.5 Provisions (continued)

SOMISY unsuccessfully appealed against this INPS assessment, with a Malian Court of Appeal ruling in favour of the INPS department on the basis that it was not a government department and hence not a party to the Establishment Convention, so it was not obliged to follow its terms and conditions. As a result of the Court ruling and subsequent failed attempts to negotiate an immediate settlement, the Resolute group recorded an A\$15m current liability in its June 2015 Financial Statements. Recent attempts by the INPS to collect the assessed amounts triggered further negotiations between the INPS and SOMISY and in June 2016, a Settlement Agreement was executed by the parties to record an agreed instalment plan that will see SOMISY fully discharge this disputed liability by paying A\$11.5m (CFA 5,157,144,561) to INPS in instalments between 1 July 2016 and 30 June 2018. The instalments paid to date under this Settlement Agreement totalled A\$4.6m (CFA 2,172,023,029) as at September 2016, followed by an additional A\$1.5m (CFA 672,023,029) paid in December 2016, A\$0.9m (CFA 385,516,417) paid in March 2017 & \$0.9m (CFA 385,516,417) in June 2017. These are to be followed by 4 more instalments of A\$0.9m (CFA 385,516,417) each in September and December 2017 and then in March and June 2018. The Settlement Agreement incorporated the waiving of some penalties included in the assessments.

Resolute continues to strongly dispute the validity of the INPS assessments and negotiations with the State of Mali are ongoing to recover the INPS contributions demanded by the State of Mali in breach the terms of the Establishment Convention. Up to 30 June 2017, CFA 5.424b (A\$12.290m) has been paid to the INPS department (CFA 1.947b (A\$4.412m) paid in March, July, August and September 2012) and CFA 3.476b (A\$7.878m) as per above. Successful negotiations will see the monies paid to date in breach of the Establishment Convention returned to SOMISY.

### Recognition and measurement

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a borrowing cost.

### Employee benefits

Provision is made for employee benefits accumulated as a result of employees rendering services up to the end of the reporting period. These benefits include wages, salaries, termination gratuity and relocation costs, annual leave and long service leave.

### Restoration obligations

The Group records the present value of the estimated cost of obligations, such as those under the consolidated entity's Environmental Policy, to restore operating locations in the period in which the obligation is incurred. The nature of restoration activities includes dismantling and removing structures, rehabilitating mines, dismantling operating facilities, closure of plant and waste sites and restoration, reclamation and revegetation of affected areas.

	2017 \$'000	2016 \$'000
<b>Site restoration</b>		
Balance at the beginning of the year	65,367	62,607
Rehabilitation and restoration provision accretion	1,182	1,122
Change in scope of restoration provision	1,310	808
Utilised during the year	(1,783)	(93)
Foreign exchange translation	(651)	1,164
Divestment of discontinued operation	-	(241)
<b>Balance at the end of the year</b>	<b>65,425</b>	<b>65,367</b>
<b>Reconciled as:</b>		
Current provision	715	1,503
Non-current provision	64,710	63,864
<b>Total provision</b>	<b>65,425</b>	<b>65,367</b>

## Notes to the Financial Statements D: Other assets and liabilities

### D.5 Provisions (continued)

#### Key estimates and judgements

##### Restoration

In determining an appropriate level of provision consideration is given to the expected future costs to be incurred, the timing of these expected future costs (largely dependent on the life of the mine), and the estimated future level of inflation. The discount rate used in the calculation of these provisions is consistent with the risk free rate. The ultimate cost of decommissioning and restoration is uncertain and costs can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine-sites. The expected timing of expenditure can also change, for example in response to changes in reserves or to production rates. Changes to any of the estimates could result in significant changes to the level of provisioning required, which would in turn impact future financial results

### Key financial and capital risks in this section

#### Interest rate risk, diesel price risk and foreign exchange risk management

Refer to About this Report and Section C for details of how these risks are managed.

#### Credit risk management

The Group's exposure to credit risk arises from potential default of the counterparty, with a maximum exposure equal to the carrying amount of the financial assets.

Credit risk is managed on a Group basis. Credit risk predominately arises from cash, cash equivalents (refer to C1), gold bullion held in metal accounts, derivative financial instruments, deposits with banks and financial institutions and receivables from statutory authorities. For derivative financial instruments, management mitigates some credit risk by using a number of different hedging counterparties. Credit risk further arises in relation to financial guarantees given to certain parties. Such guarantees are only provided in exceptional circumstances and are subject to Audit and Risk Committee approval. With the exception of those items disclosed in C3 and a Rolute Mining parent company guarantee provided to Macquarie Bank Limited relating to their provision of a hedging facility, no guarantees have been provided to third parties as at the reporting date. The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

The following table summarises the sensitivity to a reasonably possible change in foreign exchange rates with all other variables held constant:

	Carrying Amount \$'000	Foreign exchange risk			
		-10%		+10%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
<b>30 June 2017</b>					
Other financial assets	3,651	288	288	(227)	(227)
Payables	65,152	(446)	(446)	365	365
<b>Total (decrease)/increase</b>		<b>(158)</b>	<b>(158)</b>	<b>138</b>	<b>138</b>
<b>30 June 2016</b>					
Other financial assets	3,699	288	288	(235)	(235)
Payables	33,367	(339)	(339)	277	277
<b>Total (decrease)/increase</b>		<b>(51)</b>	<b>(51)</b>	<b>42</b>	<b>42</b>

## Notes to the Financial Statements E: other items

### In this section

Information on items which require disclosure to comply with Australian Accounting Standards and the Australian Corporations Act 2001. This section includes group structure information and other disclosures.

### E.1 Contingent liabilities

#### Contingent liabilities

##### Amounts Potentially Payable to historical Bibiani Creditors

In June 2014, Mensin Gold Bibiani Limited, Drilling and Mining Services Limited and Noble Mining Ghana Limited (collectively referred to as the "Companies") entered into court approved Schemes of Arrangement ("Scheme") with their creditors and employees ("Scheme Creditors"). The Scheme outlines the timing and amounts of payments to be made by the Companies to a Scheme Fund and a Future Fund who in turn are responsible for making payments to the Scheme Creditors. The Scheme Creditors arise from transactions that occurred prior to the Companies becoming part of the Resolute group. The Scheme Fund and the Future Fund are administered by Ferrier Hodgson.

The implementation of the Scheme has had the effect of removing from the Companies' balance sheets all historical liabilities relating to amounts payable to Scheme Creditors and replacing this with an obligation to fund the Scheme Fund and Future Fund as and when necessary. The unconditional obligations to make payments to the Scheme Fund have been paid prior to 30 June 2017. In addition to those recorded payments and liabilities, the following contingent liabilities to provide funding to the Scheme Fund and Future Fund exist at year end:

- Potential payment to the Scheme Fund of US\$3.600m (\$4.854m) if, following receipt of the Feasibility Study, the board of Resolute, in its absolute discretion, makes a decision to proceed with the development of Bibiani; and;
- Potential payment to a Future Fund of up to US\$7.800m (\$10.516m) conditional upon the generation of Free Cashflow from Bibiani mine operations for the period of 5 years from the date that Commercial Production is declared. Free Cashflow means 25% of the sum of Project Revenue for that period less Permitted Payments for that period, which includes:
  - operational expenses and capital costs paid in connection with the mining operations; and,
  - repayment of principal and interest relating to funds advanced by Resolute up to the commencement of mining operations.

### E.2 Leases and other commitments

#### Operating leases

	2017	2016
	\$'000	\$'000
Due within one year	691	608
Due between one and five years	12,911	613
Aggregate lease expenditure contracted for at balance date but not provided for	13,602	1,221

#### Commitments

Other commitments not disclosed elsewhere in this report include:

#### Randgold/ Syama Royalty

Pursuant to the terms of the Syama Sale and Purchase agreement, Randgold Resources Limited will receive a royalty on Syama production, where the gold price exceeds US\$350 per ounce, of US\$10 per ounce on the first million ounces of gold production attributable to Resolute Mining Limited ("RML") and US\$5 per ounce on the next three million attributable ounces of gold production. As at 30 June 2017, Resolute's 80% attributable share of Syama's project to date gold production was 1,093,864 ounces of gold.

## Notes to the Financial Statements E: other items

### E.2 Leases and other commitments (continued)

#### Commitments (continued)

##### Other contracted expenditure commitments

	2017 \$'000	2016 \$'000
Due within one year	2,180	-
Aggregate lease expenditure contracted for at balance date but not provided for	<b>2,180</b>	-

### E.3 Auditor remuneration

	2017 \$	2016 \$
Auditing	179,360	182,000
Taxation planning advice and review and other services	-	21,950
	<b>179,360</b>	<b>203,950</b>
Amounts received or due and receivable by a related overseas office of Ernst & Young, from entities in the consolidated entity or related entities:		
Auditing (Ernst & Young, Ghana and Tanzania)	52,894	38,800
Total amounts received or due and receivable by Ernst & Young globally	232,254	242,750
Amounts received or due and receivable by non Ernst & Young firms for auditing	35,690	67,130



## Notes to the Financial Statements E: other items

### E.4 Investments in associates

	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
<b>Continuing Operations</b>	<b>Kilo Goldmines Ltd</b>		<b>Manas Resources Ltd</b>	
Listed	3,986	-	1,854	-
Shares held in associates (No. of shares)	46,568,000	-	523,899,835	-
CA\$0.135 warrants, expiring 25 August 2018 (No. of warrants)	24,700,000	-	-	-
		-		-
Percentage of ownership (%)	27.44%	-	19.90%	-

#### (b) Movements in the carrying amount of the Group's investment in associates

At 1 July	-	-	-	-
Purchase of investment	5,485	-	2,155	-
Share of loss after income tax	(1,499)	-	(301)	-
At 30 June	3,986	-	1,854	-

#### (c) Fair value of investment in listed associates

Market value of the Group's investment as at 30 June	1,627	-	2,096	-
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#### (d) Summarised financial information

The following table illustrates summarised financial information relating to the Group's associates:

##### Extract from the associates' statement of financial position

Current assets	3,485	-	10,666	-
Non-current assets	4,856	-	1,913	-
Total assets	<b>8,341</b>	-	<b>12,579</b>	-
Current liabilities	123	-	161	-
Non-current liabilities	675	-	-	-
Total liabilities	798	-	161	-
Net assets	7,543	-	12,418	-
Share of associates' net assets	<b>2,070</b>	-	<b>2,358</b>	-

##### Extract from the associates' statement of comprehensive income:

Revenue	-	-	-	-
Loss before tax, loss for the year and total comprehensive loss	(6,781)	-	(5,498)	-

## Notes to the Financial Statements E: other items

### E.5 Subsidiaries and non-controlling interests

#### Subsidiaries

The following were controlled entities during the year and have been included in the consolidated accounts. All entities in the consolidated entity carry on business in their place of incorporation.

Name of Controlled Entity and Country of Incorporation	Consolidated Entity Company Holding the Investment	Percentage of Shares Held by Consolidated Entity	
		2017 %	2016 %
Amber Gold Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Carpentaria Gold Pty Ltd, Aust.	Resolute Mining Limited	100	100
Drilling and Mining Services Limited, Ghana	Resolute (Bibiani) Limited	100	100
Excalibur Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Geb and Nut Resources SARL, Cote d'Ivoire	Resolute Cote D'Ivoire SARL	80	-
Goudhurst Pty Ltd, Aust. <sup>1</sup> (a)	Resolute (Treasury) Pty Ltd	100	100
Mensin Gold Bibiani Limited, Ghana	Resolute (Bibiani) Limited	90	90
Nimba Resources SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Noble Mining Ghana Limited, Ghana	Resolute (Bibiani) Limited	100	100
Resolute (Bibiani) Limited, Aust. <sup>2</sup> (a)	Resolute Mining Limited	100	100
Resolute (CDI Holdings) Limited, Aust. <sup>3</sup> (a)	Resolute Mining Limited	100	100
Resolute Cote D'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Limited	100	100
Resolute Egypt (Australia) Pty Ltd, Aust.	Resolute Mining Limited	100	-
Resolute Egypt (Australia) 2 Pty Ltd, Aust.	Resolute Mining Limited	100	-
Resolute Egypt Pty Ltd, Egypt	Resolute Egypt (Australia) Pty Ltd	50	-
	Resolute Egypt (Australia) 2 Pty Ltd	50	-
Resolute Exploration SARL, Mali	Resolute (Finkolo) Limited	100	100
Resolute (Finkolo) Limited, Aust. <sup>4</sup> (a)	Resolute Mining Limited	100	100
Resolute (Ghana) Limited, Ghana	Resolute Mining Limited	100	100
Resolute Mali S.A., Mali	Resolute (Somisy) Limited	100	100
Resolute (Somisy) Limited, Aust. <sup>5</sup> (a)	Resolute Mining Limited	100	100
Resolute (Treasury) Pty Ltd, Aust. (a)	Resolute Mining Limited	100	100
Societe des Mines de Finkolo SA, Mali	Resolute (Finkolo) Limited	85	85
Societe des Mines de Syama S.A., Mali	Resolute (Somisy) Limited	80	80

(a) Entities not separately audited. Entity's audit scope is limited to the purpose of inclusion in the consolidated entity's accounts.

<sup>1</sup> Name changed to Resolute Corporate Services Pty Ltd effective 4 July 2017

<sup>2</sup> Previously Resolute (Bibiani) Limited, Jersey

<sup>3</sup> Previously Resolute (CDI Holdings) Limited, Jersey

<sup>4</sup> Previously Resolute (Finkolo) Limited, Jersey

<sup>5</sup> Previously Resolute (Somisy) Limited, Jersey

## Notes to the Financial Statements E: other items

### E.5 Subsidiaries and non-controlling interests (continued)

#### Material partly owned subsidiaries

	2017 \$'000	(Restated) 2016 \$'000
<i>Accumulated share of (deficiency)/equity attributable to material Non-Controlling Interest:</i>		
Societe des Mines de Syama SA ("Somisy")	(18,372)	(49,236)
Mensin Gold Bibiani Limited ("Mensin")	(2,203)	(2,211)
Societe des Mines de Finkolo SA ("Finkolo")	3,045	3,072
<b>Total Non-Controlling Interest</b>	<b>(17,530)</b>	<b>(48,375)</b>
<i>Profit/(loss) allocated to material Non-Controlling Interest:</i>		
Somisy	29,732	28,943
Mensin	5	(23)
Finkolo	(12)	(145)
<b>Total Non-Controlling Interest</b>	<b>29,725</b>	<b>28,775</b>

The summarised financial information of subsidiaries with non-controlling interests is provided below. This information is based on amounts before inter-company eliminations.

	2017 \$'000	(Restated) 2016 \$'000	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
	Somisy		Mensin		Finkolo	
<i>Statement of Comprehensive Income</i>						
Revenue	381,293	372,938	-	-	-	-
Gain/(loss) for the period	136,740	145,180	50	(236)	(934)	(957)
Total comprehensive income/(loss) for the period	136,740	145,180	50	(236)	(934)	(957)
<i>Summarised Statement of Financial Position</i>						
Current assets	214,194	240,457	4,030	3,341	305	42
Non-current assets	230,255	145,946	73,569	58,856	23,218	21,897
Current liabilities	(80,518)	(59,054)	(1,845)	(2,203)	(1,083)	(29)
Non-current liabilities - External	(32,520)	(33,237)	(13,984)	(14,504)	-	-
Non-current liabilities - Intra Resolute Mining Limited Group	(389,291)	(502,507)	(427,281)	(424,356)	(28,187)	(25,542)
<b>Total (deficiency)/equity</b>	<b>(57,880)</b>	<b>(208,395)</b>	<b>(365,511)</b>	<b>(378,866)</b>	<b>(5,747)</b>	<b>(3,632)</b>
<i>Summarised Statement of Cash Flow</i>						
Operating	126,159	125,041	939	(2,377)	(897)	(1,013)
Investing	(77,999)	(17,257)	(17,028)	(9,617)	(1,368)	(567)
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>48,160</b>	<b>107,784</b>	<b>(16,089)</b>	<b>(11,994)</b>	<b>(2,265)</b>	<b>(1,580)</b>

## Notes to the Financial Statements E: other items

### E.6 Joint operations

The consolidated entity has an interest in the following material joint operations whose principal activities are to explore for gold.

Entity Holding Interest	Other Participant/Joint Operation	Percentage of Interest Held	
		2017 %	2016 %
Resolute Mining Limited	Etruscan Resources Bermuda Ltd/N'Gokoli Est JV <sup>1</sup>	60%	60%
Resolute Cote D'Ivoire SARL	Geb and Nut Resources SARL/Geb and Nut JV	80%	0%

<sup>1</sup> Interests in joint operations greater than 50% have been accounted for as joint operations as all decision making requires unanimous agreement.

### E.7 Discontinued operations

On 12 December 2014, the formal handover of the Golden Pride site and all remaining infrastructure to the Madini Institute to set up a mining institute of learning was completed, as agreed with the Government of Tanzania. This ended Resolute's presence on site at Golden Pride after 15 years and production of over 2.2 million ounces of gold. This arm of the business, previously represented as the Golden Pride operating segment, has been classified as a discontinued operation and is no longer presented as a segment.

In October 2015, Resolute completed the divestment of Resolute Pty Ltd, the company holding all of Resolute's subsidiaries, assets, liabilities, contingent liabilities, and mineral rights in Tanzania (the "RPL group"). Resolute entered into an agreement with Cienega S.A.R.L. whereby Cienega S.A.R.L. acquired the RPL group for nominal initial consideration, with a potential deferred consideration equal to 50% of the proceeds of the sale of any mineral rights, related physical assets, and other specific legal actions.

The results for the year are presented below:

	2017 \$'000	2016 \$'000
Revenue	-	-
Expenses	-	(1,381)
Gain on sale of the Resolute Pty Ltd group (i)	-	46,151
<b>Profit for the year from a discontinued operation</b>	<b>-</b>	<b>44,770</b>
<i>Earnings per share:</i>		
Basic earnings per share of discontinued operation	-	<b>6.97 cents</b>
Diluted earnings per share of discontinued operation	-	<b>6.80 cents</b>
The net cash flows of the discontinued operation are as follows:		
Operating cash flows	-	(2,374)
<b>Net cash outflow</b>	<b>-</b>	<b>(2,374)</b>

- (i) The net liabilities of the RPL Group sold for nil consideration totalled \$3.615 million. Additionally, the RPL Group's accumulated foreign exchange gain recognised in equity was \$42.488 million and has now been recycled to profit and loss.

## Notes to the Financial Statements E: other items

### E.8 Subsequent events

On 23 August 2017, the Company announced a final dividend on ordinary shares in respect of the 2017 financial year of 2.0 cents per share. The dividend has not been provided for in the 30 June 2017 financial statements.

### E.9 Related party disclosures

(i) RML is the ultimate Australian holding company and there is no controlling entity of RML at 30 June 2017.

### E.10 Parent entity information

	2017 \$'000	(Restated) 2016 \$'000
Current assets	152	73
Total assets	463,578	317,639
Current liabilities	(1,214)	(646)
Total liabilities	(1,219)	(651)
<b>Net assets</b>	<b>462,359</b>	<b>316,988</b>
Issued capital	545,029	395,196
Accumulated losses	(94,404)	(89,945)
Convertible note equity reserve	549	549
Share option equity reserve	5,793	5,793
Employee equity benefits reserve	5,364	5,364
Reserves - unrealised gain/(loss)	28	31
<b>Total shareholders equity</b>	<b>462,359</b>	<b>316,988</b>
Profit of Resolute Mining Limited	6,743	167,552
Total comprehensive profit of Resolute Mining Limited	6,743	167,552

Refer to E1 for the contingent liabilities and commitments of Resolute Mining Limited. The parent company guarantees provided by Resolute Mining Limited as outlined in C3 have a nil written down value as at 30 June 2017 (2016: nil).

### E.11 Employee benefits and share based payments

	2017	2016
Salaries	55,453	58,833
Superannuation	3,029	2,870
Share based payments expense	2,129	1,716
<b>Total employee benefits charged to profit and loss</b>	<b>60,611</b>	<b>63,419</b>

#### Share based payments

Equity-based compensation benefits are provided to employees via the Group's share option plan and performance rights plan. The Group determines the fair value of securities issued as an expense in the profit and loss over the vesting period with a corresponding increase in equity.

## Notes to the Financial Statements E: other items

### E.11 Employee benefits and share based payments (continued)

#### Key management personnel

Details of remuneration provided to key management personnel are as follows:

	2017 \$	2016 \$
Short-term employee benefits	4,295,562	2,931,464
Post-employment benefits	240,858	431,383
Long-term employment benefits	50,089	41,878
Share-based payments	1,212,280	407,916
	<b>5,798,789</b>	<b>3,812,641</b>

#### Key estimates and judgements

##### Share based payments

The Group measures the cost of equity settled share based payment transactions with reference to the fair value at the grant date using a Black Scholes formula or Monte Carlo simulation. The valuations take into account the terms and conditions upon which the instruments were granted such as the exercise price, the term of the option or performance right, the vesting and performance criteria, the impact of dilution, the non-tradeable nature of the option or performance right, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the option or performance right.

#### Employee share option plan

The maximum number of options that can be issued under the Employee Share Option Plan is capped at 5% of the ordinary shares on issue. The options do not provide any dividend or voting rights. The options are not quoted on the ASX. One third of the options issued pursuant to the Plan are able to be exercised 6 months after issue, a further one third 18 months after issue and the remaining one third 30 months after issue.

Employees will only be able to exercise the options allocated to them if they meet certain performance criteria.

Option Category	2017				2016			Fair value of option at grant date
	Opening Number of Options	Lapsed During the Year	Exercised During the Year	Closing Number of Options	Opening Number of Options	Lapsed During the Year	Closing Number of Options	
I	-	-	-	-	33,000	(33,000)	-	0.61
J	-	-	-	-	90,000	(90,000)	-	0.73
K	-	-	-	-	2,000,000	(2,000,000)	-	0.70
L	-	-	-	-	756,333	(756,333)	-	0.72
M	130,000	-	(130,000)	-	130,000	-	130,000	0.66
N	545,400	(545,400)	-	-	647,400	(102,000)	545,400	0.98
	<b>675,400</b>	<b>(545,400)</b>	<b>(130,000)</b>	-	<b>3,656,733</b>	<b>(2,981,333)</b>	<b>675,400</b>	
Weighted average exercise price	1.52	1.52	1.18	-	1.46	1.39	1.72	

The weighted average remaining contractual life for the share options outstanding as at 30 Jun 2017 is 0 years (2016:0.5 years).

## Notes to the Financial Statements E: other items

### E.11 Employee benefits and share based payments (continued)

#### Performance rights plan

A new Performance Rights Plan was implemented in 2016. The performance rights plan is broken down between:

Performance Rights Plan Category	Type of employee
Level 1	Managing Director and CEO
Level 2	Executive Team reporting to MD
Level 3	Site General Managers
Level 4	Other Participants as recommended by the MD
Special	Special, one-off awards as recommended by the MD

Plan category	Grant and frequency <sup>1</sup>	Performance measures	Performance period
Level 1	Annually set at 100% of fixed remuneration for the Managing Director & CEO	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 2	Annually set at 65% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 3	Annually set between 30% and 50% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 4	Annually set between 10% and 20% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Special	Varies	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years

<sup>1</sup> Grant sizes have been changed from 1 July 2016 onwards. Refer to the Remuneration Report for further details.

## Notes to the Financial Statements E: Other items

### E.11 Employee benefits and share based payments (continued)

	Issue Date	Total Number	Fair Value per Right at Grant Date	Vesting Date
<b>Performance rights on issue</b>				
Level 1	01/07/14	2,250,597	\$0.50	30/06/17
Level 1	01/07/15	5,083,995	\$0.25	30/06/18
Level 2	28/08/15	3,822,624	\$0.25	30/06/17
Level 2	31/08/15	470,478	\$1.89	30/06/18
Band 1 to 4	24/10/16	3,025,322	\$1.27	30/06/19
Band 1	29/11/16	400,000	\$1.21	30/06/18
Band 1	29/11/16	600,000	\$1.20	30/06/19
Band 1	29/11/16	1,000,000	\$1.18	30/06/20
<b>As at 30 June 2017</b>		<b>16,653,016</b>	<b>\$0.62</b>	

	Date of Change	Total Number	Fair Value per Right at Grant Date	Vesting Date
<b>Changes during current period</b>				
Increase through issue of performance rights to eligible employees (Level 2)	31/08/16	575,145	\$1.89	30/06/18
Increase through issue of performance rights to eligible employees (Band 1 to 4)	24/10/16	2,900,389	\$1.27	30/06/19
Increase through issue of performance rights to eligible employees (Band 1 to 4)	16/01/17	208,000	\$1.27	30/06/19
Increase through issue of performance rights to eligible employees (Band 1)	29/11/16	400,000	\$1.21	30/06/18
Increase through issue of performance rights to eligible employees (Band 1)	29/11/16	600,000	\$1.20	30/06/19
Increase through issue of performance rights to eligible employees (Band 1)	29/11/16	1,000,000	\$1.18	30/06/20
Decrease through conversion of shares upon vesting of performance rights (Level 1)	31/08/16	(1,655,638)	\$0.43	30/06/16
Decrease through lapsing of performance rights (Level 1)	31/08/16	(1,497,958)	\$0.43	30/06/16
Decrease through conversion of shares upon vesting of performance rights (Level 2)	31/08/16	(1,502,764)	\$0.56	30/06/16
Decrease through lapsing of performance rights (Level 2)	31/08/16	(163,401)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	24/01/17	(512,107)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	24/01/17	(60,630)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	24/01/17	(47,787)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Level 2)	17/03/17	(212,620)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	17/03/17	(24,877)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	17/03/17	(19,403)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Level 2)	11/04/17	(173,051)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	11/04/17	(19,160)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	11/04/17	(15,877)	\$1.27	30/06/19



## Notes to the Financial Statements E: other items

### E.11 Employee benefits and share based payments (continued)

The following table lists the key variables used in the valuation of performance rights:

Hurdle	2017				2016			
	Reserve and resources rights	TSR rights	Service rights	Total	Reserve and resources rights	TSR rights	Service rights	Total
Number of performance rights issued	777,097	2,331,292	575,145	3,683,534	1,397,193	4,191,578	5,838,967	11,427,738
Underlying share price (\$)	1.68	1.68	1.89		0.31	0.31	0.25	
Exercise price (\$)	-	-	-		-	-	-	
Risk free rate	1.85%	1.85%	1.44%		2.08%	2.08%	1.79%	
Volatility factor	80%	80%	76%		78%	78%	74%	
Dividend yield	1.10%	1.10%	0%		0%	0%	0%	
Period of the rights from grant date (years)	3	3	2		3	3	2	

Effect of performance hurdles	Not reflected in valuation due to non-market condition	Reflected in valuation through Monte Carlo simulation	Weighted average		Not reflected in valuation due to non-market condition	Reflected in valuation through Monte Carlo simulation	Weighted average	
Value of performance right at grant date (Band 1 to 4)	\$1.63	\$1.15	\$1.89	Value of performance right at grant date (Level 1)	\$0.31	\$0.23	\$0.25	
Value of performance right at grant date (Level 2)	\$1.89	n/a	\$1.89		\$0.25	n/a	\$0.25	

### E.12 Other accounting policies

#### Derivatives

Derivatives are categorised as held for trading unless they are designated as hedges. Assets in this category are classified as current assets or liabilities if they are either held for trading or are expected to be realised within 12 months of the consolidated statement of financial position date. Items of this nature are recorded at their fair values through profit or loss.

#### Investments in associates

The Group's investment in associates is accounted for using the equity method of accounting in the consolidated financial statements. An associate is an entity over which the Group has significant influence and that are neither subsidiaries nor joint arrangements. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables and loans, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

## Notes to the Financial Statements E: other items

### E.12 Other accounting policies

#### New and amended Accounting Standards and Interpretations issued but not yet effective

A number of new Standards, amendment of Standards and interpretations have recently been issued but are not yet effective and have not been adopted by the Group as at the financial reporting date. The potential effect of these Standards is yet to be fully determined. However, it is not expected that the new or amended Standards will significantly affect the Group's accounting policies, financial position or performance, except for the following:

Title	Application Date for Group	Detail
AASB 9 – Financial Instruments	1 January 2018	A finalised version of AASB 9 which contains accounting requirements for financial instruments, replacing AASB 139 Financial Instruments: Recognition and Measurement. The standard contains requirements in the areas of classification and measurement, impairment, hedge accounting and de-recognition. Based on an initial impact assessment, the new standard is not expected to significantly impact the recognition and measurement of financial instruments.
AASB 15 - Revenue from Contracts with Customers	1 January 2018	AASB 15 provides a single, principles-based five-step model to be applied to all contracts with customers. Guidance is provided on topics such as the point in which revenue is recognised, accounting for variable consideration, costs of fulfilling and obtaining a contract and various related matters. New disclosures about revenue are also introduced. Based on an initial impact assessment, the new standard is not expected to significantly impact revenue recognition.
AASB 2014-10 - Amendments to Australian Accounting Standards – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	1 January 2018	The amendments clarify that a full gain or loss is recognised when a transfer to an associate or joint venture involves a business as defined in AASB 3 Business Combinations. Any gain or loss resulting from the sale or contribution of assets that does not constitute a business, however, is recognised only to the extent of unrelated investors' interests in the associate or joint venture.
AASB 2016-5 - Amendments to Australian Accounting Standards – Classification and Measurement of Share-based Payment Transactions	1 January 2018	This Standard amends AASB 2, clarifying how to account for certain types of share-based payment transactions such as the effect of vesting and non-vesting conditions on the measurement of cash-settled share-based payments, share-based payment transactions with a net settlement feature for withholding tax obligations and a modification to the terms and conditions of a share-based payment that changed the classification of the transaction from cash-settled to equity-settled.
AASB Interpretation 22 - Foreign Currency Transactions and Advance Consideration	1 January 2018	The Interpretation clarifies that in determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which an entity initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, then the entity must determine a date of the transactions for each payment or receipt of advance consideration.
AASB16 – Leases	1 July 2019	AASB 16 provides a new lessee accounting model which requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee measures right-of-use assets similarly to other non-financial assets and lease liabilities similarly to other financial liabilities. Assets and liabilities arising from a lease are initially measured on a present value basis. The measurement includes non-cancellable lease payments (including inflation-linked payments), and also includes payments to be made in optional periods if the lessee is reasonably certain to exercise an option to extend the lease, or not to exercise an option to terminate the lease. AASB 16 contains disclosure requirements for lessees. While in early stages of assessment, the Group has yet to fully assess the impact on the Group's financial results when it is first adopted for the year ended 30 June 2020.

## Notes to the Financial Statements E: other items

### E.13 Restatement of comparative information

During the preparation of the 31 December 2016 financial report it was noted that there was a misstatement in the Gold in Circuit and Gold Bullion ("GIC") valuation model for the Syama gold mines sulphide GIC. The financial modelling caused the book value of GIC to be overstated at 30 June 2016 by \$11.990m.

It should be noted that all of the restatements are non-cash in nature, and do not affect reported cash flows. Furthermore, there is no change or impact on:

- the contained ounces of GIC, nor its market value at those balance dates;
- Resolute's enterprise value;
- banking covenant ratios;
- the group's liquidity position;
- reported gold production, cash costs per ounce of production, and all-in sustaining costs per ounce of production; and,
- any of the information disclosed in the group's quarterly reports.

Restatements for the affected 30 June 2016 financial statement line items for the prior periods are as follows:

	Restated for the year ended 30-Jun-16 \$'000	As previously stated for the year ended 30-Jun-16 \$'000
<b>Consolidated Statement of Comprehensive Income</b>		
Costs of production relating to gold sales	(325,207)	(313,217)
Gross profit before depreciation, amortisation and other operating costs	229,417	241,407
Gross profit from operations	154,711	166,701
Profit for the year from continuing operations	155,962	168,157
Profit for the year	200,732	212,927
<b>Profit attributable to:</b>		
Members of the parent	171,957	181,713
Non-controlling interest	28,775	31,214
Total comprehensive income attributable to:		
Members of the parent	126,916	140,365
Non-controlling interest	29,794	28,335
<b>Earnings per share for net profit attributable to the ordinary equity holders of the parent:</b>		
Basic earnings per share	26.79 cents	28.31 cents
Diluted earnings per share	26.11 cents	27.59 cents
<b>Earnings per share for net profit from continuing operations attributable to the ordinary equity holders of the parent:</b>		
Basic earnings per share	19.82 cents	21.34 cents
Diluted earnings per share	19.31 cents	20.79 cents

## Notes to the Financial Statements E: other items

### E.13 Restatement of comparative information (continued)

	Restated for the year ended 30-Jun-16 \$'000	As previously stated for the year ended 30-Jun-16 \$'000
<b>Consolidated Statement of Financial Position</b>		
Inventories	174,022	186,012
Total current assets	263,504	275,494
Total assets	492,341	504,331
<b>Net assets</b>	<b>338,414</b>	<b>350,404</b>
Reserves	33,427	33,263
Accumulated losses	(41,836)	(32,080)
Total equity attributable to equity holders of the parent	386,789	396,381
Non-controlling interest	(48,375)	(45,977)
<b>Total equity</b>	<b>338,414</b>	<b>350,404</b>

# Independent auditor's report to the Members of Resolute Mining Limited

## Report on the audit of the financial report

### Opinion

We have audited the financial report of Resolute Mining Limited (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 30 June 2017, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the year then ended, notes to the financial statements, including a summary of significant accounting policies, and the Directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- a) giving a true and fair view of the consolidated financial position of the Group as at 30 June 2017 and of its consolidated financial performance for the year ended on that date; and
- b) Complying with Australian Accounting Standards and the Corporations Regulations 2001. Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial report of the current year. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial report. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial report.

1. Impairment assessment of non-current assets

**Why significant**

As at 30 June 2017 the Group had non-current assets totaling \$314,559,000 comprising capitalised development expenditure, property, plant and equipment and capitalised exploration and evaluation expenditure (refer to note B1 and B2).

At the end of each reporting period, the Group exercises judgment in determining whether there is any indication of impairment or indication that an impairment loss recognised in prior periods may no longer exist or may have decreased. If any such indication exists, the Group estimates the recoverable amount of that asset.

We focused on this matter because of the:

- Significant judgment involved in considering if there was an indicator of impairment or indicator that an impairment loss recognised in prior periods may no longer exist or may have decreased.
- Significant judgment and estimates involved in the determination of the recoverable amount.

**How our audit addressed the key audit matter**

We assessed the Group's identification of whether there was any indication of impairment or indicators that an impairment loss recognised in prior periods for each cash generating unit ("CGU") may no longer exist or may have decreased.

With respect to the Syama CGU, as there was an indicator that the impairment loss recognised in prior periods may no longer exist or may have decreased, we assessed the reasonableness of the recoverable amount determined by the Group by:

- Evaluating the assumptions and methodologies used by the Group, in particular, those relating to Board approved forecast cash flows and inputs used to formulate them. This included assessing, with involvement from our valuation specialists, the discount rates, foreign exchange rates and gold prices with reference to market prices (where available), market research, market practice, market indices, broker consensus and historical performance.
- Checking the mathematical accuracy of the Group's cash flow models and agreeing relevant data, including assumptions on timing and future capital and operating expenditure to the latest approved life of mine plans. We also assessed historical reliability of the Group's cash flow forecasting process.
- Utilising the work of management's internal experts with respect to the reserve assumptions used in the cash flow forecasts. This included understanding the reserve estimation process. We tested that the updated reserve estimates were included in the assessment of impairment triggers. We also examined the qualifications, objectivity and experience of management's experts and assessed that key reserve economic assumptions were consistent with other operational information in the financial report.

2. Rehabilitation and restoration provisions

**Why significant**

As a consequence of its operations the Group incurs obligations to rehabilitate and restore its mine sites. Rehabilitation activities are governed by local legislative requirements. As at 30 June 2017 the Group's consolidated statement of financial position includes provisions of \$65,425,000 in respect of these obligations (refer to note D5).

We focused on this matter because estimating the costs associated with these future activities requires judgment and estimation for factors such as timing of when rehabilitation will take place, the extent of the rehabilitation and restoration activities and economic assumptions such as inflation rates and discount rates are taken into account to determine the provision amount.

**How our audit addressed the key audit matter**

We evaluated the assumptions and methodologies used by the Group in arriving at their rehabilitation cost estimates. In doing so we:

- Assessed the objectivity, qualifications and experience of the Group's internal experts whose work formed the basis of the Group's cost estimates. We assessed the appropriateness of the cost estimates, including comparing these to historical actuals.
- Tested the appropriateness of the inflation and discount rate assumptions used in the Groups cost estimates, having regard to available economic data on future inflation and discount rates.
- Evaluated the adequacy of the Group's disclosures relating to rehabilitation obligations and considered the treatment applied to changes in the rehabilitation and restoration provision.

3. Taxation

**Why significant**

The Group has operations in multiple jurisdictions, each with its own taxation regime. The nature of the Group's activities triggers various taxation obligations including corporate tax, royalties, employment related taxes, and other indirect taxes.

Further, as set out in note A4 to the financial report, the Group has recognised deferred tax assets of \$15,333,000 and has unrecognised deferred tax assets of \$289,257,000 as at 30 June 2017 (refer to note A4).

We focused on this matter because the:

- Group is required to exercise significant judgment with regards to interpretation of enacted tax laws in these multiple jurisdictions. The Group engages external independent tax advisors to assist with the interpretation of tax laws when appropriate.
- Determination of the probability of the Group deriving taxable income in the future to utilise deferred tax assets is highly judgmental. This is subject to numerous assumptions around the future profitability of the Group's mining assets, which in turn is primarily dependent upon assumptions including future production levels, gold prices and exchange rates, operating and capital development costs.

**How our audit addressed the key audit matter**

In performing our audit procedures in relation to the audit of current and deferred tax, we:

- Involved our tax specialists in the interpretation of enacted tax laws in these multiple jurisdictions, including the judgments made and estimates used by the Group.
- Considered the appropriateness of the Group's assumptions and estimates in relation to tax positions, assessed those assumptions and considered the advice the Group received from external experts to support the accounting for the tax positions in accordance with enacted laws.
- Where external experts were engaged by the Group, we assessed their independence, objectivity and competencies.

In respect of deferred tax assets recognised and unrecognised at 30 June 2017 we:

- Evaluated the appropriateness of the Group's assessment of the probability of the Group deriving assessable income in the future to utilise the recognised deferred tax assets.
- Evaluated the appropriateness of the Group's assessment in respect of deferred tax assets not recognised.
- Assessed the adequacy of the Group's disclosures relating to current and deferred tax in the 30 June 2017 financial report.



4. Physical existence and valuation of ore stock piles and gold in circuit

**Why significant**

As at 30 June 2017 the Group had ore stockpiles and gold in circuit inventories of \$58,240,000 and \$90,527,000 respectively (refer to note D2).

Critical to the determination of the carrying value of ore stockpiles and gold in circuit inventories is the cost and net realisable value assumptions adopted by the Group in measuring the ore stockpiles and gold in circuit and the determination of the physical existence of the ore stockpiles (tonnes) and gold in circuit (ounces).

We focused on this matter because of the:

- Significant judgment required to assess the quantity of ore stockpiles and the quantity and recoverable metal content for gold in circuit. This includes determination of estimated grades, recovery rates and other geophysical properties.
- Significant estimates and judgments involved in the valuation of ore stockpiles and gold in circuit including the determination of whether mining costs are considered development or operating in nature and allocation of the operating costs to various stock types including ore stockpiles and gold in circuit inventories.
- Significant estimates involved in the determination of the net realisable value of ore stockpiles and gold in circuit, including the appropriateness of the estimated recoverable gold, selling price in the ordinary course of business and estimated costs of completion necessary to make the sale.
- Restatement of the 30 June 2016 carrying values for the gold in circuit and gold bullion inventories for the Syama sulphide circuit as detailed in note E13.

**How our audit addressed the key audit matter**

In performing our audit procedures we:

- Obtained an understanding of the Group's processes and controls in place in determining the physical quantities and metal contents of stockpiles and gold in circuit, which included visits to both the Syama and Ravenswood mine sites during the financial year.
- Assessed the qualifications, objectivity and experience of management's internal experts involved in determining the quantity and recoverable metal content for ore stockpiles and gold in circuit.
- Tested the estimated grades, recovery rates and other geophysical properties against the underlying reports obtained from management's internal experts and assessed the consistency of this information based on the current operations.
- Assessed the accuracy of the inventories valuation models including assessing the nature of costs allocated to inventories in determining the unit cost of inventories. We also assessed the carrying value of inventories at 30 June 2017 to evaluate whether it was properly valued at lower of cost and net realisable value.

## **Information other than the financial report and auditor's report thereon**

The Directors are responsible for the other information. The other information comprises the information included in the Company's 2017 Annual Report other than the financial report and our auditor's report thereon. We obtained the Directors' Report that is to be included in the Annual Report, prior to the date of this auditor's report, and we expect to obtain the remaining sections of the Annual Report after the date of this auditor's report.

Our opinion on the financial report does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## **Responsibilities of the Directors for the financial report**

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

## **Auditor's responsibilities for the audit of the financial report**

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the Directors, we determine those matters that were of most significance in the audit of the financial report of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

## **Report on the audit of the Remuneration Report**

### **Opinion on the Remuneration Report**

We have audited the Remuneration Report included in the Directors' report for the year ended 30 June 2017.

In our opinion, the Remuneration Report of Resolute Mining Limited for the year ended 30 June 2017, complies with section 300A of the *Corporations Act 2001*.

## Responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

The logo for Ernst & Young, featuring the company name in a stylized, handwritten-style font.

Ernst & Young

A handwritten signature in black ink, reading "Gavin Buckingham".

Gavin Buckingham  
Partner  
Perth  
23 August 2017

## **APPENDIX 1 PART 3**

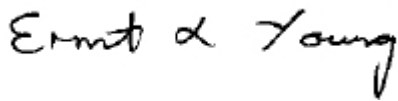
### **GROUP FINANCIAL INFORMATION FOR THE YEAR ENDED 30 JUNE 2018**

## Auditor's independence declaration to the Directors of Resolute Mining Limited

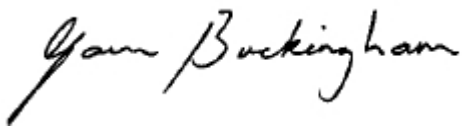
As lead auditor for the audit of Resolute Mining Limited for the year ended 30 June 2018, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Resolute Mining Limited and the entities it controlled during the financial period.



Ernst & Young



Gavin Buckingham  
Partner  
23 August 2018

## Consolidated Statement of Comprehensive Income

		2018	2017
	Note	\$'000	\$'000
Revenue from gold and silver sales	A.1	445,555	541,177
Costs of production relating to gold sales	A.1	(329,676)	(309,323)
<b>Gross profit before depreciation, amortisation and other operating costs</b>		<b>115,879</b>	<b>231,854</b>
Depreciation and amortisation relating to gold sales	A.1	(14,417)	(19,727)
Other operating costs relating to gold sales	A.1	(32,138)	(35,222)
<b>Gross profit from operations</b>		<b>69,324</b>	<b>176,905</b>
Other income	A.1	2,999	2,052
Other expenses	A.1	(2,449)	(202)
Exploration and business development expenditure	A.1	(15,686)	(8,430)
Administration and other corporate expenses	A.1	(14,133)	(10,913)
Share-based payments expense	A.1	(1,782)	(1,184)
Treasury - realised gains	A.1	2,096	4,039
Fair value movements and unrealised treasury transactions	A.1	43,396	9,039
Share of associates' losses	A.1/E.4	(1,500)	(1,799)
Depreciation of non-mine site assets	A.1	(130)	(83)
Finance costs	A.1	(4,298)	(3,328)
<b>Profit before tax</b>		<b>77,837</b>	<b>166,096</b>
Tax expense		-	-
<b>Profit for the year</b>		<b>77,837</b>	<b>166,096</b>
<b>Profit attributable to:</b>			
Members of the parent		65,570	136,371
Non-controlling interest	E.5	12,267	29,725
		<b>77,837</b>	<b>166,096</b>

## Consolidated Statement of Comprehensive Income (continued)

		2018	2017
	Note	\$'000	\$'000
Profit for the year (brought forward)		77,837	166,096
<b>Other comprehensive income/(loss)</b>			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Members of the parent		(1,759)	2,501
Changes in the fair value/realisation of available for sale financial assets, net of tax		(989)	281
<i>Items that may not be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Non-controlling interest		(1,253)	1,120
<b>Other comprehensive (loss)/income for the year, net of tax</b>		<b>(4,001)</b>	<b>3,902</b>
<b>Total comprehensive income for the year</b>		<b>73,836</b>	<b>169,998</b>
<b>Total comprehensive income attributable to:</b>			
Members of the parent		62,823	139,153
Non-controlling interest		11,013	30,845
		<b>73,836</b>	<b>169,998</b>
<b>Earnings per share for net profit attributable to the ordinary equity holders of the parent:</b>			
Basic earnings per share	A.3	<b>8.85 cents</b>	<b>19.05 cents</b>
Diluted earnings per share	A.3	<b>8.72 cents</b>	<b>18.61 cents</b>



## Consolidated Statement of Financial Position

	Note	2018	2017
		\$'000	\$'000
<b>Current assets</b>			
Cash	C.1	42,445	282,060
Receivables	D.1	45,097	5,748
Inventories	D.2	234,720	202,074
Available for sale financial assets	D.3	22,859	3,595
Prepayments and other assets		5,299	2,679
Current tax asset		20,811	-
Financial derivative assets	D.3	-	2,214
<b>Total current assets</b>		<b>371,231</b>	<b>498,370</b>
<b>Non current assets</b>			
Prepayments	D.4	15,862	-
Investments in associates	E.4	6,994	5,840
Deferred tax assets	A.4	9,456	15,333
Other financial assets	D.3	3,751	3,651
Exploration and evaluation	B.2	53,162	64,879
Development	B.1	302,158	159,612
Property, plant and equipment	B.1	172,656	90,068
<b>Total non current assets</b>		<b>564,039</b>	<b>339,383</b>
<b>Total assets</b>		<b>935,270</b>	<b>837,753</b>
<b>Current liabilities</b>			
Payables	D.5	92,488	65,152
Interest bearing liabilities	C.2	47,282	34,558
Provisions	D.6	21,171	18,726
Current tax liabilities		-	3,979
<b>Total current liabilities</b>		<b>160,941</b>	<b>122,415</b>
<b>Non current liabilities</b>			
Provisions	D.6	65,687	66,140
<b>Total non current liabilities</b>		<b>65,687</b>	<b>66,140</b>
<b>Total liabilities</b>		<b>226,628</b>	<b>188,555</b>
<b>Net assets</b>		<b>708,642</b>	<b>649,198</b>
<b>Equity attributable to equity holders of the parent</b>			
Contributed equity	C.4	544,972	544,987
Reserves	C.5	37,011	38,408
Retained earnings		134,073	83,333
<b>Total equity attributable to equity holders of the parent</b>		<b>716,056</b>	<b>666,728</b>
<b>Non-controlling interest</b>	E.5	<b>(7,414)</b>	<b>(17,530)</b>
<b>Total equity</b>		<b>708,642</b>	<b>649,198</b>

## Consolidated Statement of Changes in Equity

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes/ Share options equity reserve	Non-controlling interests reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings/ (accumulated losses)	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2017</b>	544,987	213	6,371	-	14,291	17,533	83,333	(17,530)	649,198
Profit for the year	-	-	-	-	-	-	65,570	12,267	77,837
Other comprehensive loss, net of tax	-	(989)	-	-	-	(1,759)	-	(1,253)	(4,001)
<b>Total comprehensive (loss)/income for the year, net of tax</b>	<b>-</b>	<b>(989)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(1,759)</b>	<b>65,570</b>	<b>11,014</b>	<b>73,836</b>
Share issue costs	(15)	-	-	-	-	-	-	-	(15)
Dividends paid	-	-	-	-	-	-	(14,830)	-	(14,830)
Non-controlling interest arising from change in ownership interest	-	-	-	(934)	-	-	-	(898)	(1,832)
Share-based payments to employees	-	-	-	-	2,285	-	-	-	2,285
<b>At 30 June 2018</b>	<b>544,972</b>	<b>(776)</b>	<b>6,371</b>	<b>(934)</b>	<b>16,576</b>	<b>15,774</b>	<b>134,073</b>	<b>(7,414)</b>	<b>708,642</b>

## Consolidated Statement of Changes in Equity (continued)

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes/ Share options equity reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings/ (accumulated losses)	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2016</b>	<b>395,198</b>	<b>(68)</b>	<b>6,371</b>	<b>12,092</b>	<b>15,032</b>	<b>(41,836)</b>	<b>(48,375)</b>	<b>338,414</b>
Profit for the year	-	-	-	-	-	136,371	29,725	166,096
Other comprehensive loss, net of tax	-	281	-	-	2,501	-	1,120	3,902
<b>Total comprehensive (loss)/income for the year, net of tax</b>	<b>-</b>	<b>281</b>	<b>-</b>	<b>-</b>	<b>2,501</b>	<b>136,371</b>	<b>30,845</b>	<b>169,998</b>
Shares issued	152,697	-	-	-	-	-	-	152,697
Share issue costs	(2,908)	-	-	-	-	-	-	(2,908)
Dividends paid	-	-	-	-	-	(11,202)	-	(11,202)
Share-based payments to employees	-	-	-	2,199	-	-	-	2,199
<b>At 30 June 2017</b>	<b>544,987</b>	<b>213</b>	<b>6,371</b>	<b>14,291</b>	<b>17,533</b>	<b>83,333</b>	<b>(17,530)</b>	<b>649,198</b>

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

## Consolidated Cash Flow Statement

	Note	2018 \$'000	2017 \$'000
<b>Cash flows from operating activities</b>			
Receipts from customers		447,495	545,159
Payments to suppliers, employees and others		(391,955)	(339,181)
Exploration expenditure		(15,686)	(8,430)
Interest paid		(2,410)	(1,818)
Interest received		2,166	2,022
Income tax paid		(11,251)	(11,368)
<b>Net cash flows from operating activities</b>	<b>C.1</b>	<b>28,359</b>	<b>186,384</b>
<b>Cash flows used in investing activities</b>			
Payments for property, plant & equipment		(88,421)	(37,326)
Payments for development activities		(138,565)	(61,809)
Payments for evaluation activities		(11,747)	(20,602)
Proceeds from sale of property, plant & equipment		510	2,233
Payments for other financial assets		(22,878)	(7,492)
Acquisition of a share of a non-controlling interest		(1,832)	-
Loans advanced to other parties		(5,133)	-
Other investing activities		(890)	(2,757)
<b>Net cash flows used in investing activities</b>		<b>(268,956)</b>	<b>(127,753)</b>
<b>Cash flows used in financing activities</b>			
Proceeds from issuing ordinary shares		-	150,000
Costs of issuing ordinary shares		(15)	(2,849)
Repayment of lease liability		-	(234)
Dividend paid		(14,830)	(11,202)
<b>Net cash flows (used in)/from financing activities</b>		<b>(14,845)</b>	<b>135,715</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>(255,442)</b>	<b>194,346</b>
Cash and cash equivalents at the beginning of the financial year		247,502	53,417
Exchange rate adjustment		3,103	(261)
<b>Cash and cash equivalents at the end of the period</b>		<b>(4,837)</b>	<b>247,502</b>
Cash and cash equivalents comprise the following:			
Cash at bank and on hand	C.1	42,445	282,060
Bank overdraft	C.2	(47,282)	(34,558)
		<b>(4,837)</b>	<b>247,502</b>

The above consolidated cash flow statement should be read in conjunction with the accompanying notes.

## About this Report

The financial report of Resolute Mining Limited and its controlled entities (“Resolute”, “consolidated entity” or the “Group”) for the year ended 30 June 2018 was authorised for issue in accordance with a resolution of the Directors on 23 August 2018.

Resolute Mining Limited (the parent entity) is a for profit company limited by shares incorporated and domiciled in Australia whose shares are publicly traded on the Australian Securities Exchange. The nature of the operations and principal activities of the Group are described in the directors’ report and in the segment information in Note A.1. There has been no significant change in the nature of those activities during the year.

### Statement of Compliance

This general purpose financial report has been prepared in accordance with Australian Accounting Standards, other authoritative pronouncements of the Australian Accounting Board and the Corporations Act 2001. The financial report complies with Australian Accounting Standards as issued by the Australian Accounting Standards Board and International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. The accounting policies are consistent with those disclosed in the 30 June 2017 Financial Report, except for the impact of all new or amended Standards and Interpretations. The adoption of these Standards and Interpretations did not result in any significant changes to the Group’s accounting policies.

The financial report includes financial information for Resolute Mining Limited (“RML”) as an individual entity and the consolidated entity consisting of RML and its subsidiaries. Where appropriate, comparative information has been reclassified.

### Basis of Preparation

These financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and liabilities at fair value.

The financial report comprises the financial statements of the Group and its subsidiaries as at 30 June each year. Subsidiaries are fully consolidated from the date on which control is obtained by the Group and cease to be consolidated from the date at which control is transferred out of the Group. Profit or loss and each component of other comprehensive income (“OCI”) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group’s accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Interests in associates are equity accounted and are not part of the consolidated Group.

### Rounding of Amounts

The financial report has been prepared in Australian dollars and all values are rounded to the nearest thousand dollars (\$’000) unless otherwise stated.

### Currency

Items in the financial statements of each of the Group’s entities are measured in their respective functional currencies. Resolute Mining Limited’s functional and presentation currency is Australian dollars.

Transactions in foreign currencies are initially recorded by the Group’s entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date.

Differences arising on settlement or translation of monetary items are recognised in profit or loss with the exception of monetary items classified as net investment in a foreign operation. These are recognised in OCI until the net investment is disposed of, at which time, the cumulative amount is reclassified to profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in OCI.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of the gain or loss on the change in fair value of the item (i.e., translation differences on items whose fair value gain or loss is recognised in OCI or profit or loss are also recognised in OCI or profit or loss, respectively).

## About this Report (continued)

The results and financial position of all the Group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the date of that consolidated statement of financial position;
- income and expenses for each consolidated statement of comprehensive income are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and,
- all resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold or borrowings repaid, a proportionate share of such exchange differences are recognised in the consolidated statement of comprehensive income as part of the gain or loss on sale.

## Financial and Capital Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including gold price risk, diesel fuel price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks, where considered appropriate, to minimise potential adverse effects on the financial performance of the Group. The Group may use derivative financial instruments to manage certain risk exposures. Derivatives have been used exclusively for managing financial risks, and not as trading or other speculative instruments.

Risk management is carried out by the Group's Audit and Risk Committee under policies approved by the Board of Directors. The Audit and Risk Committee identifies, evaluates and manages financial risks as deemed appropriate. The Board provides guidance for overall risk management, including guidance on specific areas, such as mitigating commodity price, foreign exchange, interest rate and credit risks, and derivative financial instrument risk.

## Foreign exchange risk management

The Group receives multiple currency proceeds on the sale of its gold production and significant costs for the Syama Gold Project and the Bibiani Project are denominated in AUD, EUR, USD and the local currencies of those projects, and as such movements within these currencies expose the Group to exchange rate risk.

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities denominated in a currency that is not the entity's functional currency. The risk can be measured by performing a sensitivity analysis that quantifies the impact of different assumed exchange rates on the Group's forecast cash flows.

The Group's Audit and Risk Committee continues to manage and monitor foreign exchange currency risk. At present, the Group does not specifically hedge its exposure to foreign currency exchange rate movements.

## Diesel price risk management

The Group is exposed to movements in the diesel fuel price. The costs incurred purchasing diesel fuel for use by the Group's operations is significant. The Group's Audit and Risk Committee continues to manage and monitor diesel fuel price risk. At present, the Group does not specifically hedge its exposure to diesel fuel price movements.

The below risks arise in the normal course of the Group's business. Risk information can be found in the following sections:

Section C	Capital risk
Section C	Interest rate risk
Section C	Liquidity risk
Section D	Credit risk

## Notes to the Financial Statements **A: Earnings for the Year**

### **In this section**

Results and the performance of the Group, with segmental information highlighting the core areas of the Group's operations. It also includes details about the Group's tax position.

### **A.1 Segment revenues and expenses**

#### **Operating segment information**

The Group has identified three operating segments based on the internal reports that are reviewed and used by the Chief Executive Officer and his executive team (the Chief Operating Decision Maker) in assessing performance and in determining the allocation of resources.

Operating segments are identified by management as being operating mine sites and are managed separately and operate in different regulatory and economic environments.

Performance is measured based on gold poured and cost of production per ounce poured. The accounting policies used by the Group in reporting segments are the same as those used in the preparation of financial statements.

The following items and associated assets and liabilities are not allocated to operating segments as they are not considered part of the core operations of any segment:

- Realised and unrealised treasury transactions, including derivative contract transactions;
- Finance costs - including adjustments on provisions due to discounting;
- Share of associates' losses and,
- Net gains/losses on disposal of available-for-sale investments.

#### **Recognition and measurement**

##### **Revenue from gold and other sales**

Revenue is recognised when the risk and reward of ownership has passed from the Group to an external party and the selling price can be determined with reasonable accuracy. Sales revenue represents gross proceeds receivable from the customer.

Revenue from the sale of by-products such as silver is included in sales revenue.

##### **Interest**

Interest revenue is recognised as interest accrues using the effective interest method.

##### **Borrowing costs**

Borrowing costs incurred for the construction of any qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Other borrowing costs are expensed and are included in profit or loss as part of borrowing costs.

The capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to the entity's outstanding borrowings during the period.

## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	138,463	307,092	-	-	-	445,555
<b>Total segment gold and silver sales revenue</b>	<b>138,463</b>	<b>307,092</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>445,555</b>
Costs of production	(120,011)	(237,453)	-	-	-	(357,464)
Gold in circuit inventories movement	12,478	15,310	-	-	-	27,788
Costs of production relating to gold sales	(107,533)	(222,143)	-	-	-	(329,676)
Royalty expense	(6,915)	(19,309)	-	-	-	(26,224)
Operational support costs	(256)	(5,651)	-	(7)	-	(5,914)
Other operating costs relating to gold sales	(7,171)	(24,960)	-	(7)	-	(32,138)
Administration and other corporate expenses	(4,664)	(2,497)	-	(6,972)	-	(14,133)
Share-based payments expense	-	-	-	(1,782)	-	(1,782)
Exploration and business development expenditure	(7,364)	(1,044)	(2,381)	(4,897)	-	(15,686)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>11,731</b>	<b>56,448</b>	<b>(2,381)</b>	<b>(13,658)</b>	<b>-</b>	<b>52,140</b>
Amortisation of evaluation, development and rehabilitation costs	(1,297)	(3,498)	-	-	-	(4,795)
Depreciation of mine site properties, plant and equipment	(1,274)	(8,348)	-	-	-	(9,622)
Depreciation and amortisation relating to gold sales	(2,571)	(11,846)	-	-	-	(14,417)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>9,160</b>	<b>44,602</b>	<b>(2,381)</b>	<b>(13,658)</b>	<b>-</b>	<b>37,723</b>



## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Segment operating result before treasury, other income/(expenses) and tax (brought forward)	9,160	44,602	(2,381)	(13,658)	-	37,723
Interest income	-	-	-	-	2,595	2,595
Other income	-	-	-	-	80	80
Gain on sale of property, plant and equipment	324	-	-	-	-	324
Total other income	324	-	-	-	2,675	2,999
Interest and fees	-	-	-	-	(2,793)	(2,793)
Rehabilitation and restoration provision accretion	(899)	(606)	-	-	-	(1,505)
Finance costs	(899)	(606)	-	-	(2,793)	(4,298)
Realised foreign exchange gain	-	-	-	-	2,311	2,311
Realised loss on forward contracts	-	-	-	-	(215)	(215)
Treasury - realised gains	-	-	-	-	2,096	2,096
Inventories net realisable value movements and obsolete consumables	1,283	11,542	-	(3)	-	12,822
Unrealised foreign exchange gain	-	-	-	-	287	287
Unrealised foreign exchange gain on intercompany balances	-	-	-	-	30,287	30,287
Fair value movements and unrealised treasury transactions	1,283	11,542	-	(3)	30,574	43,396
Other expenses	-	(675)	(1,774)	-	-	(2,449)
Share of associates' losses	-	-	-	-	(1,500)	(1,500)
Depreciation of non mine site assets	-	-	-	(130)	-	(130)
<b>Profit/(loss) for the year</b>	<b>9,868</b>	<b>54,863</b>	<b>(4,155)</b>	<b>(13,791)</b>	<b>31,052</b>	<b>77,837</b>

Notes to the Financial Statements **A: Earnings for the Year****A.1 Segment revenues and expenses (continued)**

For the year ended 30 June 2017	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	158,032	381,293	-	-	1,852	541,177
<b>Total segment gold and silver sales revenue</b>	<b>158,032</b>	<b>381,293</b>	<b>-</b>	<b>-</b>	<b>1,852</b>	<b>541,177</b>
Costs of production	(115,285)	(213,947)	-	-	-	(329,232)
Gold in circuit inventories movement	(4,113)	24,022	-	-	-	19,909
Costs of production relating to gold sales	(119,398)	(189,925)	-	-	-	(309,323)
Royalty expense	(7,912)	(24,687)	-	-	-	(32,599)
Operational support costs	(196)	(2,427)	-	-	-	(2,623)
Other operating costs relating to gold sales	(8,108)	(27,114)	-	-	-	(35,222)
Administration and other corporate expenses	(2,561)	(2,182)	-	(6,170)	-	(10,913)
Share-based payments expense	-	-	-	(1,184)	-	(1,184)
Exploration and business development expenditure	(3,993)	(1,643)	(1,053)	(1,741)	-	(8,430)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>23,972</b>	<b>160,429</b>	<b>(1,053)</b>	<b>(9,095)</b>	<b>1,852</b>	<b>176,105</b>
Amortisation of evaluation, development and rehabilitation costs	(7,807)	(3,238)	-	-	-	(11,045)
Depreciation of mine site properties, plant and equipment	(2,025)	(6,657)	-	-	-	(8,682)
Depreciation and amortisation relating to gold sales	(9,832)	(9,895)	-	-	-	(19,727)
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>14,140</b>	<b>150,534</b>	<b>(1,053)</b>	<b>(9,095)</b>	<b>1,852</b>	<b>156,378</b>

## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

For the year ended 30 June 2017	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Segment operating result before treasury, other income/(expenses) and tax (brought forward)</b>	<b>14,140</b>	<b>150,534</b>	<b>(1,053)</b>	<b>(9,095)</b>	<b>1,852</b>	<b>156,378</b>
Interest income	-	-	-	-	1,983	1,983
Profit on sale of available for sale financial assets	-	-	-	-	-	-
Other income	-	-	-	-	69	69
<b>Total other income</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,052</b>	<b>2,052</b>
Interest and fees	-	-	-	-	(2,146)	(2,146)
Rehabilitation and restoration provision accretion	(694)	(488)	-	-	-	(1,182)
<b>Finance costs</b>	<b>(694)</b>	<b>(488)</b>	<b>-</b>	<b>-</b>	<b>(2,146)</b>	<b>(3,328)</b>
Realised foreign exchange loss	-	-	-	-	(841)	(841)
Realised gains on forward contracts	-	-	-	-	4,016	4,016
Realised gain on available for sale investments	-	-	-	-	864	864
<b>Treasury - realised gains</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,039</b>	<b>4,039</b>
Inventories net realisable value movements and obsolete consumables	1,132	10,292	224	-	-	11,648
Unrealised foreign exchange gain	-	-	-	-	446	446
Unrealised gains on forward contracts	-	-	-	-	2,629	2,629
Unrealised foreign exchange loss on intercompany balances	-	-	-	-	(5,684)	(5,684)
<b>Fair value movements and unrealised treasury transactions</b>	<b>1,132</b>	<b>10,292</b>	<b>224</b>	<b>-</b>	<b>(2,609)</b>	<b>9,039</b>
Gain/(loss) on sale of property, plant and equipment	(45)	-	(170)	22	-	(193)
Withholding tax expenses	-	-	-	(9)	-	(9)
<b>Other expenses</b>	<b>(45)</b>	<b>-</b>	<b>(170)</b>	<b>13</b>	<b>-</b>	<b>(202)</b>
Share of associates' losses	-	-	-	-	(1,799)	(1,799)
Depreciation of non mine site assets	-	-	-	(83)	-	(83)
<b>Profit/(loss) for the year</b>	<b>14,533</b>	<b>160,338</b>	<b>(999)</b>	<b>(9,165)</b>	<b>1,389</b>	<b>166,096</b>

## Notes to the Financial Statements **A: Earnings for the Year**

### A.1 Segment revenues and expenses (continued)

(a) Revenue from external sales for each reportable segment is derived from several customers.

(b) This information does not represent an operating segment as defined by AASB 8, however this information is analysed in this format by the Chief Operating Decision maker, and forms part of the reconciliation of the results and positions of the operating segments to the financial statements.

### A.2 Dividends paid or proposed

	2018	2017
	\$'000	\$'000
<b>Proposed dividends on ordinary shares:</b>		
Final dividend for 2018: 2.0 cents per share (2017: 2.0 cents per share)	14,830	14,740

The dividend has not been provided for in the 30 June 2018 financial statements.

### A.3 Earnings per share

	2018	2017
<b>Basic earnings per share</b>		
Profit attributable to ordinary equity holders of the parent for basic earnings per share (\$'000)	65,570	136,371
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	740,664,832	716,015,281
<b>Basic earnings per share (cents per share)</b>	<b>8.85</b>	<b>19.05</b>
<b>Diluted earnings per share</b>		
Profit used in calculation of diluted earnings per share (\$'000)	65,570	136,371
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	740,664,832	716,015,281
Weighted average number of notional shares used in determining diluted EPS	11,307,704	16,653,016
Weighted average number of ordinary shares outstanding during the period used in the calculation of diluted EPS	751,972,536	732,653,297
Number of potential ordinary shares that are not dilutive and hence not included in calculation of diluted EPS	-	-
<b>Diluted earnings per share (cents per share)</b>	<b>8.72</b>	<b>18.61</b>

### Measurement

Basic earnings per share ("EPS") is calculated as net profit attributable to members, adjusted to exclude preference share dividends, divided by the weighted average number of ordinary shares, adjusted for any bonus element.

Diluted EPS is calculated as the net profit attributable to members, adjusted for:

- the after tax effect of dividends and interest associated with dilutive potential ordinary shares that have been recognised as expenses; and,
- other non-discretionary changes in revenues or expenses during the period that would result from the dilution of potential ordinary shares
- divided by the weighted average number of ordinary shares and dilutive potential ordinary shares, adjusted for any bonus element.

## Notes to the Financial Statements **A: Earnings for the Year**

### A.3 Earnings per share (continued)

#### Information on the classification of securities

Options and performance rights granted to employees (including Key Management Personnel) as described in E.10 are considered to be potential ordinary shares and have been included in the determination of diluted earnings per share to the extent they are dilutive. These options and performance rights have not been included in the determination of basic earnings per share.

### A.4 Taxes

	2018	2017
	\$'000	\$'000
<b>a) Income tax expense</b>		
Current tax expense	(5,877)	15,333
Deferred tax benefit	5,877	(15,333)
<b>Total tax expense</b>	-	-
<b>b) Numerical reconciliation of income tax expense to prima facie tax expense</b>		
Profit from continuing operations before income tax expense	77,837	166,096
Profit before income tax expense	77,837	166,096
Prima facie income tax expense at 30% (2017: 30%)	23,351	49,829
(Deduct)/add:		
- (unrecognised tax losses and other temporary differences utilised)	(19,907)	(35,323)
- effect of different rates of tax on overseas income	-	(15,705)
- effect of share based payments expense not deductible	705	526
- other permanent differences	(4,149)	673
<b>Income tax expense attributable to net profit</b>	-	-

# Notes to the Financial Statements **A: Earnings for the Year**

## A.4 Taxes (continued)

	2018	2017
	\$'000	\$'000
<b>c) Tax losses (tax effected)</b>		
Revenue losses		
Australia	11,997	12,767
Mali	-	-
Ghana	23,158	36,676
	<b>35,155</b>	<b>49,443</b>
Capital losses		
Australia	52,314	50,084
<b>Total tax losses not used against deferred tax liabilities for which no deferred tax asset has been recognised (potential tax benefit at the prevailing tax rates of the respective jurisdictions) (tax effected)</b>	<b>87,469</b>	<b>99,527</b>
<b>d) Movements in the deferred tax assets balance</b>		
Balance at the beginning of the year	15,333	-
(Charged)/credited to the income statement	(5,877)	15,333
<b>Balance as at the end of the year</b>	<b>9,456</b>	<b>15,333</b>
The deferred tax assets balance comprises temporary differences attributable to:		
Receivables	82,958	84,715
Inventories	1,008	1,009
Available for sale financial assets	9,320	9,154
Mineral exploration and development interests	137,472	150,377
Property, plant and equipment	53,731	54,729
Payables	30	11
Provisions	9,504	21,844
Temporary differences not recognised	(267,616)	(289,257)
	<b>26,407</b>	<b>32,582</b>
Set off of deferred tax liabilities pursuant to set off provisions	(16,951)	(17,249)
<b>Net deferred tax assets</b>	<b>9,456</b>	<b>15,333</b>

## Notes to the Financial Statements **A: Earnings for the Year**

### A.4 Taxes (continued)

	2018	2017
	\$'000	\$'000
<b>e) Movements in the deferred tax liabilities balance</b>		
The deferred tax liabilities balance comprises temporary differences attributable to:		
Receivables	1,553	889
Inventories	8,191	8,191
Mineral exploration and development interests	7,207	8,169
Property, plant and equipment	-	-
	16,951	17,249
Set off of deferred tax liabilities pursuant to set off provisions	(16,951)	(17,249)
<b>Net deferred tax liabilities</b>	<b>-</b>	<b>-</b>
<b>f) The equity balance comprises temporary differences attributable to:</b>		
Convertible notes equity reserve	194	194
Option equity reserve	2,566	2,566
Unrealised loss reserve	64	64
Net temporary differences in equity	2,824	2,824
Set-off of deferred tax liabilities pursuant to set-off provisions	(64)	(64)
<b>Total temporary differences in equity</b>	<b>2,760</b>	<b>2,760</b>
<b>FRANKING CREDITS</b>		
The amount of franking credits available for subsequent financial years is as follows. The amount has been determined using a tax rate of 30%.	108	108

### Recognition and measurement

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and by unused tax losses (if appropriate).

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for deductible temporary differences, unused tax losses and unused tax credits only if it is probable that sufficient future taxable income will be available to utilise those temporary differences and losses.

# Notes to the Financial Statements **A: Earnings for the Year**

## **A.4 Taxes (continued)**

### **Recognition and measurement (continued)**

Deferred tax is not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither taxable profit or loss; or the accounting profit or loss arising from taxable differences related to investment in subsidiaries, associates and interests in joint ventures to the extent that:

- the Group is able to control the reversal of the temporary difference; and
- the temporary difference is not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period. Deferred tax assets and liabilities are offset only if certain criteria are met. Income taxes relating to items recognised directly in equity are recognised in equity.

### **Tax consolidation**

RML and its wholly-owned Australian controlled entities implemented the tax consolidation legislation as of 1 July 2002 and the entities in the tax consolidated group entered into a tax sharing agreement, which limits the joint and several liability of the wholly owned entities in the case of a default by the head entity, Resolute Mining Limited. The entities have also entered into a tax funding agreement under which the wholly owned entities fully compensate Resolute Mining Limited for any current tax

## **Key estimates and judgements**

The Group records its best estimate of these items based upon the latest information available and management's interpretation of enacted tax laws. Whilst the Group believes it has adequately provided for the outcome of these matters, future results may include favourable or unfavourable adjustments as assessments are made, or resolved.

The recognition basis of deductible temporary differences and unused tax losses in the form of deferred tax assets is reviewed at the end of each reporting period and de-recognised to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Pursuant to the Establishment Convention between the State of Mali and Societe des Mines de Syama S.A. (owner of the Syama Gold Mine), there was an income tax holiday for 5 years post the declaration of "first commercial production" at Syama, which commenced on 1 January 2012. The tax holiday came to an end on 31 December 2016 and taxable profits arising after that date are subject to tax in accordance with the Establishment Convention.

A deferred income tax asset of \$9.5 million has been recognised at 30 June 2018 in relation to deductible temporary differences. Realisation of sufficient taxable profit in future periods is regarded as probable.

The future benefit will only be obtained if:

- future assessable income is derived of a nature and an amount sufficient to enable the benefit to be realised;
- the conditions for deductibility imposed by tax legislation have been continued to be complied with; and,
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit.

payable assumed and are compensated by Resolute Mining Limited for any current tax receivable.



## Notes to the Financial Statements **B: Production and Growth Assets**

### In this section

Included in this section is relevant information about recognition, measurement, depreciation, amortisation and impairment considerations of the core producing and growth (exploration and evaluation) assets of Resolute.

### B.1 Mine properties and property, plant and equipment

#### Recognition and measurement

##### Stripping activity asset

The Group incurs waste removal costs (stripping costs) in the creation of improved access and mining flexibility in relation to ore to be mined in the future. The costs are capitalised as a stripping activity asset, where certain criteria are met. Once the Group has identified its production stripping for each surface mining operation, it identifies the separate components for the ore bodies in each of its mining operations. An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity. The costs of each component are amortised on a units of production basis in applying a stripping ratio.

##### Development expenditure

- g) Areas in Development  
Costs incurred in preparing mines for production including the required plant infrastructure.
- h) Areas in Production  
Represent the accumulation of all acquired exploration, evaluation and development expenditure in which economic mining of a mineral reserve has commenced. Amortisation of costs is provided on the unit-of-production method.

##### Property, plant and equipment

Property, plant and equipment are stated at cost less any accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises:

- Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and,
- The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is provided on a straight-line basis on all property plant and equipment other than land. Major depreciation periods are:

	Life	Method
Motor vehicles	3 years	Straight line
Office equipment	3 years	Straight line
Plant and equipment	Life of mine years / unit of production	Straight line

## Notes to the Financial Statements **B: Production and Growth Assets**

### **B.1 Mine properties and property, plant and equipment (continued)**

#### **Key estimates and judgements**

##### **Stripping activity assets**

Judgement is required to identify a suitable production measure to be used to allocate production stripping costs between inventory and any stripping activity asset(s) for each component. The Group considers that the ratio of the expected volume of waste to be stripped for an expected volume of ore to be mined for a specific component of the ore body, to be the most suitable production measure.

An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity.

Judgement is also required to identify and define these components, and also to determine the expected volumes (e.g. tonnes) of waste to be stripped and ore to be mined in each of these components. These assessments are based on the information available in the mine plan which will vary between mines for a number of reasons, including, the geological characteristics of the ore body, the geographical location and/or financial considerations.

##### **Stripping ratio**

The Group has adopted a policy of deferring production stage stripping costs and amortising them on a units-of-production basis. Significant judgement is required in determining the contained ore units for each mine. Factors that are considered include:

- any proposed changes in the design of the mine;
- estimates of the quantities of ore reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and,
- future cash costs of production and capital expenditure.

##### **Determining the beginning of production**

The Group ceases capitalising pre-production costs and begins depreciation and amortisation of mine assets at the point commercial production commences. This is based on the specific circumstances of the project, and considers when the specific asset becomes 'available for use' as intended by management which includes consideration of the following factors:

- the level of redevelopment expenditure compared to project cost estimates;
- completion of a reasonable period of testing of the mine plant and equipment;
- mineral recoveries, availability and throughput levels at or near expected/feasibility study levels;
- the ability to produce gold into a saleable form (where more than an insignificant amount is produced); and,
- the achievement of continuous production.

Estimation of mineral reserves and resources – refer to B.3

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.1 Mine properties and property, plant and equipment (continued)

30 June 2018	Plant and Equipment						Development Expenditure		
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	Mine Properties	Stripping Activity Asset	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Opening write down value	7,637	77,543	750	2,845	1,293	<b>90,068</b>	143,641	15,971	<b>159,612</b>
Additions	-	88,004	246	112	-	<b>88,362</b>	122,117	33,307	<b>155,424</b>
Disposals	-	(20)	-	(46)	(207)	<b>(273)</b>	-	-	-
Depreciation expense	(167)	(9,284)	(22)	(174)	(429)	<b>(10,076)</b>	-	-	-
Transfers from exploration and evaluation	-	-	-	-	-	-	23,368	-	<b>23,368</b>
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(48,936)	<b>(48,936)</b>
Amortisation expense	-	-	-	-	-	-	(4,471)	-	<b>(4,471)</b>
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	6,856	-	<b>6,856</b>
Foreign currency translation	307	4,142	26	101	(1)	<b>4,575</b>	9,878	427	<b>10,305</b>
<b>At 30 June net of accumulated depreciation</b>	<b>7,777</b>	<b>160,385</b>	<b>1,000</b>	<b>2,838</b>	<b>656</b>	<b>172,656</b>	<b>301,389</b>	<b>769</b>	<b>302,158</b>
Cost	17,199	553,642	5,705	9,724	21,928	<b>608,198</b>	669,230	49,705	<b>718,935</b>
Accumulated depreciation and impairment	(9,422)	(393,257)	(4,705)	(6,886)	(21,272)	<b>(435,542)</b>	(367,841)	(48,936)	<b>(416,777)</b>
<b>Net carrying amount</b>	<b>7,777</b>	<b>160,385</b>	<b>1,000</b>	<b>2,838</b>	<b>656</b>	<b>172,656</b>	<b>301,389</b>	<b>769</b>	<b>302,158</b>

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.1 Mine properties and property, plant and equipment (continued)

30 June 2017	Plant and Equipment						Development Expenditure		
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	Mine Properties	Stripping Activity Asset	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Opening write down value	8,016	46,787	811	2,744	3,298	<b>61,656</b>	88,116	29,074	<b>117,190</b>
Additions	-	40,032	-	306	-	<b>40,338</b>	62,245	42,111	<b>104,356</b>
Reversal of impairment	-	408	11	-	-	<b>419</b>	-	-	-
Disposals	-	(662)	(13)	-	(963)	<b>(1,638)</b>	-	-	-
Depreciation expense	(160)	(7,876)	(40)	(125)	(1,638)	<b>(9,839)</b>	-	-	-
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(54,818)	<b>(54,818)</b>
Amortisation expense	-	-	-	-	-	-	(9,198)	-	<b>(9,198)</b>
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	1,327	-	<b>1,327</b>
Foreign currency translation	(219)	(1,146)	(19)	(80)	596	<b>(868)</b>	1,151	(396)	<b>755</b>
<b>At 30 June net of accumulated depreciation</b>	<b>7,637</b>	<b>77,543</b>	<b>750</b>	<b>2,845</b>	<b>1,293</b>	<b>90,068</b>	<b>143,641</b>	<b>15,971</b>	<b>159,612</b>
Cost	15,582	435,206	3,319	7,216	24,813	<b>486,136</b>	507,011	70,789	<b>577,800</b>
Accumulated depreciation and impairment	(7,945)	(357,663)	(2,569)	(4,371)	(23,520)	<b>(396,068)</b>	(363,370)	(54,818)	<b>(418,188)</b>
<b>Net carrying amount</b>	<b>7,637</b>	<b>77,543</b>	<b>750</b>	<b>2,845</b>	<b>1,293</b>	<b>90,068</b>	<b>143,641</b>	<b>15,971</b>	<b>159,612</b>

## Notes to the Financial Statements **B: Production and Growth Assets**

### B.2 Exploration and evaluation assets

Exploration and evaluation (at cost)	2018	2017
	\$'000	\$'000
Balance at the beginning of the year	64,879	46,292
Expenditure during the year	14,592	19,835
Adjustments to rehabilitation obligations	(4,743)	(17)
Transfers to areas in development	(23,368)	-
Foreign currency translation	1,802	(1,231)
<b>Balance at the end of the year</b>	<b>53,162</b>	<b>64,879</b>

### Recognition and measurement

Exploration expenditure is expensed to the consolidated statement of comprehensive income as and when it is incurred and included as part of cash flows from operating activities. Exploration costs are only capitalised to the consolidated statement of financial position if they result from an acquisition.

Evaluation expenditure is capitalised to the consolidated statement of financial position. Evaluation is deemed to be activities undertaken from the beginning of the pre-feasibility study conducted to assess the technical and commercial viability of extracting a mineral resource before moving into the Development phase. The criteria for carrying forward the costs are:

- Such costs are expected to be recouped through successful development and exploitation of the area of interest, or alternatively by its sale; or
- Evaluation activities in the area of interest which has not yet reached a state which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing.

Costs carried forward in respect of an area of interest which is abandoned are written off in the year in which the abandonment decision is made.

### Exploration commitments

It is difficult to accurately forecast the nature or amount of future expenditure, although it will be necessary to incur expenditure in order to retain present interests in mineral tenements. Expenditure commitments on mineral tenure can be reduced by selective relinquishment of exploration tenure or by the renegotiation of expenditure commitments. The level of exploration expenditure expected in the year ending 30 June 2019 for the consolidated entity is approximately \$21.438m (2018: \$34.178m). This includes the minimum amounts required to retain tenure. There are no material exploration commitments further out than one year.

## Notes to the Financial Statements **B: Production and Growth Assets**

### **B.3 Impairment of non-current assets**

#### **Recognition and measurement**

##### **Impairment testing**

The carrying values of non-current assets are reviewed for impairment when indicators of impairment or a reversal of a prior period impairment may exist or changes in circumstances indicate the carrying value may not be recoverable. At a minimum the Group makes this assessment twice annually at 30 June and 31 December. No indicators of impairment or indicators for reversal of prior period impairment loss were identified.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount. The recoverable amount of an asset is the greater of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

##### **Recognised Impairment**

No impairment loss or reversal of prior period impairment loss was recognised in 2018.

### **Key estimates and judgements**

#### **Determination of mineral resources and ore reserves**

The determination of reserves impacts the accounting for asset carrying values, depreciation and amortisation rates, deferred stripping costs and provisions for decommissioning and restoration. The information in this report as it relates to ore reserves, mineral resources or mineralisation is reported in accordance with the Aus.IMM “Australian Code for reporting of Identified Mineral Resources and Ore Reserves”. The information has been prepared by or under supervision of competent persons as identified by the Code.

There are numerous uncertainties inherent in estimating mineral resources and ore reserves and assumptions that are valid at the time of estimation which may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated.

#### **Impairment of mine properties, plant and equipment**

The future recoverability of capitalised mine properties and plant and equipment is dependent on a number of key factors including; gold price, discount rates used in determining the estimated discounted cash flows of Cash Generating Units (“CGUs”), foreign exchange rates, the level of proved and probable reserves and measured, indicated and inferred mineral resources that may be included in the determination of fair value less cost to dispose (“fair value”), future technological changes which could impact the cost of mining, and future legal changes (including changes to environmental restoration obligations). The costs to dispose are estimated by management based on prevailing market conditions.

When applicable, fair value is estimated based on discounted cash flows using market based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, based on CGU life-of-mine (LOM) plans. Consideration is also given to analysts’ valuations, and the market value of the Company’s securities. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy (in accordance with Australian Accounting Standards).

## Notes to the Financial Statements **B: Production and Growth Assets**

### Key estimates and judgements

#### Impairment of mine properties, plant and equipment (continued)

In determining the recoverable amount of CGUs at 30 June 2017, future cash flows were discounted using rates based on the Group's estimated weighted average cost of capital. When it is considered appropriate to do so, an additional premium is applied with regard to the geographic location and nature of the CGU. LOM operating and capital cost assumptions are based on the Group's latest budget and LOM plans.

#### Key Assumptions:

The table below summarises the key assumptions used in the carrying value assessments in prior year:

Gold price (US\$ per ounce):	2018: N/A (2017: \$1,210 - \$1,270)	Commodity price and foreign exchange rates were estimated with reference to external market forecasts, and updated at least twice annually. The rates applied to the valuation had regard to observable market data.
Discount rate % (post tax)	2018: N/A (2017: 9% - 11%)	In determining the fair value of CGUs, the future cash flows were discounted using rates based on the Group's estimated real weighted average cost of capital, with an additional premium applied having regard to the geographic location of the CGU.
Operating and capital costs:	Life-of-mine operating and capital cost assumptions are based on the Group's latest budget and life-of-mine plans.	

### B.3 Impairment of non-current assets (continued)

### B.4 Segment expenditure, assets and liabilities

For the year ended 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Corp/ Other	Treasury	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Capital expenditure	21,162	161,855	9,822	29,204	-	222,043
Segment assets of continuing operations	98,435	638,125	87,337	111,371	-	935,268
Segment liabilities of continuing operations	63,068	137,287	10,503	15,770	-	226,628

For the year ended 30 June 2017	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Corp/ Other	Treasury	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Capital expenditure	13,797	87,665	17,731	3,225	-	122,418
Segment assets of continuing operations	77,314	385,712	78,405	296,322	-	837,753
Segment liabilities of continuing operations	58,228	105,623	16,221	8,483	-	188,555

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### In this section

Cash, debt and capital position of the Group at the end of the reporting period.

### C.1 Cash

	2018	2017
	\$'000	\$'000
Cash at bank and on hand	42,445	282,060
<b>Reconciliation to cash flow statement</b>		
For the purpose of the cash flow statement, cash and cash equivalents comprise the following at 30 June:		
Cash at bank and on hand	42,445	282,060
Bank overdraft	(47,282)	(34,558)
	<b>(4,837)</b>	<b>247,502</b>

The credit quality of cash and cash equivalents can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

<b>Cash at bank and short term deposits</b>		
<i>Counterparties with external credit ratings</i>		
AA-	495	191,881
A	40,269	89,155
B	-	75
<i>Counterparties without external credit ratings</i>	1,681	949
<b>Total cash at bank and short term deposits</b>	<b>42,445</b>	<b>282,060</b>

### Recognition and measurement

Cash and cash equivalents in the statement of financial position comprise cash at bank and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are stated at face value in the statement of financial position.

### Fair value and foreign exchange risk

The carrying amount of cash and cash equivalents approximates their fair value.

The Group held A\$30.4 million of cash and cash equivalents at 30 June 2018 (2017: A\$5.8 million) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. These exposures are predominantly US dollars (2018: A\$11.9 million; 2017: A\$3.8 million equivalent) and Euro (2018: A\$5.0 million; 2017: A\$1.5 million equivalent).

Average interest rates earned on cash and cash equivalents during the period was 2.4% (2017: 2.2%).



## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.1 Cash (continued)

Reconciliation of net profit from continuing operations after income tax to the net operating cash flows

	2018	2017
	\$'000	\$'000
Net profit from ordinary activities after income tax	77,837	166,096
Add/(deduct):		
Share based payments including employee long term incentive costs	1,782	1,184
Loss on sale of property, plant and equipment	587	193
Profit on sale of available for sale financial assets	-	(200)
Rehabilitation and restoration provision accretion	1,505	1,182
Rehabilitation and restoration cash expenditure	(1,223)	(1,783)
Depreciation and amortisation	14,547	19,811
Foreign exchange (gains)/losses	(30,574)	5,238
Inventory net realisable value movements	(12,822)	(11,424)
Share of associates' losses	1,500	1,799
Non cash finance costs	42	61
Realised gain on investment in associate	-	(864)
Unrealised gain on forwards contracts	-	(2,629)
Changes in operating assets and liabilities:		
(Increase)/decrease in receivables	(32,949)	1,557
Increase in inventories	(8,905)	(15,610)
(Increase)/decrease in prepayments	(2,577)	1,196
Decrease in stripping activity asset	15,681	12,645
Increase in payables	24,112	27,678
(Increase)/decrease in current tax balances	(24,488)	3,118
Decrease/(increase) in deferred tax balances	6,751	(15,333)
Decrease in operating provisions	(2,447)	(7,531)
<b>Net operating cash flows</b>	<b>28,359</b>	<b>186,384</b>

# Notes to the Financial Statements C: Cash, Debt and Capital

## C.1 Cash (continued)

### Cash flow by segment

	Ravenswood (Australia)	Syama (Ghana)	Bibiani (Ghana)	Unallocated (b)		Total
				Corp/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>For the year ended 30 June 2018</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	(12,074)	(112,182)	(17,550)	(47,887)	(14,424)	(204,117)
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold poured but unsold at market value						(40,726)
Mark to market movement in gold unsold						(605)
Movement in bank overdraft, including foreign exchange movements						(12,724)
Exchange rate adjustment in cash on hand						2,730
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>(255,442)</b>
<b>For the year ended 30 June 2017</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	16,646	48,160	(16,089)	(20,460)	151,903	180,160
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold poured but unsold at market value						22,071
Mark to market movement in gold unsold						(31)
Movement in bank overdraft, including foreign exchange movements						(8,102)
Exchange rate adjustment in cash on hand						248
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>194,346</b>

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.2 Interest bearing liabilities

	2018	2017
	\$'000	\$'000
Bank overdraft - ref C3.1	47,282	34,558
	47,282	34,558

### Recognition and measurement

All loans and borrowings are initially recognised at fair value less transaction costs and subsequently at amortised cost. Any difference between the proceeds received and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method.

Resolute has a Security Trust Deed in place with various banks. The total assets of the entities over which security exists amounts to \$875m (2017: \$806m). \$152m (2017: \$88m) of these assets relate to property plant and equipment.

#### Finance leases

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets. Lease payments are allocated between interest expense and reduction in the lease liability. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability.

#### Interest bearing liabilities

The Group's interest bearing liabilities have a fair value equal to the carrying value.

The Group held no interest bearing liabilities at 30 June 2018 (2017: Nil) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. Average interest rates charged on interest bearing liabilities at period end was 8.0% (2017: 8.0%).

During the 2018 year, the overdraft which is denominated in CFA increased during the period due to cash drawdowns of \$10.6m AUD after the facility limit was increased by AUD\$12m (5 billion CFA) to AUD\$47m (20 billion CFA) and unrealised foreign exchange movements of \$2.1m AUD.

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.2 Interest bearing liabilities (continued)

#### Maturity profile of interest-bearing liabilities

The maturity profile of the Group's interest-bearing liabilities in total and for finance leases is as follows:

	2018	2017
	\$'000	\$'000
<b>Borrowings</b>		
Due within 1 to 3 months	-	-
Due within 4 months to one year	49,184	35,918
Due between one and five years	-	-
<b>Total contractual repayments</b>	<b>49,184</b>	<b>35,918</b>
Less finance charges	(1,902)	(1,360)
<b>Total interest bearing liabilities</b>	<b>47,282</b>	<b>34,558</b>

### C.3 Financing facilities

#### C3.1 Bank overdraft

The current facility with the Bank Du Mali SA is in place and is subject to an annual revision in approximately September 2018. As at 30 June 2018 nil of the facility was unused.

#### C3.2 Syndicated facilities

RML has entered into the following Letter of Credit Facility Agreements:

- A A\$35.0m Letter of Credit Facility Agreement with Citibank N.A. relating mainly to Environmental Performance Bonds for the Ravenswood Project. A\$29.4m of this facility has been drawn and expires on 31 December 2019;
- A A\$9.5m (US\$7m) Letter of Credit Facility Agreement with Société Générale Ghana Limited relating to Environmental Performance Bonds for the Bibiani Project. This facility is fully drawn and expires on 31 December 2019.

The Citibank N.A. Letter of Credit Facility Agreement and hedging facilities provided by Investec Bank Plc and Citibank N.A. are secured by the following:

- Cross Guarantee and Indemnity given by RML ("the Borrower"), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- Share Mortgage granted by RML over all of its shares in Carpentaria Gold Pty Ltd;
- Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,
- Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.3 Financing facilities (continued)

#### C3.2 Syndicated facilities (continued)

Pursuant to the Syndicated Facilities Agreement and Letter of Credit Facility Agreement with Citibank N.A, the following ratios are required:

- (ix) (Interest Cover Ratio): the ratio of EBITDA to Net Interest Expense will be greater than 5.00 times;
- (x) (Net Debt to EBITDA): the ratio of Net Debt to EBITDA will be less than 2.00 times;
- (xi) (Consolidated Gearing): the ratio of Net Debt to Equity will be less than 1.00 times;
- (xii) (Loan Life Cover Ratio): will be equal to or greater than 1.50:1; and,
- (xiii) (Reserve Tail Ratio): will exceed 30%.

There have been no breaches of these ratios. The Société General Ghana Limited Letter of Credit Facility Agreement is supported by a guarantee provided by Resolute Mining Limited.

### C.4 Contributed Equity

	2018	2017
	\$'000	\$'000
Ordinary share capital:	544,972	544,987
741,477,595 ordinary fully paid shares (2017: 736,982,768)		
Movements in contributed equity, net of issuing costs:		
Balance at the beginning of the year	544,987	395,198
Issue of shares to Level 1 and 2 employees (net of costs)	(15)	-
Placement of shares to institutional investors (net of costs)	-	147,092
Shares issued pursuant to the Osisko Share Purchase Agreement (net of costs) <sup>1</sup>	-	2,544
Exercise of 130,000 unlisted options at \$1.18 per share	-	153
<b>Balance at the end of the year</b>	<b>544,972</b>	<b>544,987</b>

<sup>1</sup>This relates to the purchase of 21,868,000 shares in Kilo Goldmines which resulted in the issue of 1,457,867 Resolute shares.

#### Recognition and measurement

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

#### Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held. Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

#### Rights of employee share based payment recipients

Refer to E.10 for details of the employee share based payment plans which includes option and performance rights plans. Each option entitles the holder to purchase one share. The names of all persons who currently hold employee share options or performance rights, granted at any time, are entered into the register kept by the Company, pursuant to Section 215 of the Corporations Act 2001. Persons entitled to exercise these options and holders of performance rights have no right, by virtue of the options, to participate in any share issue by the parent entity or any other body corporate.

## Notes to the Financial Statements **C: Cash, Debt and Capital**

### C.5 Other reserves

Reserve	Nature and purpose
Net unrealised gain/(loss) reserve	This reserve records fair value changes on available for sale investments.
Convertible notes/ Share options equity reserve	This reserve records the value of the equity portion (conversion rights) of the convertible notes and records the fair value of share options issued.
Employee benefits equity reserve	This reserve is used to recognise the fair value of options and performance rights granted over the vesting period of the securities provided to employees.
Foreign currency translation reserve	Represents exchange differences arising on translation of foreign controlled entities.
Non-controlling interest's reserve	This reserve records the difference between the fair value of the amount by which the non-controlling interests were adjusted to record their initial relative interest and the consideration paid for Resolute's acquisition for that share of the interest.

### Key financial and capital risks associated with Cash, Debt and Capital

#### Liquidity risk management

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, or having the availability of funding through an adequate amount of undrawn committed credit facilities.

#### Interest rate risk management

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group constantly analyses its interest rate exposure. Within this analysis consideration is given to the potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates. There is no intention at this stage to enter into any interest rate swaps.

#### Capital risk management

The Group's and the parent entity's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain a capital structure that is appropriate for the Group's current and/or projected financial position. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders (if any), return capital to shareholders, buy back its shares, issue new shares, borrow from financiers or sell assets to reduce debt.

The Group monitors the adequacy of capital by analysing cash flow forecasts over the term of the Life of Mine for each of its projects. To a lesser extent, gearing ratios are also used to monitor capital. Appropriate capital levels are maintained to ensure that all approved expenditure programs are adequately funded. This funding is derived from an appropriate combination of debt and equity. The gearing ratio at 30 June 2018 is 0% (2017: 0%). The Group is not subject to any externally imposed capital requirements.

The gearing ratio is calculated as net debt divided by total capital. Net debt is defined as interest bearing liabilities less cash, cash equivalents and market value of bullion on hand. Total capital is calculated as 'equity' as shown in the Consolidated Statement of Financial Position (including non-controlling interest) plus net debt.

The following table summarises the post-tax effect of the sensitivity of the Group's debt, cash and capital items on profit and equity at reporting date to movements that are reasonably possible in relation to interest rate risk and foreign exchange currency risk.

	Carrying Amount	Interest rate risk				Foreign exchange risk			
		-1%		+1%		-10%		+10%	
		Profit	Equity	Profit	Equity	Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>30 June 2018</b>									
Cash	42,445	(279)	(279)	279	279	2,260	2,260	(1,849)	(1,849)
<b>Total (decrease)/increase</b>		<b>(279)</b>	<b>(279)</b>	<b>279</b>	<b>279</b>	<b>2,260</b>	<b>2,260</b>	<b>(1,849)</b>	<b>(1,849)</b>
<b>30 June 2017</b>									
Cash	282,060	(1,965)	(1,965)	1,965	1,965	560	560	(458)	(458)
<b>Total (decrease)/increase</b>		<b>(1,965)</b>	<b>(1,965)</b>	<b>1,965</b>	<b>1,965</b>	<b>560</b>	<b>560</b>	<b>(458)</b>	<b>(458)</b>

## Notes to the Financial Statements **D: Other assets and liabilities**

### In this section

Other assets and liabilities position at the end of the reporting period.

### D.1 Receivables

	2018	2017
	\$'000	\$'000
Trade receivables	1,783	1,542
Taxation debtors <sup>1</sup>	38,181	4,206
Loans advanced to other parties <sup>2</sup>	5,133	-
	<b>45,097</b>	<b>5,748</b>

<sup>1</sup> The taxation debtors primarily relate to indirect taxes owing to the group by the State of Mali.

<sup>2</sup> Relates to loan advanced to a supplier which is secured over assets that the loan was used to purchase. Interest at the rate of 10% per annum is charged on the balance outstanding and the loan is repayable by the supplier by way of deduction from future amounts payable under the contract. The balances outstanding at 30 June 2018 is expected to be repaid within the next 12 months and therefore the loan has been classified as current.

The credit quality of receivables can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

	2018	2017
	\$'000	\$'000
Counterparties with external credit ratings		
AA+	1,061	511
Counterparties without external credit ratings *		
Group 1	43,689	5,192
Group 2	347	45
	<b>45,097</b>	<b>5,748</b>

\*Group 1 refers to existing counterparties with no defaults in the past. Group 2 refers to existing counterparties where difficulty in recovering these debts in the past has been experienced.

### Recognition and measurement

Trade receivables are initially recognised at fair value and subsequently at amortised cost less a provision for any uncollectible debts. Trade receivables are due for settlement no more than 30 days from the date of recognition.

#### Fair value and foreign exchange risk

The carrying amount of receivables approximates their fair value.

The Group held \$1.8m receivables at 30 June 2018 (2017: \$5.3m) in currencies other than Australian dollars or in a different currency to that of the functional currency of the company which holds the item.

## Notes to the Financial Statements **D: Other assets and liabilities**

### D.1 Receivables (continued)

As at 30 June, the aging analysis of current and non-current sundry debtors is as follows:

	2018	2017
	\$'000	\$'000
Neither past due nor impaired	18,300	5,327
0-30 days (Past due but not impaired)	7,117	-
31-60 days (Past due but not impaired)	6,032	-
61-90 days (Past due but not impaired)	5,114	-
+91 days (Past due but not impaired)	8,187	376
+91 days (Considered impaired)	347	45
	<b>45,097</b>	<b>5,748</b>

Payment terms on amounts past due but not impaired have not been re-negotiated, however the Group maintains direct contact with the relevant debtor and is satisfied that net receivables will be collected in full.

### D.2 Inventories

	2018	2017
	\$'000	\$'000
Ore stockpiles		
-At cost	38,296	37,411
-At net realisable value	35,946	20,829
Total ore stockpiles	74,242	58,240
Gold bullion on hand - at cost <sup>1</sup>	28,675	209
Gold in circuit - at cost <sup>2</sup>	72,830	90,527
Consumables at cost	58,973	53,098
	<b>234,720</b>	<b>202,074</b>

<sup>1</sup> Resolute retains 21,962oz of gold bullion on hand at 30 June 2018 with a market value of \$37.1m (2017: 244oz with a market value of \$0.4m).

<sup>2</sup> Included in gold in circuit is inventory with carrying value of \$54m that is expected to be processed after 12 months.

### Recognition and measurement

Finished goods (bullion), gold in circuit and stockpiles of unprocessed ore are stated at the lower of cost and estimated net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to ore stockpiles and gold in circuit items of inventory on the basis of weighted average costs. Net realisable value is the estimated selling price in the ordinary course of business (excluding derivatives) less the estimated costs of completion and the estimated costs necessary to make the sale. Consumables have been valued at cost less an appropriate provision for obsolescence. Cost is determined on a first-in-first-out basis.



## Notes to the Financial Statements **D: Other assets and liabilities**

### D.3 Other financial assets and liabilities

	2018	2017
	\$'000	\$'000
<b>Available for sale financial assets (current)</b>		
Shares at fair value - listed	22,859	3,595
<b>Financial derivative assets (current)</b>		
Gold forwards at fair value	-	2,214
<b>Other financial assets (non-current)</b>		
Environmental bond - restricted cash (face value approximates fair value)	3,707	3,570
Other	44	81
	<b>3,751</b>	<b>3,651</b>

### Recognition and measurement

#### Available-for-sale financial assets

Available for sale financial assets consist of investments in ordinary shares, comprising principally of marketable equity securities. Investments are initially recognised at fair value plus transaction costs. Unrealised gains and losses arising from changes in the fair value of classified as available-for-sale are recognised in equity in the available-for-sale investments revaluation reserve. A significant or prolonged decline in the fair value of a security results in the impairment charge being removed from equity and recognised in the consolidated statement of comprehensive income.

The fair value of the listed securities are based on quoted market prices and accordingly is a level 1 measurement basis on the fair value hierarchy.

#### Financial derivative assets

The gold forward contracts were valued using the valuation techniques with market observable inputs such as credit quality of counterparties, forward rate curves of the underlying commodity etc. The fair value methodology adopted was categorised as Level 2 in the fair value hierarchy.

#### Restricted cash

The environmental bond represents a receivable carried at amortised cost using the effective interest method. The Ghanaian Environmental Protection Authority holds \$3.703m (AUD equivalent) of restricted cash as security for the rehabilitation and restoration provision of Mensin Gold Bibiani Limited's Bibiani project. There is no external credit rating basis for the Ghanaian Environmental Protection Authority. The average interest rate earned on the environmental bond during the period was 0.0% (2017: 0.0%).

#### Use of derivative instruments to assist in managing gold price risk

As part of the Group's risk management practices, selected financial instruments (such as gold forward sales contracts, gold call options and gold put options) may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible, and in any event, limiting derivative commitments to no more than 50% of the Group's gold reserves. The value of these financial instruments at any given point in time, will in times of volatile market conditions, show substantial variation over the short term. The hedging facilities provided by the Group's counterparties do not contain margin calls. The Group did not hedge account for these instruments.

Movements in fair value are accounted for through the consolidated statement of comprehensive income.

### D.4 Prepayments

Non-current prepayments relate to payments made for the acquisition of plant and equipment.

# Notes to the Financial Statements **D: Other assets and liabilities**

## D.5 Payables

	2018	2017
	\$'000	\$'000
Trade creditors	36,234	36,331
Accruals	56,254	28,821
	<b>92,488</b>	<b>65,152</b>

## Recognition and measurement

Liabilities for trade creditors and other amounts are carried at amortised cost which is the amount initially recognised, minus repayments whether or not billed to the consolidated entity.

Payables to related parties are carried at the principal amount. Interest, when charged by the lender, is recognised as an expense on an accruals basis. Payables are non-interest bearing and generally settled on 30-90 day terms. Due to the short term nature of these payables, their carrying value is assumed to approximate their fair value.

## D.6 Provisions

	2018	2017
	\$'000	\$'000
<b>Current</b>		
Site restoration	5,330	715
Employee entitlements <sup>1</sup>	12,517	16,806
Dividend payable	135	135
Withholding taxes	473	262
Other provisions	2,716	808
	<b>21,171</b>	<b>18,726</b>
<b>Non-Current</b>		
Site restoration	64,257	64,710
Employee entitlements	1,430	1,430
	<b>65,687</b>	<b>66,140</b>

<sup>1</sup> Resolute Mining's 80% owned subsidiary Société des Mines de Syama SA ("SOMISY") received notifications from the Institut National de Prévoyance Sociale ("INPS") alleging SOMISY owed contributions to the INPS on salaries paid by SOMISY to its expatriate employees between January 2005 and July 2013. Malian Legislation requires the remittance of 24% of an employee's gross salary and a mandatory health insurance levy to the INPS department and is a form of social tax. In accordance with the Establishment Convention between SOMISY and the State of Mali, SOMISY is exempt from paying INPS contributions and the mandatory health insurance levy on expatriate employees during the Syama Mine Development Period. In accordance with the Establishment Convention, SOMISY did not remit INPS on expatriate salaries during the Mine Development Period, and then commenced remitting INPS on expatriate salaries after the cessation of the Mine Development Period. SOMISY has acted in accordance with the Establishment Convention at all times. The INPS department's claims are for the period during the Mine Development Period only and SOMISY's position is that it is not liable for payments during that period.

SOMISY unsuccessfully appealed against this INPS assessment, with a Malian Court of Appeal ruling in favour of the INPS department on the basis that it was not a government department and hence not a party to the Establishment Convention, so it was not obliged to follow its terms and conditions. In June 2016, a Settlement Agreement was executed by the parties to record an agreed instalment plan under which SOMISY fully discharges this disputed liability by paying A\$11.5m (CFA 5,157,144,561) to INPS in instalments between 1 July 2016 and 30 June 2018. These instalments have now been paid in full.

A further demand for A\$2.1m was received from INPS in February 2018 relating to the period August 2013 to September 2017. SOMISY is currently contesting this demand and negotiations are ongoing as at 30 June 2018.

Resolute continues to strongly dispute the validity of the INPS assessments and negotiations with the State of Mali are ongoing to recover the INPS contributions demanded by the State of Mali in breach the terms of the Establishment Convention. Successful negotiations will see the monies paid to date in breach of the Establishment Convention returned to SOMISY.

## Notes to the Financial Statements **D: Other assets and liabilities**

### **D.6 Provisions (continued)**

#### **Recognition and measurement**

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a borrowing cost.

#### **Employee benefits**

The Group does not expect its long service leave or annual leave benefits to be settled wholly within 12 months of each reporting date. The Group recognises a liability for long service leave and annual leave measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels, experience of employee departures, and periods of service. Expected future payments are discounted using market yields at the reporting date on high quality corporate bonds with terms to maturity and currencies that match, as closely as possible, the estimated future cash outflows.

#### **Restoration obligations**

The Group records the present value of the estimated cost of obligations, such as those under the consolidated entity's Environmental Policy, to restore operating locations in the period in which the obligation is incurred. The nature of restoration activities includes dismantling and removing structures, rehabilitating mines, dismantling operating facilities, closure of plant and waste sites and restoration, reclamation and revegetation of affected areas.

	<b>2018</b>	<b>2017</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Site restoration</b>		
Balance at the beginning of the year	65,425	65,367
Rehabilitation and restoration provision accretion	1,505	1,182
Change in scope of restoration provision	2,113	1,310
Utilised during the year	(1,223)	(1,783)
Foreign exchange translation	1,767	(651)
<b>Balance at the end of the year</b>	<b>69,587</b>	<b>65,425</b>
<b>Reconciled as:</b>		
Current provision	5,330	715
Non-current provision	64,257	64,710
<b>Total provision</b>	<b>69,587</b>	<b>65,425</b>

## Notes to the Financial Statements **D: Other assets and liabilities**

### D.6 Provisions (continued)

#### Key estimates and judgements

##### Restoration

In determining an appropriate level of provision consideration is given to the expected future costs to be incurred, the timing of these expected future costs (largely dependent on the life of the mine), and the estimated future level of inflation. The discount rate used in the calculation of these provisions is consistent with the risk free rate. The ultimate cost of decommissioning and restoration is uncertain and costs can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine-sites. The expected timing of expenditure can also change, for example in response to changes in reserves or to production rates. Changes to any of the estimates could result in significant changes to the level of provisioning required, which would in turn impact future financial results.

#### Key financial risks associated with other assets and liabilities

##### Interest rate risk, diesel price risk and foreign exchange risk management

Refer to About this Report and Section C for details of how these risks are managed.

##### Credit risk management

The Group's exposure to credit risk arises from potential default of the counterparty, with a maximum exposure equal to the carrying amount of the financial assets.

Credit risk is managed on a Group basis. Credit risk predominately arises from cash, cash equivalents (refer to C1), gold bullion held in metal accounts, derivative financial instruments, deposits with banks and financial institutions and receivables from statutory authorities. For derivative financial instruments, management mitigates some credit risk by using a number of different hedging counterparties. Credit risk further arises in relation to financial guarantees given to certain parties. Such guarantees are only provided in exceptional circumstances and are subject to Audit and Risk Committee approval. With the exception of those items disclosed in C3 and a Resolute Mining parent company guarantee provided to Macquarie Bank Limited relating to their provision of a hedging facility, no guarantees have been provided to third parties as at the reporting date. The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

##### Foreign exchange risk management

The following table summarises the sensitivity to a reasonably possible change in foreign exchange rates with all other variables held constant:

	Carrying Amount	Foreign exchange risk			
		-10%		+10%	
		Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>30 June 2018</b>					
Other financial assets	3,751	288	288	(236)	(236)
Loans advanced to other parties	5,133	243	243	(199)	(199)
Loans to subsidiaries	574,677	44,697	44,697	(36,570)	(36,570)
Payables	92,278	(1,123)	(1,123)	919	919
<b>Total (decrease)/increase</b>		<b>44,105</b>	<b>44,105</b>	<b>(36,086)</b>	<b>(36,086)</b>
<b>30 June 2017</b>					
Other financial assets	3,651	288	288	(227)	(227)
Loans to subsidiaries	389,797	30,318	30,318	(24,805)	(24,805)
Payables	65,152	(446)	(446)	365	365
<b>Total (decrease)/increase</b>		<b>30,160</b>	<b>30,160</b>	<b>(24,667)</b>	<b>(24,667)</b>

## Notes to the Financial Statements **E: Other items**

### In this section

Information on items which require disclosure to comply with Australian Accounting Standards and the Australian Corporations Act 2001. This section includes group structure information and other disclosures.

### E.1 Contingent liabilities

#### Contingent liabilities

##### Amounts Potentially Payable to historical Bibiani Creditors

In June 2014, Mensin Gold Bibiani Limited, Drilling and Mining Services Limited and Noble Mining Ghana Limited (collectively referred to as the “Companies”) entered into court approved Schemes of Arrangement (“Scheme”) with their creditors and employees (“Scheme Creditors”). The Scheme enabled Resolute to secure, with the endorsement of the Ghanaian government, ultimate ownership of the Bibiani gold mine with protection from those liabilities which had been incurred at a time when the mine was owned by Noble. The Scheme outlines the timing and amounts of payments to be made by the Companies to a Scheme Fund and a Future Fund who in turn are responsible for making payments to the Scheme Creditors. The Scheme Creditors arise from transactions that occurred prior to the Companies becoming part of the Resolute group. The Scheme Fund and the Future Fund are administered by Ferrier Hodgson.

The implementation of the Scheme has had the effect of removing from the Companies’ balance sheets all historical liabilities relating to amounts payable to Scheme Creditors and replacing this with an obligation to fund the Scheme Fund and Future Fund as and when necessary. The unconditional obligations to make payments to the Scheme Fund have been paid prior to 30 June 2018. In addition to those recorded payments and liabilities, the following contingent liabilities to provide funding to the Scheme Fund and Future Fund exist at year end:

- Potential payment to the Scheme Fund of US\$3.600m (\$4.854m) if, following receipt of the Feasibility Study, the board of Resolute, in its absolute discretion, makes a decision to proceed with the development of Bibiani; and;
- Potential payment to a Future Fund of up to US\$7.800m (\$10.516m) conditional upon the generation of Free Cashflow from Bibiani mine operations for the period of 5 years from the date that Commercial Production is declared. Free Cashflow means 25% of the sum of Project Revenue for that period less Permitted Payments for that period, which includes:
  - operational expenses and capital costs paid in connection with the mining operations; and,
  - repayment of principal and interest relating to funds advanced by Resolute up to the commencement of mining operations.

Notwithstanding the Scheme’s approval by the court, the creditors, and the Ghanaian Minister of Mines, a Ghanaian creditor has sought to circumvent the operation of the Scheme and is seeking to enforce a winding up order against Mensin, on the basis of a debt incurred by Noble prior to implementation of the Scheme. Resolute is defending Mensin’s right to unencumbered ownership of Bibiani which was a key element of the Scheme supported by both Resolute and the Ghanaian government.

### E.2 Leases and other commitments

#### Operating leases

	2018	2017
	\$'000	\$'000
Due within one year	3,253	691
Due between one and five years	12,917	12,911
Aggregate lease expenditure contracted for at balance date but not provided for	16,170	13,602

#### Commitments

Other commitments not disclosed elsewhere in this report include:

##### Randgold/ Syama Royalty

Pursuant to the terms of the Syama Sale and Purchase agreement, Randgold Resources Limited will receive a royalty on Syama production, where the gold price exceeds US\$350 per ounce, of US\$10 per ounce on the first million ounces of gold production attributable to Resolute Mining Limited (“RML”) and US\$5 per ounce on the next three million attributable ounces of gold production. As at 30 June 2018, Resolute’s 80% attributable share of Syama’s project to date gold production was 1,234,640 ounces of gold, therefore the royalty is currently US\$5 per ounce.

## Notes to the Financial Statements **E: Other items**

### **E.2 Leases and other commitments (continued)**

#### **Commitments (continued)**

##### **Other contracted expenditure commitments**

	<b>2018</b>	<b>2017</b>
	<b>\$'000</b>	<b>\$'000</b>
Due within one year	8,780	2,180
Aggregate lease expenditure contracted for at balance date but not provided for	<b>8,780</b>	<b>2,180</b>

##### **Gold forward contracts**

As part of its risk management policy, the Group enters into gold forward contracts to manage the gold price of a proportion of anticipated sales of gold. During the period, the Group entered into three gold forward contracts totalling 168,000 ounces. As at 30 June 2018, 84,000 ounces remains outstanding.

The gold forward contracts disclosed below did not meet the criteria of financial instruments for accounting purposes on the basis that they met the normal purchase/sale exemption because physical gold would be delivered into the contract. Accordingly, the contracts were accounted for as sale contracts with revenue recognised in the period in which the gold commitment was met.

	<b>Gold for Physical Delivery Ounces</b>	<b>Contracted Gold Sale Price per Ounce (\$A)</b>	<b>Value of Committed sales \$'000</b>
<b>30 June 2018</b>			
<b>USD</b>			
Within one year	36,000	1,796.90	64,688,400
	<b>36,000</b>		<b>64,688,400</b>
<b>AUD</b>			
Within one year	48,000	1,715.00	82,320,000
	<b>48,000</b>		<b>82,320,000</b>

### **E.3 Auditor remuneration**

	<b>2018</b>	<b>2017</b>
	<b>\$</b>	<b>\$</b>
Auditing	175,500	179,360
Taxation planning advice and review and other services	20,000	-
	<b>195,500</b>	<b>179,360</b>
Amounts received or due and receivable by a related overseas office of Ernst & Young, from entities in the consolidated entity or related entities:		
Auditing (Ernst & Young, Ghana and Tanzania)	27,860	52,894
<b>Total amounts received or due and receivable by Ernst &amp; Young globally</b>	<b>223,360</b>	<b>232,254</b>
Amounts received or due and receivable by non Ernst & Young firms for auditing	47,446	35,690

## Notes to the Financial Statements **E: Other items**

### E.4 Investments in associates

	2018	2017	2018	2017	2018	2017
<b>Continuing Operations</b>	<b>Kilo Goldmines Ltd</b>		<b>Manas Resources Ltd</b>		<b>Loncor Resources Inc</b>	
Shares held in associates (No. of shares)	46,568,000	46,568,000	523,899,835	523,899,835	51,000,000	-
CA\$0.135 warrants, expiring 25 August 2018 (No. of warrants)	24,700,000	24,700,000	-	-	-	-
Percentage of ownership (%)	27.44%	27.44%	19.90%	19.90%	27.22%	-
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Listed	3,077	3,986	1,263	1,854	2,654	-

#### (b) Movements in the carrying amount of the Group's investment in associates

At 1 July	3,986	-	1,854	-	-	-
Purchase of investment	-	5,485	-	2,155	2,654	-
Share of loss after income tax	(909)	(1,499)	(591)	(301)	-	-
At 30 June	3,077	3,986	1,263	1,854	2,654 <sup>1</sup>	-

<sup>1</sup> On 13 July 2018, Resolute paid Loncor Resources Inc for 25 million shares acquired during the year, via the issue of 2,012,466 Resolute shares.

#### (c) Fair value of investment in listed associates

Market value of the Group's investment as at 30 June	1,195	1,627	3,143	2,096	3,927	-
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#### (d) Summarised financial information

The following table illustrates summarised financial information relating to the Group's associates:

<b>Extract from the associates' statement of financial position</b>						
Current assets	388	3,485	9,500	10,666	2,539	-
Non-current assets	742	4,856	244	1,913	37,998	-
Total assets	1,130	8,341	9,744	12,579	40,537	-
Current liabilities	253	123	169	161	1,745	-
Non-current liabilities	2	675	-	-	11	-
Total liabilities	255	798	169	161	1,756	-
Net assets	875	7,543	9,575	12,418	38,781	-
Share of associates' net assets	<b>240</b>	<b>2,070</b>	<b>1,905</b>	<b>2,471</b>	<b>10,555</b>	-
<b>Extract from the associates' statement of comprehensive income:</b>						
Revenue	-	-	-	-	-	-
(Loss)/profit before tax, (loss)/profit for the year and total comprehensive loss	(3,248)	(6,781)	(2,844)	(5,498)	30	-

# Notes to the Financial Statements **E: Other items**

## E.5 Subsidiaries and non-controlling interests

### Subsidiaries

The following were controlled entities during the year and have been included in the consolidated accounts. All entities in the consolidated entity carry on business in their place of incorporation.

Name of Controlled Entity and Country of Incorporation	Consolidated Entity Company Holding the Investment	Percentage of Shares Held by Consolidated Entity	
		2018	2017
		%	%
ACN 627 384 098 Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Amber Gold Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Limited	100	100
Carpentaria Gold Pty Ltd, Aust.	Resolute Mining Limited	100	100
Drilling and Mining Services Limited, Ghana	Resolute (Bibiani) Pty Limited	100	100
Excalibur Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Limited	100	100
Geb and Nut Resources SARL, Cote d'Ivoire	Resolute Cote D'Ivoire SARL	80	80
Resolute Corporate Services Pty Ltd, Aust. <sup>1</sup> (a)	Resolute (Treasury) Pty Ltd	100	100
Mensin Gold Bibiani Limited, Ghana	Resolute (Bibiani) Pty Limited	90	90
Nimba Resources SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Limited	100	100
Noble Mining Ghana Limited, Ghana	Resolute (Bibiani) Pty Limited	100	100
Resolute (Bibiani) Pty Limited, Aust. <sup>2</sup> (a)	Resolute Mining Limited	100	100
Resolute Burkina Faso Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Resolute Canada Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Resolute Canada 2 Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Resolute (CDI Holdings) Pty Ltd, Aust. <sup>3</sup> (a)	Resolute Mining Limited	100	100
Resolute Cote D'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Limited	100	100
Resolute Egypt (Australia) Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Egypt (Australia) 2 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Egypt Pty Ltd, Egypt	Resolute Egypt (Australia) Pty Ltd	50	50
	Resolute Egypt (Australia) 2 Pty Ltd	50	50
Resolute Exploration SARL, Mali	Resolute (Finkolo) Pty Limited	100	100
Resolute (Finkolo) Pty Limited, Aust. <sup>4</sup> (a)	Resolute Mining Limited	100	100
Resolute (Ghana) Limited, Ghana	Resolute Mining Limited	100	100
Resolute Mali S.A., Mali	Resolute (Somisy) Pty Limited	100	100
Resolute (Somisy) Pty Limited, Aust. <sup>5</sup> (a)	Resolute Mining Limited	100	100
Resolute Sudan Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Resolute Sudan 2 Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Resolute (Treasury) Pty Ltd, Aust. (a)	Resolute Mining Limited	100	100
RSG Tanzania Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
RSG Tanzania 2 Pty Ltd, Australia <sup>6</sup>	Resolute Mining Limited	100	-
Société des Mines de Finkolo S.A, Mali	Resolute (Finkolo) Pty Limited	90	85
Société des Mines de Syama S.A., Mali	Resolute (Somisy) Pty Limited	80	80

(a) Entities not separately audited. Entity's audit scope is limited to the purpose of inclusion in the consolidated entity's accounts.

<sup>1</sup> Previously Goudhurst Pty Ltd, Aust.

<sup>2</sup> Previously Resolute (Bibiani) Limited, Jersey

<sup>3</sup> Previously Resolute (CDI Holdings) Limited, Jersey

<sup>4</sup> Previously Resolute (Finkolo) Limited, Jersey

<sup>5</sup> Previously Resolute (Somisy) Limited, Jersey

<sup>6</sup> Incorporated during the year



## Notes to the Financial Statements **E: Other items**

### E.5 Subsidiaries and non-controlling interests (continued)

#### Material partly owned subsidiaries

	2018	2017
	\$'000	\$'000
<i>Accumulated share of (deficiency)/equity attributable to material Non-Controlling Interest:</i>		
Société des Mines de Syama SA ("SOMISY")	(7,510)	(18,372)
Mensin Gold Bibiani Limited ("Mensin")	(1,700)	(2,203)
Société des Mines de Finkolo SA ("Finkolo")	1,796	3,045
<b>Total Non-Controlling Interest</b>	<b>(7,414)</b>	<b>(17,530)</b>
Profit/(loss) allocated to material Non-Controlling Interest:		
SOMISY	12,775	29,732
Mensin	(183)	5
Finkolo	(325)	(12)
<b>Total Non-Controlling Interest</b>	<b>12,267</b>	<b>29,725</b>

The summarised financial information of subsidiaries with non-controlling interests is provided below. This information is based on amounts before inter-company eliminations.

	2018	2017	2018	2017	2018	2017
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
	SOMISY		Mensin		Finkolo	
<i>Statement of Comprehensive Income</i>						
Revenue	306,626	381,293	-	-	-	-
Gain/(loss) for the period	64,659	136,740	(1,734)	50	(3,219)	(934)
Total comprehensive income/(loss) for the period	64,659	136,740	(1,734)	50	(3,219)	(934)
<i>Summarised Statement of Financial Position</i>						
Current assets	293,236	214,194	4,086	4,030	5,857	305
Non-current assets	395,841	230,255	84,695	73,569	26,363	23,218
Current liabilities	(110,494)	(80,518)	(2,694)	(1,845)	(8,492)	(1,083)
Non-current liabilities - External	(37,946)	(32,520)	(9,502)	(13,984)	-	-
Non-current liabilities - Intra Resolute Mining Limited Group	(550,974)	(389,291)	(457,440)	(427,281)	(55,125)	(28,187)
<b>Total deficiency</b>	<b>(10,337)</b>	<b>(57,880)</b>	<b>(380,855)</b>	<b>(365,511)</b>	<b>(31,397)</b>	<b>(5,747)</b>
<i>Summarised Statement of Cash Flow</i>						
Operating	82,298	126,159	(1,550)	939	(8,076)	(897)
Investing	(176,896)	(77,999)	(12,829)	(17,028)	(13,480)	(1,368)
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>(94,598)</b>	<b>48,160</b>	<b>(14,379)</b>	<b>(16,089)</b>	<b>(21,556)</b>	<b>(2,265)</b>

## Notes to the Financial Statements **E: Other items**

### E.6 Joint operations

The consolidated entity has an interest in the following joint operations whose principal activities are to explore for gold.

Entity Holding Interest	Other Participant/Joint Operation	Percentage of Interest Held	
		2018	2017
		%	%
Resolute Mining Limited	Etruscan Resources Bermuda Ltd/N'Gokoli Est JV <sup>1</sup>	60%	60%

<sup>1</sup> Interests in joint operations greater than 50% have been accounted for as joint operations as all decision making requires unanimous agreement.

### E.7 Subsequent events

On 13 July 2018, Resolute entered into a US\$100m Revolving Loan Facility agreement with Investec Australia Limited. The first drawdown under the facility was made on 20 August 2018 for US\$30m. Resolute also completed the below strategic investments on 13 July 2018:

- Acquisition of 16,182,480 shares in Orca Gold Inc via the issue of 8,953,421 Resolute shares
- Acquisition of 79,290,000 shares in Manas Resources Limited via the issue of 317,160 Resolute shares
- Resolute issued 2,012,466 Resolute Shares to Arnold Kondrat in consideration for the acquisition of 25,000,000 shares in Loncor Resources Inc.

On 23 August 2018, the Company declared a final dividend on ordinary shares in respect of the 2018 financial year of 2.0 cents per share. The dividend has not been provided for in the 30 June 2018 financial statements.

### E.8 Related party disclosures

RML is the ultimate Australian holding company and there is no controlling entity of RML at 30 June 2018.

### E.9 Parent entity information

	2018	2017
	\$'000	\$'000
Current assets	181	152
Total assets	460,338	463,578
Current liabilities	(1,323)	(1,214)
Total liabilities	(1,329)	(1,219)
<b>Net assets</b>	<b>459,009</b>	<b>462,359</b>
Issued capital	545,014	545,029
Accumulated losses	(97,710)	(94,404)
Convertible note equity reserve	549	549
Share option equity reserve	5,793	5,793
Employee equity benefits reserve	5,364	5,364
Reserves - unrealised (loss)/gain	(1)	28
<b>Total shareholders equity</b>	<b>459,009</b>	<b>462,359</b>
Profit of Resolute Mining Limited	8,035	6,743
Total comprehensive profit of Resolute Mining Limited	8,035	6,743

Refer to E1 for the contingent liabilities and commitments of Resolute Mining Limited. The parent company guarantees provided by Resolute Mining Limited as outlined in C3 have a nil written down value as at 30 June 2018 (2017: nil).

## Notes to the Financial Statements **E: Other items**

### E.10 Employee benefits and share based payments

	2018	2017
	\$'000	\$'000
Salaries	58,523	55,453
Superannuation	2,714	3,029
Share based payments expense	2,307	2,129
Total employee benefits charged to profit and loss	63,544	60,611

#### Share based payments

Equity-based compensation benefits are provided to employees via the Group's share option plan and performance rights plan. The Group determines the fair value of securities issued as an expense in the profit and loss over the vesting period with a corresponding increase in equity.

#### Key management personnel

Details of remuneration provided to key management personnel are as follows:

	2018	2017
	\$	\$
Short-term employee benefits	3,115,873	4,295,562
Post-employment benefits	147,869	240,858
Long-term employment benefits	74,058	50,089
Share-based payments	1,882,044	1,212,280
	5,219,845	5,798,789

The following personnel were included in the remuneration report for the year ended 30 June 2017 and, as they are no longer classified as key management personnel, have not been included in the remuneration report for the year ended 30 June 2018:

- P. Henharen – General Manager – Project Delivery (up until 4 April 2018)
- V. Hughes – General Manager – People, Culture and Information (resigned 22 December 2017)
- D. Kelly – General Manager – Corporate Strategy
- B. Mowat – General Manager – Exploration

### Key estimates and judgements

#### Share based payments

The Group measures the cost of equity settled share based payment transactions with reference to the fair value at the grant date using a Black Scholes formula or Monte Carlo simulation. The valuations take into account the terms and conditions upon which the instruments were granted such as the exercise price, the term of the option or performance right, the vesting and performance criteria, the impact of dilution, the non-tradeable nature of the option or performance right, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the option or performance right.

## Notes to the Financial Statements **E: Other items**

### **E.10 Employee benefits and share based payments (continued)**

#### **Employee share option plan**

The maximum number of options that can be issued under the Employee Share Option Plan is capped at 5% of the ordinary shares on issue. The options do not provide any dividend or voting rights. The options are not quoted on the ASX. One third of the options issued pursuant to the Plan are able to be exercised 6 months after issue, a further one third 18 months after issue and the remaining one third 30 months after issue.

Employees will only be able to exercise the options allocated to them if they meet certain performance criteria.

Option Category	2018				2017				Fair value of option at grant date
	Opening Number of Options	Lapsed During the Year	Exercised During the Year	Closing Number of Options	Opening Number of Options	Lapsed During the Year	Exercised During the Year	Closing Number of Options	
M	-	-	-	-	130,000	-	(130,000)	-	0.66
N	-	-	-	-	545,400	(545,400)	-	-	0.98
	-	-	-	-	<b>675,400</b>	<b>(545,400)</b>	<b>(130,000)</b>	-	
Weighted average exercise price	-	-	-	-	1.52	1.52	1.18	-	

The weighted average remaining contractual life for the share options outstanding as at 30 Jun 2018 is 0 years (2017: 0 years).

Refer to the 2015 Annual Report for details around the option categories above.

## Notes to the Financial Statements **E: Other items**

### E.10 Employee benefits and share based payments (continued)

#### Performance rights plan

The performance rights plan is broken down between:

Performance Rights Plan Category	Type of employee
Level 1	Managing Director and CEO
Level 2	Executive Team reporting to MD
Level 3	Site General Managers
Level 4	Other Participants as recommended by the MD
Special	Special, one-off awards as recommended by the MD

Plan category	Grant and frequency	Performance measures	Performance period
Level 1	Annually set at 100% of fixed remuneration for the Managing Director & CEO	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 2	Annually set at 65% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 3	Annually set between 30% and 50% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Level 4	Annually set between 10% and 20% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Special	Varies	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years

# Notes to the Financial Statements **E: Other items**

## E.10 Employee benefits and share based payments (continued)

	Issue Date	Total Number	Fair Value per Right at Grant Date	Vesting Date
<b>Performance rights on issue</b>				
Level 1	01/07/15	4,151,047	\$0.25	30/06/18 <sup>1</sup>
Level 2	31/08/16	421,482	\$1.89	30/06/18 <sup>1</sup>
Band 1 to 4	24/10/16	2,305,137	\$1.27	30/06/19
Band 1	29/11/16	400,000	\$1.21	30/06/18 <sup>1</sup>
Band 1	29/11/16	600,000	\$1.20	30/06/19
Band 1	29/11/16	1,000,000	\$1.18	30/06/20
Band 1 to 4	17/10/17	1,522,967	\$0.81	30/06/20
Band 1	28/11/17	587,500	\$0.74	30/06/20
Band 1 to 4	07/03/18	319,571	\$0.85	30/06/20
<b>As at 30 June 2018</b>		<b>11,307,704</b>	<b>\$0.80</b>	

<sup>1</sup> The actual number of performance rights vested will be determined post 30 June 2018.

	Date of Change	Total Number	Fair Value per Right at Grant Date	Vesting Date
Opening number of performance rights		16,653,016		
Increase through issue of performance rights to eligible employees (Band 1 to 4)	17/10/17	1,926,629	\$0.81	30/06/20
Increase through issue of performance rights to eligible employees (Band 1)	28/11/17	587,500	\$0.74	30/06/20
Decrease through lapsing of performance rights (Level 1)	04/08/17	(774,366)	\$0.25	30/06/18
Decrease through lapsing of performance rights (Level 1)	04/08/17	(158,582)	\$0.25	30/06/18
Decrease through lapsing of performance rights (Level 1)	04/08/17	(386,833)	\$0.50	30/06/17
Decrease through lapsing of performance rights (Band 1 to 4)	04/08/17	(201,588)	\$1.27	30/06/19
Decrease through conversion of shares upon vesting of performance rights (Level 1)	05/09/17	(894,607)	\$0.50	30/06/17
Decrease through lapsing of performance rights (Level 1)	05/09/17	(969,157)	\$0.50	30/06/17
Decrease through conversion of shares upon vesting of performance rights (Level 2)	05/09/17	(3,600,220)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	05/09/17	(222,404)	\$0.25	30/06/17
Decrease through lapsing of performance rights (Level 2)	07/03/18	(28,385)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	07/03/18	(285,348)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	07/03/18	(181,973)	\$0.81	30/06/20
Increase through issue of performance rights to eligible employees (Band 1 to 4)	07/03/18	319,571	\$0.85	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	29/03/18	(62,776)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	04/04/18	(126,737)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	04/04/18	(162,500)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	06/04/18	(16,508)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	06/04/18	(16,954)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Level 2)	06/04/18	(20,611)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	23/04/18	(19,802)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	23/04/18	(18,068)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	30/06/18	(24,167)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	30/06/18	(7,426)	\$1.27	30/06/19
<b>Closing number of performance rights</b>		<b>11,307,704</b>		

## Notes to the Financial Statements **E: Other items**

### E.10 Employee benefits and share based payments (continued)

The following table lists the key variables used in the valuation of performance rights:

Hurdle	2018						
	17 October 2017 Issue		28 November 2017 Issue		7 March 2018 Issue		Total
	Reserve and resources rights	TSR rights	Reserve and resources rights	TSR rights	Reserve and resources rights	TSR rights	
Number of performance rights issued	481,658	1,444,976	146,875	440,625	79,893	239,678	2,833,705
Underlying share price (\$)	1.19	1.19	1.04	1.04	1.21	1.21	
Exercise price (\$)	-	-	-	-	-	-	
Risk free rate	1.92%	1.92%	1.82%	1.82%	2.04%	2.04%	
Volatility factor	78%	78%	78%	78%	36%	36%	
Dividend yield	1.80%	1.80%	1.80%	1.80%	1.42%	1.42%	
Period of the rights from grant date (years)	3	3	2.59	2.59	2.32	2.32	

Effect of performance hurdles	Not reflected in valuation due to non-market condition	Reflected in valuation through Monte Carlo simulation	Weighted average
Value of performance right at grant date (Band 1 to 4)	\$1.13	\$0.70	\$0.81
Value of performance right at grant date (Band 1)	\$0.99	\$0.66	\$0.74
Value of performance right at grant date (Band 1 to 4)	\$1.17	\$0.75	\$0.85

Hurdle	2017			
	Reserve and resources rights	TSR rights	Service rights	Total
Number of performance rights issued	777,097	2,331,292	575,145	3,683,534
Underlying share price (\$)	1.68	1.68	1.89	
Exercise price (\$)	-	-	-	
Risk free rate	1.85%	1.85%	1.44%	
Volatility factor	80%	80%	76%	
Dividend yield	1.10%	1.10%	0%	
Period of the rights from grant date (years)	3	3	2	

Effect of performance hurdles	Not reflected in valuation due to non-market condition	Reflected in valuation through Monte Carlo simulation	Weighted average
Value of performance right at grant date (Band 1 to 4)	\$1.63	\$1.15	\$1.27
Value of performance right at grant date (Level 2)	\$1.89	n/a	\$1.89

# Notes to the Financial Statements **E: Other items**

## E.11 Other accounting policies

### Derivatives

Derivatives are categorised as held for trading unless they are designated as hedges. Assets in this category are classified as current assets or liabilities if they are either held for trading or are expected to be realised within 12 months of the consolidated statement of financial position date. Items of this nature are recorded at their fair values through profit or loss.

### Investments in associates

The Group's investment in associates is accounted for using the equity method of accounting in the consolidated financial statements. An associate is an entity over which the Group has significant influence and that are neither subsidiaries nor joint arrangements. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables and loans, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

### New and amended Accounting Standards and Interpretations issued but not yet effective

A number of new Standards, amendment of Standards and interpretations have recently been issued but are not yet effective and have not been adopted by the Group as at the financial reporting date. The potential effect of these Standards is yet to be fully determined. However, it is not expected that the new or amended Standards will significantly affect the Group's accounting policies, financial position or performance, except for the following:

Title	Application Date for Group	Detail			
AASB 9 – Financial Instruments	1 July 2018	AASB 9 which contains accounting requirements for financial instruments, replacing AASB 139 Financial Instruments: Recognition and Measurement. The standard contains requirements in the areas of classification and measurement, impairment, hedge accounting and de-recognition. Existing financial assets and liabilities of the Group were assessed in terms of the requirements of AASB 9. In this regard, the Group has determined that the adoption of AASB 9 will impact the classification of financial asset and liabilities as follows:			
		Class of financial instrument presented in the statement of financial position	Original measurement category under AASB 9 (i.e. prior to 1 July 2018)	New measurement category under AASB 9 (i.e. from 1 July 2018)	
		Cash and cash equivalents	Loans and receivables	Financial assets at amortised cost	
		Trade and other receivables	Loans and receivables	Financial assets at amortised cost	
		Available for sale financial assets	Available for sale financial assets	Financial assets will either be designated as fair value through other comprehensive income (when held for strategic investment reasons) or accounted for as financial assets at fair value through profit or loss	
		Other financial assets	Loans and receivables	Financial assets at amortised cost	
		Trade and other payables	Financial liability at amortised cost	Financial liability at amortised cost	
		Interest bearing loans and borrowings	Financial liability at amortised cost	Financial liability at amortised cost	
		The change in classification will not result in any re-measurement adjustments at 1 July 2018.			



## Notes to the Financial Statements **E: Other items**

### E.11 Other accounting policies

#### New and amended Accounting Standards and Interpretations issued but not yet effective (continued)

Title	Application Date for Group	Detail
AASB 15 - Revenue from Contracts with Customers	1 July 2018	AASB 15 was issued in December 2015 and establishes a five-step model to account for revenue arising from contracts with customers. Under AASB 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. Under AASB 15 the revenue recognition model will change from one based on the transfer of risk and reward of ownership to the transfer of control of ownership. The Group will adopt the new standard on the required effective date of 1 July 2018. Revenue from gold sales is recognised when gold is sold out of the metal account. The Group has no other performance obligations once revenue has been sold off the metal account and accordingly, adoption of AASB 15 is not expected to have a material impact on revenue recognition.
AASB 2016-5 - Amendments to Australian Accounting Standards – Classification and Measurement of Share-based Payment Transactions	1 July 2018	This Standard amends AASB 2 Share-based Payment, clarifying how to account for certain types of share-based payment transactions. The amendments provide requirements on the accounting for: <ul style="list-style-type: none"> <li>► The effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments.</li> <li>► Share-based payment transactions with a net settlement feature for withholding tax obligations.</li> <li>► A modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled.</li> </ul> The Group will adopt the new standard on the required effective date of 1 July 2018. Adoption of AASB 2016-5 is not expected to have a material impact.
AASB Interpretation 23, and relevant amending standards – Uncertainty over Income Tax Treatments	1 July 2019	The Interpretation clarifies the application of the recognition and measurement criteria in AASB 112 Income Taxes when there is uncertainty over income tax treatments. The Interpretation specifically addresses the following: <ul style="list-style-type: none"> <li>► Whether an entity considers uncertain tax treatments separately</li> <li>► The assumptions an entity makes about the examination of tax treatments by taxation authorities</li> <li>► How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates</li> <li>► How an entity considers changes in facts and circumstances.</li> </ul> The Group is in the process of assessing the impact of the new interpretation.
AASB16 – Leases	1 July 2019	AASB 16 provides a new lessee accounting model which requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee measures right-of-use assets similarly to other non-financial assets and lease liabilities similarly to other financial liabilities. Assets and liabilities arising from a lease are initially measured on a present value basis. The measurement includes non-cancellable lease payments (including inflation-linked payments), and also includes payments to be made in optional periods if the lessee is reasonably certain to exercise an option to extend the lease, or not to exercise an option to terminate the lease. AASB 16 contains disclosure requirements for lessees. The Group is in the process of assessing the impact of the new lease standard.

# Independent auditor's report to the Members of Resolute Mining Limited

## Report on the audit of the financial report

### Opinion

We have audited the financial report of Resolute Mining Limited (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 30 June 2018, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the year then ended, notes to the financial statements, including a summary of significant accounting policies, and the Directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the *Corporations Act 2001*, including:

- a) giving a true and fair view of the consolidated financial position of the Group as at 30 June 2018 and of its consolidated financial performance for the year ended on that date; and
- b) complying with Australian Accounting Standards and the Corporations Regulations 2001.

### Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial report of the current year. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial report. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial report.

# 1. Physical existence and valuation of ore stockpiles and gold in circuit

## Why significant

As at 30 June 2018 the Group had ore stockpiles and gold in circuit inventories of \$74,242,000 and \$72,830,000 respectively (refer to Note D2).

Critical to the determination of the carrying value of ore stockpiles and gold in circuit inventories is the cost and net realisable value assumptions adopted by the Group in measuring the ore stockpiles and gold in circuit and the determination of the physical existence of the ore stockpiles (tonnes) and gold in circuit (ounces).

We focused on this matter because of the:

Significant judgment required to assess the quantity of ore stockpiles and the quantity and recoverable metal content for gold in circuit. This includes determination of estimated grades, recovery rates and other geophysical properties.

4 Significant estimates and judgments involved in the valuation of ore stockpiles and gold in circuit including the allocation of operating costs to various stock types included in ore stockpiles and gold in circuit inventories.

4 Significant estimates involved in the determination of the net realisable value of ore stockpiles and gold in circuit, including the appropriateness of the estimated recoverable gold, selling price in the ordinary course of business and estimated costs of completion necessary to make the sale.

## How our audit addressed the key audit matter

Our audit procedures included the following:

4 Obtained an understanding of the Group's processes and controls in place in determining the physical quantities and metal contents of stockpiles and gold in circuit, which included physical inspection at both the Syama and Ravenswood mine sites during the financial year.

4 Assessed the qualifications, competence and objectivity of the Group's internal experts involved in determining the quantity and recoverable metal content for ore stockpiles and gold in circuit.

4 Agreed the estimated grades, recovery rates and other geophysical properties against the underlying reports prepared by the Group's internal experts and assessed the reasonableness of this information based on the current operations.

4 Assessed the accuracy of the inventory valuation models including assessing the nature of costs allocated to inventories in determining the unit cost of inventories.

4 Assessed the carrying value of inventories at 30 June 2018 to evaluate whether they were valued at the lower of cost and net realisable value. This included evaluating the assumptions and methodologies used by the Group, in particular, those relating to the forecast gold price, costs to complete and gold recoveries.

## 2. Impairment assessment of non-current assets

### Why significant

As at 30 June 2018 the Group had non-current assets totalling \$527,976,000 comprising capitalised development expenditure, property, plant and equipment and capitalised exploration and evaluation expenditure (refer to notes B1 and B2).

At the end of each reporting period, the Group exercises judgment in determining whether there is any indication of impairment or indication that an impairment loss recognised in prior periods should be reversed. If any such indicators exists, the Group estimates the recoverable amount of that asset. No indicators of impairment or indicators of reversal of prior period impairment were identified in the current period ( refer to Note B3).

We focused on this matter because of the significant judgment involved in considering if indicators of impairment or indicators that an impairment loss recognised in prior periods should be reversed, were present.

### How our audit addressed the key audit matter

We evaluated the Groups' assessment as to the presence of any indicators of impairment or indicators that an impairment loss recognised in prior periods should be reversed. Our audit procedures included the following:

- Comparison of the Group's market capitalisation relative to its net assets.
- Reading operational reports, board reports, minutes and market announcements.
- Consideration of changes to reserves and resources and other macro-economic factors including the gold price.
- Consideration of the status of capital projects via discussions with management, review of operational reports and minutes and site visits.

### 3. Rehabilitation and restoration provisions

#### Why significant

As a consequence of its operations, the Group incurs obligations to rehabilitate and restore its mine sites. Rehabilitation activities are governed by local legislative requirements. As at 30 June 2018 the Group's consolidated statement of financial position includes provisions of \$69,587,000 in respect of these obligations (refer to Note D6).

We focused on this matter because estimating the costs associated with these future activities requires judgment and estimation for factors such as timing of when rehabilitation will take place, the extent of the rehabilitation and restoration activities and economic assumptions relating to inflation and discount rates are taken into account to determine the provision amount.

#### How our audit addressed the key audit matter

We evaluated the assumptions and methodologies used by the Group in determining their rehabilitation obligations. Our audit procedures included the following:

- Assessed the qualifications, competence and objectivity of the Group's external and internal experts, the work of whom, formed the basis of the Group's rehabilitation cost estimates. We assessed the appropriateness of the cost estimates, including comparing these to historical rehabilitation costs incurred.
- Considered the estimated timing of when the rehabilitation cash flows will be incurred based on the life of mine and the resultant inflation and discount rate assumptions used in the Groups cost estimates, having regard to available economic data relating to future inflation and discount rates.
- Evaluated the adequacy of the Group's disclosures relating to rehabilitation obligations and considered the appropriateness of the accounting for the changes in the rehabilitation and restoration provision.

#### 4. Taxation

##### Why significant

The Group has operations in multiple countries, each with its own taxation legislation. The nature of the Group's activities give rise to various taxation obligations including corporate income tax, royalties, employment related taxes, and other indirect taxes.

As set out in the Consolidated Statement of Financial Position the Group has a current tax receivable of \$20,811,000 and recognised deferred tax assets of \$9,456,000 as at 30 June 2018.

In addition as set out in note A4 the Group has significant unrecognised tax assets at 30 June 2018.

We focused on this matter because the:

- Group is required to exercise significant judgment with regards to interpretation of enacted tax laws in these multiple countries. The Group engages external independent tax advisors to assist with the interpretation of tax laws when appropriate.
- Determination of the probability of the Group deriving taxable income in the future to utilise deferred tax assets is highly judgmental. This is subject to numerous assumptions around the future profitability of the Group's mining assets, which in turn is primarily dependent upon assumptions including future production levels, gold prices and exchange rates, operating and capital development costs.

##### How our audit addressed the key audit matter

Our audit procedures in relation to current and deferred tax included the following:

- Involved our tax specialists in the interpretation of enacted tax laws in these multiple jurisdictions, where necessary, including the related judgments and interpretations made by the Group.
- Considered the appropriateness of the Group's assumptions and estimates in relation to tax positions, assessed those assumptions and considered the advice the Group received from external experts to support the accounting for the tax positions in accordance with enacted laws.
- Where external experts were engaged by the Group, we assessed their qualifications, competence and objectivity.

In respect of deferred tax assets recognised and unrecognised at 30 June 2018, our audit procedures included the following:

- Evaluated the appropriateness of the Group's assessment of the probability of the Group deriving assessable income in the future to utilise the recognised deferred tax assets.
- Assessed the adequacy of the Group's disclosures relating to current and deferred tax in the 30 June 2018 financial report.

### **Information other than the financial report and auditor's report thereon**

The Directors are responsible for the other information. The other information comprises the information included in the Company's 2018 Annual Report other than the financial report and our auditor's report thereon. We obtained the Directors' Report that is to be included in the Annual Report, prior to the date of this auditor's report, and we expect to obtain the remaining sections of the Annual Report after the date of this auditor's report.

Our opinion on the financial report does not cover the other information and we do not and will not express any form of assurance conclusion thereon, with the exception of the Remuneration Report and our related assurance opinion.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### **Responsibilities of the Directors for the financial report**

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

### **Auditor's responsibilities for the audit of the financial report**

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the Directors, we determine those matters that were of most significance in the audit of the financial report of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.



# Report on the audit of the Remuneration Report

## Opinion on the Remuneration Report

We have audited the Remuneration Report included in the Directors' report for the year ended 30 June 2018.

In our opinion, the Remuneration Report of Resolute Mining Limited for the year ended 30 June 2018, complies with section 300A of the Corporations Act 2001.

## Responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.



Ernst & Young



Gavin Buckingham  
Partner  
Perth  
23 August 2018

## **APPENDIX 1 PART 4**

**GROUP FINANCIAL INFORMATION  
FOR THE SIX MONTH PERIOD ENDED 31  
DECEMBER 2018**

## Auditor's independence declaration to the Directors of Resolute Mining Limited

As lead auditor for the audit of the financial report of Resolute Mining Limited for the financial period ended 31 December 2018, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Resolute Mining Limited and the entities it controlled during the financial period.



Ernst & Young



Gavin Buckingham  
Partner  
22 February 2019

## Consolidated Statement of Comprehensive Income

		6 months to 31 December 2018	12 months to 30 June 2018
	Note	\$'000	\$'000
Revenue from contracts with customers for gold and silver sales	A.1	222,774	445,555
Costs of production relating to gold sales	A.1	(169,319)	(329,676)
<b>Gross profit before depreciation, amortisation and other operating costs</b>		<b>53,455</b>	<b>115,879</b>
Depreciation and amortisation relating to gold sales	A.1	(10,110)	(14,417)
Other operating costs relating to gold sales	A.1	(18,896)	(32,138)
<b>Gross profit from operations</b>		<b>24,449</b>	<b>69,324</b>
Interest income	A.1	329	2,595
Other income	A.1	13	404
Other expenses	A.1	(6)	(2,449)
Exploration and business development expenditure	A.1	(2,924)	(15,686)
Administration and other corporate expenses	A.1	(8,498)	(14,133)
Share-based payments expense	A.1	(1,346)	(1,782)
Treasury - realised gains	A.1	213	2,096
Fair value movements and unrealised treasury transactions	A.1	(13,602)	43,396
Share of associates' losses	A.1/E.4	(476)	(1,500)
Depreciation of non-mine site assets	A.1	(47)	(130)
Finance costs	A.1	(5,264)	(4,298)
<b>(Loss)/profit before tax</b>		<b>(7,159)</b>	<b>77,837</b>
Tax benefit		1,835	-
<b>(Loss)/profit for the period</b>		<b>(5,324)</b>	<b>77,837</b>
<b>(Loss)/profit attributable to:</b>			
Members of the parent		(3,302)	65,570
Non-controlling interest	E.5	(2,022)	12,267
		<b>(5,324)</b>	<b>77,837</b>

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

## Consolidated Statement of Comprehensive Income (continued)

	Note	6 months to 31 December 2018	12 months to 30 June 2018
		\$'000	\$'000
(Loss)/profit for the period (brought forward)		(5,324)	77,837
<b>Other comprehensive income/(loss)</b>			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Members of the parent		3,460	(1,759)
Changes in the fair value/realisation of available for sale financial assets, net of tax		-	(989)
<i>Items that may not be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations:			
- Non-controlling interest		(246)	(1,253)
Changes in the fair value/realisation of financial assets at fair value through other comprehensive income, net of tax		(7,061)	-
<b>Other comprehensive loss for the period, net of tax</b>		<b>(3,847)</b>	<b>(4,001)</b>
<b>Total comprehensive (loss)/income for the period</b>		<b>(9,171)</b>	<b>73,836</b>
<b>Total comprehensive (loss)/income attributable to:</b>			
Members of the parent		(6,903)	62,823
Non-controlling interest		(2,268)	11,013
		<b>(9,171)</b>	<b>73,836</b>
<b>(Loss)/earnings per share for net (loss)/profit attributable to the ordinary equity holders of the parent:</b>			
Basic (loss)/earnings per share	A.3	<b>(0.44) cents</b>	<b>8.85 cents</b>
Diluted (loss)/earnings per share	A.3	<b>(0.44) cents</b>	<b>8.72 cents</b>

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

## Consolidated Statement of Financial Position

	Note	As at 31 December 2018	As at 30 June 2018
		\$'000	\$'000
<b>Current assets</b>			
Cash	C.1	38,717	42,445
Other financial assets – restricted cash	D.3	3,890	-
Receivables	D.1	56,822	45,097
Inventories	D.2	178,623	234,720
Financial assets at fair value through other comprehensive income	D.3	28,324	-
Available for sale financial assets	D.3	-	22,859
Prepayments and other assets		8,296	5,299
Current tax asset		17,561	20,811
<b>Total current assets</b>		<b>332,233</b>	<b>371,231</b>
<b>Non current assets</b>			
Prepayments	D.4	3,609	15,862
Investments in associates	E.4	9,583	6,994
Deferred tax assets	A.4	19,261	9,456
Other financial assets	D.3	32	3,751
Exploration and evaluation	B.2	62,904	53,162
Development	B.1	405,382	302,158
Property, plant and equipment	B.1	288,481	172,656
<b>Total non current assets</b>		<b>789,252</b>	<b>564,039</b>
<b>Total assets</b>		<b>1,121,485</b>	<b>935,270</b>
<b>Current liabilities</b>			
Payables	D.5	119,982	92,488
Interest bearing liabilities	C.2	68,513	47,282
Provisions	D.6	23,259	21,171
<b>Total current liabilities</b>		<b>211,754</b>	<b>160,941</b>
<b>Non current liabilities</b>			
Interest bearing liabilities	C.2	138,711	-
Provisions	D.6	70,321	65,687
<b>Total non current liabilities</b>		<b>209,032</b>	<b>65,687</b>
<b>Total liabilities</b>		<b>420,786</b>	<b>226,628</b>
<b>Net assets</b>		<b>700,699</b>	<b>708,642</b>
<b>Equity attributable to equity holders of the parent</b>			
Contributed equity	C.4	559,809	544,972
Reserves		34,956	37,011
Retained earnings		115,616	134,073
<b>Total equity attributable to equity holders of the parent</b>		<b>710,381</b>	<b>716,056</b>
<b>Non-controlling interest</b>	E.5	<b>(9,682)</b>	<b>(7,414)</b>
<b>Total equity</b>		<b>700,699</b>	<b>708,642</b>

The above consolidated statement of financial position should be read in conjunction with the accompanying notes.

## Consolidated Statement of Changes in Equity

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes/ Share options equity reserve	Non-controlling interests reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings/ (accumulated losses)	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2018</b>	<b>544,972</b>	<b>(776)</b>	<b>6,371</b>	<b>(934)</b>	<b>16,576</b>	<b>15,774</b>	<b>134,073</b>	<b>(7,414)</b>	<b>708,642</b>
Loss for the period	-	-	-	-	-	-	(3,302)	(2,022)	(5,324)
Other comprehensive (loss)/income, net of tax	-	(7,061)	-	-	-	3,460	-	(246)	(3,847)
<b>Total comprehensive (loss)/income for the period, net of tax</b>	<b>-</b>	<b>(7,061)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,460</b>	<b>(3,302)</b>	<b>(2,268)</b>	<b>(9,171)</b>
Shares issued	14,837	-	-	-	-	-	-	-	14,837
Dividends paid	-	-	-	-	-	-	(15,155)	-	(15,155)
Share-based payments to employees	-	-	-	-	1,546	-	-	-	1,546
<b>At 31 December 2018</b>	<b>559,809</b>	<b>(7,837)</b>	<b>6,371</b>	<b>(934)</b>	<b>18,122</b>	<b>19,234</b>	<b>115,616</b>	<b>(9,682)</b>	<b>700,699</b>

*The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.*

## Consolidated Statement of Changes in Equity (continued)

	Contributed equity	Net unrealised gain/(loss) reserve	Convertible notes/ Share options equity reserve	Non-controlling interests reserve	Employee equity benefits reserve	Foreign currency translation reserve	Retained earnings/ (accumulated losses)	Non-controlling interest	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2017</b>	<b>544,987</b>	<b>213</b>	<b>6,371</b>	<b>-</b>	<b>14,291</b>	<b>17,533</b>	<b>83,333</b>	<b>(17,530)</b>	<b>649,198</b>
Profit for the year	-	-	-	-	-	-	65,570	12,267	77,837
Other comprehensive loss, net of tax	-	(989)	-	-	-	(1,759)	-	(1,253)	(4,001)
<b>Total comprehensive (loss)/income for the year, net of tax</b>	<b>-</b>	<b>(989)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(1,759)</b>	<b>65,570</b>	<b>11,014</b>	<b>73,836</b>
Share issue costs	(15)	-	-	-	-	-	-	-	(15)
Dividends paid	-	-	-	-	-	-	(14,830)	-	(14,830)
Non-controlling interest arising from change in ownership interest	-	-	-	(934)	-	-	-	(898)	(1,832)
Share-based payments to employees	-	-	-	-	2,285	-	-	-	2,285
<b>At 30 June 2018</b>	<b>544,972</b>	<b>(776)</b>	<b>6,371</b>	<b>(934)</b>	<b>16,576</b>	<b>15,774</b>	<b>134,073</b>	<b>(7,414)</b>	<b>708,642</b>

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.



## Consolidated Cash Flow Statement

	Note	6 months to 31 December 2018	12 months to 30 June 2018
		\$'000	\$'000
<b>Cash flows from operating activities</b>			
Receipts from customers		222,738	447,495
Payments to suppliers, employees and others		(181,435)	(391,955)
Exploration expenditure		(2,924)	(15,686)
Interest paid		(4,926)	(2,410)
Interest received		396	2,166
Income tax paid		-	(11,251)
<b>Net cash flows from operating activities</b>	<b>C.1</b>	<b>33,849</b>	<b>28,359</b>
<b>Cash flows used in investing activities</b>			
Payments for property, plant & equipment		(82,444)	(88,421)
Payments for development activities		(92,533)	(138,565)
Payments for evaluation activities		(6,898)	(11,747)
Payments for other financial assets		(848)	(22,878)
Repayment of loan from unrelated parties		2,230	-
Loans to associates		(750)	-
Proceeds from sale of property, plant & equipment		-	510
Acquisition of a share of a non-controlling interest		-	(1,832)
Loans advanced to other parties		-	(5,133)
Other investing activities		(209)	(890)
Proceeds from sale of available for sale financial assets		417	-
<b>Net cash flows used in investing activities</b>		<b>(181,035)</b>	<b>(268,956)</b>
<b>Cash flows used in financing activities</b>			
Costs of issuing ordinary shares		-	(15)
Dividend paid		(15,155)	(14,830)
Proceeds from finance facilities		136,732	-
<b>Net cash flows used in financing activities</b>		<b>121,577</b>	<b>(14,845)</b>
<b>Net decrease in cash and cash equivalents</b>		<b>(25,609)</b>	<b>(255,442)</b>
Cash and cash equivalents at the beginning of the financial period		(4,837)	247,502
Exchange rate adjustment		1,865	3,103
<b>Cash and cash equivalents at the end of the period</b>		<b>(28,581)</b>	<b>(4,837)</b>
Cash and cash equivalents comprise the following:			
Cash at bank and on hand	C.1	38,717	42,445
Bank overdraft	C.1	(67,298)	(47,282)
		<b>(28,581)</b>	<b>(4,837)</b>

The above consolidated cash flow statement should be read in conjunction with the accompanying notes.

## About this Report

The financial report of Resolute Mining Limited and its controlled entities (“Resolute”, “consolidated entity” or the “Group”) for the six months ended 31 December 2018 was authorised for issue in accordance with a resolution of the Directors on 22 February 2019.

Resolute Mining Limited (the parent entity) is a for profit company limited by shares incorporated and domiciled in Australia whose shares are publicly traded on the Australian Securities Exchange. The nature of the operations and principal activities of the Group are described in the directors’ report and in the segment information in Note A.1. There has been no significant change in the nature of those activities during the period.

## Statement of Compliance

This general purpose financial report has been prepared in accordance with Australian Accounting Standards, other authoritative pronouncements of the Australian Accounting Board and the Corporations Act 2001. The financial report complies with Australian Accounting Standards as issued by the Australian Accounting Standards Board and International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. The accounting policies are consistent with those disclosed in the 30 June 2018 Financial Report, except for the impact of all new or amended Standards and Interpretations. The adoption of these Standards and Interpretations did not result in any significant changes to the Group’s accounting policies.

The financial report includes financial information for Resolute Mining Limited (“Resolute”) as an individual entity and the consolidated entity consisting of Resolute and its subsidiaries. Where appropriate, comparative information has been reclassified.

## Basis of Preparation

These financial statements have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and liabilities at fair value.

The Group has changed its financial year end from 30 June to 31 December, which enables Resolute to align its financial reporting period with its subsidiaries in Mali. This change means the financial report of the Group is transitional from 1 July 2018 to 31 December 2018. The comparatives for the financial performance in these financial statements are therefore for a twelve month period ended 30 June 2018.

Subsidiaries are fully consolidated from the date on which control is obtained by the Group and cease to be consolidated from the date at which control is transferred out of the Group. Profit or loss and each component of other comprehensive income (“OCI”) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group’s accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Interests in associates are equity accounted and are not part of the consolidated Group.

## Rounding of Amounts

The financial report has been prepared in Australian dollars and all values are rounded to the nearest thousand dollars (\$’000) unless otherwise stated.

## Currency

Items in the financial statements of each of the Group’s entities are measured in their respective functional currencies. Resolute Mining Limited’s functional and presentation currency is Australian dollars.

Transactions in foreign currencies are initially recorded by the Group’s entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date.

Differences arising on settlement or translation of monetary items are recognised in profit or loss with the exception of monetary items classified as net investment in a foreign operation. These are recognised in OCI until the net investment is disposed of, at which time, the cumulative amount is reclassified to profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in OCI.

## About this Report (continued)

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of the gain or loss on the change in fair value of the item (i.e., translation differences on items whose fair value gain or loss is recognised in OCI or profit or loss are also recognised in OCI or profit or loss, respectively).

The results and financial position of all the Group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the date of that consolidated statement of financial position;
- income and expenses for each consolidated statement of comprehensive income are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and,
- all resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold or borrowings repaid, a proportionate share of such exchange differences are recognised in the consolidated statement of comprehensive income as part of the gain or loss on sale.

## Financial and Capital Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including diesel fuel price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks, where considered appropriate, to minimise potential adverse effects on the financial performance of the Group. The Group may use derivative financial instruments to manage certain risk exposures. Derivatives have been used exclusively for managing financial risks, and not as trading or other speculative instruments.

Risk management is carried out by the Group's Audit and Risk Committee under policies approved by the Board of Directors. The Audit and Risk Committee identifies, evaluates and manages financial risks as deemed appropriate. The Board provides guidance for overall risk management, including guidance on specific areas, such as mitigating commodity price, foreign exchange, interest rate and credit risks, and derivative financial instrument risk.

## Foreign exchange risk management

The Group receives proceeds on the sale of its gold production in USD and AUD and significant costs for the Syama Gold Project and the Bibiani Project are denominated in AUD, EUR, USD and the local currencies of those projects, and as such movements within these currencies expose the Group to exchange rate risk.

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities denominated in a currency that is not the entity's functional currency. The risk can be measured by performing a sensitivity analysis that quantifies the impact of different assumed exchange rates on the Group's forecast cash flows.

The Group's Audit and Risk Committee continues to manage and monitor foreign exchange currency risk. At present, the Group does not specifically hedge its exposure to foreign currency exchange rate movements.

## Diesel price risk management

The Group is exposed to movements in the diesel fuel price. The costs incurred purchasing diesel fuel for use by the Group's operations is significant. The Group's Audit and Risk Committee continues to manage and monitor diesel fuel price risk. At present, the Group does not specifically hedge its exposure to diesel fuel price movements.

The below risks arise in the normal course of the Group's business. Risk information can be found in the following sections:

Section C	Capital risk, Interest rate risk, Liquidity risk, Foreign currency risk
Section D	Credit risk, Foreign currency risk

## Notes to the Financial Statements A: Earnings for the period

### In this section

Results and the performance of the Group, with segmental information highlighting the core areas of the Group's operations. It also includes details about the Group's tax position.

### A.1 Segment revenues and expenses

#### Operating segment information

The Group has identified three operating segments based on the internal reports that are reviewed and used by the Chief Executive Officer and his executive team (the Chief Operating Decision Maker) in assessing performance and in determining the allocation of resources.

Operating segments are identified by management as being operating mine sites and are managed separately and operate in different regulatory and economic environments.

Performance is measured based on gold poured and cost of production per ounce poured. The accounting policies used by the Group in reporting segments are the same as those used in the preparation of financial statements.

The following items and associated assets and liabilities are not allocated to operating segments as they are not considered part of the core operations of any segment:

- Realised and unrealised treasury transactions;
- Finance costs - including adjustments on provisions due to discounting;
- Share of associates' losses and,
- Net gains/losses on disposal of available-for-sale investments.

#### Recognition and measurement

##### Revenue from gold and other sales

The Group adopted *AASB 15 - Revenue from contracts with customers* using the modified retrospective approach from 1 July 2018. Revenue from gold and other sales represents revenue from contracts with customers and is recognised at the point in time when the Group transfers control of products to a customer. For sales of gold bullion, control is obtained when the gold is credited to the metals account of the customer. Revenue is recognised at the amount to which the Group expects to be entitled.

Revenue from the sale of by-products such as silver is included in sales revenue.

##### Interest

Interest revenue is recognised as interest accrues using the effective interest method.

##### Borrowing costs

Borrowing costs incurred for the construction of any qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Other borrowing costs are expensed and are included in profit or loss as part of borrowing costs.

The capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to the entity's outstanding borrowings during the period.

### Key estimates and judgements

#### *Revenue from contracts with customers*

Judgment is required to determine the point at which the customer obtains control of gold. Factors including transfer of legal title, transfer of significant risks and rewards of ownership and the existence of a present right to payment for the gold typically result in control transferring on delivery of the gold.

# Notes to the Financial Statements A: Earnings for the period

## A.1 Segment revenues and expenses (continued)

For the six months ended 31 December 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	70,504	152,270	-	-	-	222,774
<b>Total segment gold and silver sales revenue</b>	<b>70,504</b>	<b>152,270</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>222,774</b>
Costs of production	(60,193)	(101,538)	-	-	-	(161,731)
Gold in circuit inventories movement	(5,364)	(2,224)	-	-	-	(7,588)
<b>Costs of production relating to gold sales</b>	<b>(65,557)</b>	<b>(103,762)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(169,319)</b>
Royalty expense	(3,521)	(9,709)	-	-	-	(13,230)
Operational support costs	(165)	(5,500)	-	(1)	-	(5,666)
<b>Other operating costs relating to gold sales</b>	<b>(3,686)</b>	<b>(15,209)</b>	<b>-</b>	<b>(1)</b>	<b>-</b>	<b>(18,896)</b>
Administration and other corporate expenses	(2,216)	(2,123)	-	(4,159)	-	(8,498)
Share-based payments expense	-	-	-	(1,346)	-	(1,346)
Exploration and business development expenditure	(1,007)	(55)	(1,182)	(680)	-	(2,924)
<b>(Loss)/earnings before interest, tax, depreciation and amortisation</b>	<b>(1,962)</b>	<b>31,121</b>	<b>(1,182)</b>	<b>(6,186)</b>	<b>-</b>	<b>21,791</b>
Amortisation of evaluation, development and rehabilitation costs	(117)	(3,369)	-	-	-	(3,486)
Depreciation of mine site properties, plant and equipment	(506)	(6,118)	-	-	-	(6,624)
<b>Depreciation and amortisation relating to gold sales</b>	<b>(623)</b>	<b>(9,487)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(10,110)</b>
<b>Segment operating result before treasury, other (expenses)/income and tax</b>	<b>(2,585)</b>	<b>21,634</b>	<b>(1,182)</b>	<b>(6,186)</b>	<b>-</b>	<b>11,681</b>

# Notes to the Financial Statements A: Earnings for the period

## A.1 Segment revenues and expenses (continued)

For the six months ended 31 December 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Segment operating result before treasury, other (expenses)/income and tax (brought forward)	(2,585)	21,634	(1,182)	(6,186)	-	11,681
Interest income	-	-	-	-	329	329
Other income	-	-	-	-	13	13
Interest and fees	-	-	-	-	(4,371)	(4,371)
Rehabilitation and restoration provision accretion	(478)	(415)	-	-	-	(893)
Finance costs	(478)	(415)	-	-	(4,371)	(5,264)
Realised foreign exchange loss	-	-	-	-	(139)	(139)
Realised gain on forward contracts	-	-	-	-	352	352
Treasury - realised gains	-	-	-	-	213	213
Inventories net realisable value movements and obsolete consumables	(412)	(28,745)	-	-	-	(29,157)
Unrealised foreign exchange loss	-	-	-	-	(1,477)	(1,477)
Unrealised foreign exchange gain on intercompany balances	-	-	-	-	17,032	17,032
Fair value movements and unrealised treasury transactions	(412)	(28,745)	-	-	15,555	(13,602)
Other expenses	-	-	(6)	-	-	(6)
Share of associates' losses	-	-	-	-	(476)	(476)
Depreciation of non-mine site assets	-	-	-	(47)	-	(47)
Income Tax (expense)/benefit	-	(4,283)	-	6,118	-	1,835
<b>(Loss)/profit for the six months ended 31 December 2018</b>	<b>(3,475)</b>	<b>(11,809)</b>	<b>(1,188)</b>	<b>(115)</b>	<b>11,263</b>	<b>(5,324)</b>

## Notes to the Financial Statements A: Earnings for the period

### A.1 Segment revenues and expenses (continued)

For the 12 months ended 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Revenue</b>						
Gold and silver sales at spot to external customers (a)	138,463	307,092	-	-	-	445,555
<b>Total segment gold and silver sales revenue</b>	<b>138,463</b>	<b>307,092</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>445,555</b>
Costs of production	(120,011)	(237,453)	-	-	-	(357,464)
Gold in circuit inventories movement	12,478	15,310	-	-	-	27,788
<b>Costs of production relating to gold sales</b>	<b>(107,533)</b>	<b>(222,143)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(329,676)</b>
Royalty expense	(6,915)	(19,309)	-	-	-	(26,224)
Operational support costs	(256)	(5,651)	-	(7)	-	(5,914)
<b>Other operating costs relating to gold sales</b>	<b>(7,171)</b>	<b>(24,960)</b>	<b>-</b>	<b>(7)</b>	<b>-</b>	<b>(32,138)</b>
Administration and other corporate expenses	(4,664)	(2,497)	-	(6,972)	-	(14,133)
Share-based payments expense	-	-	-	(1,782)	-	(1,782)
Exploration and business development expenditure	(7,364)	(1,044)	(2,381)	(4,897)	-	(15,686)
<b>Earnings/(loss) before interest, tax, depreciation and amortisation</b>	<b>11,731</b>	<b>56,448</b>	<b>(2,381)</b>	<b>(13,658)</b>	<b>-</b>	<b>52,140</b>
Amortisation of evaluation, development and rehabilitation costs	(1,297)	(3,498)	-	-	-	(4,795)
Depreciation of mine site properties, plant and equipment	(1,274)	(8,348)	-	-	-	(9,622)
<b>Depreciation and amortisation relating to gold sales</b>	<b>(2,571)</b>	<b>(11,846)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(14,417)</b>
<b>Segment operating result before treasury, other income/(expenses) and tax</b>	<b>9,160</b>	<b>44,602</b>	<b>(2,381)</b>	<b>(13,658)</b>	<b>-</b>	<b>37,723</b>

## Notes to the Financial Statements A: Earnings for the period

### A.1 Segment revenues and expenses (continued)

For the 12 months ended 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Unallocated (b)		Total
				Corporate/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Segment operating result before treasury, other income/(expenses) and tax (brought forward)	9,160	44,602	(2,381)	(13,658)	-	37,723
Interest income	-	-	-	-	2,595	2,595
Other income	-	-	-	-	80	80
Gain on sale of property, plant and equipment	324	-	-	-	-	324
Total other income	324	-	-	-	80	404
Interest and fees	-	-	-	-	(2,793)	(2,793)
Rehabilitation and restoration provision accretion	(899)	(606)	-	-	-	(1,505)
Finance costs	(899)	(606)	-	-	(2,793)	(4,298)
Realised foreign exchange gain	-	-	-	-	2,311	2,311
Realised loss on forward contracts	-	-	-	-	(215)	(215)
Treasury - realised gains	-	-	-	-	2,096	2,096
Inventories net realisable value movements and obsolete consumables	1,283	11,542	-	(3)	-	12,822
Unrealised foreign exchange gain	-	-	-	-	287	287
Unrealised foreign exchange gain on intercompany balances	-	-	-	-	30,287	30,287
Fair value movements and unrealised treasury transactions	1,283	11,542	-	(3)	30,574	43,396
Other expenses	-	(675)	(1,774)	-	-	(2,449)
Share of associates' losses	-	-	-	-	(1,500)	(1,500)
Depreciation of non mine site assets	-	-	-	(130)	-	(130)
<b>Profit/(loss) for the year</b>	<b>9,868</b>	<b>54,863</b>	<b>(4,155)</b>	<b>(13,791)</b>	<b>31,052</b>	<b>77,837</b>



## Notes to the Financial Statements A: Earnings for the period

### A.1 Segment revenues and expenses (continued)

(a) Revenue from external sales for each reportable segment is derived from several customers.

(b) This information does not represent an operating segment as defined by AASB 8, however this information is analysed in this format by the Chief Operating Decision maker, and forms part of the reconciliation of the results and positions of the operating segments to the financial statements.

### A.2 Dividends paid or proposed

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000

#### Proposed dividends on ordinary shares:

Final dividend for 6 months ended 31 December 2018: 0.0 cents per share (12 months ended 30 June 2018: 2.0 cents per share)	-	14,830
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A dividend has not been declared for the six month period ended 31 December 2018 (which is a transitional six month reporting period as opposed to a full financial year). The company's dividend policy of paying a minimum of 2% of sales as a dividend will continue based on a 31 December financial year going forward. On this basis, a dividend for the year ended 31 December 2019, if declared, would be paid in March 2020.

### A.3 (Loss)/earnings per share

	6 months to 31 December 2018	12 months to 30 June 2018
<b>Basic (loss)/earnings per share</b>		
(Loss)/Profit attributable to ordinary equity holders of the parent for basic (loss)/earnings per share (\$'000)	(3,302)	65,570
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	755,294,647	740,664,832
<b>Basic (loss)/earnings per share (cents per share)</b>	<b>(0.44)</b>	<b>8.85</b>
<b>Diluted (loss)/earnings per share</b>		
(Loss)/profit used in calculation of diluted earnings per share (\$'000)	(3,302)	65,570
Weighted average number of ordinary shares outstanding during the period used in the calculation of basic EPS	755,294,647	740,664,832
Weighted average number of notional shares used in determining diluted EPS <sup>1</sup>	n/a	11,307,704
Weighted average number of ordinary shares outstanding during the period used in the calculation of diluted EPS	755,294,647	751,972,536
Number of potential ordinary shares that are not dilutive and hence not included in calculation of diluted EPS	7,338,476	-
<b>Diluted (loss)/earnings per share (cents per share)</b>	<b>(0.44)</b>	<b>8.72</b>

<sup>1</sup> Dilutive instruments have not been included in the calculation of diluted earnings per share for 31 December 2018 because the result for the period was a loss.

### Measurement

Basic earnings per share ("EPS") is calculated as net (loss)/profit attributable to members, adjusted to exclude preference share dividends, divided by the weighted average number of ordinary shares, adjusted for any bonus element.

Diluted EPS is calculated as the net (loss)/profit attributable to members, adjusted for:

- the after tax effect of dividends and interest associated with dilutive potential ordinary shares that have been recognised as expenses; and,
- other non-discretionary changes in revenues or expenses during the period that would result from the dilution of potential ordinary shares
- divided by the weighted average number of ordinary shares and dilutive potential ordinary shares, adjusted for any bonus element.

## Notes to the Financial Statements A: Earnings for the Period

### A.3 (Loss)/earnings per share (continued)

#### Information on the classification of securities

Options and performance rights granted to employees (including Key Management Personnel) as described in E.10 are considered to be potential ordinary shares and have been included in the determination of diluted earnings per share to the extent they are dilutive. These options and performance rights have not been included in the determination of basic earnings per share.

### A.4 Taxes

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>a) Income tax expense</b>		
Current tax expense/(benefit)	7,970	(5,877)
Deferred tax (benefit)/expense	(9,805)	5,877
<b>Total tax benefit</b>	<b>(1,835)</b>	<b>-</b>
<b>b) Numerical reconciliation of income tax expense to prima facie tax expense</b>		
(Loss)/profit before income tax expense	(7,159)	77,837
Prima facie income tax (benefit)/expense at 30% (12 months ended 30 June 2018: 30%)	(2,148)	23,351
(Deduct)/add:		
- net movement in temporary differences and tax losses not recognised/recognised	(803)	(19,907)
- effect of different rates of tax on overseas income	2,830	-
- effect of share based payments expense not deductible	447	705
- other permanent differences	(2,161)	(4,149)
<b>Income tax (benefit)/expense attributable to net loss</b>	<b>(1,835)</b>	<b>-</b>

## Notes to the Financial Statements A: Earnings for the Period

## A.4 Taxes (continued)

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>c) Tax losses (tax effected)</b>		
Revenue losses		
- Australia	15,148	11,997
- Mali	23,649	-
- Ghana	21,573	23,158
	<b>60,370</b>	<b>35,155</b>
Capital losses		
- Australia	52,314	52,314
<b>Total tax losses</b>	<b>112,684</b>	<b>87,469</b>
<b>Total tax losses – recognised (Australia)</b>	<b>(6,118)</b>	<b>-</b>
<b>Total tax losses not used against deferred tax liabilities for which no deferred tax asset has been recognised (potential tax benefit at the prevailing tax rates of the respective jurisdictions) (tax effected)</b>	<b>106,566</b>	<b>87,469</b>
<b>d) Movements in the deferred tax assets balance</b>		
Balance at the beginning of the period	9,456	15,333
Credited/(charged) to the income statement	9,805	(5,877)
<b>Balance as at the end of the period</b>	<b>19,261</b>	<b>9,456</b>
The deferred tax assets balance comprises temporary differences attributable to:		
Receivables	81,866	82,958
Inventories	1,008	1,008
Available for sale financial assets	9,320	9,320
Mineral exploration and development interests	128,373	137,472
Property, plant and equipment	53,731	53,731
Payables	30	30
Provisions	174	9,504
Temporary differences not recognised	(244,811)	(267,616)
	<b>29,691</b>	<b>26,407</b>
Carried forward tax losses – recognised (Australia)	6,118	-
Set off of deferred tax liabilities pursuant to set off provisions	(16,548)	(16,951)
<b>Net deferred tax assets</b>	<b>19,261</b>	<b>9,456</b>

## Notes to the Financial Statements A: Earnings for the period

### A.4 Taxes (continued)

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>e) Movements in the deferred tax liabilities balance</b>		
The deferred tax liabilities balance comprises temporary differences attributable to:		
Receivables	1,553	1,553
Inventories	8,191	8,191
Mineral exploration and development interests	6,804	7,207
Property, plant and equipment	-	-
	<b>16,548</b>	<b>16,951</b>
Set off of deferred tax liabilities pursuant to set off provisions	(16,548)	(16,951)
<b>Net deferred tax liabilities</b>	<b>-</b>	<b>-</b>
<b>f) The equity balance comprises temporary differences attributable to:</b>		
Convertible notes equity reserve	194	194
Option equity reserve	2,566	2,566
Unrealised loss reserve	64	64
Net temporary differences in equity	2,824	2,824
Set-off of deferred tax liabilities pursuant to set-off provisions	(64)	(64)
<b>Total temporary differences in equity</b>	<b>2,760</b>	<b>2,760</b>
<b>FRANKING CREDITS</b>		
The amount of franking credits available for subsequent financial years is as follows. The amount has been determined using a tax rate of 30%.	108	108

### Recognition and measurement

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and by unused tax losses (if appropriate).

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for deductible temporary differences, unused tax losses and unused tax credits only if it is probable that sufficient future taxable income will be available to utilise those temporary differences and losses.

# Notes to the Financial Statements A: Earnings for the period

## A.4 Taxes (continued)

### Recognition and measurement (continued)

Deferred tax is not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither taxable profit or loss; or the accounting profit or loss arising from taxable differences related to investment in subsidiaries, associates and interests in joint ventures to the extent that:

- the Group is able to control the reversal of the temporary difference; and
- the temporary difference is not expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rates (and tax laws) that have been enacted or substantially enacted by the end of the reporting period. Deferred tax assets and liabilities are offset only if certain criteria are met. Income taxes relating to items recognised directly in equity are recognised in equity.

### Tax consolidation

Resolute and its wholly-owned Australian controlled entities implemented the tax consolidation legislation as of 1 July 2002 and the entities in the tax consolidated group entered into a tax sharing agreement, which limits the joint and several liability of the wholly owned entities in the case of a default by the head entity, Resolute Mining Limited. The entities have also entered into a tax funding agreement under which the wholly owned entities fully compensate Resolute Mining Limited for any current tax payable assumed and are compensated by Resolute Mining Limited for any current tax receivable.

## Key estimates and judgements

The Group records its best estimate of these items based upon the latest information available and management's interpretation of enacted tax laws. Whilst the Group believes it has adequately provided for the outcome of these matters, future results may include favourable or unfavourable adjustments as assessments are made, or resolved.

The recognition basis of deductible temporary differences and unused tax losses in the form of deferred tax assets is reviewed at the end of each reporting period and de-recognised to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Pursuant to the Establishment Convention between the State of Mali and Societe des Mines de Syama S.A. (owner of the Syama Gold Mine), there was an income tax holiday for 5 years post the declaration of "first commercial production" at Syama, which commenced on 1 January 2012. The tax holiday came to an end on 31 December 2016 and taxable profits arising after that date are subject to tax in accordance with the Establishment Convention.

A deferred income tax asset of \$13.1 million has been recognised at 31 December 2018 in relation to deductible temporary differences and a further \$6.1m in relation to carried forward Australian tax losses. Realisation of sufficient taxable profit in future periods is regarded as probable.

The future benefit will only be obtained if:

- (i) future assessable income is derived of a nature and an amount sufficient to enable the benefit to be realised;
- (ii) the conditions for deductibility imposed by tax legislation have been continued to be complied with; and,
- (iii) no changes in tax legislation adversely affect the consolidated entity in realising the benefit.

## Notes to the Financial Statements B: Production and Growth Assets

### In this section

Included in this section is relevant information about recognition, measurement, depreciation, amortisation and impairment considerations of the core producing and growth (exploration and evaluation) assets of Resolute.

### B.1 Mine properties and property, plant and equipment

#### Recognition and measurement

##### Stripping activity asset

The Group incurs waste removal costs (stripping costs) in the creation of improved access and mining flexibility in relation to ore to be mined in the future. The costs are capitalised as a stripping activity asset, where certain criteria are met. Once the Group has identified its production stripping for each surface mining operation, it identifies the separate components for the orebodies in each of its mining operations. An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity. The costs of each component are amortised on a units of production basis in applying a stripping ratio.

##### Development expenditure

- a) Areas in Development  
Costs incurred in preparing mines for production including the required plant infrastructure.
- b) Areas in Production  
Represent the accumulation of all acquired exploration, evaluation and development expenditure in which economic mining of a mineral reserve has commenced. Amortisation of costs is provided on the unit-of-production method.

##### Property, plant and equipment

Property, plant and equipment are stated at cost less any accumulated depreciation and any impairment losses. The cost of an item of property, plant and equipment comprises:

- Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and,
- The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is provided on a straight-line basis on all property plant and equipment other than land. Major depreciation periods are:

	Life	Method
Motor vehicles	3 years	Straight line
Office equipment	3 years	Straight line
Plant and equipment	Life of mine years / unit of production	Unit of production

## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

#### Key estimates and judgements

##### Stripping activity assets

Judgement is required to identify a suitable production measure to be used to allocate production stripping costs between inventory and any stripping activity asset(s) for each component. The Group considers that the ratio of the expected volume of waste to be stripped for an expected volume of ore to be mined for a specific component of the ore body, to be the most suitable production measure.

An identifiable component is a specific volume of the ore body that is made more accessible by the stripping activity.

Judgement is also required to identify and define these components, and also to determine the expected volumes (e.g. tonnes) of waste to be stripped and ore to be mined in each of these components. These assessments are based on the information available in the mine plan which will vary between mines for a number of reasons, including, the geological characteristics of the ore body, the geographical location and/or financial considerations.

##### Stripping ratio

The Group has adopted a policy of deferring production stage stripping costs and amortising them on a units-of-production basis. Significant judgement is required in determining the contained ore units for each mine. Factors that are considered include:

- any proposed changes in the design of the mine;
- estimates of the quantities of ore reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and,
- future cash costs of production and capital expenditure.

##### Determining the beginning of production

The Group ceases capitalising pre-production costs and begins depreciation and amortisation of mine assets at the point commercial production commences. This is based on the specific circumstances of the project, and considers when the specific asset becomes 'available for use' as intended by management which includes consideration of the following factors:

- the level of redevelopment expenditure compared to project cost estimates;
- completion of a reasonable period of testing of the mine plant and equipment;
- mineral recoveries, availability and throughput levels at or near expected/feasibility study levels;
- the ability to produce gold into a saleable form (where more than an insignificant amount is produced); and,
- the achievement of continuous production.

Estimation of mineral reserves and resources – refer to B.3

## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

6 months to 31 December 2018	Plant and Equipment						Development Expenditure		
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	Mine Properties	Stripping Activity Asset	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Opening write down value	7,777	160,385	1,000	2,838	656	172,656	301,389	769	302,158
Additions	-	116,758	-	-	-	116,758	89,656	10,738	100,394
Depreciation expense	(86)	(6,490)	(17)	(78)	-	(6,671)	-	-	-
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(3,520)	(3,520)
Amortisation expense	-	-	-	-	-	-	(3,516)	-	(3,516)
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	1,408	-	1,408
Foreign currency translation	339	5,413	35	123	(172)	5,738	8,345	113	8,458
<b>At 31 December net of accumulated depreciation</b>	<b>8,030</b>	<b>276,066</b>	<b>1,018</b>	<b>2,883</b>	<b>484</b>	<b>288,481</b>	<b>397,282</b>	<b>8,100</b>	<b>405,382</b>
Cost	17,629	684,573	5,819	9,921	22,254	740,196	768,638	12,210	780,848
Accumulated depreciation and impairment	(9,599)	(408,507)	(4,801)	(7,038)	(21,770)	(451,715)	(371,356)	(4,110)	(375,466)
<b>Net carrying amount</b>	<b>8,030</b>	<b>276,066</b>	<b>1,018</b>	<b>2,883</b>	<b>484</b>	<b>288,481</b>	<b>397,282</b>	<b>8,100</b>	<b>405,382</b>



## Notes to the Financial Statements B: Production and Growth Assets

### B.1 Mine properties and property, plant and equipment (continued)

12 months to 30 June 2018	Plant and Equipment						Development Expenditure		
	Buildings	Plant & Equipment	Motor Vehicles	Office Equipment	Leased Assets	Total	Mine Properties	Stripping Activity Asset	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Opening write down value	7,637	77,543	750	2,845	1,293	<b>90,068</b>	143,641	15,971	<b>159,612</b>
Additions	-	88,004	246	112	-	<b>88,362</b>	122,117	33,307	<b>155,424</b>
Disposals	-	(20)	-	(46)	(207)	<b>(273)</b>	-	-	-
Depreciation expense	(167)	(9,284)	(22)	(174)	(429)	<b>(10,076)</b>	-	-	-
Transfers from exploration and evaluation	-	-	-	-	-	-	23,368	-	<b>23,368</b>
Amounts amortised to costs of production relating to gold sales	-	-	-	-	-	-	-	(48,936)	<b>(48,936)</b>
Amortisation expense	-	-	-	-	-	-	(4,471)	-	<b>(4,471)</b>
Adjustments to rehabilitation and restoration obligations	-	-	-	-	-	-	6,856	-	<b>6,856</b>
Foreign currency translation	307	4,142	26	101	(1)	<b>4,575</b>	9,878	427	<b>10,305</b>
<b>At 30 June net of accumulated depreciation</b>	<b>7,777</b>	<b>160,385</b>	<b>1,000</b>	<b>2,838</b>	<b>656</b>	<b>172,656</b>	<b>301,389</b>	<b>769</b>	<b>302,158</b>
Cost	17,199	553,642	5,705	9,724	21,928	<b>608,198</b>	669,230	49,705	<b>718,935</b>
Accumulated depreciation and impairment	(9,422)	(393,257)	(4,705)	(6,886)	(21,272)	<b>(435,542)</b>	(367,841)	(48,936)	<b>(416,777)</b>
<b>Net carrying amount</b>	<b>7,777</b>	<b>160,385</b>	<b>1,000</b>	<b>2,838</b>	<b>656</b>	<b>172,656</b>	<b>301,389</b>	<b>769</b>	<b>302,158</b>

## Notes to the Financial Statements B: Production and Growth Assets

### B.2 Exploration and evaluation assets

Exploration and evaluation (at cost)	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Balance at the beginning of the period	53,162	64,879
Expenditure during the period	7,098	14,592
Adjustments to rehabilitation obligations	(184)	(4,743)
Transfers to areas in development	-	(23,368)
Foreign currency translation	2,828	1,802
<b>Balance at the end of the period</b>	<b>62,904</b>	<b>53,162</b>

### Recognition and measurement

Exploration expenditure is expensed to the consolidated statement of comprehensive income as and when it is incurred and included as part of cash flows from operating activities. Exploration costs are only capitalised to the consolidated statement of financial position if they result from an acquisition.

Evaluation expenditure is capitalised to the consolidated statement of financial position. Evaluation is deemed to be activities undertaken from the beginning of the pre-feasibility study conducted to assess the technical and commercial viability of extracting a mineral resource before moving into the Development phase. The criteria for carrying forward the costs are:

- Such costs are expected to be recouped through successful development and exploitation of the area of interest, or alternatively by its sale; or
- Evaluation activities in the area of interest which has not yet reached a state which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing.

Costs carried forward in respect of an area of interest which is abandoned are written off in the period/year in which the abandonment decision is made.

### Exploration commitments

It is difficult to accurately forecast the nature or amount of future expenditure, although it is necessary to incur expenditure in order to retain present interests in mineral tenements. Expenditure commitments on mineral tenure can be reduced by selective relinquishment of exploration tenure or by the renegotiation of expenditure commitments. The level of exploration expenditure expected in the twelve months ending 31 December 2019 for the consolidated entity is approximately \$16.515m (actual expenditure for the six months ended 31 December 2018: \$7.1m). This includes the minimum amounts required to retain tenure. There are no material exploration commitments further out than one year.

## Notes to the Financial Statements B: Production and Growth Assets

### B.3 Impairment of non-current assets

#### Recognition and measurement

##### Impairment testing

The carrying values of non-current assets are reviewed for impairment when indicators of impairment or a reversal of a prior period impairment may exist or changes in circumstances indicate the carrying value may not be recoverable. At a minimum the Group makes this assessment twice annually at 30 June and 31 December. No indicators of impairment or indicators for reversal of prior period impairment loss were identified.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount. The recoverable amount of an asset is the greater of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

##### Recognised Impairment

No impairment loss or reversal of prior period impairment loss was recognised in the six months to 31 December 2018.

### Key estimates and judgements

#### Determination of mineral resources and ore reserves

The determination of reserves impacts the accounting for asset carrying values, depreciation and amortisation rates, deferred stripping costs and provisions for decommissioning and restoration. The information in this report as it relates to ore reserves, mineral resources or mineralisation is reported in accordance with the Aus.IMM “Australian Code for reporting of Identified Mineral Resources and Ore Reserves”. The information has been prepared by or under supervision of competent persons as identified by the Code.

There are numerous uncertainties inherent in estimating mineral resources and ore reserves and assumptions that are valid at the time of estimation which may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated.

#### Impairment of mine properties, plant and equipment

The future recoverability of capitalised mine properties and plant and equipment is dependent on a number of key factors including; gold price, discount rates used in determining the estimated discounted cash flows of Cash Generating Units (“CGUs”), foreign exchange rates, the level of proved and probable reserves and measured, indicated and inferred mineral resources that may be included in the determination of fair value less cost to dispose (“fair value”), future technological changes which could impact the cost of mining, and future legal changes (including changes to environmental restoration obligations). The costs to dispose are estimated by management based on prevailing market conditions.

When applicable, fair value is estimated based on discounted cash flows using market based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, based on CGU life-of-mine (LOM) plans. Consideration is also given to analysts’ valuations, and the market value of the Company’s securities. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy (in accordance with Australian Accounting Standards).

## Notes to the Financial Statements B: Production and Growth Assets

### B.4 Segment expenditure, assets and liabilities

For the 6 months to 31 December 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Corp/ Other	Treasury	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Capital expenditure	7,708	176,466	6,233	23,106	-	213,513
Segment assets of continuing operations	88,442	764,239	99,655	169,149	-	1,121,485
Segment liabilities of continuing operations	52,934	213,327	12,463	142,062	-	420,786

For the 12 months to 30 June 2018	Ravenswood (Australia)	Syama (Mali)	Bibiani (Ghana)	Corp/ Other	Treasury	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Capital expenditure	21,162	161,855	9,822	29,204	-	222,043
Segment assets of continuing operations	98,435	638,125	87,337	111,373	-	935,270
Segment liabilities of continuing operations	63,068	137,287	10,503	15,770	-	226,628

## Notes to the Financial Statements C: Cash, Debt and Capital

### In this section

Cash, debt and capital position of the Group at the end of the reporting period.

### C.1 Cash

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Cash at bank and on hand	38,717	42,445
<b>Reconciliation to cash flow statement</b>		
For the purpose of the cash flow statement, cash and cash equivalents comprise the following at the end of each period:		
Cash at bank and on hand	38,717	42,445
Bank overdraft	(67,298)	(47,282)
	<b>(28,581)</b>	<b>(4,837)</b>

The credit quality of cash and cash equivalents can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

Cash at bank and short term deposits		
<i>Counterparties with external credit ratings</i>		
AA-	13	495
A	32,759	40,269
B	-	-
<i>Counterparties without external credit ratings</i>	5,945	1,681
<b>Total cash at bank and short term deposits</b>	<b>38,717</b>	<b>42,445</b>

### Recognition and measurement

Cash and cash equivalents in the statement of financial position comprise cash at bank and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are stated at face value in the statement of financial position.

### Fair value and foreign exchange risk

The carrying amount of cash and cash equivalents approximates their fair value.

The Group held A\$30.5 million of cash and cash equivalents at 31 December 2018 (12 months to June 2018: A\$30.4 million) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. These exposures are predominantly US dollars (6 months to December 2018: A\$28.7 million; 12 months to June 2018: A\$11.9 million equivalent) and Euro 6 months to December 2018: A\$0.03 million; 12 months to June 2018: A\$5.0 million equivalent).

Average interest rates earned on cash and cash equivalents during the period was 0.98% (12 months to June 2018: 2.4%).

# Notes to the Financial Statements C: Cash, Debt and Capital

## C.1 Cash (continued)

Reconciliation of net (loss)/profit from continuing operations after income tax to the net operating cash flows

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Net (loss)/profit from ordinary activities after income tax	(5,324)	77,837
Add/(deduct):		
Share based payments including employee long term incentive costs	1,346	1,782
Loss on sale of property, plant and equipment	6	587
Profit on sale of available for sale financial assets	(352)	-
Rehabilitation and restoration provision accretion	893	1,505
Rehabilitation and restoration cash expenditure	(237)	(1,223)
Depreciation and amortisation	10,157	14,547
Foreign exchange gains	(15,555)	(30,574)
Inventory net realisable value movements	29,157	(12,822)
Share of associates' losses	476	1,500
Non cash finance costs	16	42
Changes in operating assets and liabilities:		
Increase in receivables	(10,021)	(32,949)
Decrease/(increase) in inventories	7,781	(8,905)
Decrease/(increase) in prepayments	4,745	(2,577)
(increase)/decrease in stripping activity asset	(7,029)	15,681
Increase in payables	20,303	24,112
Decrease/(increase) in current tax balances	3,838	(24,488)
(Increase)/decrease in deferred tax balances	(9,439)	6,751
Increase/(decrease) in operating provisions	3,088	(2,447)
<b>Net operating cash flows</b>	<b>33,849</b>	<b>28,359</b>

# Notes to the Financial Statements C: Cash, Debt and Capital

## C.1 Cash (continued)

### Cash flow by segment

	Ravenswood (Australia)	Syama (Ghana)	Bibiani (Ghana)	Unallocated (b)		Total
				Corp/ Other	Treasury	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>For the 6 months to 31 December 2018</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	(29,758)	(98,594)	(7,776)	(21,126)	154,696	(2,558)
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold poured but unsold at market value						(514)
Mark to market movement in gold unsold						(2,763)
Movement in bank overdraft, including foreign exchange movements						(20,016)
Exchange rate adjustment in cash on hand						242
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>(25,609)</b>
<b>For the 12 months to 30 June 2018</b>						
Cash flow by segment, including gold bullion, and gold shipped but unsold and held in metal accounts	(12,074)	(112,182)	(17,550)	(47,887)	(14,424)	(204,117)
<b>Reconciliation of cash flow by segment to the cash flow statement:</b>						
Movement in gold poured but unsold at market value						(40,726)
Mark to market movement in gold unsold						(605)
Movement in bank overdraft, including foreign exchange movements						(12,724)
Exchange rate adjustment in cash on hand						2,730
<b>Movement in cash and cash equivalents per consolidated cash flow statement</b>						<b>(255,442)</b>

## Notes to the Financial Statements C: Cash, Debt and Capital

### C.2 Interest bearing liabilities

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b><i>Interest bearing liabilities (current)</i></b>		
Bank overdraft - ref C3.1	67,298	47,282
Insurance premium funding	1,215	-
	68,513	47,282
<b><i>Interest bearing liabilities (non-current)</i></b>		
Borrowings	138,711	-
	207,224	47,282

### Recognition and measurement

All loans and borrowings are initially recognised at fair value less transaction costs and subsequently at amortised cost. Any difference between the proceeds received and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method.

Resolute has a Security Trust Deed in place with various banks. The total assets of the entities over which security exists amounts to \$1,075m (12 months to June 2018: \$875m). \$262m (12 months to June 2018: \$152m) of these assets relate to property plant and equipment.

#### Finance leases

Finance leases, which effectively transfer to the consolidated entity all of the risks and benefits incidental to ownership of the leased item, are capitalised at the present value of the minimum lease payments, disclosed as leased property, plant and equipment, and amortised over the period the consolidated entity is expected to benefit from the use of the leased assets. Lease payments are allocated between interest expense and reduction in the lease liability. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability.

#### Interest bearing liabilities

The Group's interest bearing liabilities have a fair value equal to the carrying value.

The Group held \$139m of interest bearing liabilities at 31 December 2018 (12 months ended June 2018: Nil) in currencies other than Australian dollars or a different currency to that of the functional currency of the company which holds the item. Average interest rates charged on interest bearing liabilities at period end was 5.97% (2018: 8.0%).

During the six month period to 31 December 2018, Resolute entered into a US\$100m Revolving Loan Facility agreement with Investec Australia Limited. As part of the process of syndication of the Syndicated Facility Agreement, the facility limit was expanded to US\$150m. The expanded facility was signed on 21 December 2018, all Conditions Precedent were satisfied as of 31 December 2018 and the expanded facility was fully available to Resolute to draw from 3 January 2019.



## Notes to the Financial Statements C: Cash, Debt and Capital

### C.2 Interest bearing liabilities (continued)

#### Maturity profile of interest-bearing liabilities

The maturity profile of the Group's interest-bearing liabilities in total and for finance leases is as follows:

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>Borrowings</b>		
Due within 1 to 3 months	1,776	-
Due within 4 months to one year	76,258	49,184
Due between one and five years	149,486	-
<b>Total contractual repayments</b>	<b>227,520</b>	<b>49,184</b>
Less finance charges	(20,296)	(1,902)
<b>Total interest bearing liabilities</b>	<b>207,224</b>	<b>47,282</b>

### C.3 Financing facilities

#### C3.1 Bank overdraft

The current facility with the Bank Du Mali SA is in place and is subject to an annual revision in approximately September 2019. As at 31 December 2018 A\$2.6m of the facility was unused.

#### C3.2 Syndicated facilities

Resolute established a new three-year US\$100m revolving credit facility with Investec Australia Limited ("Investec") as Facility A of a new Syndicated Facility Agreement (the "SFA") on 13 July 2018.

As part of the process of syndication of the Syndicated Facility Agreement, the facility limit was expanded to US\$150m with the participation of Investec, BNP Paribas, Citibank N.A. and Nedbank Limited. The expanded facility was signed on 21 December 2018, all Conditions Precedent were satisfied as of 31 December 2018 and the expanded facility was fully available to Resolute to draw from 3 January 2019.

The A\$35.0m Letter of Credit Facility with Citibank N.A., now forms part of the new Syndicated Facility Agreement as Facility B. The Letter of Credit Facility relates mainly to Environmental Performance Bonds for the Ravenswood Project. A\$29.4m of this facility has been drawn and expires on 31 December 2019;

The Syndicated Facility Agreement, Citibank N.A. Letter of Credit Facility and hedging facilities provided by Investec Bank Plc, Société Générale and Citibank N.A. are secured by the following:

- (i) Cross Guarantee and Indemnity given by Resolute ("the Borrower"), Carpentaria Gold Pty Ltd, Resolute (Somisy) Limited, Resolute (Treasury) Pty Ltd and Resolute (Bibiani) Limited;
- (ii) Share Mortgage granted by Resolute over all of its shares in Carpentaria Gold Pty Ltd;
- (iii) Share Mortgage granted by the Borrower over all of its shares in Resolute (Bibiani) Limited and Resolute (Somisy) Limited;
- (iv) Fixed and Floating Charge granted by Resolute (Treasury) Pty Ltd over all its current and future assets including bank accounts and an assignment of all Hedging Contracts;
- (v) Mining Mortgage and Fixed and Floating Charge granted by Carpentaria Gold Pty Ltd, including mining mortgage over key Carpentaria Gold Pty Ltd mining tenements and charge over all the current and future assets of Carpentaria Gold Pty Ltd including bank accounts and an assignment of all Hedging Contracts;
- (vi) Mortgage of Contractual Rights granted by Resolute Mining Limited in favour of the Security Trustee over a loan provided to Société des Mines de Syama SA;
- (vii) Mortgage of Contractual Rights granted by Resolute (Bibiani) Limited in favour of the Security Trustee over a loan provided to Drilling and Mining Services Limited, Mensin Gold Bibiani Limited and Noble Mining Ghana Limited; and,
- (viii) Mortgage of Contractual Rights granted by Resolute (Treasury) Pty Ltd in favour of the Security Trustee over a loan provided to Mensin Gold Bibiani Limited.

## Notes to the Financial Statements C: Cash, Debt and Capital

### C.3 Financing facilities (continued)

#### C3.2 Syndicated facilities (continued)

Pursuant to the Syndicated Facilities Agreement, the following ratios are required:

- (i) (Interest Cover Ratio): the ratio of EBITDA to Net Interest Expense will be greater than 5.00 times;
- (ii) (Net Debt to EBITDA): the ratio of Net Debt to EBITDA will be less than 2.00 times;
- (iii) (Consolidated Gearing): the ratio of Net Debt to Equity will be less than 1.00 times; and
- (iv) (Reserve Tail Ratio): will exceed 30%.

There have been no breaches of these ratios.

The A\$9.5m (US\$7m) Letter of Credit Facility Agreement with Société General Ghana Limited relates to Environmental Performance Bonds for the Bibiani Project. This facility is fully drawn and expires on 31 December 2019. The Société General Ghana Limited Letter of Credit Facility Agreement is also supported by a guarantee provided by Resolute Mining Limited.

### C.4 Contributed Equity

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Ordinary share capital:	559,809	544,972
757,512,088 ordinary fully paid shares (2018: 741,477,595)		
Movements in contributed equity, net of issuing costs:		
Balance at the beginning of the period	544,972	544,987
Issue of shares to Level 1 and 2 employees (net of costs)	-	(15)
Issue of shares to Orca Gold <sup>1</sup>	11,774	-
Issue of shares to Loncor <sup>2</sup>	2,646	-
Issue of shares to Manas Resources <sup>3</sup>	417	-
<b>Balance at the end of the period</b>	<b>559,809</b>	<b>544,972</b>

<sup>1</sup>This relates to the purchase of 16,182,480 shares in Orca Gold Inc which resulted in the issue of 8,953,421 Resolute shares.

<sup>2</sup>This relates to the purchase of 25,000,000 shares in Loncor Resources Inc which resulted in the issue of 2,012,466 Resolute shares.

<sup>3</sup>This relates to the purchase of 79,290,000 shares in Manas Resources Limited which resulted in the issue of 317,160 Resolute shares.

### Recognition and measurement

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

### Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held. Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

### Rights of employee share based payment recipients

Refer to E.10 for details of the employee share based payment plans which includes option and performance rights plans. Each option entitles the holder to purchase one share. The names of all persons who currently hold employee share options or performance rights, granted at any time, are entered into the register kept by the Company, pursuant to Section 215 of the Corporations Act 2001. Persons entitled to exercise these options and holders of performance rights have no right, by virtue of the options, to participate in any share issue by the parent entity or any other body corporate.

# Notes to the Financial Statements C: Cash, Debt and Capital

## C.5 Other reserves

Reserve	Nature and purpose
Net unrealised gain/(loss) reserve	This reserve records fair value changes on financial assets at fair value through other comprehensive income.
Convertible notes/Share options equity reserve	This reserve records the value of the equity portion (conversion rights) of the convertible notes and records the fair value of share options issued.
Employee benefits equity reserve	This reserve is used to recognise the fair value of options and performance rights granted over the vesting period of the securities provided to employees.
Foreign currency translation reserve	Represents exchange differences arising on translation of foreign controlled entities.
Non-controlling interest's reserve	This reserve records the difference between the fair value of the amount by which the non-controlling interests were adjusted to record their initial relative interest and the consideration paid for Resolute's acquisition for that share of the interest.

## Key financial and capital risks associated with Cash, Debt and Capital

### Liquidity risk management

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, or having the availability of funding through an adequate amount of undrawn committed credit facilities.

### Interest rate risk management

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group constantly analyses its interest rate exposure. Within this analysis consideration is given to the potential renewals of existing positions, alternative financing, alternative hedging positions and the mix of fixed and variable interest rates. There is no intention at this stage to enter into any interest rate swaps.

### Capital risk management

The Group's and the parent entity's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain a capital structure that is appropriate for the Group's current and/or projected financial position. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders (if any), return capital to shareholders, buy back its shares, issue new shares, borrow from financiers or sell assets to reduce debt.

The Group monitors the adequacy of capital by analysing cash flow forecasts over the term of the Life of Mine for each of its projects. To a lesser extent, gearing ratios are also used to monitor capital. Appropriate capital levels are maintained to ensure that all approved expenditure programs are adequately funded. This funding is derived from an appropriate combination of debt and equity. The gearing ratio at 31 December 2018 is 24% (twelve months ended 30 June 2018: 0%). The Group is not subject to any externally imposed capital management requirements.

The gearing ratio is calculated as net debt divided by total capital. Net debt is defined as interest bearing liabilities less cash, cash equivalents and market value of bullion on hand. Total capital is calculated as 'equity' as shown in the Consolidated Statement of Financial Position (including non-controlling interest) plus net debt.

The following table summarises the post-tax effect of the sensitivity of the Group's debt, cash and capital items on profit and equity at reporting date to movements that are reasonably possible in relation to interest rate risk and foreign exchange currency risk.

	Carrying Amount	Interest rate risk				Foreign exchange risk			
		-1%		+1%		-10%		+10%	
		Profit	Equity	Profit	Equity	Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>31 December 2018</b>									
Cash	38,717	(227)	(227)	227	227	2,221	2,221	(1,817)	(1,817)
Interest bearing liabilities	138,711	(992)	(992)	992	992	11,028	11,028	(9,023)	(9,023)
<b>Total (decrease)/increase</b>		<b>(1,219)</b>	<b>(1,219)</b>	<b>1,219</b>	<b>1,219</b>	<b>13,249</b>	<b>13,249</b>	<b>(10,840)</b>	<b>(10,840)</b>
<b>30 June 2018</b>									
Cash	42,445	(279)	(279)	279	279	2,260	2,260	(1,849)	(1,849)

Total (decrease)/increase		(279)	(279)	279	279	2,260	2,260	(1,849)	(1,849)
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## Notes to the Financial Statements D: Other assets and liabilities

### In this section

Other assets and liabilities position at the end of the reporting period.

### D.1 Receivables

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Trade receivables	2,757	1,783
Taxation receivables <sup>1</sup>	50,316	38,181
Loans advanced to other parties <sup>2</sup>	3,749	5,133
	<b>56,822</b>	<b>45,097</b>

<sup>1</sup> The taxation receivables primarily relate to indirect taxes owing to the group by the State of Mali.

<sup>2</sup> \$2,999,471 (30 June 2018: \$5,132,579) relates to loan advanced to a supplier which is secured over assets that the loan was used to purchase. Interest at the rate of 9.5% per annum as determined off a reference rate, is charged on the balance outstanding and the loan is repayable by the supplier by way of deduction from future amounts payable under the contract. The balances outstanding at 31 December 2018 is expected to be repaid within the next 12 months and therefore the loan has been classified as current. The remaining \$750,000 (30 June 2018: nil) relates to a loan advanced to Kilo Goldmines Ltd (a Canadian company listed on the TSX-V). The loan bears interest at 10% per annum, is repayable in March 2019 and is secured against all the assets of Kilo Goldmines Ltd including a pledge of the shares in Kilo Goldmines Inc a wholly owned subsidiary of Kilo Goldmines Ltd.

The credit quality of receivables can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<i>Counterparties with external credit ratings</i>		
AA+	1,822	1,061
<i>Counterparties without external credit ratings *</i>		
Group 1	54,544	43,689
Group 2	456	347
	<b>56,822</b>	<b>45,097</b>

\*Group 1 refers to existing counterparties with no defaults in the past. Group 2 refers to existing counterparties where difficulty in recovering these debts in the past has been experienced.

### Recognition and measurement

Trade receivables are initially recognised at fair value and subsequently at amortised cost less a provision for any expected credit losses. Trade receivables are due for settlement no more than 30 days from the date of recognition.

Taxation receivables are considered statutory in nature and therefore not accounted for as financial assets under AASB 9. Taxation receivables are initially recognised and subsequently measured at amortised cost.

### Fair value and foreign exchange risk

The carrying amount of receivables approximates their fair value. The Group always recognises the lifetime expected credit loss for trade receivable carried at amortised cost. The expected credit losses on these financial assets are estimated based on the Group's historic credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as forecast conditions at the reporting date.

For all other receivables measured at amortised cost, the Group recognises lifetime expected credit losses when there has been a significant increase in credit risk since initial recognition. If the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for the financial instrument at an amount equal to expected credit losses within the next 12 months.

The Group held \$1.9m in receivables at 31 December 2018 (12 months to June 2018: \$1.8m) in currencies other than Australian dollars or in a different currency to that of the functional currency of the company which holds the item.

## Notes to the Financial Statements D: Other assets and liabilities

### D.1 Receivables (continued)

As at balance date, the aging analysis of current and non-current sundry debtors is as follows:

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
0-30 days (Past due but not impaired)	4,356	6,639
31-60 days (Past due but not impaired)	68	132
61-90 days (Past due but not impaired)	1,683	94
+91 days (Past due but not impaired)	222	-
+91 days (Considered impaired)	177	51
	<b>6,506</b>	<b>6,916</b>

Payment terms on amounts past due but not impaired have not been re-negotiated, however the Group maintains direct contact with the relevant debtor and is satisfied that net receivables will be collected in full.

### D.2 Inventories

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Ore stockpiles		
-At cost	27,347	38,296
-At net realisable value	14,524	35,946
Total ore stockpiles	41,871	74,242
Gold bullion on hand - at cost <sup>1</sup>	16,553	28,675
Gold bullion on hand - at net realisable value <sup>1</sup>	4,980	-
Gold in circuit - at cost	9,598	72,830
Gold in circuit - at net realisable value <sup>2</sup>	66,736	-
Consumables at cost	38,885	58,973
	<b>178,623</b>	<b>234,720</b>

<sup>1</sup> Resolute retained 22,768oz of gold bullion on hand at 31 Dec 2018 with a market value of \$39.5m (12 months to June 2018: 21,962oz with a market value of \$37.1m).

<sup>2</sup> Included in gold in circuit is inventory with carrying value of \$56m that is expected to be processed after 12 months.

### Recognition and measurement

Finished goods (bullion), gold in circuit and stockpiles of unprocessed ore are stated at the lower of cost and estimated net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to ore stockpiles and gold in circuit items of inventory on the basis of weighted average costs. Net realisable value is the estimated selling price in the ordinary course of business (excluding derivatives) less the estimated costs of completion and the estimated costs necessary to make the sale. Consumables have been valued at cost less an appropriate provision for obsolescence. Cost is determined on a first-in-first-out basis.

## Notes to the Financial Statements D: Other assets and liabilities

### D.3 Other financial assets and liabilities

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>Financial assets at fair value through other comprehensive income (current)</b>		
Shares at fair value - listed	28,324	-
<b>Available for sale financial assets (current)</b>		
Shares at fair value - listed	-	22,859
<b>Other financial assets (current)</b>		
Environmental bond - restricted cash (face value approximates fair value)	3,890	-
<b>Other financial assets (non-current)</b>		
Environmental bond - restricted cash	-	3,707
Other	32	44
	<b>32</b>	<b>3,751</b>

### Recognition and measurement

#### Financial assets at fair value through other comprehensive income

These financial assets consist of investments in ordinary shares, comprising principally of marketable equity securities. Investments are initially recognised at fair value plus transaction costs. Unrealised gains and losses arising from changes in the fair value of these investments are recognised in equity in the financial assets revaluation reserve. Amounts recognised are not recycled to the statement of comprehensive income in future periods.

The fair value of the listed securities are based on quoted market prices and accordingly is a Level 1 measurement basis on the fair value hierarchy.

#### Restricted cash

The environmental bond represents a receivable carried at amortised cost using the effective interest method. The Ghanaian Environmental Protection Authority holds \$3.891m (AUD equivalent) of restricted cash as security for the rehabilitation and restoration provision of Mensin Gold Bibiani Limited's Bibiani Gold Mine. There is no external credit rating basis for the Ghanaian Environmental Protection Authority. The average interest rate earned on the environmental bond during the period was 0.0% (12 months to June 2018: 0.0%).

#### Use of derivative instruments to assist in managing gold price risk

As part of the Group's risk management practices, selected financial instruments (such as gold forward sales contracts, gold call options and gold put options) may be used from time to time to reduce the impact a declining gold price has on project life revenue streams. Within this context, the programs undertaken are project specific and structured with the objective of retaining as much upside to the gold price as possible, and in any event, limiting derivative commitments to no more than 50% of the Group's gold reserves. The value of these financial instruments at any given point in time, will in times of volatile market conditions, show substantial variation over the short term. The hedging facilities provided by the Group's counterparties do not contain margin calls. The Group did not hedge account for these instruments.

Movements in fair value are accounted for through the consolidated statement of comprehensive income.

### D.4 Prepayments

Non-current prepayments relate to payments made for the acquisition of plant and equipment.

## Notes to the Financial Statements D: Other assets and liabilities

### D.5 Payables

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Trade creditors	46,922	36,234
Accruals	73,060	56,254
	<b>119,982</b>	<b>92,488</b>

### Recognition and measurement

Liabilities for trade creditors and other amounts are carried at amortised cost which is the amount initially recognised, minus repayments whether or not billed to the consolidated entity.

Payables to related parties are carried at the principal amount. Interest, when charged by the lender, is recognised as an expense on an accruals basis. Payables are non-interest bearing and generally settled on 30-90 day terms. Due to the short term nature of these payables, their carrying value is assumed to approximate their fair value.

### D.6 Provisions

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>Current</b>		
Site restoration	3,888	5,330
Employee entitlements	13,384	12,517
Dividend payable	135	135
Withholding taxes	364	473
Other provisions	5,488	2,716
	<b>23,259</b>	<b>21,171</b>
<b>Non-Current</b>		
Site restoration	68,891	64,257
Employee entitlements	1,430	1,430
	<b>70,321</b>	<b>65,687</b>

## Notes to the Financial Statements D: Other assets and liabilities

### D.6 Provisions (continued)

#### Recognition and measurement

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a borrowing cost.

#### Employee benefits

The Group does not expect its long service leave or annual leave benefits to be settled wholly within 12 months of each reporting date. The Group recognises a liability for long service leave and annual leave measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels, experience of employee departures, and periods of service. Expected future payments are discounted using market yields at the reporting date on high quality corporate bonds with terms to maturity and currencies that match, as closely as possible, the estimated future cash outflows.

#### Restoration obligations

The Group records the present value of the estimated cost of obligations, such as those under the consolidated entity's Environmental Policy, to restore operating locations in the period in which the obligation is incurred. The nature of restoration activities includes dismantling and removing structures, rehabilitating mines, dismantling operating facilities, closure of plant and waste sites and restoration, reclamation and revegetation of affected areas.

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<b>Site restoration</b>		
Balance at the beginning of the period	69,587	65,425
Rehabilitation and restoration provision accretion	893	1,505
Change in scope of restoration provision	1,224	2,113
Utilised during the period	(237)	(1,223)
Foreign exchange translation	1,312	1,767
<b>Balance at the end of the period</b>	<b>72,779</b>	<b>69,587</b>
<b>Reconciled as:</b>		
Current provision	3,888	5,330
Non-current provision	68,891	64,257
<b>Total provision</b>	<b>72,779</b>	<b>69,587</b>



## Notes to the Financial Statements D: Other assets and liabilities

### Key estimates and judgements

#### Restoration

In determining an appropriate level of provision consideration is given to the expected future costs to be incurred, the timing of these expected future costs (largely dependent on the life of the mine), and the estimated future level of inflation. The discount rate used in the calculation of these provisions is consistent with the risk free rate. The ultimate cost of decommissioning and restoration is uncertain and costs can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine-sites. The expected timing of expenditure can also change, for example in response to changes in reserves or to production rates. Changes to any of the estimates could result in significant changes to the level of provisioning required, which would in turn impact future financial results.

### D.6 Provisions (continued)

#### Key financial risks associated with other assets and liabilities

#### Interest rate risk, diesel price risk and foreign exchange risk management

Refer to About this Report and Section C for details of how these risks are managed.

#### Credit risk management

The Group's exposure to credit risk arises from potential default of the counterparty, with a maximum exposure equal to the carrying amount of the financial assets.

Credit risk is managed on a Group basis. Credit risk predominately arises from cash, cash equivalents (refer to C1), gold bullion held in metal accounts, derivative financial instruments, deposits with banks and financial institutions and receivables from statutory authorities. For derivative financial instruments, management mitigates some credit risk by using a number of different hedging counterparties. Credit risk further arises in relation to financial guarantees given to certain parties. Such guarantees are only provided in exceptional circumstances and are subject to Audit and Risk Committee approval. With the exception of those items disclosed in C3, no guarantees have been provided to third parties as at the reporting date. The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates.

#### Foreign exchange risk management

The following table summarises the sensitivity to a reasonably possible change in foreign exchange rates with all other variables held constant:

	Carrying Amount	Foreign exchange risk			
		-10%		+10%	
		Profit	Equity	Profit	Equity
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>31 December 2018</b>					
Other financial assets	5,824	303	303	(248)	(248)
Loans advanced to other parties	3,749	150	150	(122)	(122)
Loans to subsidiaries	683,685	53,175	53,175	(43,507)	(43,507)
Payables	119,982	(1,489)	(1,489)	1,218	1,218
<b>Total increase/(decrease)</b>		<b>52,139</b>	<b>52,139</b>	<b>(42,659)</b>	<b>(42,659)</b>
<b>30 June 2018</b>					
Other financial assets	3,751	288	288	(236)	(236)
Loans advanced to other parties	5,133	243	243	(199)	(199)
Loans to subsidiaries	574,677	44,697	44,697	(36,570)	(36,570)
Payables	92,278	(1,123)	(1,123)	919	919
<b>Total increase/(decrease)</b>		<b>44,105</b>	<b>44,105</b>	<b>(36,086)</b>	<b>(36,086)</b>

## Notes to the Financial Statements E: Other items

### In this section

Information on items which require disclosure to comply with Australian Accounting Standards and the Australian Corporations Act 2001. This section includes group structure information and other disclosures.

### E.1 Contingent liabilities

#### Contingent liabilities

##### Amounts Potentially Payable to historical Bibiani Creditors

In June 2014, Mensin Gold Bibiani Limited, Drilling and Mining Services Limited and Noble Mining Ghana Limited (collectively referred to as the “Companies”) entered into court approved Schemes of Arrangement (“Scheme”) with their creditors and employees (“Scheme Creditors”). The Scheme enabled Resolute to secure, with the endorsement of the Ghanaian government, ultimate ownership of the Bibiani gold mine with protection from those liabilities which had been incurred at a time when the mine was owned by Noble. The Scheme sets out the timing and amounts of payments to be made by the Companies to a Scheme Fund and to a Future Fund, from which funds, payments are to be made to the Scheme Creditors. The Scheme Creditors arise from transactions that occurred prior to the Companies becoming part of the Resolute group. The Scheme Fund and the Future Fund are effectively administered by Ferrier Hodgson.

The implementation of the Scheme has had the effect of removing from the Companies’ balance sheets all historical liabilities relating to amounts payable to Scheme Creditors and replacing this with an obligation to fund the Scheme Fund and Future Fund, as and when necessary. The unconditional obligations to make payments to the Scheme Fund were paid in 2014. In addition to those unconditional obligations to pay into the Scheme Fund, the Scheme imposed following contingent liabilities to provide funding to the Scheme Fund and Future Fund:

- Potential payment to the Scheme Fund of US\$3.600m (\$4.854m) if, following receipt of the Feasibility Study, the board of Resolute, in its absolute discretion, makes a decision to proceed with the development of Bibiani; and;
- Potential payment to a Future Fund of up to US\$7.800m (\$10.516m) conditional upon the generation of Free Cashflow from Bibiani mine operations for the period of 5 years from the date that Commercial Production is declared. Free Cashflow means 25% of the sum of Project Revenue for that period less Permitted Payments for that period, which includes:
  - operational expenses and capital costs paid in connection with the mining operations; and
  - repayment of principal and interest relating to funds advanced by Resolute up to the commencement of mining operations.

The Scheme provided that if Commercial Production had not been achieved by June 2019, then the Bibiani gold mine had to be sold and the proceeds applied in the manner set out in the Scheme. Even in the event that the Board makes a decision to proceed with mining at Bibiani, it is clear that Commercial Production will not be able to be achieved by June 2019. Therefore, in order to avoid the need to sell the Bibiani gold mine, an Amended Scheme has been proposed to Scheme Creditors, which will allow additional time to, effectively, commence mining at Bibiani. In consideration for the Scheme Creditors agreeing to the extended timeframe to commence mining, the Amended Scheme will provide that upon the Amended Scheme becoming operative, the payment of US\$3.600m (\$4.854m) will become payable (ie it will not be dependent upon the decision of the board of Resolute to proceed with the development of Bibiani). The meetings of Scheme Creditors to consider the Amended Scheme are scheduled for early April 2019, and if the Scheme Creditors approve the Amended Scheme, it is expected that the Amended Scheme will become operative in May 2019, triggering the obligation to make the payment US\$3.600m (\$4.854m) within about 2 months thereafter.

Notwithstanding the Scheme’s approval by the court, the creditors, and the Ghanaian Minister of Mines, two Ghanaian creditors have sought to circumvent the operation of the Scheme and are seeking to enforce a winding up order against Mensin, on the basis of a debt incurred prior to implementation of the Scheme. Resolute is defending Mensin’s right to unencumbered ownership of Bibiani which was a key element of the Scheme supported by both Resolute and the Ghanaian government.

## Notes to the Financial Statements E: Other items

### E.2 Leases and other commitments

#### Operating leases

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Due within one year	1,807	3,253
Due between one and five years	7,130	12,917
Aggregate lease expenditure contracted for at balance date but not provided for	8,937	16,170

#### Commitments

Other commitments not disclosed elsewhere in this report include:

##### Randgold/Syama Royalty

Pursuant to the terms of the Syama Sale and Purchase Agreement, Randgold Resources Limited receive a royalty on Syama production, where the gold price exceeds US\$350 per ounce, of US\$10 per ounce on the first million ounces of gold production attributable to Resolute Mining Limited and US\$5 per ounce on the next three million attributable ounces of gold production. As at 31 December 2018, Resolute's 80% attributable share of Syama's project to date gold production was 1,287,453 ounces of gold, therefore the royalty is currently US\$5 per ounce.

##### Other contracted expenditure commitments

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Due within one year	6,775	8,780
Aggregate lease expenditure contracted for at balance date but not provided for	6,775	8,780

#### Gold contracts

As part of its risk management policy, the Group enters into gold forward contracts to manage the gold price of a proportion of anticipated sales of gold. As at 31 December 2018, 125,000 ounces remains outstanding.

The gold forward contracts disclosed below did not meet the criteria of financial instruments for accounting purposes on the basis that they met the normal purchase/sale exemption because physical gold would be delivered into the contract. Accordingly, the contracts were accounted for as sale contracts with revenue recognised in the period in which the gold commitment was met.

	Gold for Physical Delivery Ounces	Contracted Gold Sale Price per Ounce (\$A)	Value of Committed sales \$'000
<b>31 December 2018</b>			
<b>USD</b>			
Within one year	6,000	1,817.17	10,903,020
Within one year	2,000	1,799.66	3,599,320
Within one year	2,000	1,789.74	3,579,480
Within one year	30,000	1,772.30	53,169,000
	<b>40,000</b>		<b>71,250,820</b>
<b>AUD</b>			
Within one year	20,000	1,715.00	34,300,000
Within one year	35,000	1,728.16	60,485,600
Within one year	30,000	1,783.20	53,496,000
	<b>85,000</b>		<b>148,281,600</b>

## Notes to the Financial Statements E: Other items

### E.3 Auditor remuneration

	6 months to 31 December 2018	12 months to 30 June 2018
	\$	\$
Auditing	140,500	175,500
Other assurance services	46,300	-
Taxation planning advice and review and other services	-	20,000
	<b>186,800</b>	<b>195,500</b>
Amounts received or due and receivable by a related overseas office of Ernst & Young, from entities in the consolidated entity or related entities:		
Auditing (Ernst & Young, Ghana and Tanzania)	21,267	27,860
<b>Total amounts received or due and receivable by Ernst &amp; Young globally</b>	<b>208,067</b>	<b>223,360</b>
Amounts received or due and receivable by non Ernst & Young firms for auditing	28,451	47,446

## Notes to the Financial Statements E: Other items

### E.4 Investments in associates

	6 months to 31 December 2018	12 months to 30 June 2018	6 months to 31 December 2018	12 months to 30 June 2018	6 months to 31 December 2018	12 months to 30 June 2018
<b>Continuing Operations</b>	<b>Kilo Goldmines Ltd</b>		<b>Manas Resources Ltd</b>		<b>Loncor Resources Inc</b>	
Shares held in associates (No. of shares)	46,568,000	46,568,000	603,189,835	523,899,835	51,000,000	51,000,000
CA\$0.135 warrants, expiring 25 August 2018 (No. of warrants)	-	24,700,000	-	-	-	-
Percentage of ownership (%)	27.44%	27.44%	22.82%	19.90%	27.22%	27.22%
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Carrying Value	2,893	3,077	1,541	1,263	5,149	2,654

#### (b) Movements in the carrying amount of the Group's investment in associates

At 1 July	3,077	3,986	1,263	1,854	2,654	-
Purchase of investment	-	-	417	-	2,647 <sup>1</sup>	2,654
Share of loss after income tax	(184)	(909)	(139)	(591)	(153)	-
At 31 December	2,893	3,077	1,541	1,263	5,148	2,654 <sup>1</sup>

<sup>1</sup> On 13 July 2018, Resolute paid Loncor Resources Inc for 25 million shares acquired during the year, via the issue of 2,012,466 Resolute shares.

#### (c) Market value of investments in associates

Market value of the Group's investment	726	1,195	2,413	3,143	3,977	3,927

#### (d) Summarised financial information

The following table illustrates summarised financial information relating to the Group's associates:

<b>Extract from the associates' statement of financial position</b>					
Current assets	376	388	8,852	9,500	2,539
Non-current assets	710	742	839	244	37,998
Total assets	1,086	1,130	9,691	9,744	40,537
Current liabilities	1,006	253	155	169	1,745
Non-current liabilities	-	2	-	-	11
Total liabilities	1,006	255	155	169	1,756
Net assets	80	875	9,536	9,575	38,781
Share of associates' net assets	<b>22</b>	<b>240</b>	<b>2,176</b>	<b>1,905</b>	<b>10,555</b>
<b>Extract from the associates' statement of comprehensive income:</b>					
Revenue	-	-	-	-	-
(Loss)/profit before tax, (loss)/profit for the year and total comprehensive loss	(696)	(3,248)	(62)	(2,844)	30

### Recognition and measurement

The fair value less cost to dispose ("FVLCD") for the investments in associates has been determined based on valuation multiples based on comparable companies. The fair value methodology adopted is categorised as Level 3 in the fair value hierarchy. In determining the FVLCD, estimates were made in relation to the underlying resource/reserves and the valuation multiple.

# Notes to the Financial Statements E: Other items

## E.5 Subsidiaries and non-controlling interests

### Subsidiaries

The following were controlled entities during the period and have been included in the consolidated accounts. All entities in the consolidated entity carry on business in their place of incorporation.

Name of Controlled Entity and Country of Incorporation	Consolidated Entity Company Holding the Investment	Percentage of Shares Held by Consolidated Entity	
		6 months to 31 December 2018	12 months to 30 June 2018
		%	%
ACN 627 384 098 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Amber Gold Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Ltd	100	100
Carpentaria Gold Pty Ltd, Aust.	Resolute Mining Limited	100	100
Drilling and Mining Services Limited, Ghana	Resolute (Bibiani) Pty Ltd	100	100
Excalibur Cote d'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Ltd	100	100
Geb and Nut Resources SARL, Cote d'Ivoire <sup>1</sup>	Resolute Cote D'Ivoire SARL	80	80
Resolute Corporate Services Pty Ltd, Aust. <sup>2</sup> (a)	Resolute (Treasury) Pty Ltd	100	100
Mensin Gold Bibiani Limited, Ghana	Resolute (Bibiani) Pty Ltd	90	90
Nimba Resources SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Ltd	100	100
Noble Mining Ghana Limited, Ghana	Resolute (Bibiani) Pty Ltd	100	100
Resolute (Bibiani) Pty Ltd, Aust. <sup>3</sup> (a)	Resolute Mining Limited	100	100
Resolute Burkina Faso Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Burkina SARL, Burkina Faso	Resolute Mining Limited	100	100
Resolute Canada Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Canada 2 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute (CDI Holdings) Pty Ltd, Aust. <sup>4</sup> (a)	Resolute Mining Limited	100	100
Resolute Cote D'Ivoire SARL, Cote d'Ivoire	Resolute (CDI Holdings) Pty Ltd	100	100
Resolute Egypt (Australia) Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Egypt (Australia) 2 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Egypt Pty Ltd, Egypt	Resolute Egypt (Australia) Pty Ltd Resolute Egypt (Australia) 2 Pty Ltd	50 50	50 50
Resolute Exploration SARL, Mali	Resolute (Finkolo) Pty Ltd	100	100
Resolute (Finkolo) Pty Limited, Aust. <sup>5</sup> (a)	Resolute Mining Limited	100	100
Resolute (Ghana) Limited, Ghana	Resolute Mining Limited	100	100
Resolute Mali S.A., Mali	Resolute (Somisy) Pty Ltd	100	100
Resolute (Somisy) Pty Ltd, Aust. <sup>6</sup> (a)	Resolute Mining Limited	100	100
Resolute Sudan Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute Sudan 2 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Resolute (Treasury) Pty Ltd, Aust. (a)	Resolute Mining Limited	100	100
RSG Tanzania Pty Ltd, Aust.	Resolute Mining Limited	100	100
RSG Tanzania 2 Pty Ltd, Aust.	Resolute Mining Limited	100	100
Société des Mines de Finkolo S.A., Mali	Resolute (Finkolo) Pty Ltd	90	90
Société des Mines de Syama S.A., Mali	Resolute (Somisy) Pty Ltd	80	80

(a) Entities not separately audited. Entity's audit scope is limited to the purpose of inclusion in the consolidated entity's accounts.

<sup>1</sup> Resolute's shareholding in this company is subject to a dispute.

<sup>2</sup> Previously Goudhurst Pty Ltd, Aust.

<sup>3</sup> Previously Resolute (Bibiani) Limited, Jersey

<sup>4</sup> Previously Resolute (CDI Holdings) Limited, Jersey

<sup>5</sup> Previously Resolute (Finkolo) Limited, Jersey

<sup>6</sup> Previously Resolute (Somisy) Limited, Jersey

## Notes to the Financial Statements E: Other items

### E.5 Subsidiaries and non-controlling interests (continued)

#### Material partly owned subsidiaries

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
<i>Accumulated share of (deficiency)/equity attributable to material Non-Controlling Interest:</i>		
Société des Mines de Syama SA ("SOMISY")	(11,181)	(7,510)
Mensin Gold Bibiani Limited ("Mensin")	(1,661)	(1,700)
Société des Mines de Finkolo SA ("Finkolo")	3,160	1,796
<b>Total Non-Controlling Interest</b>	<b>(9,682)</b>	<b>(7,414)</b>
(Loss)/profit allocated to material Non-Controlling Interest:		
SOMISY	(3,351)	12,775
Mensin	-	(183)
Finkolo	1,329	(325)
<b>Total Non-Controlling Interest</b>	<b>(2,022)</b>	<b>12,267</b>

The summarised financial information of subsidiaries with non-controlling interests is provided below. This information is based on amounts before inter-company eliminations.

	6 months to 31 December 2018	12 months to 30 June 2018	6 months to 31 December 2018	12 months to 30 June 2018	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
	<b>SOMISY</b>		<b>Mensin</b>		<b>Finkolo</b>	
<i>Statement of Comprehensive Income</i>						
Revenue	130,670	306,626	-	-	21,518	-
(Loss)/gain for the period	(17,779)	64,659	12	(1,734)	14,903	(3,219)
Total comprehensive (loss)/income for the period	(17,779)	64,659	12	(1,734)	14,903	(3,219)
<i>Summarised Statement of Financial Position</i>						
Current assets	240,277	293,236	4,304	4,086	34,046	5,857
Non-current assets	569,763	395,841	94,788	84,695	44,534	26,363
Current liabilities	(137,721)	(110,494)	(2,607)	(2,694)	(40,666)	(8,492)
Non-current liabilities - External	(38,949)	(37,946)	(9,430)	(9,502)	(2,073)	-
Non-current liabilities - Intra Resolute Mining Limited Group	(660,928)	(550,974)	(487,077)	(457,440)	(64,650)	(55,125)
Total deficiency	(27,558)	(10,337)	(400,022)	(380,855)	(28,809)	(31,397)
<i>Summarised Statement of Cash Flow</i>						
Operating	58,623	82,298	(223)	(1,550)	9,518	(8,076)
Investing	(157,625)	(176,896)	(6,233)	(12,829)	(9,110)	(13,480)
Net (decrease)/increase in cash and cash equivalents	(99,002)	(94,598)	(6,456)	(14,379)	408	(21,556)

## Notes to the Financial Statements E: Other items

### E.6 Joint operations

The consolidated entity has an interest in the following joint operations whose principal activities are to explore for gold.

Entity Holding Interest	Other Participant/Joint Operation	Percentage of Interest Held	
		6 months to 31 December 2018	12 months to 30 June 2018
		%	%
Resolute Mining Limited	Etruscan Resources Bermuda Ltd/N'Gokoli Est JV <sup>1</sup>	60%	60%

<sup>1</sup> Interests in joint operations greater than 50% have been accounted for as joint operations as all decision making requires unanimous agreement.

### E.7 Subsequent events

On 31 January 2019, Resolute forward sold 30,000 ounces of gold at an average price of US\$1,335 per ounce in scheduled monthly deliveries of 5,000 ounces between July 2019 and December 2019. Additionally, on 11 February 2019, Resolute forward sold 30,000 ounces of gold at an average price of A\$1,887 per ounce in scheduled monthly deliveries of 5,000 ounces between January 2020 and June 2020.

As part of the process of syndication of the US\$100m Syndicated Facility Agreement, the facility limit was expanded to US\$150m with the participation of Investec, BNP Paribas, Citibank N.A. and Nedbank. The expanded facility was signed on 21 December 2018, all Conditions Precedent were satisfied as of 31 December 2018 and the expanded facility was fully available to Resolute to draw from 3 January 2019.

### E.8 Related party disclosures

Resolute is the ultimate Australian holding company and there is no controlling entity of Resolute at 31 December 2018.

### E.9 Parent entity information

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Current assets	1,468	181
Total assets	470,150	460,338
Current liabilities	(2,564)	(1,323)
Total liabilities	(2,569)	(1,329)
<b>Net assets</b>	<b>467,581</b>	<b>459,009</b>
Issued capital	559,852	545,014
Accumulated losses	(103,976)	(97,710)
Convertible note/Share option equity reserve	6,342	6,342
Employee equity benefits reserve	5,364	5,364
Reserves - unrealised (loss)/gain	(1)	(1)
<b>Total shareholders equity</b>	<b>467,581</b>	<b>459,009</b>
Profit of Resolute Mining Limited	5,320	8,035
Total comprehensive profit of Resolute Mining Limited	5,320	8,035

Refer to E1 for the contingent liabilities and commitments of Resolute Mining Limited. The parent company guarantees provided by Resolute Mining Limited are outlined in C3.



## Notes to the Financial Statements E: Other items

### E.10 Employee benefits and share based payments

	6 months to 31 December 2018	12 months to 30 June 2018
	\$'000	\$'000
Salaries	39,019	58,523
Superannuation	1,577	2,714
Share based payments expense	1,566	2,307
Total employee benefits charged to profit and loss	42,162	63,544

#### Share based payments

Equity-based compensation benefits are provided to employees via the Group's share option plan and performance rights plan. The Group determines the fair value of securities issued and recognises an expense in the profit and loss over the vesting period with a corresponding increase in equity.

#### Key management personnel

Details of remuneration provided to key management personnel are as follows:

	6 months to 31 December 2018	12 months to 30 June 2018
	\$	\$
Short-term employee benefits	1,507,394	3,115,873
Post-employment benefits	59,887	147,869
Long-term employment benefits	23,265	74,058
Share-based payments	730,674	1,882,044
	2,321,220	5,219,844

### Key estimates and judgements

#### Share based payments

The Group measures the cost of equity settled share based payment transactions with reference to the fair value at the grant date using a Black Scholes formula or Monte Carlo simulation. The valuations take into account the terms and conditions upon which the instruments were granted such as the exercise price, the term of the option or performance right, the vesting and performance criteria, the impact of dilution, the non-tradeable nature of the option or performance right, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk-free interest rate for the term of the option or performance right.

## Notes to the Financial Statements E: Other items

### E.10 Employee benefits and share based payments (continued)

#### Performance rights plan

The performance rights plan is broken down between:

Performance Rights Plan Category	Type of employee
Band 1	Managing Director and CEO
Band 2	Executive Team reporting to MD
Band 3	Site General Managers
Band 4	Other Participants as recommended by the MD
Special	Special, one-off awards as recommended by the MD

Plan category	Grant and frequency	Performance measures	Performance period
Band 1	Annually set at 100% of fixed remuneration for the Managing Director & CEO	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Band 2	Annually set at 65% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Band 3	Annually set between 30% and 50% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Band 4	Annually set between 10% and 20% of fixed remuneration	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years
Special	Varies	<ul style="list-style-type: none"> <li>75% of the rights will be performance tested against the relative total shareholder return ("TSR") measure over a 3 year period; and</li> <li>25% of the rights will be performance tested against the reserve/ resource growth over a 3 year period.</li> </ul>	3 years

## Notes to the Financial Statements E: Other items

### E.10 Employee benefits and share based payments (continued)

	Issue Date	Total Number	Fair Value per Right at Grant Date	Vesting Date
<b>Performance rights on issue</b>				
Band 1 to 4	24/10/16	2,263,300	\$1.27	30/06/19
Band 1	29/11/16	600,000	\$1.20	30/06/19
Band 1	29/11/16	1,000,000	\$1.18	30/06/20
Band 2 to 4	17/10/17	1,403,379	\$0.81	30/06/20
Band 1	28/11/17	587,500	\$0.74	30/06/20
Band 2 to 4	07/03/18	319,571	\$0.85	30/06/20
Band 2 to 4	26/10/18	887,167	\$0.92	30/06/21
Band 1	26/10/18	277,559	\$0.77	30/06/21
<b>As at 31 December 2018</b>		<b>7,338,476</b>	<b>\$0.75</b>	

	Date of Change	Total Number	Fair Value per Right at Grant Date	Vesting Date
Opening number of performance rights		11,307,704		
Decrease through conversion of shares upon vesting of performance rights (Level 1)	24/08/18	(3,829,341)	\$0.25	30/06/18
Decrease through lapsing of performance rights (Level 1)	24/08/18	(321,706)	\$0.25	30/06/18
Decrease through conversion of shares upon vesting of performance rights (Level 2)	24/08/18	(421,482)	\$1.89	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	10/09/18	(6,926)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	18/09/18	(6,703)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	21/10/18	(5,927)	\$1.27	30/06/19
Decrease through lapsing of performance rights (Band 1 to 4)	15/12/18	(22,281)	\$1.27	30/06/19
Decrease through conversion of shares upon vesting of performance rights (Band 1)	24/08/18	(400,000)	\$1.18	30/06/18
Decrease through lapsing of performance rights (Band 1 to 4)	10/07/18	(16,513)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	10/09/18	(26,667)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	21/10/18	(26,667)	\$0.81	30/06/20
Increase through issue of performance rights to eligible employees (Band 1 to 4)	26/10/18	887,167	\$0.92	30/06/21
Decrease through lapsing of performance rights (Band 1 to 4)	21/10/18	(26,667)	\$0.81	30/06/20
Decrease through lapsing of performance rights (Band 1 to 4)	15/12/18	(23,074)	\$0.81	30/06/20
Increase through issue of performance rights to eligible employees (Band 1)	26/10/18	277,559	\$0.77	30/06/21
<b>Closing number of performance rights</b>		<b>7,338,476</b>		

## Notes to the Financial Statements E: Other items

### E.10 Employee benefits and share based payments (continued)

The following table lists the key variables used in the valuation of performance rights:

Hurdle	6 months to 31 December 2018				
	26 October 2018 Issue		26 October 2018 Issue		Total
	Reserve and resources rights	TSR rights	Reserve and resources rights	TSR rights	
Number of performance rights issued	221,792	665,375	69,390	208,169	1,164,726
Underlying share price (\$)	1.28	1.28	1.08	1.08	
Exercise price (\$)	-	-	-	-	
Risk free rate	2.01%	2.01%	2.01%	2.01%	
Volatility factor	36%	36%	59%	59%	
Dividend yield	1.42%	1.42%	1.42%	1.42%	
Period of the rights from grant date (years)	3	3	2.68	2.68	

Effect of performance hurdles	Fair value of performance rights granted
Value of performance right at grant date (Band 1 to 4)	\$0.92
Value of performance right at grant date (Band 1)	\$0.77

Hurdle	12 months to 30 June 2018						
	17 October 2017 Issue		28 November 2017 Issue		7 March 2018 Issue		Total
	Reserve and resources rights	TSR rights	Reserve and resources rights	TSR rights	Reserve and resources rights	TSR rights	
Number of performance rights issued	481,658	1,444,976	146,875	440,625	79,893	239,678	2,833,705
Underlying share price (\$)	1.19	1.19	1.04	1.04	1.21	1.21	
Exercise price (\$)	-	-	-	-	-	-	
Risk free rate	1.92%	1.92%	1.82%	1.82%	2.04%	2.04%	
Volatility factor	78%	78%	78%	78%	36%	36%	
Dividend yield	1.80%	1.80%	1.80%	1.80%	1.42%	1.42%	
Period of the rights from grant date (years)	3	3	2.59	2.59	2.32	2.32	

Effect of performance hurdles	Fair value of performance rights granted
Value of performance right at grant date (Band 1 to 4)	\$0.81
Value of performance right at grant date (Band 1)	\$0.74
Value of performance right at grant date (Band 1 to 4)	\$0.85

## Notes to the Financial Statements E: Other items

### E.11 Other accounting policies

#### Derivatives

Derivatives are categorised as held for trading unless they are designated as hedges. Assets in this category are classified as current assets or liabilities if they are either held for trading or are expected to be realised within 12 months of the consolidated statement of financial position date. Items of this nature are recorded at their fair values through profit or loss.

## Investments in associates

The Group's investment in associates is accounted for using the equity method of accounting in the consolidated financial statements. An associate is an entity over which the Group has significant influence and that are neither subsidiaries nor joint arrangements. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables and loans, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

## New and amended Accounting Standards and Interpretations

A number of new Standards, amendment of Standards and interpretations have recently been issued that were effective for the period ended 31 December 2018 or effective in future periods (and have not been adopted by the Group as at the financial reporting date). Details of these are provided below:

Title	Application Date for Group	Detail																					
AASB 9 – Financial Instruments	1 July 2018	<p>The Group has adopted AASB 9 which replaces AASB 139 Financial Instruments: Recognition and Measurement. In accordance with the transitional provisions in AASB 9, comparative figures have not been restated. The standard contains requirements in the areas of classification and measurement, impairment, hedge accounting and de-recognition.</p> <p>Existing financial assets and liabilities of the Group were assessed in terms of the requirements of AASB 9. In this regard, the Group has determined that the adoption of AASB 9 has impacted the classification of financial asset and liabilities as follows:</p> <table> <tr> <th>Class of financial instrument presented in the statement of financial position</th><th>Original measurement category under AASB 9 (i.e. prior to 1 July 2018)</th><th>New measurement category under AASB 9 (i.e. from 1 July 2018)</th></tr> <tr> <td>Cash and cash equivalents</td><td>Loans and receivables</td><td>Financial assets at amortised cost</td></tr> <tr> <td>Trade and other receivables</td><td>Loans and receivables</td><td>Financial assets at amortised cost</td></tr> <tr> <td>Available for sale financial assets</td><td>Available for sale financial assets</td><td>Financial assets at fair value through other comprehensive income (held for strategic purposes)</td></tr> <tr> <td>Other financial assets</td><td>Loans and receivables</td><td>Financial assets at amortised cost</td></tr> <tr> <td>Trade and other payables</td><td>Financial liability at amortised cost</td><td>Financial liability at amortised cost</td></tr> <tr> <td>Interest bearing loans and borrowings</td><td>Financial liability at amortised cost</td><td>Financial liability at amortised cost</td></tr> </table> <p>The Group adopted AASB 9 retrospectively. The change in classification has not resulted in any re-measurement adjustments at 1 July 2018. There was no impact on hedging as the Group does not apply hedge accounting.</p> <p>The adoption of AASB 9 has changed the Group's accounting for impairment losses for financial assets by replacing AASB 139's incurred loss approach with a forward-looking expected credit loss (ECL) approach. AASB 9 requires the Group to recognise an allowance for ECLs for all debt instruments not held at fair value through profit or loss and contract assets in the scope of AASB 15.</p> <p>As all of the Group's trade receivables and other current receivables which the Group measures at amortised cost are short term (i.e., less than 12 months) and the Group's credit rating and risk management policies in place, the change to a forward-looking ECL approach did not have a material impact on the amounts recognised in the financial statements.</p>	Class of financial instrument presented in the statement of financial position	Original measurement category under AASB 9 (i.e. prior to 1 July 2018)	New measurement category under AASB 9 (i.e. from 1 July 2018)	Cash and cash equivalents	Loans and receivables	Financial assets at amortised cost	Trade and other receivables	Loans and receivables	Financial assets at amortised cost	Available for sale financial assets	Available for sale financial assets	Financial assets at fair value through other comprehensive income (held for strategic purposes)	Other financial assets	Loans and receivables	Financial assets at amortised cost	Trade and other payables	Financial liability at amortised cost	Financial liability at amortised cost	Interest bearing loans and borrowings	Financial liability at amortised cost	Financial liability at amortised cost
Class of financial instrument presented in the statement of financial position	Original measurement category under AASB 9 (i.e. prior to 1 July 2018)	New measurement category under AASB 9 (i.e. from 1 July 2018)																					
Cash and cash equivalents	Loans and receivables	Financial assets at amortised cost																					
Trade and other receivables	Loans and receivables	Financial assets at amortised cost																					
Available for sale financial assets	Available for sale financial assets	Financial assets at fair value through other comprehensive income (held for strategic purposes)																					
Other financial assets	Loans and receivables	Financial assets at amortised cost																					
Trade and other payables	Financial liability at amortised cost	Financial liability at amortised cost																					
Interest bearing loans and borrowings	Financial liability at amortised cost	Financial liability at amortised cost																					

## Notes to the Financial Statements E: Other items (continued)

### E.11 Other accounting policies (continued)

#### New and amended Accounting Standards and Interpretations (continued)

Title	Application Date for Group	Detail
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AASB 15 - Revenue from Contracts with Customers	1 July 2018	<p>AASB 15 was issued in December 2015 and establishes a five-step model to account for revenue arising from contracts with customers. Under AASB 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. Under AASB 15 the revenue recognition model will change from one based on the transfer of risk and reward of ownership to the transfer of control of ownership. The Group adopted AASB 15 as of 1 July 2018. Adoption of AASB 15 did not result in any impact. Refer to Note A.1 for additional information.</p>
Amendments to AASB 28: Long-term interest in associated and joint ventures	1 January 2019	<p>The amendments clarify that an entity applies AASB 9 to long-term interest in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). This clarification is relevant because it implies that the expected credit loss model in AASB 9 applies to such long-term interests.</p> <p>The amendment also clarified that, in applying AASB 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognised as adjustments to the net investment in the associate or joint venture that arise from applying AASB 28 <i>Investments in Associates and Joint Ventures</i>.</p> <p>The amendments should be applied retrospectively and are effective from 1 January 2019, with early application permitted. Since the Group does not have such long-term interest in its associate and joint venture, the amendments will not have an impact on its consolidated financial statements.</p>
Amendments to AASB 10 and AASB 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	1 January 2019	<p>The amendments address the conflict between AASB 10 and AASB 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that the gain or loss resulting from the sale or contribution of assets that constitute a business, as defined in AASB 3, between an investor and its associate or joint venture, is recognised in full. Any gain or loss resulting from the sale or contribution of assets that do not constitute a business, however, is recognised only to the extent of unrelated investors' interests in the associate or joint venture. The AASB has deferred the effective date of these amendments indefinitely, but an entity that early adopts the amendments must apply them prospectively. The Group will apply these amendments when they become effective.</p>
AASB Interpretation 23 - Uncertainty over Income Tax Treatments	1 January 2019	<p>The Interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of AASB 12 and does not apply to taxes or levies outside the scope of AASB 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments.</p> <ul style="list-style-type: none"> <li>► Whether an entity considers uncertain tax treatments separately</li> <li>► The assumptions an entity makes about the examination of tax treatments by taxation authorities</li> <li>► How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates</li> <li>► How an entity considers changes in facts and circumstances.</li> </ul> <p>The Group is in the process of assessing the impact of the new interpretation.</p>

## Notes to the Financial Statements E: Other items (continued)

### E.11 Other accounting policies (continued)

#### New and amended Accounting Standards and Interpretations (continued)

Title	Application Date for Group	Detail
AASB16 – Leases	1 January 2019	<p>AASB 16 provides a new lessee accounting model which requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months unless the underlying asset is of low value. The depreciation of the right of use asset and interest on the lease liability will be recognised in the consolidated income statement.</p> <p><i>Transition to AASB 16</i></p> <p>The standard has an effective date for the Group of 1 January 2019. AASB 16 introduces a single lessee accounting model, requiring the recognition of assets and liabilities for all leases with a term of more than twelve months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligations to make lease payments.</p> <p>The Group is party to contracts for leases of property, plant and equipment; including but not limited to: office premises, mining equipment and contractor-provided equipment. Adoption of the new lease standard is expected to result in lower operating costs and higher finance and depreciation costs as the accounting profile of the lease payments changes under the new model. The statement of financial position will also be impacted, with an increase to both non-current assets (right-of-use assets) and liabilities (lease liabilities) expected. Cash flows from operating activities will increase as affected lease payments will now be classified as financing cash flows. Conversely, cash flows from financing activities will decrease for the same reason.</p> <p>The Group has progressed its assessment of the impact of the new lease standard. During the six month period ended 31 December 2018, the Group has developed an implementation plan and review framework to facilitate analysis of its contract population. The Group has conducted a preliminary review of its lease population for the potential application of AASB 16 and identified areas for further analysis, including embedded leases as prescribed under the new standard. Implementation of the project plan will continue into the second half of FY2019. It has not yet been determined whether the impact of adopting the new accounting standard will have a material effect on the Group's financial statements. Information regarding the Group's operating lease commitments can be found in Note E.2. The impact of adopting AASB 16 on 1 January 2019 will be measured and disclosed in the Group interim financial statements for the six months ended 30 June 2019.</p>

# Independent auditor's report to the members of Resolute Mining Limited

## Report on the audit of the financial report

### Opinion

We have audited the financial report of Resolute Mining Limited (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 31 December 2018, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the six month period then ended, notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- a) giving a true and fair view of the consolidated financial position of the Group as at 31 December 2018 and of its consolidated financial performance for the six month period ended on that date; and
- b) complying with Australian Accounting Standards and the Corporations Regulations 2001. Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial report.

The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial report.



## 1 Physical existence and valuation of ore stock piles and gold in circuit

### Why significant

As at 31 December 2018 the Group had ore stockpiles and gold in circuit inventories of \$41,871,000 and \$76,334,000 respectively (refer to Note D2).

Critical to the determination of the carrying value of ore stockpiles and gold in circuit inventories is the cost and net realisable value assumptions adopted by the Group in measuring the ore stockpiles and gold in circuit and the determination of the physical existence of the ore stockpiles (tonnes) and gold in circuit (ounces).

We focused on this matter because of the:

- Significant judgment required to assess the quantity of ore stockpiles and the quantity and recoverable metal content for gold in circuit. This includes determination of estimated grades, recovery rates and other geophysical properties.
- Significant estimates and judgments involved in the valuation of ore stockpiles and gold in circuit including the allocation of operating costs to various stock types included in ore stockpiles and gold in circuit inventories
- Significant estimates involved in the determination of the net realisable value of ore stockpiles and gold in circuit, including the appropriateness of the estimated recoverable gold, selling price in the ordinary course of business and estimated costs of completion necessary to make the sale.

### How our audit addressed the key audit matter

How our audit addressed the key audit matter Our audit procedures included the following:

- Obtained an understanding of the Group's processes and controls in place for determining the physical quantities and metal contents of stockpiles and gold in circuit, which included observation of the stockpile surveys at both the Syama and Ravenswood mine sites during the financial period.
- Assessed the qualifications, competence and objectivity of the Group's internal experts involved in determining the quantity and recoverable metal content for ore stockpiles and gold in circuit.
- Agreed the estimated grades, recovery rates and other geophysical properties against the underlying reports prepared by the Group's internal experts and assessed the reasonableness of this information based on the current operations.
- Assessed the accuracy of the inventory valuation models including assessing the nature of costs allocated to inventories in determining the unit cost of inventories.
- Assessed the carrying value of inventories at 31 December 2018 to evaluate whether they were valued at the lower of cost and net realisable value. This included evaluating the assumptions and methodologies used by the Group, in particular those relating to the forecast gold price, costs to complete and gold recoveries.

## 2 Impairment assessment of non-current assets

### Why significant

As at 31 December 2018 the Group had non-current assets of \$756,767,000 comprising capitalised development expenditure, property, plant and equipment and capitalised exploration and evaluation expenditure (refer to Notes B1 and B2).

At the end of each reporting period, the Group exercises judgment in determining whether there is any indication of impairment or indication that an impairment loss recognised in prior periods should be reversed. If any such indicators exist, the Group estimates the recoverable amount of that asset. No indicators of impairment or indicators of reversal of prior period impairment were identified in the current period (refer to Note B3)

We focused on this matter because of the significant judgment involved in considering if indicators of impairment or indicators that an impairment loss recognised in prior periods should be reversed, were present.

### How our audit addressed the key audit matter

We evaluated the Group's assessment as to the presence of any indicators of impairment or indicators that an impairment loss recognised in prior periods should be reversed. Our audit procedures included the following:

- Comparison of the Group's market capitalisation relative to its net assets.
- Reading operational reports, board reports, minutes and market announcements.
- Consideration of changes to reserves and resources and other macro-economic factors including the gold price.
- Consideration of the status of capital projects via discussions with management, review of operational reports and minutes and site visits.

### 3. Rehabilitation and restoration provisions

#### Why significant

As a consequence of its operations, the Group incurs obligations to rehabilitate and restore its mine sites. Rehabilitation activities are governed by local legislative requirements. As at 31 December 2018 the Group's consolidated statement of financial position includes provisions of \$72,779,000 in respect of these obligations (refer to Note D6).

- We focused on this matter because estimating the costs associated with these future activities requires judgment and estimation for factors such as timing of when rehabilitation will take place, the extent of the rehabilitation and restoration activities and economic assumptions relating to inflation and discount rates are taken into account to determine the provision amount

#### How our audit addressed the key audit matter

We evaluated the assumptions and methodologies used by the Group in determining their rehabilitation obligations. Our audit procedures included the following:

- Assessed the qualifications, competence and objectivity of the Group's external and internal experts, the work of whom, formed the basis of the Group's rehabilitation cost estimates. We assessed the appropriateness of the cost estimates, including comparing these to historical rehabilitation costs incurred.
- Considered the estimated timing of when the rehabilitation cash flows will be incurred based on the life of mine and the resultant inflation and discount rate assumptions used in the Groups cost estimates, having regard to available economic data relating to future inflation and discount rates.
- Evaluated the adequacy of the Group's disclosures relating to rehabilitation obligations and considered the appropriateness of the accounting for the changes in the rehabilitation and restoration provision.

## 4. Taxation

### Why significant

The Group has operations in multiple countries, each with its own taxation legislation. The nature of the Group's activities give rise to various taxation obligations including corporate income tax, royalties, employment related taxes, and other indirect taxes.

As set out in the Consolidated Statement of Financial Position the Group has a current tax receivable of \$17,561,000 and recognised deferred tax assets of \$19,261,000 as at 31 December 2018. In addition, the Group has recognised a tax benefit of \$1,835,000 in the Consolidated Statement of Comprehensive Income for the six month period ended 31 December 2018

Further, as set out in Note A4 the Group has significant unrecognised tax assets at 31 December 2018.

We focused on this matter because the:

- Group is required to exercise significant judgment with regards to interpretation of enacted tax laws in these multiple countries. The Group engages external independent tax advisors to assist with the interpretation of tax laws when appropriate.
- Determination of the probability of the Group deriving taxable income in the future to utilise deferred tax assets is highly judgmental. This is subject to numerous assumptions around the future profitability of the Group's mining assets, which in turn is primarily dependent upon assumptions including future production levels, gold prices and exchange rates, operating and capital development costs.

### How our audit addressed the key audit matter

Our audit procedures in relation to current and deferred tax included the following:

- Involved our tax specialists in the interpretation of enacted tax laws in these multiple jurisdictions, where necessary, including the related judgments and interpretations made by the Group.
- Considered the appropriateness of the Group's assumptions and estimates in relation to tax positions, assessed those assumptions and considered the advice the Group received from external experts to support the accounting for the tax positions in accordance with enacted laws.
- Where external experts were engaged by the Group, we assessed their qualifications, competence and objectivity.

In respect of deferred tax assets recognised and unrecognised at 31 December 2018, our audit procedures included the following:

- Evaluated the appropriateness of the Group's assessment of the probability of the Group deriving assessable income in the future to utilise the recognised deferred tax assets.
- Assessed the adequacy of the Group's disclosures relating to current and deferred tax in the 31 December 2018 financial report

## **Information other than the financial report and auditor's report thereon**

The Directors are responsible for the other information. The other information comprises the information included in the Company's 2018 Annual Report other than the financial report and our auditor's report thereon. We obtained the Directors' Report that is to be included in the Annual Report, prior to the date of this auditor's report, and we expect to obtain the remaining sections of the Annual Report after the date of this auditor's report.

Our opinion on the financial report does not cover the other information and we do not and will not express any form of assurance conclusion thereon, with the exception of the Remuneration Report and our related assurance opinion.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## **Responsibilities of the Directors for the financial report**

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

## **Auditor's responsibilities for the audit of the financial report**

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the Directors, we determine those matters that were of most significance in the audit of the financial report of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Report on the audit of the Remuneration Report

## Opinion on the Remuneration Report

We have audited the Remuneration Report included in the Directors' report for the six month period ended 31 December 2018.

In our opinion, the Remuneration Report of Resolute Mining Limited for the six month period ended 31 December 2018, complies with section 300A of the Corporations Act 2001.

## Responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.



Ernst & Young



Gavin Buckingham

Partner

Perth

22 February 2019

## **APPENDIX 1 PART 5**

**QUARTERLY ACTIVITIES REPORT  
FOR THE PERIOD ENDED 31 MARCH 2019**



**March 2019 Quarter Production and Costs (unaudited)**

<b>March 2019 Quarter</b>	<b>Units</b>	<b>Syama Sulphide</b>	<b>Syama Oxide</b>	<b>Syama Total</b>	<b>Ravenswood</b>	<b>Group Total</b>
UG Lateral Development	m	2,646		2,646	5 4	2,700
UG Vertical Development	m	8 9		8 9		8 9
Total UG Lateral Development	m	2,735		2,735	5 4	2,789
UG Ore Mined		151,973		151,973	80,903	232,876
UG Grade Mined	g/t	2.33		2.33	1.88	2.17
OP Operating Waste	BCM		1,135,265	1,135,265		1,135,265
OP Ore Mined	BCM		313,666	313,666		313,666
OP Grade Mined	g/t		2.72	2.72		2.72
Total Ore Mined	t	151,973	664,972	816,945	80,903	897,848
Total Tonnes Processed	t	504,257	381,825	886,082	571,150	1,457,232
Grade Processed	g/t	1.37	5.57	3.18	0.80	2.24
Recovery	%	68.6	92.3	78.8	90.5	83.4
Gold Recovered	oz	15,195	63,363	78,553	13,325	91,882
Gold in Circuit Drawdown/ (Addition)	oz	(1,829)	7,823	5,994	2 2 9	6,223
Gold Produced (Poured)	Oz	13,363	71,186	84,552	13,554	98,105

**March 2019 Quarter**

	Units	Syama Sulphide	Syama Oxide	Syama Total	Ravenswood	Group Total
Gold Bullion in Metal Account Movement (Increase)/ Decrease	oz	59 8	6,124	6,722	3,196	9,919
Gold Sold	oz	13,964	77,310	91,274	16,750	108,024
Achieved Gold Price	A\$/oz	1,797	1,797	1,797	1,7 57	1,791
	US\$/oz	1,281	1,281	1,281	1,251	1,276
Cost Summary						
Mining	A\$/oz	8	326	276	577	317
Processing	A\$/oz	923	140	264	763	333
Site Administration	A\$/oz	551	100	171	286	187
Stockpile Adjustments	A\$/oz	(36)	(33)	(34)	80	(18)
Gold in Circuit Movement	A\$/oz	(189)	70	30	24	29
Cash Cost	A\$/oz	1,257	603	707	1,730	848
	US\$/oz	895	430	503	1,232	604
Royalties	A\$/oz	75	125	118	121	117
By-Product Credits	A\$/oz	(10)	-	(2)	(12)	(3)
Sustaining Capital + Others	A\$/oz	19	-	3	2	3
Administration Cost Recharged to Site	A\$/oz	38	9	13	33	42
Corporate Administration Costs	A\$/oz	-	-	-	-	32

**March 2019 Quarter**

All-In Sustaining Cost (AISC)

AISC is calculated on gold produced (poured)

Depreciation and Amortisation

Units	Syama Sulphide	Syama Oxide	Syama Total	Ravenswood	Group Total
A\$/oz	1,379	737	839	1,874	1,039
US\$/oz	982	525	598	1,335	740
A\$/oz	157	85	84	31	77

**Table 1: Production and Cost Summary for the March 2019 Quarter**

### March Year to Date Production and Costs (unaudited)

#### March year to date (1 July 2018 to 31 March 2019)

	Units	Syama Suphide	Syama Oxide	Syama Total	Ravens- wood	Group Total
UG Lateral Development	m	7,255	-	7,255	-	7,255
UG Vertical Development	m	202	-	202	-	202
Total UG Lateral Development	m	7,457	-	7,457	-	7,457
UG Ore Mined	T	407,982	-	407,982	361,310	769,292
UG Grade Mined	g/t	2.57	-	2,57	1,87	2,24
OP Operating Waste	BCM	-	3,592,781	3,592,781	59,894	3,652,675
OP Ore Mind	BCM	-	600,694	600,694	117,802	718,496
OP Grade Mined	g/t	-	2.49	2.49	0.59	2.10
Total Ore Mined	t	407,982	1,273,491	1,681,473	696,758	2,378,231
Total Tonnes Processed	t	1,371,605	1,102,427	2,474,032	1,749,967	4,223,999
Grade Processed	g/t	1.73	4.12	2.79	0.94	2.03
Recovery	%	69.8	85.1	76.6	92.1	83.0
Gold Recovered	oz	53,130	128,741	181,871	48,919	230,790
Gold in Circuit Drawdown Addition	Oz	(2,510)	(1,501)	(4,011)	525	(3,486)
<b>Gold Produced (Poured)</b>	<b>Oz</b>	<b>50,620</b>	<b>127,240</b>	<b>177,860</b>	<b>49,444</b>	<b>227,304</b>
Gold Bullion in Metal Account Movement (increase/decrease)	Oz	8,879	(7,561)	1,318	7,677	8,995
Gold Sold	Oz	59,498	119,679	179,178	57,121	236,299
<b>Achieved Gold Price</b>	<b>A\$/oz</b>	<b>1,765</b>	<b>1,765</b>	<b>1,765</b>	<b>1,742</b>	<b>1,760</b>
	US\$/oz	1,266	1,266	1,266	1,255	1,264

**Cost Summary**

Mining

Processing

Site Administration

Stockpile Adjustments

Gold in Circuit Movement

**Cash Cost**

Royalties

By Product Credits

Sustaining Capital + Others

Administration Cost Recharged to Site

Corporate Administration Costs

**All-ibn Sustaining Costs (AISC)**

Depreciation and Amortisation

A\$/oz	-	339	242	562	312
A\$/oz	921	237	432	713	493
A\$/oz	496	148	247	272	252
A\$/oz	57	(4)	13	134	40
A\$/oz	(72)	(10)	(27)	11	(19)
<b>A\$/oz</b>	<b>1,402</b>	<b>710</b>	<b>907</b>	<b>1,692</b>	<b>1,078</b>
<b>US\$/oz</b>	<b>1,009</b>	<b>511</b>	<b>653</b>	<b>1,218</b>	<b>776</b>
A\$/oz	108	107	107	104	108
A\$/oz	(4)	-	(1)	(11)	(3)
A\$/oz	20	5	9	12	10
A\$/oz	45	24	30	62	43
A\$/oz	-	-	-	-	36
<b>A\$/oz</b>	<b>1,571</b>	<b>846</b>	<b>1,052</b>	<b>1,859</b>	<b>1,272</b>
<b>US\$/oz</b>	<b>1,131</b>	<b>609</b>	<b>758</b>	<b>1,338</b>	<b>916</b>
A\$/oz	122	75	90	76	89

**Table 2: Production and Cost Summary for March Year to Date (1 July 2018 to 31 March 2019)**

### Syama Operations Performance

Period	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t)	Recovery (%)	Total Gold Production (oz)	Cash Cost (A\$/oz)	AISC (A\$/oz)
Sep Quarter	169,971	681,248	2.55	73.9	37,102	1,213	1,390
Dec Quarter	694,557	906,703	2.61	79.4	56,207	1,006	1,150
Mar Quarter	816,945	886,082	3.18	78.8	84,552	707	839
<b>Year to Date</b>	<b>1,681,473</b>	<b>2,474,033</b>	<b>2.79</b>	<b>76.6</b>	<b>177,860</b>	<b>907</b>	<b>1,052</b>

**Table 3: Syama Operations Performance**

Syama Sulphide Production and Cost Summary							
	Ore Mined (t)	Ore Milled (t)	Head Grade (g/t)	Recovery (%)	Total Production (Gold oz)	Cash Cost (A\$/oz)	AISC (A\$/oz)
Sep Quarter	88,563	355,961	2.24	69.2	15,702	1,187	1,358
Dec Quarter	167,446	511,387	1.73	71.4	21,554	1,647	1,82 3
Mar Quarter	151,973	504,257	1.37	68.6	13,366	1,257	1,379
<b>Year to Date</b>	<b>407,982</b>	<b>1,371,605</b>	<b>1.73</b>	<b>69.8</b>	<b>50,620</b>	<b>1,402</b>	<b>1,571</b>

**Table 4: Syama Sulphide Production and Cost Summary**

**Syama Oxide Production and Cost Summary**

	<b>Ore Mined (t)</b>	<b>Ore Milled (t)</b>	<b>Head Grade (g/t)</b>	<b>Recovery (%)</b>	<b>Total Production (Gold oz)</b>	<b>Cash Cost A\$/oz</b>	<b>AISC A\$/oz</b>
Sep Quarter	81,408	325,287	2.88	77.9	21,400	1,229	1,407
Dec Quarter	527,111	395,316	3.74	83.9	34,653	608	736
Mar Quarter	664,972	381,825	5.57	92.3	71,186	603	737
<b>Year to Date</b>	<b>1,273,491</b>	<b>1,102,427</b>	<b>4.12</b>	<b>85.1</b>	<b>127,240</b>	<b>710</b>	<b>846</b>

**Table 5: Syama Oxide Production and Cost Summary**



### Tabakoroni Mineral Resources Update

Mineral Resources	Measured			Indicated			Inferred			Total		
	Tonnes (000s)	Grade g/t	Ounces (000s)	Tonnes (000s)	Grade g/t	Ounces (000s)	Tonnes (000s)	Grade g/t	Ounces (000s)	Tonnes (000s)	Grade g/t	Ounces (000s)
<b>As at 31 March 2019</b>												
<b>Tabakoroni</b>												
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
<b>Total</b>	<b>860</b>	<b>4.7</b>	<b>1.30</b>	<b>2,090</b>	<b>5.2</b>	<b>350</b>	<b>3,360</b>	<b>5.1</b>	<b>550</b>	<b>6,310</b>	<b>5.1</b>	<b>1,030</b>

**Table 6: Tabakoroni Mineral Resources**

<b>Operations Performance for Ravenswood for the March 2019 Quarter</b>							
	<b>Ore Mined (t)</b>	<b>Ore Milled (t)</b>	<b>Head Grade (g/t)</b>	<b>Recover (%)</b>	<b>Total Production (Gold oz)</b>	<b>Cash Cost A\$/oz</b>	<b>AISC A\$/oz</b>
Sep Quarter	474,689	626,317	0.99	93.3	18,406	1,645	1,757
Dec Quarter	141,166	552,500	1.03	92.4	17,484	1,711	1,954
Mar Quarter	80,903	571,150	0.80	90.5	13,554	1,730	1,874
Year to Date	696,758	1,749,967	0.94	92.1	49,444	1,692	1,859

**Table 7: Ravenswood Production and Cost Summary**

### Corporate Cash, Bullion and Listed Investments

Description	March 2019 Quarter (A\$m)	December 2018 Quarter (A\$m)
Cash	32.5	38.7
Bullion	22.1	39.5
Cash and Bullion Sub-Total	54.6	78.2
Listed Investments	31.8	38.4
<b>Total Cash, Bullion and Listed Investments</b>	<b>86.4</b>	<b>116.6</b>

**Table 8: Total Cash, Bullion and Listed Investments**

### Movements in Cash and Bullion Balances

	March 2019 quarter (A\$m)	December 2018 Quarter (A\$m)
<b>Operating Cash Flows</b>		
Toss Operating Cash Flows from Syama and Ravenswood	90.6	43.3
Royalty Payments	(8.5)	(6.4)
VAT Offsets	1.8	4.5
Overheads and Operational Support Costs	(6.5)	(6.5)
Exploration Expenditure	(1.8)	(2.7)
Interest Expense/income Net Cash Flows	(3.0)	(3.4)
Working Capital Movements	3.8	3.8
<b>Investing Cash Flows</b>		
Development Expenditure inc. Syama underground Mine Development, Feasibility Studies, Resource Development and other Projects	(86.6)	(77.6)
Operational Sustaining Capital Expenditure	(1.2)	(1.9)
Bibiani Project Care and Maintenance	(2.8)	(3.0)
Other investing Activities	(0.1)	0.2
<b>Financing Cash Flows</b>		
Loans Advanced and Repayments	2.2	1.5
Dividend Payments	-	(15.2)
Existing Debt Facility Inflows/(Outflows)	(11.1)	74.3
Foreign Exchange Fluctuations and Market Value Changes of Bullion on Hand	(0.4)	0.2
Net Cash Inflows	(23.6)	2.0
Opening Cash and Bullion	78.2	76.2
Closing Cash and Bullion	54.6	78.2

**Table 9: Movements in Cash and Bullion Balances**

Quarter	Hedging			
	AUD Forward Sales		US Dollar Forward Sales	
	Forward Price A\$/oz	Delivery (oz)	Forward price US\$/oz	Delivery (oz)
June 2019	1,720	13,000	1,278	23,000
September 2019	1,756	30,000	1,335	15,000
December 2019	1,756	30,000	1,335	15,000
March 2020	1,887	15,000	-	-
June 2020	1,887	15,000	-	-
<b>Total</b>	<b>1,789</b>	<b>103,000</b>	<b>1,310</b>	<b>53,000</b>

**Table 10: Current Committed Hedging Forward**

**Appendix 2**  
**Competent Persons Reports**

**Part 1**  
**Syama Gold Mine**

**Part 2**  
**Ravenswood Gold Mine**

**Part 3**  
**Bibiani Gold Mine**



# **Resolute Mining Limited**

## **Competent Persons Report for the Syama Gold Mine, Mali**



**Prepared for Resolute Mining Limited**

**Dated: 17 June 2019**

Principal Author:

Ian M Glacken *FAusIMM (CP), FAIG, CEng*

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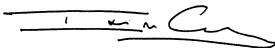
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Resolute Mining Limited: 1

Principal author:	Ian Glacken <i>FAusIMM (CP), FAIG, CEng</i>	Signature:	
		Date:	17 June 2019
<p>Important Information:</p> <p>This Report is provided in accordance with the scope of work provided by Optiro Pty Ltd (Optiro) to Resolute Mining Limited and the terms of Optiro’s Consulting Services Agreement (the Agreement). Optiro has consented to the use and publication of this Report by Resolute Mining Limited for the purposes set out in Optiro’s scope of work, in accordance with the Agreement and as set out in this Report. Resolute Mining Limited may reproduce copies of this entire Report in accordance with its responsibilities under JORC Code (2012) only for those purposes but may not and must not allow any other person to publish, copy or reproduce this Report in whole or in part without Optiro’s prior written consent. Optiro consents to the inclusion of this Report in the Prospectus and to references to any part of this Report in the Prospectus.</p>			



## Competent Persons Report on the Syama Gold Mine, Mali

The following Competent Persons Report (CPR) has been prepared for Resolute Mining Limited (Resolute). It describes Resolute's principal mining operation – Syama, located in south eastern Mali, approximately 280 km southeast of the capital, Bamako.

For the purposes of Prospectus Rule 5.5.3R(2)(f), Optiro is responsible for this Competent Persons Report as part of the Prospectus to be published by Resolute in connection with its application for admission to the Official List, Standard Segment and to trading on the London Stock Exchanges Main Market for listed securities and declares that it has taken all reasonable care to ensure that the information contained within this report is, to the best of its knowledge, in accordance with the facts and contains no information likely to affect its import. This declaration is included in the Prospectus (Section 2.2) in accordance with item 1.2 of Annex 2 of the Prospectus Regulation. The Competent Persons have given and have not withdrawn their written consent to the issue of the Prospectus with the inclusion of its name and references to it in the form and context in which they appear within it.

Prepared for

Resolute Mining Limited

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**Date of report: 17 June 2019**

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# 1 SUMMARY

## 1.1 PROJECT DESCRIPTION

This CPR refers to Resolute's principal producing asset, the Syama Gold Mine in Mali, West Africa (Syama or the Project), which features mining and processing of ore from the Syama and Tabakoroni mines. Société des Mines de Syama (SOMISY), a Malian subsidiary of Resolute Mining Limited (Resolute), is the 100% owner and operator of Syama (with the exception of the Tabakoroni operation, 35 km to the south of Syama). Resolute has an 80% economic interest in SOMISY, while the Malian Government holds a 20% economic interest. Resolute, through its subsidiary Resolute (Finkolo) Pty Ltd, currently holds 100% of the shares on issue in Société des Mines de Finkolo SA (SOMIFI) which is the owner and operator of Tabakoroni. The Government has a 10% free carried interest in SOMIFI, which Resolute (Finkolo) Pty Ltd will be required to transfer to it following a request from the Government in order for the Government to participate in the Tabakoroni project. The Government also has an option to purchase an additional 10% equity interest in cash in SOMIFI. The Syama Gold Mine is situated in south-eastern Mali, approximately 280 km southeast of the capital Bamako, and 800 km north-northwest of the port of Abidjan in Côte d'Ivoire.

SOMISY had its exploitation permit issued before the adoption of the 2012 Mining Code and the Malian Government already holds a 20% interest in the capital of SOMISY. Under the contractual regime that originally applied to SOMISY, 15% of such 20% interest was free carried. Following the expiration of the original Establishment Convention signed on 14 April 1987, SOMISY entered into a new Establishment Convention with the Republic of Mali on 7 March 2019 which follows the model adopted by an application Decree of the 2012 Mining Code. In addition, the Syama Exploitation Permit was renewed by a Decree dated 18 April 2019 which specifies that same is subject to the 2012 Mining Code. As a consequence, the SOMISY project became subject to the 2012 Mining Code. Under said Code, as well as the 7 March 2019 Establishment Convention, the portion of the Governmental participation being free carried is 10% which means that the current 15% free carried participation of the Malian Government in SOMISY is reduced to 10%. To perfect this reduction, SOMISY's articles of association will be amended to refer to the 7 March 2019 Establishment Convention, instead of the original 14 April 1987 Establishment Convention. To date, there has been no discussion between SOMISY and the Malian Government regarding the reduction of its free carried interest in SOMISY from 15% to 10% and SOMISY does not currently have any intention to commence such discussions and as such, the Government's free carried interest continues to be 15%.

Mining commenced at Syama in 1990 by BHP. In 1996, Randgold Resources Limited (Randgold) agreed to acquire the assets of BHP in Mali (August 1996) and assumed management of the operation in October 1996. Randgold mined Syama until 2001 whereupon it placed the mine on care and maintenance due to underperformance. Resolute acquired the mine in April 2004, and after completing a Preliminary Feasibility Study mining recommenced in the second half of 2008. Syama comprises the Syama Underground Mine (previously an open pit mining operation), and multiple open pit satellite mines, including predominantly the significant Tabakoroni operation to the south of Syama, and an extensive exploration package.

## 1.2 GEOLOGY AND MINERALISATION

The stratigraphy observed within the open pit is dominated by the north-east striking and west-dipping Syama Formation, which is flanked by the sediments of the Sikoro Formation to the west and the Banmbere Conglomerate of the N'golopene Group to the east. The principal structural feature in the open pit is the Syama-Bananso Fault Zone (SBFZ), which is a regionally significant and long-lived domain bounding suture exposed in the pit for over 200 metres and which separates the Syama Formation and the N'golopene Group conglomerates.

Gold mineralisation is structurally hosted within the deformed and altered Syama Formation package of basalt and meta-sedimentary rocks. Rheological contrasts between the different rock types are considered critical to enabling the development of structural conduits and maximising the fluid – wall rock interaction during the introduction of sulphides and the deposition of gold. Better zones of gold mineralisation are typically developed within and adjacent to the contact between the upper basalt and underlying sediment units.

## 1.3 MINE PRODUCTION

In financial year ending 30 June 2018 (FY18), Syama milled 2.8 Mt of ore, producing 194 koz of gold. The FY18 cash cost for Syama was reported at USD928/oz while the all-in sustaining cost (including royalty payments) was reported at USD998/oz.

## 1.4 MINERAL RESOURCES

The Syama Mineral Resources have been prepared under the direction of a Competent Person under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

The most recent Mineral Resources for Syama have been declared by Rolute as at 31 December 2018, these are presented in Table 1.1. Subsequent to the 31 December 2018, an update to the Mineral Resource estimate for Tabakoroni was completed. The declared Mineral Resource as at 31 March 2019 is presented in Table 1.2. Tabakoroni open pit Mineral Resources have been reported above a cut-off of 1.0 g/t gold and the Tabakoroni underground Mineral Resources have been reported above a cut-off of 1.5 g/t gold. The Mineral Resources at Tabakoroni are 35 km south of Syama and are being treated through the Syama plant. The Mineral Resources are inclusive of that material modified to generate Ore Reserves.

**Table 1.1 Syama Mineral Resources as at 31 December 2018**

	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz
	kt		koz	kt		koz	kt		koz	kt		koz
Syama underground	8,740	3.3	930	44,390	3.2	4,580	5,650	2.8	500	58,780	3.2	6010
Syama stockpiles	100	2.5	10	2,270	1.3	100	0	0.0	0	2,360	1.4	100
<b>Sub-total (sulphides)</b>	<b>8,840</b>	<b>3.3</b>	<b>930</b>	<b>46,660</b>	<b>3.1</b>	<b>4,680</b>	<b>5,650</b>	<b>2.8</b>	<b>500</b>	<b>61,140</b>	<b>3.1</b>	<b>6,110</b>
Satellite deposits	0	0.0	0	6,840	2.1	460	1,450	2.2	100	8,290	2.1	560
Stockpiles (satellite deposits)	970	1.4	40	1,630	1.1	60	50	1.1	0	2,650	1.2	100
<b>Sub-total satellite deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>8,470</b>	<b>1.9</b>	<b>520</b>	<b>1,500</b>	<b>2.1</b>	<b>100</b>	<b>10,940</b>	<b>1.9</b>	<b>660</b>
Tabakoroni Open pit	2,800	2.9	260	3,770	2.2	280	3,180	2.0	200	9,740	2.4	740
Tabakoroni Stockpiles	320	2.1	20	0	0.0	0	0	0.0	0	320	2.1	20
<b>Sub-total Tabakoroni</b>	<b>3,120</b>	<b>2.8</b>	<b>280</b>	<b>3,770</b>	<b>2.2</b>	<b>280</b>	<b>3,180</b>	<b>2.0</b>	<b>200</b>	<b>10,060</b>	<b>2.3</b>	<b>760</b>
Historical tailings	0	0.0	0	0	0.0	0	17,000	0.7	360	17,000	0.7	360
<b>Mali Total</b>	<b>12,920</b>	<b>3.0</b>	<b>1,250</b>	<b>58,900</b>	<b>2.9</b>	<b>5,480</b>	<b>27,320</b>	<b>1.3</b>	<b>1,170</b>	<b>99,140</b>	<b>2.5</b>	<b>7,900</b>

Notes: Mineral Resources are inclusive of Ore Reserves and are reported on a 100% managed basis.

1. Totals may not sum due to rounding.

2. Syama underground and satellite deposit Resources are quoted above a 1.5 g/t gold cut-off.
3. Resources for the Tabakoroni Open Pit are reported above a gold cut-off of 1.0 g/t.
4. Resource are stated inclusive of material used to define Ore Reserves.

**Table 1.2 Tabakoroni Mineral Resource declared at 31 March 2019**

	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz
	kt		koz	kt		koz	kt		koz	kt		koz
Tabakoroni Open pit	540	5.2	90	410	5.1	70	0	3.4	0	950	5.2	160
Tabakoroni Underground	130	4.7	20	1,680	5.2	280	3,360	5.1	550	5,170	5.1	850
Tabakoroni Stockpiles	190	3.1	20	0	0.0	0	0	0.0	0	190	3.1	20
<b>Tabakoroni Total</b>	<b>860</b>	<b>4.7</b>	<b>130</b>	<b>2,090</b>	<b>5.2</b>	<b>350</b>	<b>3,360</b>	<b>5.1</b>	<b>550</b>	<b>6,310</b>	<b>5.1</b>	<b>1,030</b>

Notes:

1. Totals may not sum due to rounding.
2. Open cut material reported above current life of mine pit design and above a gold cut off of 1.0 g/t.
3. Underground material reported below the current life of mine pit design and above a gold cut-off of 1.5g/t.

## 1.5 ORE RESERVES

Ore Reserves at Syama were declared by Resolute most recently on 31 December 2018, and comprise an estimate carried out in 2018 as part of the Syama Feasibility Study into the commencement of underground mining. These Ore Reserves are based upon a Mineral Resource estimated in October 2017 (and not the declared current resources for Syama in Table 1.1). The underground reserves are based upon a gold price of USD1,200 and have been quoted above a cut-off grade of 1.9g/t gold (Table 1.3). The Tabakoroni Ore Reserves are based upon a Mineral Resource model generated in April 2018. Resolute is currently generating Tabakoroni Ore Reserves (for both open pit and underground) based on the 31 March 2019 Mineral Resource estimate declared in Table 1.1.

The Ore Reserves have been prepared under the direction of a Competent Person using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

**Table 1.3 Syama Ore Reserves as at 31 December 2018**

	Proven Reserves			Probable Reserves			Total		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Syama underground	0	0.0	0	35,040	2.7	2,980	35,040	2.7	2,980
Syama stockpiles	100	2.5	10	2,270	1.3	100	2,360	1.4	100
<b>Sub total (sulphides)</b>	<b>100</b>	<b>2.5</b>	<b>10</b>	<b>37,310</b>	<b>2.6</b>	<b>3,080</b>	<b>37,410</b>	<b>2.6</b>	<b>3,090</b>
Satellite stockpiles	970	1.4	40	1,630	1.1	60	2,600	1.2	100
<b>Sub total satellite deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>1,630</b>	<b>1.1</b>	<b>60</b>	<b>2,600</b>	<b>1.2</b>	<b>100</b>
Tabakoroni	1,450	3.2	150	640	2.4	50	2,090	3.0	200
Tabakoroni stockpiles	320	2.1	20	0	0.0	0	320	2.1	20
<b>Sub total Tabakoroni</b>	<b>1,770</b>	<b>3.0</b>	<b>170</b>	<b>640</b>	<b>2.4</b>	<b>50</b>	<b>2,410</b>	<b>2.8</b>	<b>220</b>
<b>Syama Total</b>	<b>2,830</b>	<b>2.4</b>	<b>220</b>	<b>39,580</b>	<b>2.5</b>	<b>3,180</b>	<b>42,410</b>	<b>2.5</b>	<b>3,410</b>

Notes:

1. Totals may not sum due to rounding.
2. Ore Reserves are presented on a 100% managed basis.
3. Syama Underground Ore Reserves are reported at a 1.9 g/t cut-off, using a gold price of USD1,200/oz. Satellite Deposits are reported at a 1.5 g/t cut-off. Tabakoroni Open Pit Ore Reserves are reported at a 1.1 g/t cut-off using a gold price of USD1,250/oz.

## 1.6 PROCESSING

There are two processing plants at Syama – an oxide plant, designed to treat material from Tabakoroni and other satellite pits, and a sulphide plant, which has been upgraded to treat the fresh (sulphide) material from the Syama Underground Mine. The oxide circuit comprises crushing and leaching while sharing the electrowinning circuit with the sulphide plant, which features crushing, grinding, flotation, concentrate roasting and leaching components.

## 1.7 ENVIRONMENT

The requisite environmental approvals to conduct operations at Syama are in place. In conjunction with renewing the mining convention an updated EISA is due for completion in June 2019.

## 1.8 CAPITAL AND OPERATING COSTS

Project capital expenditure estimates accompanying the declared Ore Reserves are quoted in USD. The capital cost estimates are summarised in Table 1.4. The total capital spend is projected to be USD 468 M over the life of the Project.

**Table 1.4 Capital spend summary (source: Mining Plus, 2018)**

Cost category	Total expenditure (USD M)
UG mobile mining equipment	73
UG fixed equipment	36
UG capital infrastructure	4
UG capital development	335
Treatment capital	17
Tailings Storage Facility (TSF)	3
<b>Total</b>	<b>468</b>

Project operating cost estimates accompanying the declared Ore Reserves are based on quantities derived from the Life of Mine (LOM) schedule combined with a cost model developed by AMC Consultants. Unit costs for consumables are based on contractor rates and supplier quotations, together with benchmark data from comparative sites. Mining fixed costs include management supervision, geology, survey and haulage, and have been also been built up from first principles. The maintenance costs for the underground fleet are based on preliminary rates from Sandvik AB - Mining and Rock Technology (Sandvik) who are providing a complete maintenance service for the Syama Underground. A summary of the operating unit cost of production as per the major reporting areas is provided in Table 1.4.

**Table 1.5 Operating unit cost summary (source: Mining Plus, 2018)**

Cost category	Estimate USD/t milled
Underground mining	19.9
Treatment	19.4
General and Administration	4.9
Royalties, refining costs and silver credits	5.8
<b>Total</b>	<b>50.0</b>

## **1.9 CONCLUSION**

Syama is a robust sulphide and oxide mining operation with substantial Ore Reserves. The mining operation is currently in a transition phase as the Syama Underground ramps up to its full production rate of 2.4Mtpa.

## 2 INTRODUCTION

### 2.1 SCOPE OF THE REPORT

This report was prepared for Resolute, a gold mining company currently listed on the Australian Securities Exchange (ASX). The purpose of this CPR is to support Resolute's application to the Financial Conduct Authority (FCA) for all of its issued Ordinary Shares to be admitted to the standard listing segment of the Official List of the FCA and to the London Stock Exchange plc (LSE) for trading of the shares on the main market of the LSE by providing a description of work to date and current Resources and Reserves at the Syama Gold Mine in southern Mali.

This CPR has been written to comply with the reporting requirements of the JORC Code (2012) and has an effective date of 31 December 2018 for all of Syama except for Tabakoroni, which has an effective date of 31 March 2019.

This CPR has been prepared, to the extent required and in accordance with:

1. the Prospectus Rules published by the FCA and governed the UKLA (Prospectus Rules);
2. the Prospectus Directive (2003/71/EC); and
3. sections 131 to 133 and Appendices I and II of the document titled "ESMA update of the CESR recommendations: the consistent implementation of Commission Regulation (EC) No. 809/2004 implementing the Prospectus Directive" and dated 20 March 2013.

### 2.2 CONSENT AND AUTHORISATION OF COMPETENT PERSONS

The principal author of this CPR is Ian Glacken (*FAusIMM (CP)*, *FAIG*, *MIMMM*, *CEng*).

The contributions of each of the authors to this CPR are detailed in Table 2.1.

**Table 2.1 Syama Technical Report – authors and contribution**

Name	Position	Qualifications and memberships	JORC Code 2012 contribution	Years of experience
Ian Glacken	Director, Optiro Pty Ltd	<i>FAusIMM (CP)</i> , <i>FAIG</i> , <i>MIMMM</i> , <i>CEng</i>	Principal author	35 Years
Susan Havlin	Senior Consultant, Optiro Pty Ltd	<i>MAusIMM (CP)</i> , <i>BSc</i> , <i>GDip</i>	Competent Person Mineral Resource	18 Years
Andrew Gasmier	Mining Engineer, Mining Plus Pty Ltd	<i>BEng</i> , <i>MAusIMM (CP)</i>	Competent Person Ore Reserves	23 Years

The Competent Persons, Susan Havlin (Mineral Resources) and Andrew Gasmier (Ore Reserves), take full responsibility for the relevant areas of this CPR.

Susan Havlin is professionally qualified and a Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation and reporting of Mineral Resources for gold deposits of this type. Susan Havlin consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

Andrew Gasmier is professionally qualified and a Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation, economic extraction and reporting of Ore Reserves for deposits of this type. Andrew Gasmier consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

The Competent Persons consent to the inclusion of this CPR in the Prospectus and to references to any part of this CPR in the Prospectus. The Author and the Competent Persons consider that the information used to prepare this report, its conclusions and recommendations are valid and appropriate, considering the nature of the project and the purpose for which the report is prepared.

The effective date of this report 31 December 2018 for all of Syama except for Tabakoroni, which has an effective date of 31 March 2019.

## **2.3 MATERIAL CHANGE STATEMENT**

The Competent Persons confirm that there have been no material change in the Mineral Resources and Ore Reserves at Syama since the effective date of this report (31 December 2018 for all of Syama except for Tabakoroni, which has an effective date of 31 March 2019) and the date of this report.

## **2.4 PRINCIPAL SOURCES OF INFORMATION**

Information used in compiling this report was derived from reports and data provided from various authors and Resolute. This report draws upon previous Mineral Resource and Ore Reserve estimates carried out by Resolute and its consultants for Syama.

Optiro has made all reasonable enquiries to establish the completeness and authenticity of the information provided.

## **2.5 SITE VISITS**

The Mineral Resource Competent Person, Susan Havlin, has visited the Syama Gold Mine, with the most recent visit in February 2019.

## **2.6 INDEPENDENCE**

Optiro is an independent consulting and advisory organisation which provide a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The principal office of Optiro is at 16 Ord Street, West Perth, Western Australia, and Optiro's staff work on a variety of projects in a range of commodities worldwide.

Each of the Competent Persons are independent of Resolute, its directors, senior management and its other advisers; have no economic or beneficial interest (present or contingent) in Resolute or in any of the mineral assets being evaluated and are not remunerated by way of a fee that is linked to the admission or value of Resolute.



### 3 PROPERTY DESCRIPTION AND LOCATION

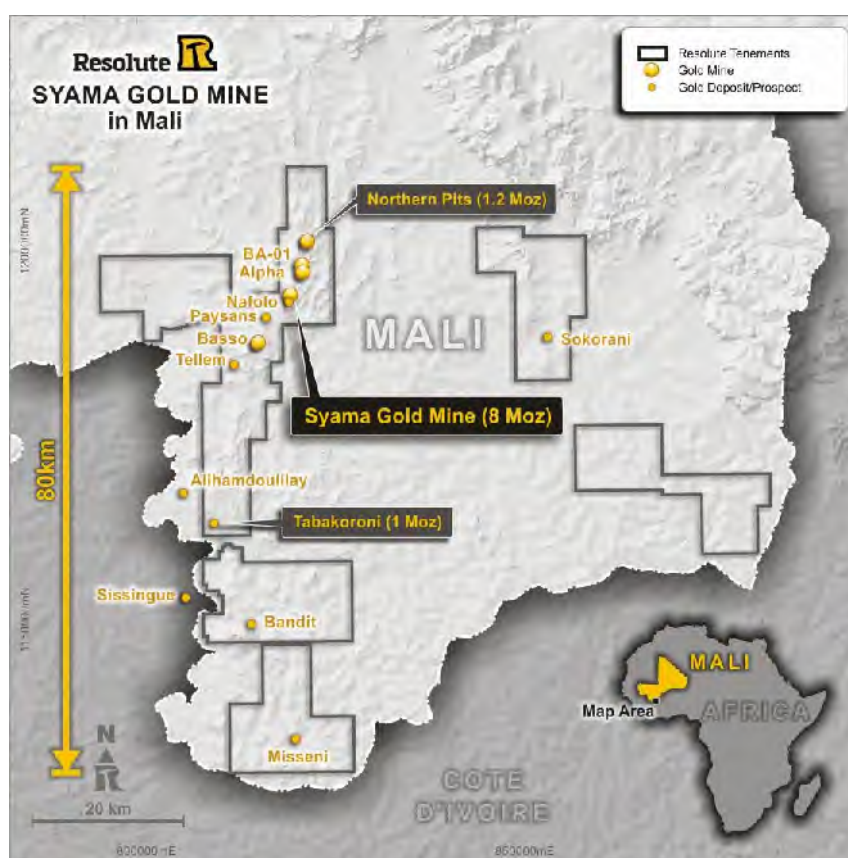
#### 3.1 PROJECT LOCATION AND OWNERSHIP

Société des Mines de Syama (SOMISY), a Malian subsidiary of Resolute Mining Limited (Resolute), is the 100% owner and operator of Syama (with the exception of Tabakoroni). Resolute has an 80% economic interest in SOMISY, while the Malian Government holds a 20% economic interest. Société des Mines de Finkolo SA (SOMIFI), a Malian subsidiary of Resolute, is the 100% owner and operator of Tabakoroni. Resolute has a 90% economic interest in SOMIFI. The Malian Government has a 10% free carried interest in SOMIFI, whereafter Resolute's shareholding will be reduced to 90%. The Government also has an option to purchase an additional 10% equity interest in SOMIFI.

Syama is situated in south-eastern Mali in West Africa, approximately 280 km southeast of the capital Bamako, and 800 km from the port of Abidjan in Côte d'Ivoire (Figure 3.1). Syama is located at approximately 10° 47' latitude north and 6° 4' longitude west.

Syama is within the district of Fourou, Kadiolo area, in the region of Sikasso. The district of Fourou, an area of 2,400 km<sup>2</sup>, is bordered to the north by the Lobougoula district, to the south by Misseni, to the east by Kadiolo and to the west by the Bagoë River that separates it from Côte d'Ivoire. The major towns in the area are Kadiola and Sikasso. Kadiola, 55 km southeast, is the regional capital, while Sikasso, approximately 85 km to the northeast, is the second largest city in Mali.

**Figure 3.1 Regional location map (source: Optiro, 2019)**



## 3.2 PROJECT TENEMENTS

### 3.2.1 SYAMA

The original tenure at Syama was held as three exploration permits granted to BHP in 1987. These were the Syama (92.4 km<sup>2</sup>), Basso (63 km<sup>2</sup>) and Bananso Extension (36km<sup>2</sup>) Concessions.

The Syama permit was converted from an exploration to an exploitation permit by Decree 89-087 on 29 March 1989 for a 20-year term when mining of the Syama deposit was approved. This Decree grants an exclusive mining permit valid for gold, silver, related substances and platinum elements, in accordance with the terms of the joint agreement between the Republic of Mali and the company BHP-Utah Mali Inc. (Establishment Convention of 14 April 1987).

In 1993, the permits were consolidated into a single permit with reference no. PE-93/003 (Syama Exploitation Permit) by Decree 93-450/PM-RM on 21 December 1993. It has an area of 200.6 km<sup>2</sup>. Figure 3.2 shows the Syama Exploitation Permit PE-93/003 outline. The Syama Exploitation Permit was transferred from BHP-Utah Mali Inc. to SOMISY by Decree 08-414/PM-RM. The permit was originally granted on 29 March 1989; it was renewed for an additional 10 years by Decree 09-107/PM-RM on 18 March 2009, extending the term to 28 March 2019.

The Syama Mining Permit has now been renewed for the second time, with an extension of a further period of ten years taking effect from 29 March 2019. The renewed Mining Permit is valid until March 2029 and was registered in the Official Public Journal of Mali in Bamako on 16 April 2019. Further renewals of the Syama Mining Permit, for additional ten year periods, will be available until exhaustion of the Ore Reserves.

### 3.2.2 TABAKORONI

The information below has been sourced from an internal Resolute report (2019c)

The Finkolo-Tabakoroni exploitation permit was applied for on 2 July 2010 over the area of research permits Finkolo, Finkolo East and Galamakourou (all held by Etruscan Resources Mali SARL). The exploitation permit was granted to Etruscan Resources Mali SARL (Etruscan) on 9 May 2013 for a 30 year term by decree 2013-435/PM-RM and covers an area 148km<sup>2</sup> (Figure 3.2). The exploitation permit was subsequently transferred to Societe des Mines de Finkolo (SOMIFI) SA on 27 August 2013 by Decree 2013-667/PM-RM.

Initial ownership of the Finkolo-Tabakoroni Exploitation Permit was 85% SOMIFI, 10% State of Mali (free carry) and 5% Bago National Corporation SARL (Bago) (free carry). In addition, a 2% NSR was payable to Namakan Keita (Keita).

On 11 April 2018, Keita and Bago, and Resolute (Finkolo) Pty Ltd, Resolute Exploration SARL and SOMIFI entered into an Acquisition Agreement which allowed SOMIFI to acquire the 5% Bago Interest and be released from the Keita NSR obligations.

The properties are held in good standing by SOMISY and SOMIFI.

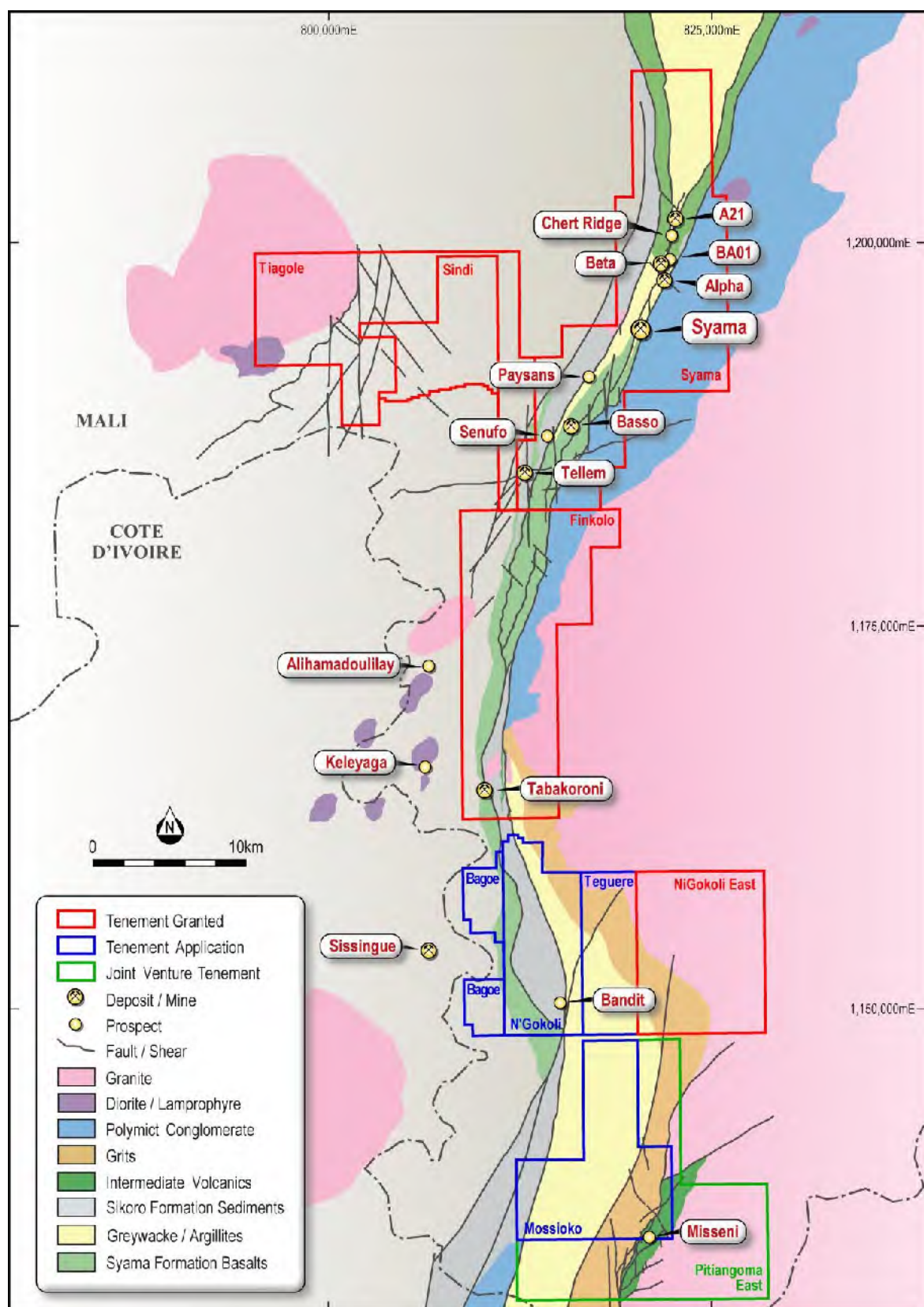


Figure 3.2 Syama and Tabakoroni exploitation permit outline (source: Resolute)

### 3.3 LEGISLATION AND PERMITTING

The legislative framework for mining in Mali is stated in the Mining Code and its implementation ordinances/decrees. The Mining Code sets out statutory requirements and administration of

exploration and exploitation of minerals as well as processing, transporting, treating and marketing them.

Malian mining law provides that all Mineral Resources are administered by Direction Nationale de la Géologie et des Mines (DNGM) or National Directorate of Geology and Mines under the Ministry of Mines, Energy and Hydrology.

In addition to the Mining Code, all permits are granted subject to a contractual agreement called an *Establishment Convention*. The Establishment Convention is negotiated between the Republic of Mali and the holder of the permit, and the parties must comply with the agreed conditions.

The Syama Exploitation Permit was originally granted under the Mining Code of 3 September 1970, which was repealed by the enactment of the Mining Code of 19 September 1991. The Mining Code of 1991 was repealed by the enactment of the Mining Code of 19 August 1999. The current applicable mining legislation in Mali is the Mining Code of 27 February 2012.

## **3.4 ENVIRONMENT AND COMMUNITY**

### **3.4.1 COMMUNITY ENGAGEMENT POLICY**

To gain and maintain its licences to operate, the Company must be a good citizen in the communities it operates in. This also has the advantage of improving the recruitment process, improving the approval process and acceptance, and can reduce the risk of social unrest and security concerns.

As an ongoing mining operation, SOMISY and SOMIFI have developed good relationships with the surrounding communities and a Community Development Policy has been established for its operations area. This policy is based on:

- the willingness to make local communities responsible stakeholders by having trust in themselves, being active rather than spectators of their own development process
- the commitment to the promotion of mutual culture of understanding, solidarity and respect inclusive of linguistic and cultural diversity, which are the foundation of any dynamic society
- a sustainable partnership with stakeholder's synergy for all questions related to the life of the local communities
- emphasis being put on dialogue and consultation to strengthen good relations leading to research-action, identification, choice and implementation of beneficial community development projects.

Thus, in terms of approach, SOMISY and SOMIFI believes that local stakeholders who mutually trust each other and who foster dialogue between themselves on their own questions, commit more, and in a proactive manner for the improvement of community conditions that they believe are not satisfactory. The engagement of the local stakeholders, consultation and the valorisation of local competences, constitutes the foundation of the SOMISY approach.

A Mine Community Consultative Committee was established in February 2001 with representatives from local villages, the Malian Government and SOMISY. Since SOMISY took over management control of Syama in April 2004, SOMISY representatives have met regularly with the Committee and use it as a forum to inform and to address community concerns and community project proposals.

### 3.4.2 ENVIRONMENT

The Environmental Policy states that Resolute is committed to achieving the best balance between protection of the environment and economic development, and that it will set standards of environmental excellence, consistent with the principles of sustainable development. The key points of the policy are the commitments to:

- integrate environmental processes throughout all aspects of SOMISY's activities
- identify and assess the potential environmental effects of all activities and manage environmental risk
- continually improve and regularly monitor, audit and review environmental performance, including the reduction and prevention of impacts and more efficient use of resources
- develop people and provide resources to meet all environmental objectives.

## 3.5 ROYALTIES

### 3.5.1 SYAMA

Pursuant to the terms of the Syama Sale and Purchase Agreement, dated 1 June 2004, Randgold Resources Limited will receive a royalty on Syama production, if during the quarter the average gold price exceeds USD350 per ounce, of USD10 per ounce on the first one million ounces of gold production attributable to Resolute and USD5 per ounce on the next three million attributable ounces of gold production. A royalty of 6% is payable to the Government of Mali. The royalty is capped at USD25 million. As at 31 December 2018, Resolute's 80% attributable share of Syama's project to date gold production was 1,338,000 ounces of gold, therefore the royalty is currently USD5 per ounce on future production.

The royalty is calculated in accordance with the following formula:

Royalty = quantity x Royalty Rate x 80%

Quantity = number of ounces produced in the quarter

Royalty Rate = USD10 per ounce for the first 1 million ounces of gold produced and which is attributable to SOMISY's 80% interest in SOMISY SA; and USD5 per ounce for each ounce of gold produced (and which is attributable to SOMISY's 80% interest in SOMISY SA) in excess of 1 million ounces up to and including 4 million ounces.

### 3.5.2 TABAKORONI

A 6% royalty on revenue for production from Tabakoroni is payable to the Mali Government.

## **4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **4.1 ACCESSIBILITY**

Access is via formed gravel road off the sealed Sikasso to Côte d'Ivoire highway through Kadiola and then Fourou to site. Most consumables and supplies use this route as it can be approached either from Côte d'Ivoire through the border post at Zegoua, or alternatively from Burkina Faso and Togo through Sikasso. The road north through Bananso to Farakala, on the main highway from Bamako to Sikasso, provides an alternate and shorter route to Bamako. This road is generally impassable during the wet season when the low level "bridge" at Bananso is covered with water.

There is also a local airstrip facility with three scheduled flights per week (Bamako – Syama – Accra, Accra - Syama – Bamako).

### **4.2 CLIMATE, PHYSIOGRAPHY AND VEGETATION**

#### **4.2.1 CLIMATE**

The nearest available long-term climatological data is from Sikasso, 85 km northeast of the Project. Sikasso rainfall data for a ten-year period from January 1976 to September 1986 shows average monthly maximum precipitation events ranging from zero in December to 290 mm in August. The mean monthly temperature ranges from 23.5°C in December to 30.6°C in April (Figure 4.1).

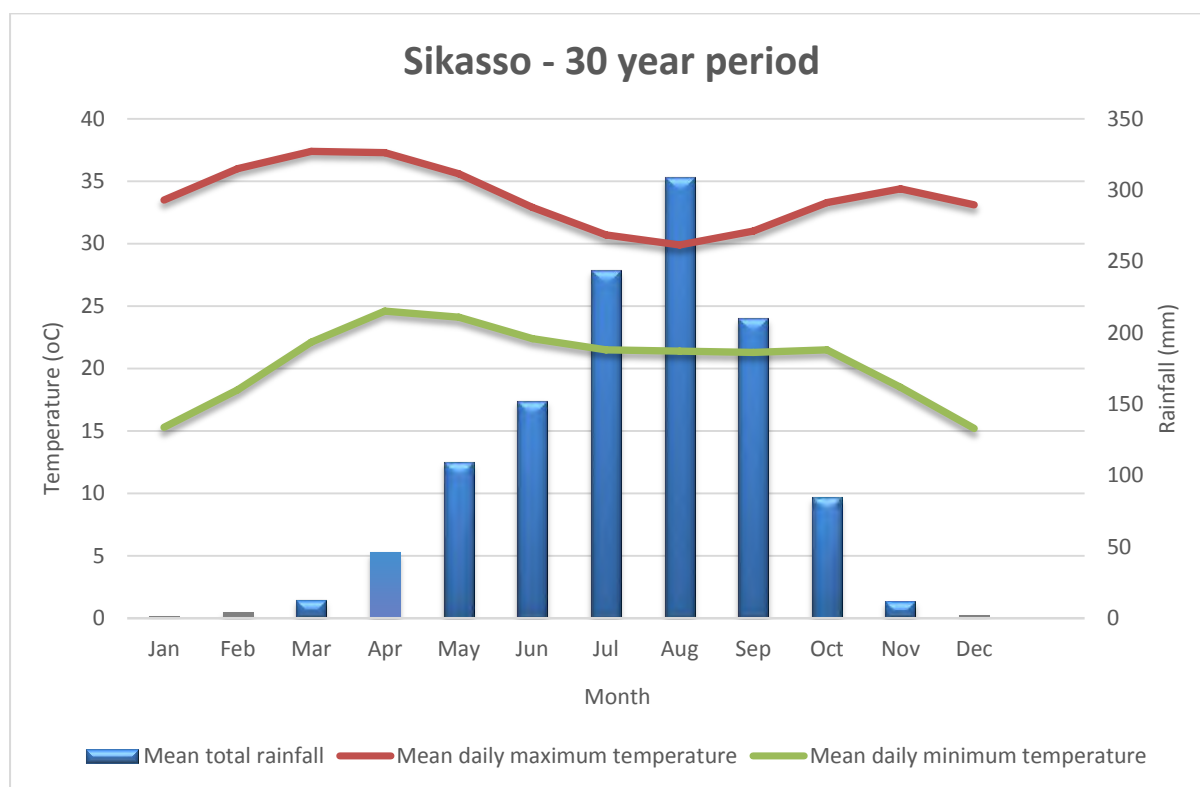
Wind measurements at Sikasso show mainly calm winds, less than 2 km/hr. Only one third of the measurements showed wind intensities higher than 5 km/hr, and most of these were within 5 to 16 km/hr. Maximum wind speeds were approximately 40 km/hr. The general wind direction is from north by northeast and from southeast by southwest.

The climate in the project area has been described as somewhat similar to the long-term data at Sikasso. The project area is described as sub-humid with two main seasons, a hot and generally arid dry season from November to June, and a rainy season for the rest of the year. The annual rainfall is about 1,140 mm and temperatures range from 21°C to 42°C, with an average annual temperature of approximately 27°C.

Prevailing seasonal wind directions on site are the same as those recorded at Sikasso. The area can also experience violent winds which are usually associated with intense thunderstorm activity. These events tend to occur at the beginning and end of the rainy season, with winds gusting up to 100 km/hr.



**Figure 4.1** Average monthly rainfall and temperatures (source: World Weather Information Service - Sikasso)



#### 4.2.2 VEGETATION AND PHYSIOGRAPHY

The mine is located in the south-eastern part of Mali, where the vegetation falls within the Sahelian transition zone (Soudano-Guinéen), which is typified by savannah and cleared forests.

Syama lies within the catchment of two major rivers; the largest is the Bagoë and the second is the Banifin, a tributary of the Bagoë. The Bagoë is a north-flowing river to the west of the project, part of which forms the border with Côte d'Ivoire, while the Banifin is a west-flowing river which passes through the village of Bananso, approximately 11 km northeast of Syama. The regional topography is tabular, with small sandstone and laterite plateaus spread out between the tributaries of the Bagoë River.

The mining area is a lateritic plateau, with elevations varying between 328 m and 482 m above sea level. Isolated hills form a series of high points along a northeasterly to southwesterly trend. On the higher ground, the soil is composed of laterite with occasional crevassing of detrital sands. On the lower ground, the soil is predominantly sandy clay.

### 4.3 LOCAL RESOURCES AND INFRASTRUCTURE

SOMISY and SOMIFI employ 560 people directly and there are approximately another 1,899 people directly employed by contractors. 80 of the SOMISY and SOMIFI employees are expatriate personnel with specialised skills and experience. The national proportion of the total workforce is 90%

Supporting infrastructure onsite consists of a stores complex, large workshop complexes for fixed plant, underground and open pit mobile plant, an office complex for processing staff, an office complex for mining staff, a sample preparation and analysis laboratory, medical centre,

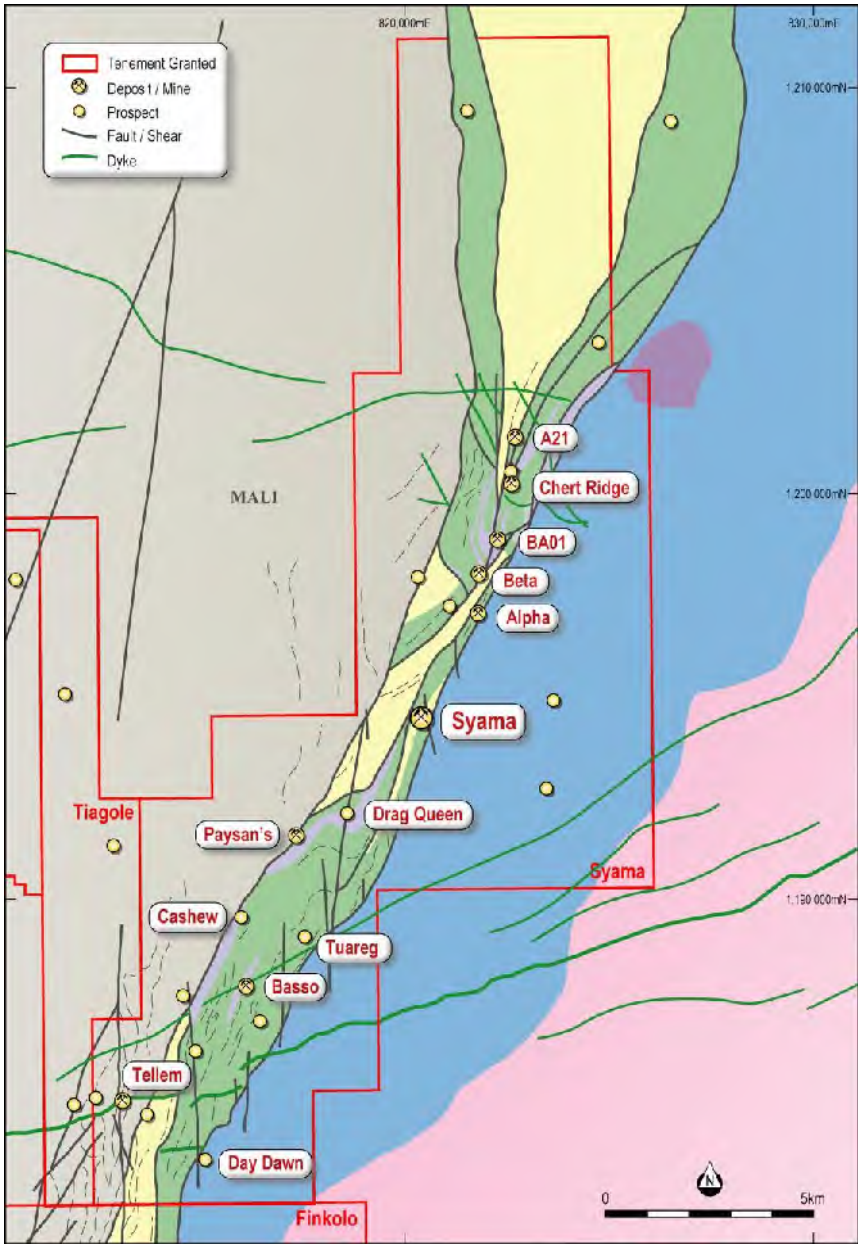
administration office complex, airstrip and accommodation for housing expatriate and senior national staff.

The operation currently has a peak continuous power demand of approximately 28.5 MW, with an installed power capacity of 34 MW. Power is supplied from a diesel-fired power station. The Company has signed a Joint Development Agreement with Ignite Energy Projects Pty Ltd for the development of a 50 MW hybrid power solution. The hybrid power plant will combine solar, battery and heavy fuel oil technologies. The hybrid plant will be funded and constructed under an Independent Power Producer model whereby Ignite Energy will be responsible for the design, construction, ownership, funding and operation of the new hybrid power plant on an exclusive basis and will supply power to Resolute on a guaranteed basis subject to a maximum tariff over a term of between 12 and 20 years.

The primary source of raw water is from the old Beta open pit which is replenished via water pumped from the Bagoë River during the wet season. In the near future, Beta pit will be replaced as a water source by the completed A21 open pit (Figure 4.2). Access to water from the Bagoë River is restricted during the dry months. The water captured within the Syama pit limits will make its way into the underground mine and will be pumped out to the process water dam or A21 open pit. SOMISY supplements the process water using reclaimed water from the tailings storage facilities maintained on site.



Figure 4.2 Tenement map showing the location of the Syama deposit and nearby satellite deposits



## 5 HISTORY

### 5.1 SYAMA

The Syama deposit was discovered by a regional geochemical survey undertaken by the Direction National de Geologie et des Mines (DNGM), with assistance from the 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 acquired the area in 1987, and after extensive drilling and feasibility studies the mine commenced operations under the management of SOMISY in January 1990 based on open pit oxide reserves and an operating life of three years (Phase 1). Phase 1 was estimated to have cost approximately USD34 million to develop the open pit oxide reserves, construction of an oxide leach plant and the installation of the necessary infrastructure. The first gold was produced in January 1990. By April 1990, the plant was operating at its initial design capacity of 2,000 tonnes of ore per day.

In 1992, the sulphide reserves below the oxide ore were reassessed and it was decided to proceed with Phase 2 of the mine development. This involved an upgrade to the facilities necessary to mine and process the sulphide deposit. The expansion, estimated to have cost approximately USD89 million, was completed in September 1994. However, poor performance in the processing plant did not allow the feasibility production levels to be achieved.

After a detailed due diligence, Randgold agreed to acquire the assets of BHP Mali in August 1996 and assumed management of the operation in October 1996. Randgold undertook a redesign of the processing plant, which allowed treatment of stockpiled low-grade ore in an attempt to bring costs below USD210/oz. Part of the crushed ore stream was sent to a newly installed flotation circuit to increase the sulphur and carbon content and hence increase the potential fuel content of the feed to the roaster. This was an attempt to enable the roaster to operate autogenously without addition of diesel fuel.

Unfortunately, this “sweetening” of the ore with concentrate never entirely removed the need to add additional diesel. The float circuit did not achieve design and the dry SAG mill also failed to obtain the requisite grind. Underperformance in these areas, together with the inability to establish a reliable power supply, saw Randgold place the Project on care and maintenance early in 2001 and to seek a purchaser for the Project. Resolute acquired an option to purchase the project in April 2003 and immediately embarked on a Preliminary Feasibility Study. In April 2004, after a positive outcome from the Preliminary Feasibility Study, Resolute exercised its option and assumed management of SOMISY effective May 2004.

In April 2005, Resolute completed a Feasibility Study on the redevelopment of Syama. The redevelopment started in July 2006, and mining and processing of material from in situ and stockpile sources recommenced in the second half of 2008.

During March 2014, consultants Snowden completed the first Pre-Feasibility Study (PFS) into underground mining at the Syama operation. This early study identified an opportunity to transition to a long term, underground mining operation by exploiting the significant Mineral Resource beneath the open pit. Within this study Snowden identified that parts of the underground resource did not have sufficient drilling to adequately represent the orebody grade.

During 2014, SOMISY completed targeted drilling designed to increase the gold grade confidence and extend the resource at depth with the completion of 15,000 meters of diamond drilling. Results from this drilling programme provided improvements in the tenor of the existing resource and delivered significant increases in the resource tonnage.

Based on the additional information the Resource model was updated and Snowden updated the PFS. This included additional deep drilling and incorporated the Stage 2 open pit resource; this has delivered a dramatically larger and longer-life project. Resolute announced in March 2015 the decision to complete the Stage 1 cutback in the pit and suspend the Stage 2 cutback in favour of underground mining.

The production history of Syama is summarised in Table 5.1.

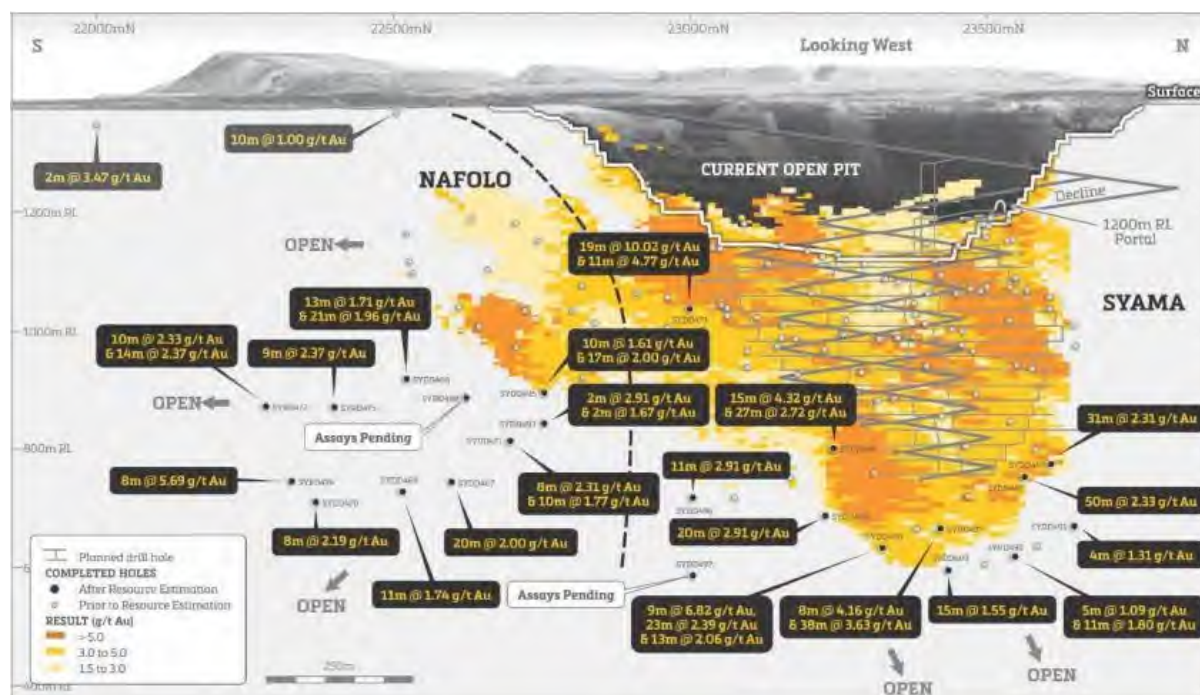
**Table 5.1 Historical production from Syama**

Year (FY)	Mill feed (kt)	Head grade (g/t)	Recovery (%)	Gold produced (koz)
1990	716	3.1	83	59
1991	919	2.9	95	82
1992	1,043	3.6	88	104
1993	956	3.5	93	99
1994	791	4.3	84	91
1995	1,337	4.3	71	131
1996	1,289	4.3	82	141
1997	1,080	5.2	73	131
1998	1,198	4.0	63	97
1999	1,571	4.3	81	170
2000	1,911	3.4	75	158
2001	610	3.1	82	61
2008	98	-	-	7
2009	717	1.71	63.0	25
2010	1,311	2.69	69.0	78
2011	1,464	2.57	71.0	85
2012	1,672	3.25	83.1	145
2013	2,009	3.65	83.2	196
2014	1,775	3.73	77.7	165
2015	2,526	3.53	78.4	225
2016	2,755	2.97	79.8	210
2017	3,446	2.68	75.3	238
2018	3,364	2.07	77.7	194

## 5.2 NAFOLO

The Nafolo discovery is located immediately south of the Syama Mineral Resource where historic exploration drilling by BHP was limited to 500 m wide spaced lines of shallow (30 m) sterilisation reverse circulation drilling. A number of these holes confirm anomalous gold at surface, indicating significant untested space to potentially host another large gold deposit along the extensions of the Syama Shear.

The Syama deep drilling programme commenced in late 2015 with the ambition of substantially expanding the Syama underground resource. The Nafolo discovery hole intercepts were received from drilling on section 22,800 mN. A summary of current (December 2018) intersections into Nafolo is provided in Figure 5.1).

**Figure 5.1** Longitudinal projection showing location of new drilling pierce points into Nafolo

### 5.3 TABAKORONI

Tabakoroni was initially discovered by BHP in 1989 when drilling identified gold mineralisation in broad disseminated zones. In 1998 the Finkolo permit was acquired by Barrick Gold (Barrick). When Barrick's West African operations were closed, the property was returned to the Republic of Mali. The property was subsequently granted to Bago International Corporation SARL (Bago) in July 2001. An agreement with Etruscan was signed on June 19, 2002, permitting Etruscan to commence exploration for gold on the permit.

Resolute's involvement in Tabakoroni started in 2003 when it entered an option and joint venture agreement to earn 60% from the project owner, Etruscan. Resolute subsequently paid Etruscan to take its interest to 85% in 2012 and currently holds 90% ownership, with the Government of Mali holding a free carried interest of the remaining 10%. Recent exploration by Resolute includes both RC and diamond drilling during 2017 to 2018.

## **6 GEOLOGICAL SETTING AND MINERALISATION**

### **6.1 REGIONAL GEOLOGICAL SETTING**

The Syama and Tabakoroni gold deposit lies on the northern margin of the Archaean-Proterozoic Leo Shield which forms the southern half of the West African Craton. The project area straddles the boundary between the Kadiana-Madinani terrain and the Kadiolo terrain. The Kadiana-Madinani terrain is dominated by greywackes and a narrow belt of interbedded basalt and argillite. The Kadiolo terrain comprises polymict conglomerate and sandstone sourced from the Kadiana-Madinani terrain and deposited in a late syntectonic basin.

### **6.2 LOCAL GEOLOGY**

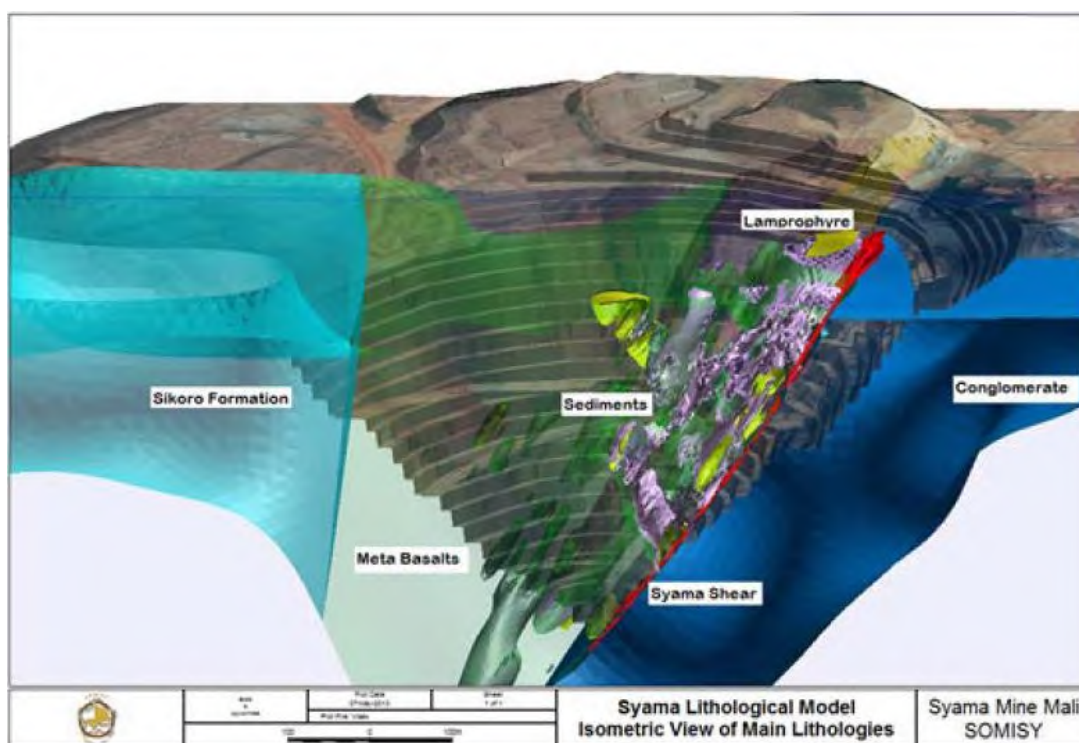
#### **6.2.1 SYAMA**

The stratigraphy observed within the Syama open pit is dominated by the northeast striking and west-dipping Syama Formation, which is flanked by the sediments of the Sikoro Formation to the west and the Banmbere Conglomerate of the N'golopene Group to the east (Figure 6.1). The principal structural feature in the open pit is the Syama-Bananso Fault Zone (SBFZ) which is a regionally significant and long-lived domain bounding suture which is exposed in the pit for over 200 meters and which separates the Syama Formation and the N'golopene Group conglomerates.

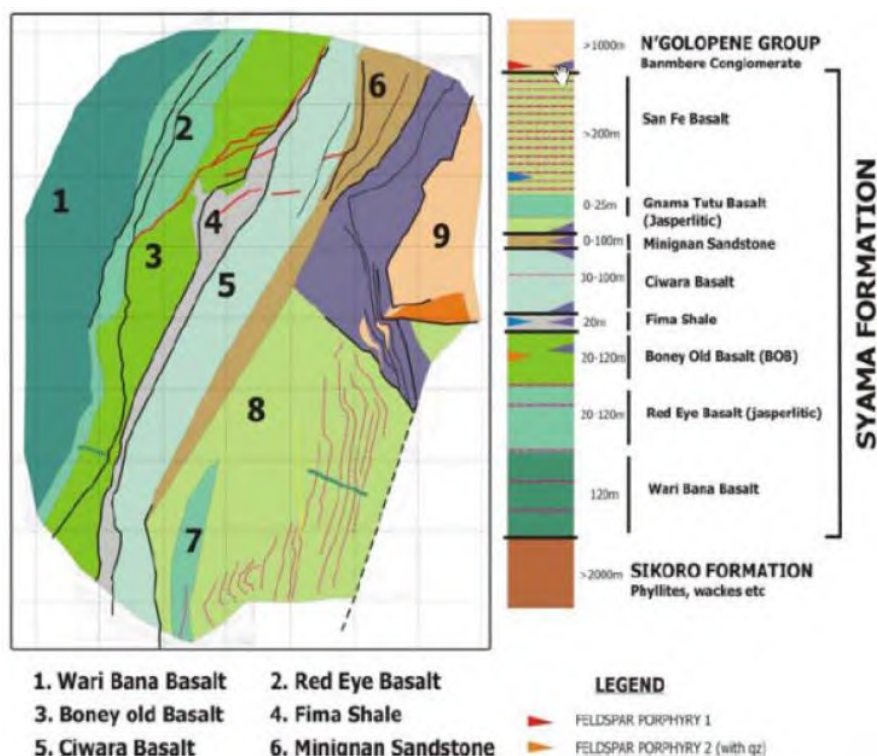
The key stratigraphy at Syama from west to east comprises an unmineralised hangingwall zone of 200 m thickness consisting principally of basalt and andesite, and then a mineralised sequence 200 to 300 m thick consisting of altered and pyritic basalt, greywackes, and intrusive rocks. On the footwall side andesitic conglomerate forms the eastern boundary of the sequence. The SBFZ forms the sharp contact between the basaltic unit and the conglomerate. The matrix supported conglomerate unit grades eastward into greywackes and argillites.



**Figure 6.1** Perspective view of the main Syama Formation rock units looking north (source: Resolute, 2016)



The stratigraphically oldest Syama Formation rocks (Figure 6.2) exposed in the pit are a 100-120 m thick sequence of pillowed and massive basaltic lava flows named the Wari Bana Basalt. The unit contains rare interflows of carbonaceous siltstone, shale and chert, and is overlain by a pillow lava sequence marked by intense iron alteration, which is considered to be syn-volcanic in origin. The iron rich unit has been named the Red Eye Basalt and is thickest (120 m) in the northern portion of the pit, but notably thins to 20 m in the southwestern end of the pit. The margins of the Red Eye Basalt are generally gradational where they interface with interflow sediments.

**Figure 6.2 Syama Formation rock units (Source: Jigsaw Geoscience, 2007)**

The spatial distribution, geometry and character of the lamprophyres was considered an important factor in understanding the mineralisation, repeatedly either hosting or flanking the ore zones. These rocks are unusual chemically and support an intrusion-related genesis for the deposit. Investigation of analytical data shows that the lamprophyres have elevated background levels of gold and host relatively higher grades within the sequence.

The SBFZ outcrops along the eastern side of the Syama pit and comprises a principal displacement fault at the contact between Banmbere Conglomerate and Syama Formation rocks. In parts the fault zone is represented by a broader zone of moderate to high shear strain, extending into the footwall and hangingwall rocks. An observed foliation is developed in the conglomerate footwall over a <100 m wide zone, which is characterised by strong flattening and minor stretching of the clasts. Sericite and chlorite alteration have notably reduced the mechanical strength of the conglomerate leading to reactivation of the foliation in a brittle to brittle-ductile manner during more recent deformation events.

The level of strain preserved in the hangingwall is strongly dependent upon the nature of the rock type; for example, where lamprophyre sits in the hangingwall, deformation is heterogeneous and non-penetrative, forming discrete narrow shear zones without substantial foliation. In contrast, if shale is in the hangingwall, a wide zone of penetrative foliation is formed. The diversity of shear senses observed in the SBFZ attests to its long-lived active history.

During the latter stages of the D3 deformation event and the ongoing gold mineralisation event there was a change from transcurrent deformation to reverse and thrust movement along some structures, in particular the SBFZ. A stack of thrusts striking northeast-southwest to east-northeast-west-southwest were developed in some hangingwall sediment units. These thrusts display a flat-ramp behaviour with lode mineralisation and alteration located in the hangingwall of gently dipping sections of the thrusts.

The following D4 deformation event is essentially a continuation of the D3 deformation characterised by the rupture of new faults, with minimal displacement at high angles to the D3 shear zones. The D4 shear zones are dominated by extension vein sets, often arranged en echelon within each shear zone. The vein composition is highly variable and is typically accompanied by sericite, carbonate and sulphide alteration of the wall rocks, which suggests that although the hydrothermal system was active, it was in decline and of low tenor.

### **6.2.2 TABAKORONI**

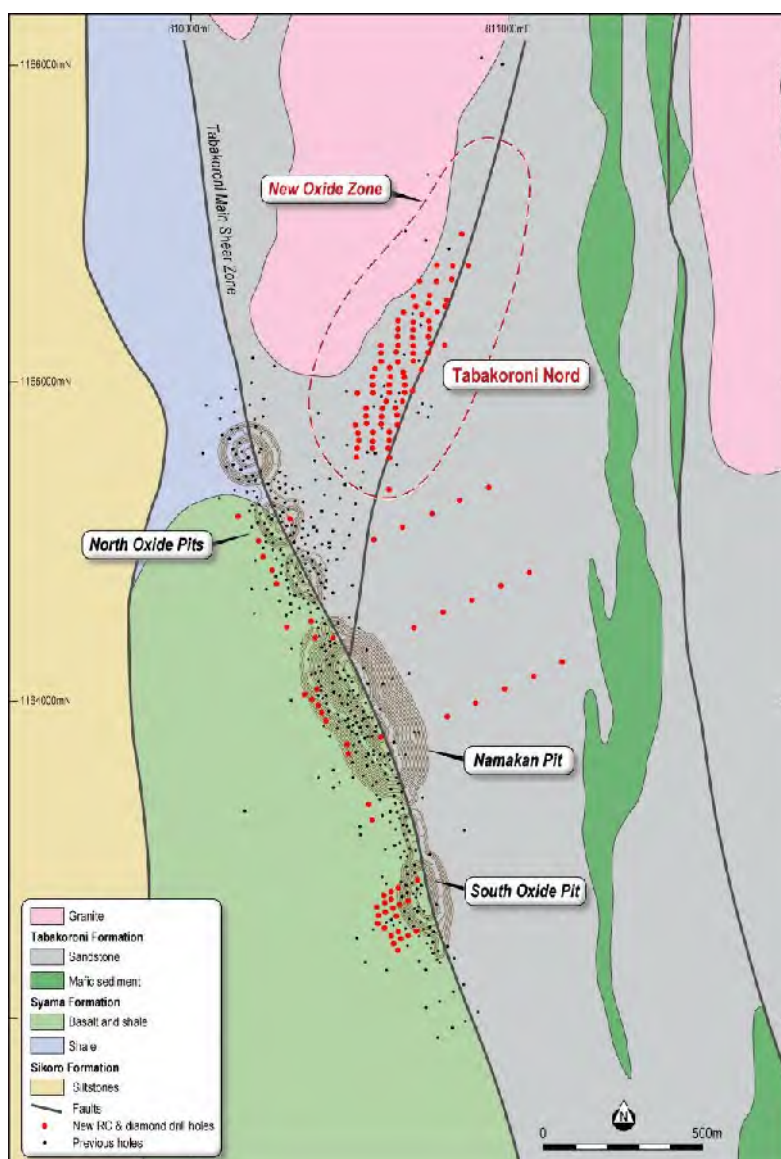
The following information is sourced from an internal Resolute report (2019b).

Host rocks at Tabakoroni are a series of basalt lava flows that interdigitate with, and are overlain by, two volcanoclastic turbidite sequences that have feldspar-rich or quartz-rich crystal populations respectively. The sequence strikes north-south, with a moderate 60-70° westerly dip. The volcanic stratigraphy interdigitates with mudstone, which was deposited between volcanic and volcano-sedimentary events as background pelagic sedimentation in a deep marine environment. Figure 6.3 is a plan view of Tabakoroni showing the major rock types and current pit designs.

Basalt facies consist of four extrusive pillow lava flows, each with varying attributes including: upper autobreccia to hyaloclastite breccia carapaces, degree of internal quenching and development of pillow margins, development of lateral blocky talus facies, variation of internal crystallisation to more 'doleritic' feldspar-pyroxene-phyric lavas, and development of basal zones of polymict basalt-sediment breccia and peperite overlying hornfels mudstone sediments. Much of the basalt sequence is fine-grained and associated with widespread quenching during submarine lava emplacement, resulting in a widely-fractured host rock sequence with high early primary permeability. Internal organisation of Basalt facies indicates that the sequence is upward facing west of the main shear zone and that the lava sequences thin and pinch out in the central parts of Tabakoroni, north of Namakan. Radiometric data suggests that the volcanic vent source for the Tabakoroni basalts was located to the south and west of the main prospect area.

Volcanoclastic sequences are well developed in the west and north of Tabakoroni. Iron-rich volcanoclastic units overlie and interdigitate with basalt, with the sequence having internal organisation from poorly sorted proximal pebble-boulder volcanoclastic (debris flow) to more distal re-worked, lithic-rich, sand-sized volcanoclastics (turbidite flows). Enrichment in feldspar and limited rock geochemistry defines a broadly mafic sequence that most likely represents lateral facies related to basaltic volcanism and reworking of basaltic volcanic detritus. Feldspathic volcanoclastics are overlain by mudstone and quartz-rich volcanoclastics, which represent more distal, well-sorted turbidite sequences that record an influx of volcanic quartz material from felsic sources outside of the known stratigraphy in the area.



**Figure 6.3 Plan view of Tabakoroni showing current pit designs (source: Resolute)**

Feldspar porphyritic, biotite-phyrlic and quartz-bearing intrusions are widely observed across the Tabakoroni area. These intrusions drive the orogenic gold system and intrude earlier volcanic belt structures. The intrusions are low volume, magmatic early DE2 bodies that underwent progressive deformation during D3, D4 and D5. Porphyry units are typically narrow intrusions a few metres or less in width which have three main orientations that parallel mineralising vein orientations: steeply dipping north-northwest (68°W), shallow east-west (33°S) and shallow north-northwest (35°N).

The Tabakoroni Main Shear Zone (TMSZ) is a continuous, north-south to north-northwest striking structure that tracks north and south of the 2.1 km mineralised zone at Tabakoroni. The TMSZ has variable dips, from shallow listric to steep west, to subvertical. TMSZ is a late-stage, D3 brittle-ductile deformation corridor that is stratabound within ductile carbonaceous shale units of the mudstone sequence. A local rollover of basalt units occurs west of the TMSZ, whilst volcanoclastic sequences to the east are locally overturned against the shear. The TMSZ structure was not a locus of orogenic gold mineralisation and it cuts across and reworks earlier orogenic gold zones hosted by porphyry, basalt and volcanoclastics into cataclasite breccias and mylonites within the shear zone. Development of the TMSZ is considered to be progressive, with dilation events recorded by internal quartz veins that are also deformed and brecciated by progressive shearing and deformation on the

shear. These later progressive deformation events (D4/D5) are associated with recrystallisation of sulphide (arsenopyrite and pyrite) that liberated and remobilised gold into redox depositional trap sites (stylolitic graphite) within the shear and its associated quartz veins. Later oxidation and supergene gold enrichment are well-developed within the TMSZ near surface, but also occurs in hangingwall and footwall mineralised zones away from the TMSZ.

## **6.3 MINERALISATION**

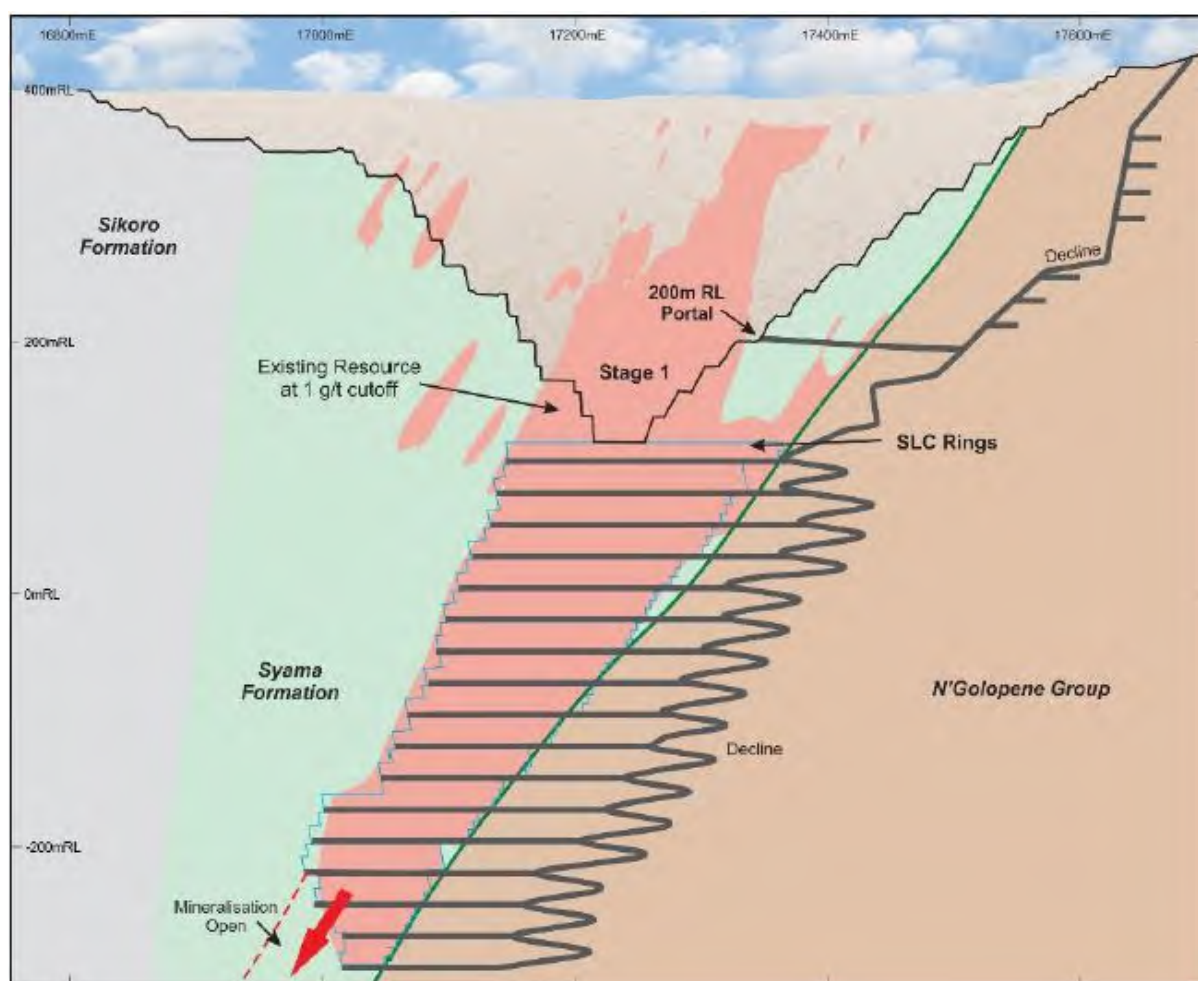
### **6.3.1 SYAMA**

Gold mineralisation is structurally hosted within the deformed and altered Syama Formation package of basalt and meta-sedimentary rocks. Rheological contrasts between the different rock types are considered to be critical in enabling the development of structural conduits and maximising the fluid – wallrock interaction during the introduction of sulphides and the deposition of gold. Better zones of gold mineralisation are typically developed within and adjacent to the contact between the upper basalt and underlying sediment units.

Pyrite is the main sulphide mineral accompanying the gold and is found disseminated in highly altered basalt and sediment, within a breccia matrix and in sheeted quartz veinlets. Locally, pyrite may be up to 15% by volume but generally represents less than 5% of the rock mass. There are three forms of gold at Syama; native gold, electrum and solid solution gold in pyrite.

The Syama mineralisation extends for approximately 1,000 m in strike and dips at 60 to 70 degrees towards the west (Figure 6.4). The horizontal width is between 100-200 m, narrowing at its southern and northern limits. The mineralisation is limited in depth by drilling, which extends from surface to a maximum depth of approximately 800 m vertically. Lateritic weathering and oxidation in most rock units generally extends to 35 – 40 m below the surface.

**Figure 6.4** Cross section view looking north of the main Syama geology units and mineralisation zone with the open pit and underground development (source: Resolute, 2016)



### 6.3.2 TABAKORONI

Early orogenic gold occurs within porphyry and as stockwork veins to scattered veins within basalt and volcanoclastic sequences adjacent to the porphyry units. Gold grade can be directly correlated to the abundance of arsenopyrite and/or pyrite in the host rock. Metallurgical testwork at Tabakoroni indicates that ~75% of the gold occurs in arsenopyrite and the remainder in pyrite. Mineralising veins contain minor disseminated sulphides, with the majority of sulphide localised at the vein conduit-wall rock interface, where it is hosted by intense silica-albite  $\pm$  sericite alteration selvages within the wall rock. Sulphide contents decrease rapidly away (on a cm scale) from vein conduits. Mineralised vein textures delineate shear to extensional vein opening phases, indicating that veins formed in a number of stages during a progressive transtensional phase.

The deposition of gold from oxidised porphyry-related solutions was most likely triggered by redox reactions in the wall rock, with reduced arsenic-, iron- and sulphur-rich wall rock fluids likely to be derived from carbonaceous mud in the host rock sequence. At the same time, porphyry degassing with its volatile-rich solutions probably led to over-pressuring, with and without fluid mixing, in the host rock sequence, initiating hydraulic fracture and refracture of primary autoclastic cracks, triggering a pressure differential that also deposited gold into pyrite.

The ore lenses of Tabakoroni are discontinuous along its 2.1 km strike. A series of west-northwest structures also dissect the Tabakoroni ore lenses, and are interpreted to represent low-angle thrust

structures that result in orebody discontinuity. The shear geometry of the TMSZ indicates that the structure underwent late dextral displacement, and it is postulated that the TMSZ offsets earlier porphyry-related orogenic gold mineralisation. Dextral kinematics, integrated with the interpretation of district magnetic, radiometric, VTEM and prospect-scale IP datasets, suggest possible targets east and south of the known Tabakoroni mineralisation.

## 7 DEPOSIT TYPE

The gold deposits at Syama and Tabakoroni are structurally hosted, mesothermal gold deposits localised along faults and shears. The mineralisation is similar to other middle Proterozoic gold deposits in the Birimian Shield of west Africa and to Archean gold deposits hosted by mafic volcanic rocks in terms of tectonic setting, wall rock alteration, the form of mineralisation and associated structures.

The Syama and Tabakoroni Gold Mines are operating mines and exploration strategies outside of the mine area have largely been applied on the basis of the mineralisation controls understood or documented from the mining operations.

## 8 EXPLORATION

### 8.1 SYAMA

The Syama deposit was originally discovered by a regional geochemical survey undertaken by the Direction National de Geologie et des Mines (DNGM) with assistance from the United Nations Development Program (UNDP) in 1985. There has 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.

Exploration work across the Syama tenement by Resolute has been ongoing since 2004 and prior to this by previous owners BHP and Randgold since 1987 (Section 6). The focus of exploration activity has been on the immediate environs of the Syama deposit and on regional targets. Exploration by Resolute since 2004 has concentrated on the Syama deposit and the satellite deposits located by BHP and Randgold. The company's strategy is to locate new deposits and test extensions to the existing oxide and sulphide resources on the Syama tenure.

Exploration conducted in the Syama area by BHP after 1998 was dominated by regional mapping on a sub-regional basis, combined with a considerable amount of prospecting (pits, trenches, open hole percussion holes (OHP)). BHP targeted their exploration to an area 7 km north of the Syama Pit where various satellite orebodies had been exploited for oxide mineralisation by BHP. Sufficient regional exploration had been completed to establish a working stratigraphic column and an interpretative geological map.

BHP carried out a number of phases of exploration from 1988 onwards. Although the majority of the work was focused on drilling at the main Syama orebody, other work was conducted on the surrounding ground. Table 8.1 is a summary of exploration work conducted during the BHP period.

**Table 8.1 Syama historical exploration statistics for BHP ownership period**

Exploration method	Number	Metres
Soil Geochemistry	28,773	
Diamond Drill Holes (outside Syama Mine)	53	7,773
OHP Holes	4,070	41,323
RAB Holes	79	1,104
RC Holes	204	5,909
Auger Holes	1,729	23,815
Pits	2,502	10,841
Trenches	149	5,785

Geodass Ltd of South Africa completed airborne geophysical surveys for BHP in March 1993. This survey covered the Syama mine area, extending 20 km north and 60 km south of the Syama mine. The main area was flown at a 100 m line spacing, with auxiliary areas flown at a line spacing of 200 m.

During Randgold's ownership period, there was a significant review of all geology and exploration to provide focus and support to ongoing resource expansion programmes. Randgold observed that limited drilling work had been conducted at the northern satellite pits due to reduced availability of capital. The Randgold review made the following conclusions:

- a detailed structural study was required at Syama and northern satellite pits to understand the controls on mineralisation
- undertake and integrate remote sensing and GIS analysis to augment targeting
- confirm the regional location of the Banmbere conglomerate shear contact with the Syama Formation rocks
- conduct an orientation IP/resistivity and ground magnetic survey along specific traverses north and south of the Syama main pit
- review and remap regolith units over the entire permit and revise the regolith map
- review and remap the geology over the permit area to update fact mapped geology and structure.

Both BHP and Randgold understood the importance of the regolith terrain in validating regional mapping and geochemistry, as evidenced by various field mapping programmes and revisions to the regional regolith fact map and related interpretation.

The remote data that was used for geological interpretation included Landsat 7 Thematic Mapper, airborne magnetic and radiometric images. All were georeferenced from differential field GPS points after which raster images were radiometrically and geometrically corrected. Several image enhancement processes were carried out on Landsat 7 and the airborne magnetic data in order to extract the maximum amount of geological information.

Structural and lithological interpretations were carried out both on hard copy printouts of the enhanced remote sensing data sets, and interactively onscreen. These interpretations were constrained throughout by field observations.

Orientation Induced Polarization and concomitant Ground Magnetic surveys were carried out early in February 2000, covering one line to the south of the Syama pit and three grids to the north of the pit, along the extrapolated strike of the Syama mine sequence. A number of anomalous chargeability and resistivity zones were delineated based on the investigation work.

Recent exploratory work conducted by Resolute has been dominated by extensive aircore, RC and diamond drilling programmes targeting areas previously identified by non-drilling exploration programs by previous explorers. An IP geophysical crew and equipment is based at Syama and this is used for detailed surveys at particular locations when required. Infill soil geochemical surveys are conducted to provide more detailed data for targeting at particular deposits.

## **8.2 TABAKORONI**

The following information was sourced from Etruscan (2009)

The Finkolo permit was originally held by BHP as part of the Syama exploration lease. The permit is underlain by the same Birimian-age greenstone belt rocks which host all the major gold deposits of Mali, including the Syama and Morila deposits. In 1989 BHP drilled a total of 3,630 metres in 21 holes along a 1.5 kilometre segment of the Syama Sequence called the Tabakoroni Zone. All holes encountered significant gold mineralisation, either in broad disseminated zones assaying from 1-6 g/t gold, up to 33 metres in thickness, or in more discrete 1-3 metre thick high-grade zones assaying 15-40 g/t gold. Some of the better intercepts included 5.73 g/t gold over 22.5 metres and 27.55 g/t gold over 3 metres.

In 1998 the Finkolo permit was acquired by Barrick Gold (Barrick) which carried out a number of detailed geochemical surveys, including 1,156 RAB samples over the Tabakoroni Zone, and 3,185 surficial samples over the remainder of the permit. Barrick did not drill test any of the subsequent targets, and when its West African operations were closed, the property was returned to the Republic of Mali.

The property was subsequently granted to Bago International Corporation SARL (Bago) on 18 July 2001 by the Malian Government. Bago did not complete any exploration on the concession. An agreement with Etruscan Resources Inc. (Etruscan) was signed on 19 June 2002, permitting Etruscan to commence exploration for gold on the permit.

Etruscan completed several regional to semi-regional geochemical surveys, including saprolite geochemistry, rock-chip sampling and termite mound sampling. In December 2002 Etruscan carried out a detailed geophysical survey using induced polarization techniques over the Tabakoroni Zone, which identified a number of coincidental geophysical and gold geochemical anomalies. A reconnaissance air core drilling program consisting of 51 holes (4,080 m) was completed in June 2003 to test the various anomalies. The most significant result of this programme was the discovery of a new mineralized zone associated with an intrusive-porphyry immediately north and outside of the BHP-drilled area.

The air core drilling intersected disseminated gold along the eastern contact of the porphyry over downhole widths of 18-26 metres with average grades of up to 2.42 g/t gold, and individual samples assaying up to 8.30 g/t gold. The most significant result of this programme was the discovery of a new mineralised zone associated with an intrusive porphyry immediately north and outside of the BHP drilled area.



## 9 DRILLING

### 9.1 PRE-RESOLUTE DRILLING

#### 9.1.1 TABAKORONI

Prior to 2005, a total of 26 holes were completed by previous owners (Table 9.1).

**Table 9.1 Tabakoroni resource drill campaigns**

Company	Years	Hole type	Holes	Metres drilled
BHP	1989-1990	DD	21	3,629
Etruscan	2003	RC	5	584
<b>Total</b>			<b>26</b>	<b>4,213</b>

#### 9.1.2 SYAMA

Prior to 2003, a total of 215 exploration drillholes were completed by previous owners. These comprise diamond and reverse circulation (RC) hole types. Details of the drilling campaigns can be found in Table 9.2. RCD holes have a RC collar with a diamond tail.

**Table 9.2 Syama resource drill campaigns**

Company	Years	Hole type	Holes	Metres drilled
BHP	1987-1996	DD	90	22,599
		RC	79	4,027
Randgold	1997-2000	DD	11	1,705
		RC	34	2,888
		RCD	1	186
Total			215	31,407

### 9.2 RESOLUTE DRILLING

#### 9.2.1 TABAKORONI

Resolute has drilled 533 holes into Tabakoroni since 2003. Table 9.3 details the year and number of holes by type, as defined above.

**Table 9.3 Tabakoroni Resource drill campaigns by year for Resolute drilling**

Year	Hole type	Holes	Metres drilled
2005	DD	1	123
	RC	68	6,536
	RCD	24	3,666
2006	RC	60	5,827
	RCD	1	131
2007	RC	36	3,927
	RCD	17	1,926
2008	DD	6	778
	RC	34	3,641
	RCD	11	3,801
2009	DD	6	676
	RC	19	2,844
2013	DD	11	1,443
	RC	27	2,574
2016	RC	70	4,658
2017	RC	45	6,167
2018	DD	13	3,945
	RC	40	6,221
	RCD	39	11,573
<b>Total</b>		<b>528</b>	<b>70,457</b>

### 9.2.2 SYAMA

Since acquiring Syama in 2003, Resolute has drilled a total of 413 holes. **Error! Not a valid bookmark self-reference.** details the year and number of holes by type. The procedures used to collate the data from these drill campaigns is described in the following sections.

**Table 9.4 Syama Resource drill campaigns by year for Resolute drilling**

Year	Hole type	Holes	Metres drilled
2003	DD	1	200
	RC	7	518
	RCD	11	4,795
2004	DD	8	2,399
	RD	18	2,474
	RCD	9	4,568
2006	DD	4	841
2007	RC	12	1,509
2008	RCD	2	183
2009	RC	15	1,682
	RCD	11	1,616
2011	DD	15	2,896
	RC	6	437
	RCD	3	1,690
2012	DD	5	1,208
	RC	12	1,607
	RCD	5	2,087
2013	DD	1	570
	RC	3	416
	RCD	2	978
2014	DD	9	4,758
	RC	5	370
	RCD	14	8,508
2015	DD	22	3,497
	RC	4	226
	RCD	2	1,268
2016	DD	47	16,214
	RC	1	187
	RCD	1	816
2017	DD	74	22,106
	RC	3	408
	RCD	6	3,214
2018	DD	75	14,853
Total		413	109,099

## 9.3 SURVEYING

### 9.3.1 COLLAR

Drillhole collar coordinates were picked up by staff and contract surveyors using an RTK DGPS with an expected accuracy of  $\pm 0.05$  m. All holes have UTM (WGS84) coordinates and elevations are height above EGM96 geo-id. The Syama Grid was established by Spectrum Survey and Mapping Australia in 2005.

### 9.3.2 DOWNHOLE

Drillholes have been surveyed downhole using single shot and multishot survey tools, including FlexIT SmartTool and Reflex EZ-Trac, EZ-Shot, EZ\_Gyro and TN14 instruments. Surveys were collected at intervals ranging from 5 to 50 m and a time-dependent declination was applied to magnetic readings to determine UTM azimuth.

## 9.4 CORE MANAGEMENT

### 9.4.1 CORE MARK-UP

Reports by BHP on its logging procedures at Syama could not be located in the historic files. The BHP exploration programme was supported by an on-site sample preparation facility and analytical laboratory. A report by Golder from 1990 indicated that detailed logging and core orientation had been undertaken by BHP, and that it was assumed to meet industry standards at the time. Details of the diamond core procedures used for the Randgold drillholes have not been recorded in reports or the database.

For the early Resolute diamond drilling programmes, a field assistant remained at the rig during drilling operations to ensure that appropriate core handling procedures were maintained and to minimise risk of handling errors by drilling staff. During later years the drilling contractor was responsible for all core handling procedures at the drill rig. Any issues with the presentation of the core or drillers blocks were resolved with the driller, and if necessary, drilling operations ceased until the problems were resolved.

After drilling, core trays were transferred to the exploration core yard for further processing. Core was collected by a Resolute employee at the drill rig, loaded onto a 4WD vehicle and returned to the exploration core farm. The exploration core farm was within the main fenced area of the mine site and is protected by security personnel on a fulltime basis. Core trays were laid out onto racks in the as-drilled order.

Core cleaning is completed to remove any grease, oil, mud or debris from the core. Work on the core mark-up commences with core orientation. The geologist or technician conducts verification checks on the core depth blocks in each core tray. An orientation line is added to the core by following the Core orientation procedures.

After the orientation line, the core is then inscribed with downhole metre marks according to measurements between the drill core blocks. A marked line is added to the top of the core to assist with subsequent sampling operations.

Core loss is the amount of core missing between two core blocks which should be recorded by the driller on the core block. Confirmation of any core loss is undertaken by measuring the core length and documenting any differences.

Each core tray is marked with identification details, including the drillhole number and tray number on the front panel, and again on the top rim of the front panel (Figure 9.1). The trays also have a “start” mark, and an arrow indicating the downhole direction on the top rim of the left-hand side of the core tray. The hole number, tray number, and the depths (from – to) are marked onto the tray. Due to information being lost over time details are engraved onto the tray or affixed with an aluminium tag while in the core shed.

After mark-up the core is available for any geological and geotechnical logging operations and is later photographed wet and dry prior to any sampling.

**Figure 9.1 Example core tray showing mark-up**

#### 9.4.2 CORE ORIENTATION

Detailed reports on the core orientation methods followed by BHP and Randgold could not be located in the data records. During early Resolute drilling, core was oriented using a crayon spear to mark the lower axis of the core. This was generally performed at regular 3 metre drilling intervals, with the frequency increased to every 1.5 metre run within zones of broken ground. For any failed attempt the orientation was repeated on the next run.

Generally, the quality of the orientation mark was of a reasonably high standard; however, marks of dubious quality were evident at times and the nominated frequency of orientations was not always adhered to. A numerical system was used to designate the quality of the orientation; 1 for low (fractured ground), 2 for medium and 3 for high quality. Orientations and core locking were problematic in the hangingwall zone, due to the presence of graphitic shears in the core.

In more recent drilling programmes, Resolute conducted core orientation using the Reflex ACT III tool or its equivalent. The orientation tool attaches to the back end of the drilling core tube and remains down the hole during drilling of each core length. Once activated, the tool is constantly recording. At the end of the coring run, the tube is retrieved as normal back on the surface. When the tube is opened the handpiece is reconnected to the orientation tool and the “bottom of hole” line marked onto the core run (Figure 9.2). After marking, the core is transferred to the core tray.

**Figure 9.2 Example orientation mark on drill core**

Drilling procedures require the driller to make a reference mark on the core block confirming the success or failure of the orientation measurement designated as 'ORI OK' or 'ORI FAIL'.

After core has been transferred to the exploration core shed, lengths of core are re-assembled using a steel V-rail with the aim to get as many orientation marks aligned as possible working down the hole. The orientation lines are matched on the rack to ensure the "best fit" alignment before transcribing the bottom of hole line onto the drill core.

The orientation line is then marked on the core by the geological technician or geologist. A solid line is used to mark core with a high confidence orientation, and a dashed line used to indicate low confidence orientation. This bottom of hole line becomes the basis for structural orientation readings (alpha and beta) during geotechnical logging.

### **9.4.3 LOGGING**

Drillholes are geologically logged in their entirety for lithology, alteration, mineralisation, weathering and vein assemblages. Diamond drilling intervals were logged for geotechnical and structural features including core recovery, RQD (Rock Quality Designation), defect type and orientation, fracture frequency and strength. Bulk density measurements were taken for selected diamond core intervals using the weight in air and weight in water (Archimedes) method.

Resolute logs diamond core at the core yard using full core prior to any cutting or sampling, and all core was photographed both dry and wet. RC intervals are typically logged at the drill rig during drilling operations, or from chip trays.

## 10 SAMPLE PREPARATION, ANALYSIS AND SECURITY

### 10.1 SAMPLE PREPARATION

Resolute RC samples were collected at the drill rig using a cyclone on one metre intervals of dry sample via a riffle splitter. Wet samples were either spear sampled or transported to the exploration core farm and sun-dried prior to being riffle split. Diamond core was transported to the exploration core farm for logging, photography and sampling. Competent core was cut by a diamond saw and less competent core was manually split and the core was sampled at one metre intervals.

Samples were collected into pre-numbered calico sample bags which were grouped into plastic bags and secured with cable ties for dispatch to the laboratory. The samples were dispatched to ALS Bamako (formerly Abilab), SGS Morila and Syama laboratories for sample preparation and analysis. Each dispatch contains quality control samples including duplicates, blanks and certified reference materials (CRMs or standards).

### 10.2 ANALYSIS

Sample preparation at participating laboratories includes weighing, oven-drying, crushing <2mm, splitting and pulverising to 85% <75 µm.

Samples were analysed for gold by ALS Bamako (formerly Abilab), SGS Morila and Syama laboratories by 25 g or 50 g charge fire assay fusion with atomic absorption spectroscopy (AAS) finish. The analytical method was appropriate for the style of mineralisation and provides a total gold assay.

### 10.3 QAQC

#### 10.3.1 PROCEDURES

Procedures used to maintain quality control in the sample assaying process have included CRMs blanks, duplicates and pulp umpire checks, as well as laboratory standards, blanks, repeats and grind size results. Resolute includes QC samples (duplicates, standards and blanks) at an overall (consolidated) rate of 1 in 9 samples with all dispatches to the various laboratories. This overall rate can be broken down as follows:

- CRMs are included in all dispatches at the rate of 1:40 drill samples. Sample batches which include CRMs that fall outside specified tolerance ranges are investigated and resolved.
- Blanks comprise barren coarse material included in dispatches at a rate of 1:40 drill samples to test for contamination. The material used for this purpose was from a single source supply but was not specifically certified.
- Field Duplicates comprise an additional duplicate sample at the rate of 1 in 20 primary samples collected at the same time as the original sample and analysed by the same laboratory using the same analytical technique. This applies to RC drilling.
- Coarse Duplicates for diamond core samples were included at a rate of 1 in 20 primary samples and are prepared by the laboratory after the crushing stage and analysed by the same technique as the parent sample.

- Laboratory Standards and Blanks are reported by the laboratories and included in the database.
- Particle size analysis is carried out by sieve testing to confirm the performance of the laboratory's sample preparation procedure. The particle size results are reported as the percentage of the sample which will pass through a specified screen size (200 mesh or 75µ).
- Reanalysis of pulps for gold by fire assay fusion and AAS was carried out at umpire laboratories to test repeatability.

### 10.3.2 RESULTS

The QAQC results have been summarised from Resolute (2018), Resolute (2018a) and Resolute (2019a).

#### SYAMA

Between 2003 and 2018 Resolute dispatched resource samples to ALS Bamako (formerly Abilab), SGS Morila and SGS Syama laboratories for gold by fire assay with AAS instrument finish. Quality Control (QC) samples were included with the main samples at a rate of 1:20 samples for diamond core coarse duplicates and RC field duplicates, 1:40 for blanks and 1:40 for certified reference material. Additionally, pulps were reanalysed at SGS Bamako and Ammtec Perth to assess the performance of the primary laboratory. During BHP campaigns between 1987 and 1996, samples were analysed at the Syama onsite laboratory and BHP Utah laboratory in Sunnyvale California for gold by fire assay and aqua regia digestion with AAS instrument finish. Between 1997 and 2000, Randgold samples were analysed at the Syama site laboratory and independent laboratories in Mali.

Table 11.1 summarises the laboratories used and the number of samples submitted, along with the QAQC results. The results discussed below relate to the latest drilling performed by Resolute through the period 2015 to present, when the bulk of the resource diamond holes used in the estimate were drilled.

Table 10.1 List of laboratories used and available QAQC results (2015-2018)

Lab	Number of batches	Number of samples	Number of CRMs	Number of blanks	Number of duplicate results	Number of size checks
ALS Bamako	312	44484	1240	1235	2461	1914
SGS Syama	111	13399	327	378	0	
SGS Bamako	2	0	64	0	812	
TOTAL	425	57883	1631	1613	3273	1914

#### TABAKORONI

Resolute completed 350 resource drillholes for 48,969.25 metres at the Tabakoroni Project between September 2013 and December 2018. The drilling included 35,723.6 metres of RC, 11,630.95 metres of HQ and 1,614.7 metres of PQ diamond core drilling. ALS Global Bamako was the primary analytical laboratory for gold analysis, using a 30g fire assay technique with AAS instrument finish. Quality Control (QC) was carried out on all holes during the drilling programmes and QC samples were included at a rate of 1:20 samples for diamond core coarse duplicates, RC field duplicates, blanks and certified reference materials (CRM). Resolute QC samples represent 10% of the samples submitted to the laboratory. Additionally, 322 pulps from selected mineralised intersections were dispatched to Intertek Tarkwa for gold by 25g fire assay AAS to compare with the ALS analyses. A



total of 308 gold batches were reported ALS Bamako between October 2013 and January 2019 and 4 gold batches by Intertek Tarkwa in January 2019 (Table 10.2).

**Table 10.2 List of laboratories used and available QAQC results (2013-2018) for Tabakoroni**

Lab	Number of batches	Number of samples	Number of CRMs	Number of blanks	Number of duplicate results
ALS Bamako	308	48,704	1404	1436	2666
Intertek Tarkwa	4	0	37	0	322
TOTAL	425	57883	1631	1613	3273

## CRM ANALYSIS

### Syama

CRMs were included in the Resolute drilling samples at regular intervals and represent 2.5 percent of the total samples analysed. CRMs were purchased from Rocklabs (Auckland, New Zealand [www.scottautomation.com/rocklabs](http://www.scottautomation.com/rocklabs)). 19 different CRMs were used in the drilling programmes and the expected grades vary from 0.45 g/t to 5.93 g/t. The CRMs provide a good indication of the overall accuracy of each batch of analytical results.

Table 10.3 summarises the recommended gold value versus the calculated mean, standard deviation, coefficient of variation and average bias of the data (following exclusion of outliers). The recommended gold value and estimated standard deviation are from the CRM supplier Certificate of Analysis.

CRM performance was monitored throughout the drilling campaigns by assessing the analytical results over time compared with the control limits. When CRM failures (Table 11.2) were identified, typical follow-ups involved re-analysis of the 10 drill samples including the failed CRM to ensure results reported were within acceptable accuracy limits.

**Table 10.3 Summary of results received for CRMs (source: Resolute, 2018a)**

Standard ID	Expected Au ppm	Estimated SD	No. of Samples	Mean Au ppm	SD	CoV	No. Failed	Mean Bias
OxD107	0.45	0.014	1	0.45	0	0		-0.44%
OxE106	0.61	0.013	1	0.61	0	0		0.66%
OxH97	1.28	0.03	1	1.3	0	0		1.72%
OxI121	1.81	0.05	1	1.88	0	0		2.51%
OxI96	1.80	0.039	2	1.8	0.01	0.0039		0.17%
OxJ120	2.37	0.063	5	2.31	0.1	0.0419		-2.16%
SE29	0.60	0.016	41	0.6	0.02	0.0348		0.54%
SE58	0.61	0.019	60	0.61	0.02	0.029		-0.14%
SE68	0.60	0.013	162	0.6	0.02	0.0328	1	0.93%
SE86	0.60	0.015	80	0.6	0.02	0.0374	1	0.76%
SF67	0.83	0.021	8	0.88	0.5	0.524		5.69%
SG66	1.09	0.032	336	1.09	0.04	0.034	8	0.06%
SH82	1.33	0.027	80	1.33	0.06	0.0434	1	0.05%
SJ39	2.64	0.083	36	2.68	0.1	0.0366	2	1.42%
SJ63	2.63	0.055	175	2.68	0.13	0.0472	1	1.85%
SJ80	2.66	0.057	141	2.65	0.09	0.033		-0.18%
SK78	4.13	0.138	202	4.14	0.14	0.0328	3	0.21%
SK94	3.90	0.084	14	4.01	0.1	0.0257		2.76%
SL61	5.93	0.177	260	5.91	0.16	0.0262	4	-0.30%



## Tabakoroni

Certified reference material (CRM) were included a rate of 1:40 with the drilling samples and represent 2.5% of samples dispatched to the laboratory. 16 Rocklabs CRMs were used, with expected gold values ranging from 0.448 ppm to 5.96 ppm. The CRMs provide a good indication of the overall accuracy of each batch of analytical results.

Table 10.3 summarises the recommended gold value versus the calculated mean, standard deviation, coefficient of variation and average bias of the data (following exclusion of outliers). The recommended gold value and estimated standard deviation are from the CRM supplier Certificate of Analysis.

**Table 10.4 Summary of results received for CRMs at Tabakoroni (source: Resolute, 2019a)**

Standard	Expected Au ppm	Expected SD	No of Samps	Mean Au ppm	SD	CV	No. Failed	Mean Bias
OxD107	0.45	0.018	198	0.45	0.021	0.047	1	-0.30%
SE29	0.60	0.02	4	0.59	0.026	0.045	0	-1.85%
SE86	0.60	0.021	164	0.60	0.027	0.045	1	-0.07%
OxE106	0.61	0.016	55	0.61	0.014	0.023	0	-0.07%
OxE126	0.61	0.02	76	0.61	0.024	0.040	0	-0.08%
OxH122	1.24	0.068	108	1.23	0.071	0.057	0	-0.16%
OxH97	1.29	0.035	65	1.29	0.034	0.026	0	0.50%
OxH139	1.31	0.024	8	1.31	0.048	0.037	0	-0.34%
OxI96	1.79	0.056	65	1.81	0.056	0.031	0	0.90%
OxI121	1.83	0.056	192	1.84	0.074	0.040	0	0.34%
OxJ120	2.43	0.114	60	2.40	0.140	0.059	3	-1.20%
OxJ95	2.43	0.099	66	2.43	0.088	0.036	0	-0.18%
SJ80	2.69	0.125	162	2.69	0.135	0.050	7	-0.08%
OxL25	5.92	0.196	68	5.92	0.190	0.032	0	0.01%
SL61	5.93	0.177	90	6.01	0.239	0.040	0	1.32%
SL76	5.96	0.192	23	5.97	0.136	0.023	0	0.22%

## BLANK MATERIAL

Resolute submitted a coarse sand blank to test for sample contamination. The blank was submitted to the laboratory as 1 kg of material. The material is collected from a single source north of Syama, into large plastic bags which are transported to Syama, prepared through sieving and drying and stored in 200 litre barrels within a secure storage facility until samples are sent to the laboratory for analysis.

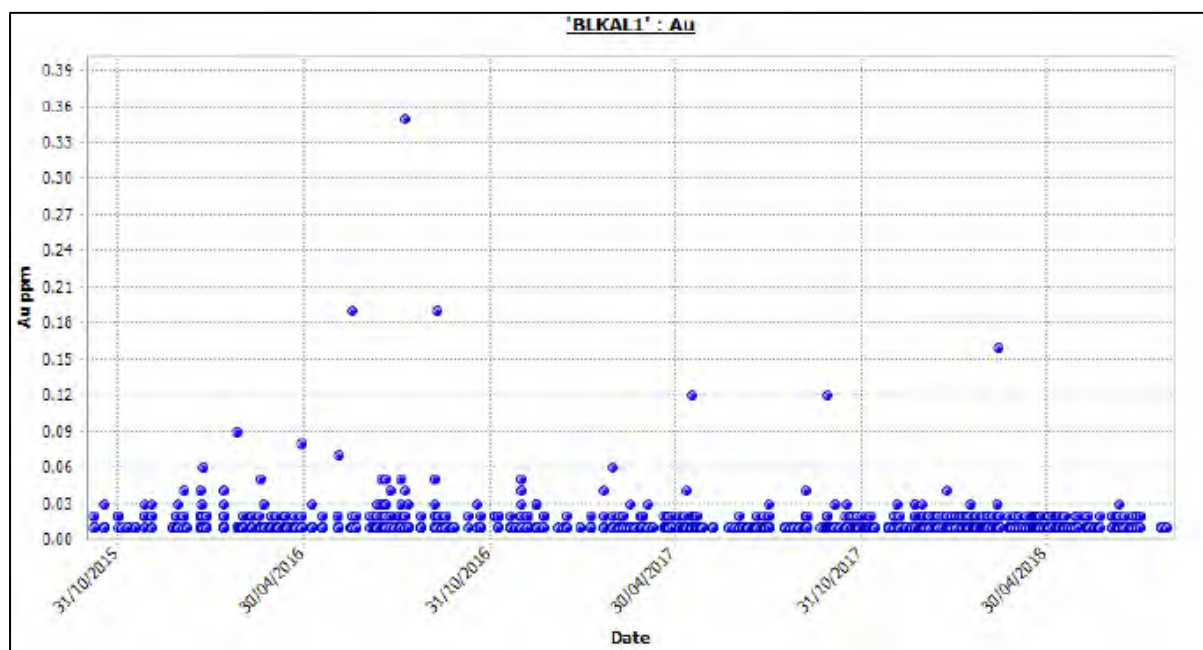
The blanks were inserted at regular intervals and represented 2.5% of the samples dispatched. An expected value of 0.01 ppm was applied to the blank, with an upper limit of acceptance as 3 times the lower limit of detection (0.01 ppm) of the gold analytical methods.

## Syama

Table 10.5 summarises the blank gold results, including the expected value, calculated mean and SD and the percentage of samples which passed. Of the 1,613 results received, only 17 results exceeded the expected maximum. The performance of the blank over time is illustrated in Figure 10.1.

**Table 10.5 Resolute blanks summary (source: Resolute, 2018a)**

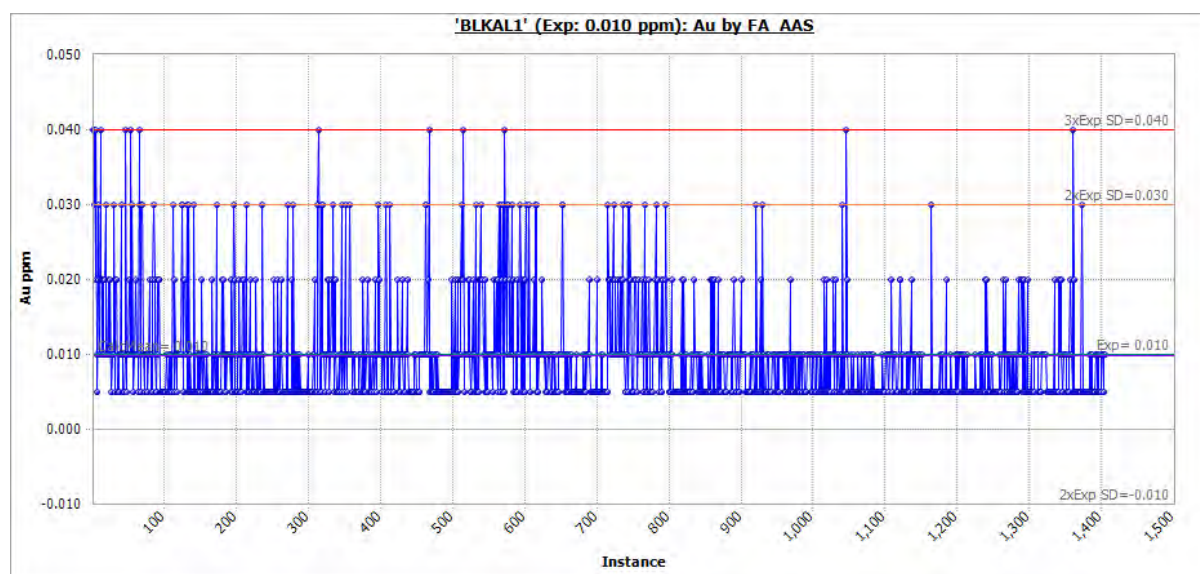
Standard	Expected Au ppm	Expected SD	No of Samples	Mean Au ppm	SD	CoV	Percentage passed
BLKAL1	0.01	0.01	1,613	0.01	0.01	1.0183	99%

**Figure 10.1** Resolute blank (BLKAL1) Performance (source: Resolute, 2018a)**Tabakoroni**

The performance of the blanks at Tabakoroni is illustrated in Figure 10.2. Table 10.6 summarises the blank material gold results, including the expected value, calculated mean and SD and the percentage of samples that reported gold results below the expected maximum. Of the 1436 results received, 31 results exceeded the expected maximum.

**Table 10.6** Resolute blanks summary for Tabakoroni (source: Resolute, 2019a)

Standard	Expected Au ppm	Expected SD	No of Samples	Mean Au ppm	SD	CoV	Percentage passed
BLKAL1	0.01	0.01	1,436	0.01	0.01	0.711	98%

**Figure 10.2** Resolute blank (BLKAL1) Performance at Tabakoroni (source: Resolute, 2019a)

## FIELD DUPLICATES

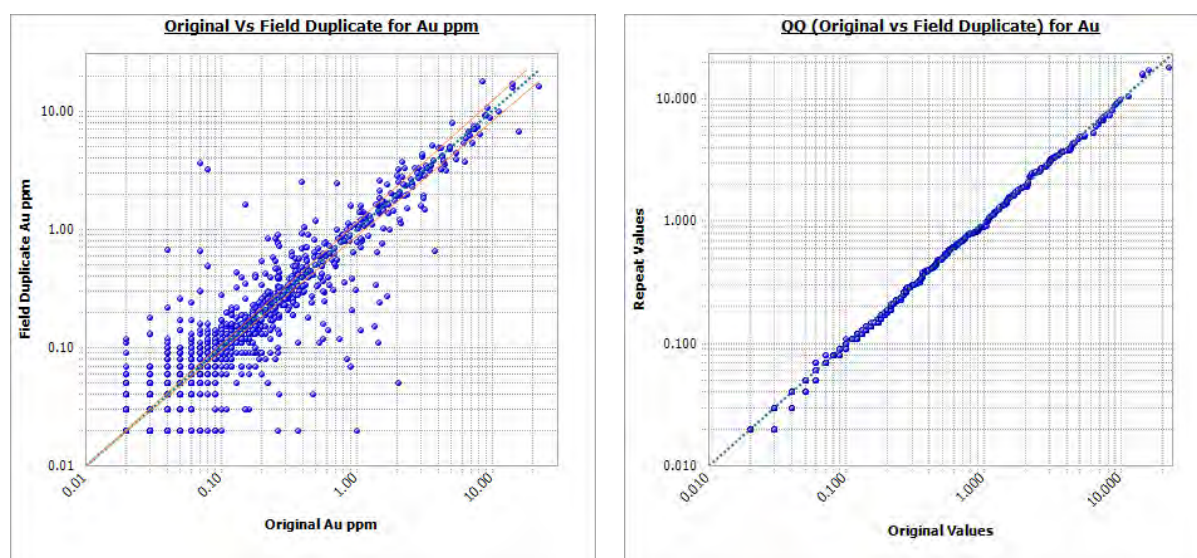
### Tabakoroni

Resolute collected 1,986 routine RC field duplicates during the drilling campaigns. Duplicates were collected at the same time, analysed by the same method and reported in the same batch as the original sample. A comparison between the original assays (Au1) and duplicates (Au2) is summarised in Table 10.7. Duplicate pairs are illustrated in Figure 10.3. Duplicate pairs with average gold grades >20 ppm have been excluded from the charts.

**Table 10.7** Field duplicate summary for Tabakoroni samples (source: Resolute, 2019a)

Range Au	No. of samples	Mean Au1	Mean Au2	SD Au1	SD Au2	CV Au1	CV Au2
0.0 - 0.1	1348	0.03	0.03	0.03	0.03	0.81	0.82
0.1 - 20.0	633	0.95	0.94	1.99	1.95	2.08	2.07
20 - 100	5	23.07	44.76	11.68	12.38	0.51	0.28

**Figure 10.3** Tabakoroni field duplicate scatter plot (left) and QQ plot (right),(source: Resolute, 2019a)



## COARSE DUPLICATES

One in every 20 diamond core samples were sent to ALS Bamako as a coarse reject duplicate. Duplicate splits of the half core samples were prepared by the laboratory after the crushing stage and analysed by the same method in the same batch as the original parent sample.

### Syama

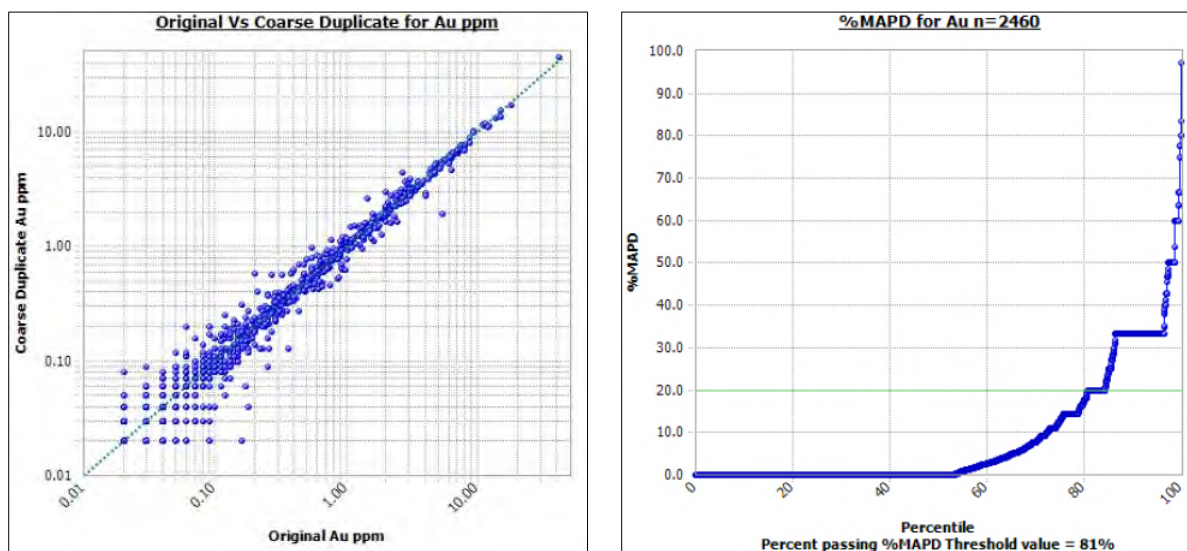
A comparison between the original assays (Au1) and the coarse duplicates (Au2) is summarised in Table 10.8. The duplicated pairs are illustrated in Figure 10.4.

**Table 10.8** Coarse duplicate summary for Syama

No. of samples	Mean Au1	Mean Au2	Correlation
2,460	0.40	0.39	0.99



**Figure 10.4** ALS Bamako scatterplot for coarse split duplicate data (left) and HARD plot (source: Resolute, 2018a)



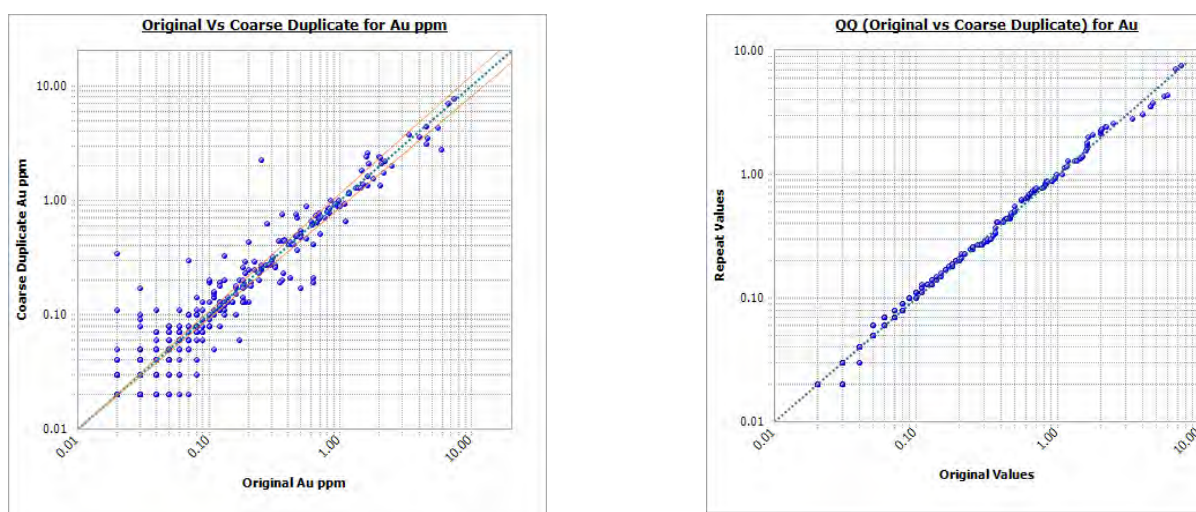
### Tabakoroni

A comparison between the parent assays (Au1) and the coarse duplicates (Au2) is summarised in Table 10.9 and illustrated in Figure 10.5. Duplicate pairs with gold values >20 ppm have been excluded from the charts.

**Table 10.9** Coarse duplicate summary for Tabakoroni (source: Resolute 2019a)

Range Au ppm	No. of Samples	mean Au1	mean Au2	SD Au1	SD Au2	CV Au1	CV Au2
0.0 - 0.1	525	0.02	0.02	0.02	0.02	0.99	0.99
0.1 - 20.0	151	0.81	0.79	1.26	1.16	1.55	1.46
20 - 100	4	52.30	51.78	19.82	19.42	0.38	0.38

**Figure 10.5** Tabakoroni coarse duplicate scatter plot (left) and QQ plot (right),(source: Resolute, 2019a)



### UMPIRE PULP DULICATES

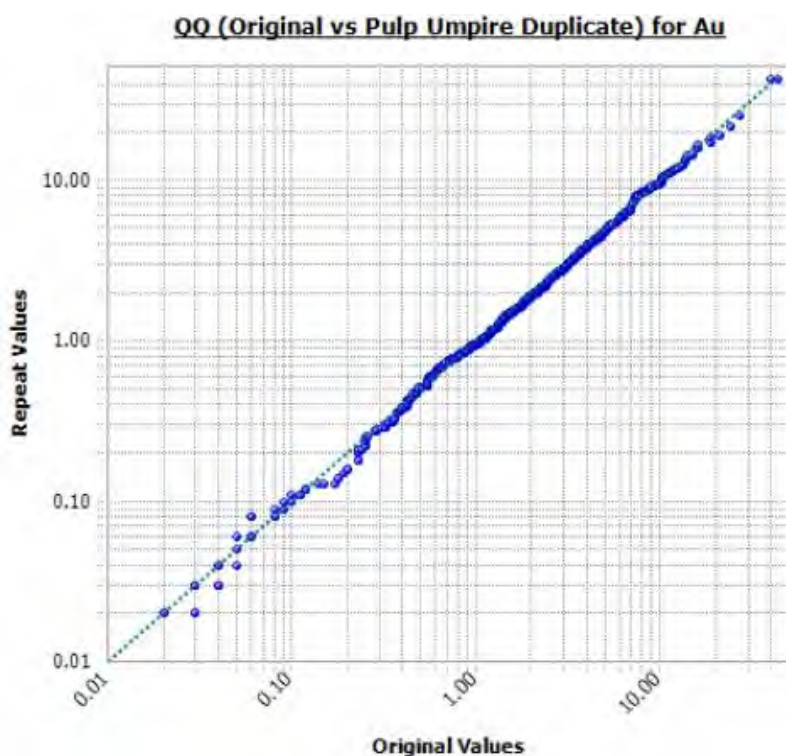
#### Syama

During the Resource drilling campaigns, 812 pulp samples were submitted to SGS Bamako to verify the original ALS Bamako assay results. SGS analysed the pulps by FAA303, which is a 30g fire assay method similar to ALS method Au-AA25 which is a 25g fire assay. Pulps were selected from the entire grade range and the results were reported in 2 batches. A comparison between the original assays (Au1) and the pulp duplicates (Au2) is summarised in Table 10.10. Duplicate pairs are illustrated in Figure 10.6 as a QQ plot. The overall performance of the results was good.

**Table 10.10 Umpire pulp duplicate summary**

No. of samples	Mean Au1	Mean Au2	Correlation
812	3.11	3.02	0.96

**Figure 10.6 QQ plot of the umpire lab duplicates (source: Resolute, 2018a)**

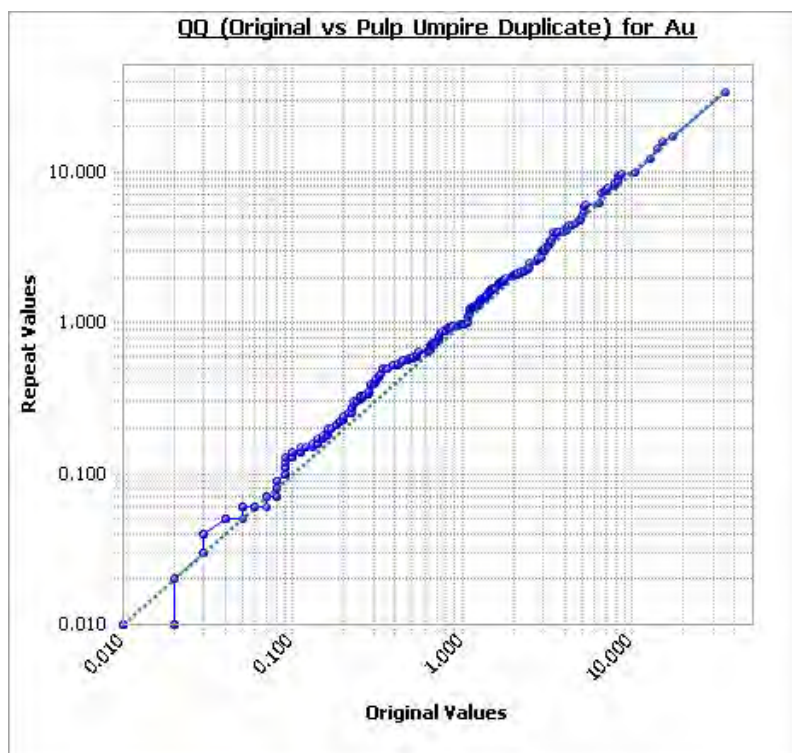


### Tabakoroni

Resolute submitted 322 pulp samples and 37 CRMs to Intertek Tarkwa for gold analysis by 25g fire assay AAS, following the 2018 drilling programme. The pulps were selected from mineralised Tabakoroni drill intersections and the purpose of the external laboratory checks was to assess the Intertek results in comparison with the ALS results. A comparison between the original assays (Au1) and the pulp duplicates (Au2) is summarised in Table 10.11. Duplicate pairs are illustrated in Figure 10.7 as a QQ plot. The Intertek results exhibit a bias of 5-6% in the grade range from 0.1 ppm to approximately 2 ppm against the ALS results.

**Table 10.11 Umpire pulp duplicate summary for Tabakoroni (source: Resolute 2019a)**

Range Au	No. of Samples	mean Au1	mean Au2	SD Au1	SD Au2	CV Au1	CV Au2
0.0 - 0.1	72	0.04	0.04	0.03	0.03	0.68	0.84
0.1 - 20.0	249	1.77	1.87	2.50	2.58	1.41	1.38
20 - 100	1	35.10	33.56	0.00	0.00	0.00	0.00

**Figure 10.7** QQ plot of the umpire lab duplicates at Tabakoroni (source: Resolute, 2019a)

## 10.4 SECURITY

The security of samples collected by Resolute was managed using the chain of custody procedure from sample collection to transportation to the laboratory, analysis and storage. All aspects of sampling process were supervised and tracked by Resolute personnel.

## 11 DATA VERIFICATION

### 11.1 DATA MANAGEMENT

#### 11.1.1 DRILLHOLE DATABASE

Resolute has managed the Syama drillhole information via a DataShed relational database since acquiring Syama. Both Resolute data and historical Randgold and BHP data are stored within the one database. The database is hosted on a SQL Server 2012 instance at the Syama site office and is managed by qualified SQL database administrators with automatic backups taken daily. The SQL Server platform provides robust security protocols through database roles which control users' data read and edit rights. The data is managed by dedicated geological data administrators and accessed by end users in read only format. Exports are made directly from the SQL database for use in resource modelling and estimation.

#### 11.1.2 DATA VALIDATION

The Resolute relational database schema includes data integrity checks and constraints to control errors during data importing and editing. Data failing integrity checks during importing are reviewed and the data corrected then reimported into the database. Additionally, the data administrators routinely perform validation checks to search for and resolve any incomplete or erroneous data stored within the database.

Data integrity checks within the database schema include, but are not limited to:

- Referential integrity; for example, to ensure data in downhole tables have corresponding records in the collar table, and to ensure that assays have corresponding sample intervals;
- Entity integrity to ensure data uniqueness; for example, unique hole\_IDs, unique sample-ID, unique downhole intervals and unique data records;
- Nullability constraints to ensure critical information is populated; for example, coordinates;
- Library lookup constraints to control codes and minimise typographical errors, for example
  - Hole types, sample types and sample methods, grids, elements, analytical method codes;
- Numerical range constraints to control, for example
  - Invalid dips (not between -90 and 90)
  - Invalid azimuths (not between 0 and 360); and
- Downhole interval checks to prevent
  - Intervals with From>=To
  - Overlapping intervals in downhole tables
  - Intervals with depths greater than the end of hole depth.

Routine data validation checks performed by the data administrators include:

- Holes with duplicate or erroneous coordinates;
- Statistically anomalous downhole surveys;
- Holes missing downhole surveys, assays or lithology;
- Validity of non-sampled intervals (missing data versus intentionally non-sampled);
- Validity of samples without assays (missing data versus intentionally non-assayed); and
- Data collection errors; for example, missing or incorrect dates, sample types and methods.

## 11.2 VERIFICATION

Resolute performed data verification on all Syama Resource drill holes to improve the quality of and confidence in the information, through checking that the data in the database is accurate and consistent with the original source documents. The historical data, in particular, benefited from this process, which resulted in previously missing data being added to the database, including dates, survey methods, assay analytical methods and data source names. Where discrepancies existed, the data was investigated and corrected.

The verification process included:

- Checking coordinates against original sources, including paper sources and digital files;
- Checking downhole surveys against camera discs, survey tickets and digital sources;
- Checking database records against core photos;
- Checking assay values against original laboratory batch certificates;
- Capturing assay data from hardcopy to gain additional metadata missing from the database, including;
  - Laboratory name, analytical methods and laboratory quality control data
- Capturing missing information including dates, survey methods, drilling techniques, sampling methods and data source names.



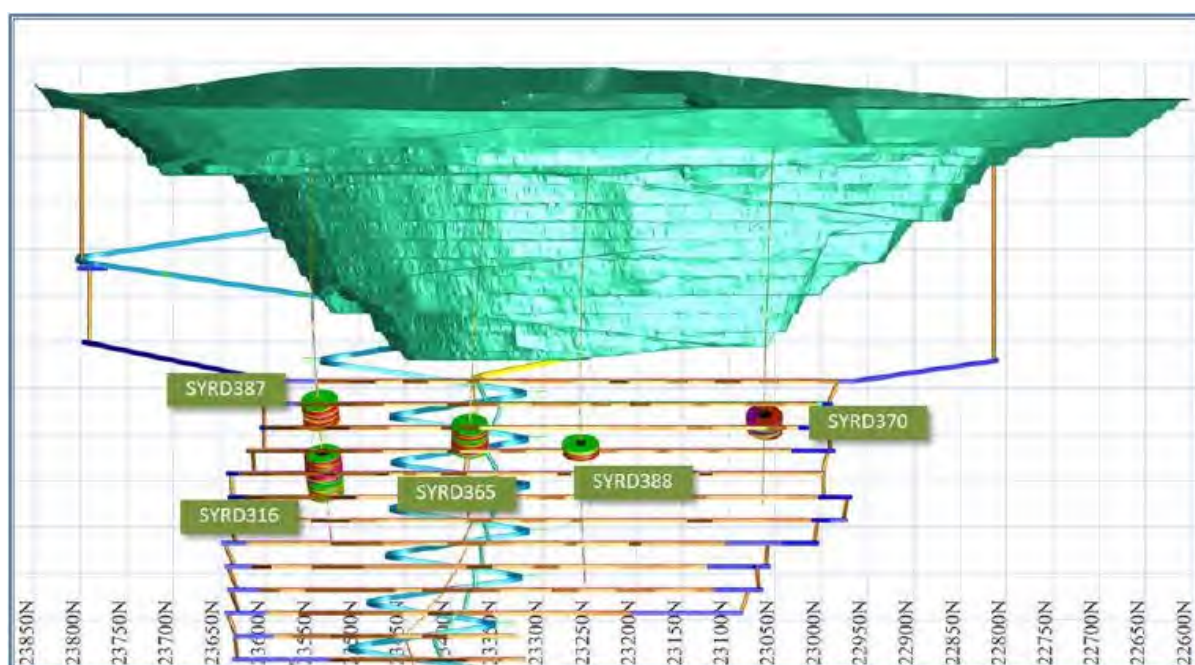
## 12 MINERAL PROCESSING AND METALLURGICAL TESTING

### 12.1 SYAMA METALLURGICAL TESTWORK

#### 12.1.1 SAMPLES TESTED

The samples used in the most recent metallurgical testing programme described below were sourced from Resource drilling and consisted of half and whole NQ diamond drill core. The core was representative of ore from future underground mining operations, including the adjacent waste dilution material. A total of 155 m or 496 kg of core was received from five drillholes. This core was prepared and composited to produce five variability composite samples for testwork to determine the Syama plant flowsheet response over a range of feed grade (gold, sulphur and organic carbon) concentrations. Figure 12.1 shows a long section and the location of the metallurgical samples used in the testwork.

**Figure 12.1** Long section of metallurgical samples (source: Resolute, 2016)



Two dilution rock types, both weighing 30kg, taken from two underground intervals were received and tested for comminution characteristics, and then blended with two of the ore type variability composites to determine the effect of the dilution rock on flotation performance.

#### 12.1.2 COMMINUTION TESTWORK

Comminution testwork, consisting of Drop Weight index (DWi) and Bond Ball Mill Work indices (BBWIs) were performed on all five ore variability samples and both dilution rock types provided. The DWi and BBWi data for all five ore variability composites were very consistent, with DWi averaging ~8.5 and BBWIs (@115µm P<sub>80</sub>) 21.6 kWh/t respectively. This BBWi value is similar to the current operating work index data of the open pit ore, which has been estimated to be 21.5 kWh/t at 118 µm. The two dilution rock types were very similar with respect to specific gravity and DWi but the BBWIs are slightly softer than the ore samples, measuring around 20 kWh/t (@ 115 µm P<sub>80</sub>).

### 12.1.3 GRAVITY-LEACH CHARACTERISTICS

Gravity CIL (carbon-in-leach) tests ( $P_{80}$  106  $\mu\text{m}$ ) were performed on the five variability composites to determine the recovery using a standard free milling flowsheet. The average gravity recovery for the five composites was 35% and gravity plus CIL 52.5%, ranking the Syama underground ore as highly refractory. Diagnostic testwork on the leach tail showed that the average gold remaining in the CIL residue typically had ~37% (0.7 g/t) bound with organic carbon, 58% (or 1g/t) locked in sulphides and the remaining 5% of the gold locked in silicates.

Preg-robbing Index (PRI) tests were also conducted, and the results showed that all samples exhibited strong preg-robbing characteristics, with an average index of 3.32.

### 12.1.4 FLOTATION CHARACTERISTICS

Batch rougher flotation tests were performed on the five composites at a grind size of  $P_{80}$  of 106  $\mu\text{m}$  and for comparison purposes they were repeated at a grind size of  $P_{80}$  75  $\mu\text{m}$ . The results showed rapid flotation kinetics and high overall gold recoveries of 90.1% (86-92%) at a  $P_{80}$  of 106 $\mu\text{m}$ . The overall flotation recovery increased to an average of 92.4% (89.3-93.4%) when the samples were tested at a grind of  $P_{80}$  75  $\mu\text{m}$ . When ground to a  $P_{80}$  of 106  $\mu\text{m}$  the recovery appeared to be dependent on the feed grade, but when more finely ground this correlation disappeared.

The mass pull and final concentrate grades achieved were in line with normal plant performance data. Flotation concentrates ranged between 30 and 60 g/t, a factor strongly dependent upon the S: Au ratio in the float feed.

### 12.1.5 FLOTATION CONCENTRATE AND MINERALOGY ROASTING

Two of the composites were floated to produce concentrates for analysis by QEMScan-PMA and TMA along with XRD analysis. Bulk mineralogy showed that pyrite was the mineral which hosted most of the gold and comprised up to ~70% of the concentrate. Approximately 80% of the pyrite was well liberated ( $P_{80}$  ~55  $\mu\text{m}$ ). The unliberated pyrite was mainly associated with silicates, which is about 25% of the concentrate mass and the main gangue material contained in the concentrate.

Native gold (essentially gold-silver alloy), which is typically <15% silver, was the main phase measured. Gold grains were small, mostly unliberated, hosted by pyrite, and finer than 15  $\mu\text{m}$ . Only a few liberated particles of gold were detected in the samples.

Flotation concentrates were roasted at three levels of oxidation. When dead roasted (>99.5%  $\text{S}_2$ - and 97% organic carbon burn), excellent (>95%) CIL leach recoveries were achieved from the calcines.

### 12.1.6 EFFECT OF DILUTION MATERIAL ON FLOTATION

Dilution samples from two underground intervals were received and tested for comminution characteristics and then blended (3 parts ore: 1 part dilution rock) with two of the ore type variability composites to determine the effect of waste on flotation performance.

The dilution test work indicated that at blending ratios of up to 25%, the waste material did not adversely affect flotation response and that the resulting concentrate remained suitable for downstream roasting operations.

### **12.1.7 CONCLUSIONS**

The Syama Underground Mine ore is very similar to the open pit ore and can be treated effectively with the existing Syama flowsheet.

The underground ore has the same comminution characteristics as the fresh open pit ore. The ore is hard (Bond ball mill work index of 21.6 kWh/t) and competent (DWi ~8.5 kW/m<sup>3</sup>). These observations were very consistent on all samples tested, suggesting a uniformity in the host rock characteristics.

The underground ore continues to respond well to flotation, as both the gravity recoverable gold and gold associated with pyrite respond well to the simple rougher flotation conditions applied. The flotation recovery of the ore appears to be dependent on feed grade of the ore for coarser grinds (106 µm). This has geometallurgical (cut-off) ramifications. This said, the correlation seems to weaken when the primary grind drops to a P<sub>80</sub> of 75 µm. The main objective of the grinding circuit will be to produce a product with a P<sub>80</sub> of 75 µm.

If the flotation concentrate is calcined well (with good >95% organic carbon burns) then excellent (>95%) gold recovery can be achieved by CIL treatment of the calcine. As expected, as the level of the carbon and sulphur burn decreases the gold recovery in the calcine leach reduces considerably.

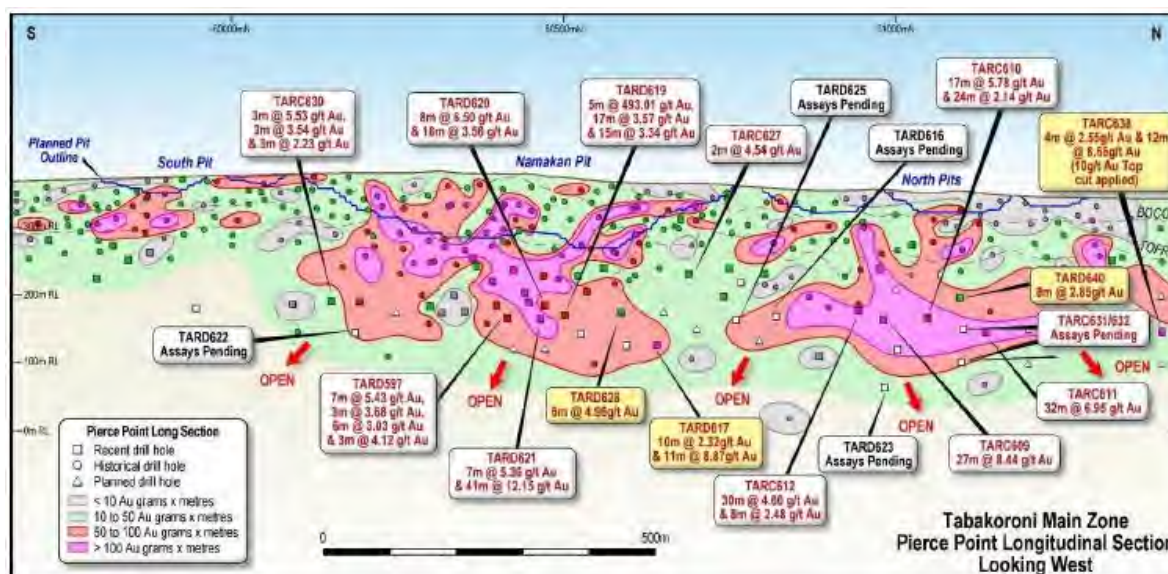
The underground dilution rock tested is softer than the ore, and other than diluting the head grade of the sample (mill feed grade) does not seem to have any deleterious effects on flotation performance of the ore.

## **12.2 TABAKORONI METALLURGICAL TESTWORK**

The Tabakoroni metallurgical testwork information has been summarised from Resolute (2019).

### **12.2.1 SELECTION OF METALLURGICAL SAMPLES**

The programme consisted of six samples from the Tabakoroni Underground resource at various locations to represent variability within the orebody. A master composite was formed by combining equal quantities of the samples. Initially three samples (TARD614, TARD619 and TARD597, Figure 12.2) were delivered to ALS in Malaga, Perth, Western Australia.

**Figure 12.2 Tabakoroni metallurgical sample locations**

### 12.2.2 HEAD CHARACTERISATION

Gold averaged 3.85 g/t over the three samples with organic carbon averaging 1.3%. Sulphide sulphur grade averaged 3.30%, while the average arsenic grade of about 4,000 ppm was quite high, indicating the presence of arsenopyrite. Arsenopyrite is considered as a deleterious material in roasting operations due to the generation of insoluble ferric arsenate which tends to form on the gold particles and inhibit cyanidation.

### 12.2.3 PREG-ROBBING INDEX

The preg-robbing index test provides an indication of how aggressive the naturally occurring Corg (organic carbon) is at absorbing gold from solution. The sample is contacted with a gold bearing solution with known concentration. Solution samples are withdrawn after time increments and assayed to determine the gold concentration remaining. The results of the test are displayed in Table 12.1. The results suggest that the Corg present in the Tabakoroni Underground samples will exhibit aggressive preg-robbing behaviour, as evident in TARD619 particularly where 92% of the gold in solution had been removed from solution in 1 hour.

**Table 12.1 Preg-robbing test results for Tabakoroni**

Elapsed Time (hrs)	Cumulative Gold Preg-Robbed %		
	TARD614	TARD619	TARD597
1	63.9	92.3	88.4
2	73.5	97.2	94.2
4	83.5	98.9	97.1
8	92.4	99.6	98.8
24	98.8	99.9	99.7

### 12.2.4 DIRECT LEACHING

Direct leaching efficiency of Tabakoroni underground ore was poor, with only 16% gold extraction by cyanidation over a 48-hour period. It is apparent that treatment of the Tabakoroni ore cannot be achieved through the oxidation circuit.

Size by size analysis of the three leach residues concluded that >50% of the gold remaining in the tailings is <20 µm with most of the gold being concentrated into the finer size fractions. Even at the average P<sub>80</sub> 75 µm, approximately 90% of the gold remains unleached.

### **12.2.5 FLOTATION**

The samples were subjected to the same flotation conditions present in the process plant in terms of solids concentration, reagent dosage and aeration rate. A float time of 14 minutes was used. High mass pull of 18% recovered 91.5% of the gold and 95.2% of the sulphide sulphur. The recovery of organic carbon to the concentrate fraction appears to be independent of grade.

The relatively low mass pull of 11.4% is more in line with site operations which typically operate with mass pulls of between 4% to 11%. A high gold recovery of 95.4% of the gold and 95.2% of the sulphide sulphur occurred from this sample. The combined results suggest that the target 22% sulphide sulphur grade in the concentrate to satisfy the roaster thermal balance can be achieved at with >85% recovery. The Tabakoroni underground ore is expected to respond similarly to the other Syama sulphide ores.

### **12.2.6 FLOAT TAILS LEACHING**

Tailings from the flotation tests were subject to direct cyanidation to determine gold extraction. The results suggest that about 40% of the gold occurring in the float tails can be extracted using cyanidation. Leaching is relatively fast, with most extraction being completed within 4 hours. The exception is TARD619, where final extraction was 30%. This is consistent with the design basis of P85, where average gold extraction from Syama UG ore flotation tails was about 40%.

Size by size particle analysis on the float tails tailings fraction suggest that the remaining gold (up to 56%) is encapsulated in the fine fractions (<20 µm).

### **12.2.7 MINERALOGICAL ANALYSIS**

In the bulk mineralogical examination (gravity concentrate fraction) pyrite makes up:

- 55.8% in TARD614
- 29.2% in TARD619
- 25.6% in TARD597.

Pyrite has a P<sub>80</sub> of approximately 90 µm in all three composites. Pyrite is the most liberated in TARD614 (79.9% as 'well liberated') and the least liberated in TARD610 (61.7% as 'well liberated'). The less liberated portion of the pyrite is mainly associated with silicates (especially muscovite) in each composite.

Arsenopyrite makes up:

- 10.6% in TARD614
- 9.9% in TARD619
- 6.9% in TARD597.

The gravity tail fraction of TARD614 is mainly made up of quartz (78%), albite (6%) and micas (4%), as well as pyrite (7%). The gravity tail of TARD619 is mainly made up of quartz (46%), albite (23%), ankerite-dolomite (16%), micas (8%), and pyrite (5%). The gravity tail of TARD597 is mainly made up

of quartz (39%), chlorite (24%), calcite (11%), amphibole (8%), micas (5%) and ankerite-dolomite (4%), as well as a small amount of pyrite (2%).

## 13 MINERAL RESOURCE ESTIMATES

The Syama and Tabakoroni Mineral Resources have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

### 13.1 MALI GOLD OPERATIONS

The Mineral Resource is subdivided up into area/type in Table 13.1, which includes the Syama Underground, satellites, stockpiles, old tailings and Tabakoroni as at 31 December 2018. The Tabakoroni Mineral Resource was subsequently updated and is set out in Section 13.12 as at 31 March 2019. The Mineral Resources have been reported above a cut-off of 1.5 g/t gold for the Syama underground and the satellite deposits, and above 1.0 g/t gold for the Tabakoroni open pit. The Mineral Resources have been depleted for the current pits and underground development. The Syama Mineral Resources have been classified as Measured, Indicated and Inferred Resources, as defined by JORC (2012). Totals may not sum due to rounding.

**Table 13.1 Mali Mineral Resources as at 31 December 2018**

	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz
	kt		koz	kt		koz	kt		koz	kt		koz
Syama underground	8,740	3.3	930	44,390	3.2	4,580	5,650	2.8	500	58,780	3.2	6010
Syama stockpiles	100	2.5	10	2,270	1.3	100	0	0.0	0	2,360	1.4	100
<b>Sub-total (sulphides)</b>	<b>8,840</b>	<b>3.3</b>	<b>930</b>	<b>46,660</b>	<b>3.1</b>	<b>4,680</b>	<b>5,650</b>	<b>2.8</b>	<b>500</b>	<b>61,140</b>	<b>3.1</b>	<b>6,110</b>
Satellite deposits	0	0.0	0	6,840	2.1	460	1,450	2.2	100	8,290	2.1	560
Stockpiles (satellite deposits)	970	1.4	40	1,630	1.1	60	50	1.1	0	2,650	1.2	100
<b>Sub-total satellite deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>8,470</b>	<b>1.9</b>	<b>520</b>	<b>1,500</b>	<b>2.1</b>	<b>100</b>	<b>10,940</b>	<b>1.9</b>	<b>660</b>
Tabakoroni Open pit	2,800	2.9	260	3,770	2.2	280	3,180	2.0	200	9,740	2.4	740
Tabakoroni Stockpiles	320	2.1	20	0	0.0	0	0	0.0	0	320	2.1	20
<b>Sub-total Tabakoroni</b>	<b>3,120</b>	<b>2.8</b>	<b>280</b>	<b>3,770</b>	<b>2.2</b>	<b>280</b>	<b>3,180</b>	<b>2.0</b>	<b>200</b>	<b>10,060</b>	<b>2.3</b>	<b>760</b>
Historical tailings	0	0.0	0	0	0.0	0	17,000	0.7	360	17,000	0.7	360
<b>Mali Total</b>	<b>12,920</b>	<b>3.0</b>	<b>1,250</b>	<b>58,900</b>	<b>2.9</b>	<b>5,480</b>	<b>27,320</b>	<b>1.3</b>	<b>1,170</b>	<b>99,140</b>	<b>2.5</b>	<b>7,900</b>

Notes:

1. Totals may not sum due to rounding.
2. Syama underground and satellite deposit Resources quoted above 1.5 g/t gold cut off.
3. Resources for the Tabakoroni Open Pit are reported above a gold cut off of 1.0 g/t.
4. Resources are stated inclusive of Ore Reserves.

## 13.2 SYAMA MINERAL RESOURCE ESTIMATE

### 13.2.1 OVERVIEW

Resolute has declared a Mineral Resource estimate for Syama of 61.2 Mt at 3.1 g/t for 6,110 koz of gold as at 31 December 2018. The Syama Mineral Resources comprise Syama Underground and stockpiles.

### 13.2.2 MINERAL RESOURCE TABULATION

The Mineral Resources for Syama, as at 31 December 2018, are presented in Table 13.2 above a gold cut-off grade of 1.5 g/t.

**Table 13.2 Syama Mineral Resources reported at 31 December 2018**

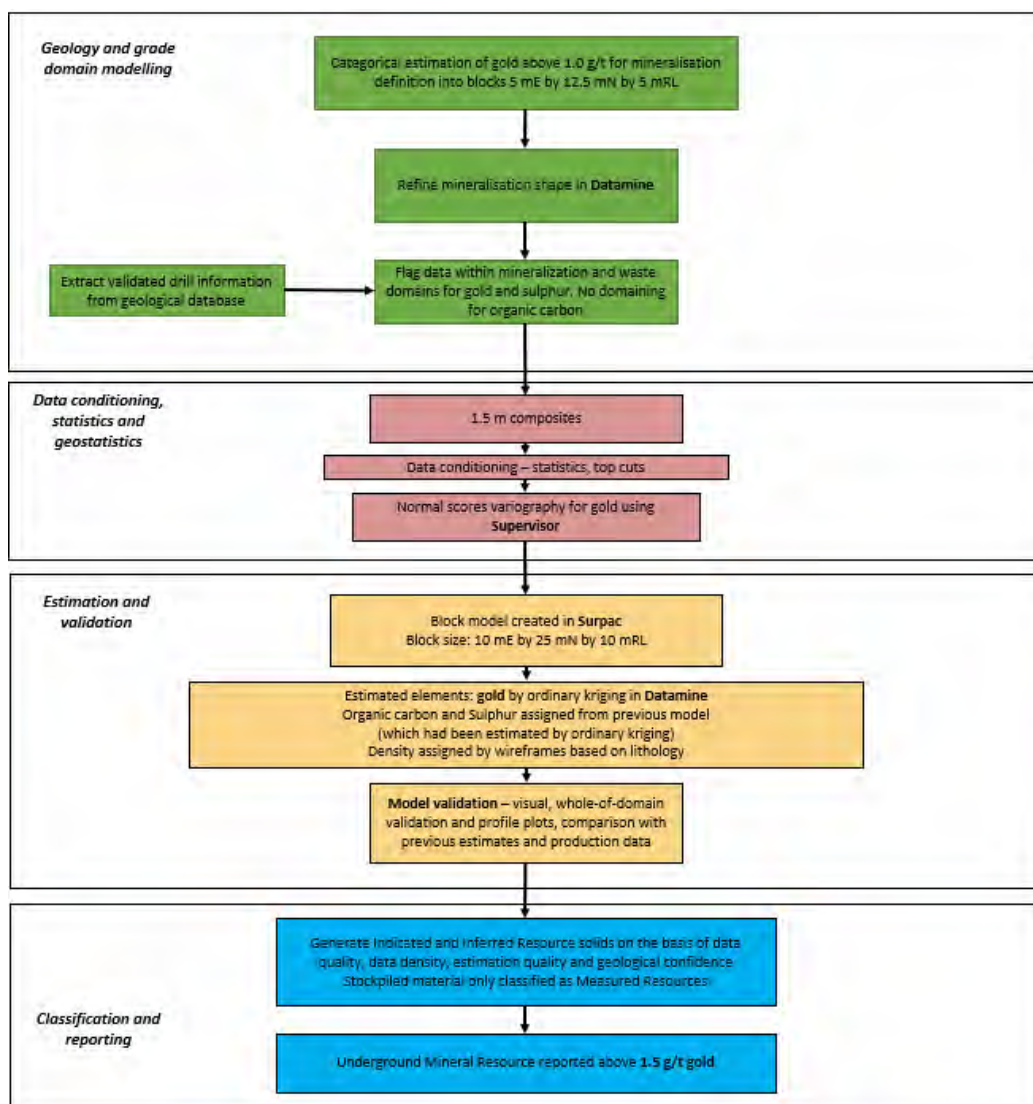
Resource classification	Tonnes (kt)	Gold grade (g/t)	Contained gold (koz)
Measured	8,840	3.3	930
Indicated	46,660	3.1	4,680
Inferred	5,650	2.8	500
<b>Total</b>	<b>61,140</b>	<b>3.1</b>	<b>6,110</b>

Note: Totals may not sum due to rounding. Resources are stated inclusive of Reserves.

### 13.2.3 MINERAL RESOURCE WORKFLOW

A simplified workflow of the Syama Mineral Resources process is presented in Figure 13.1.

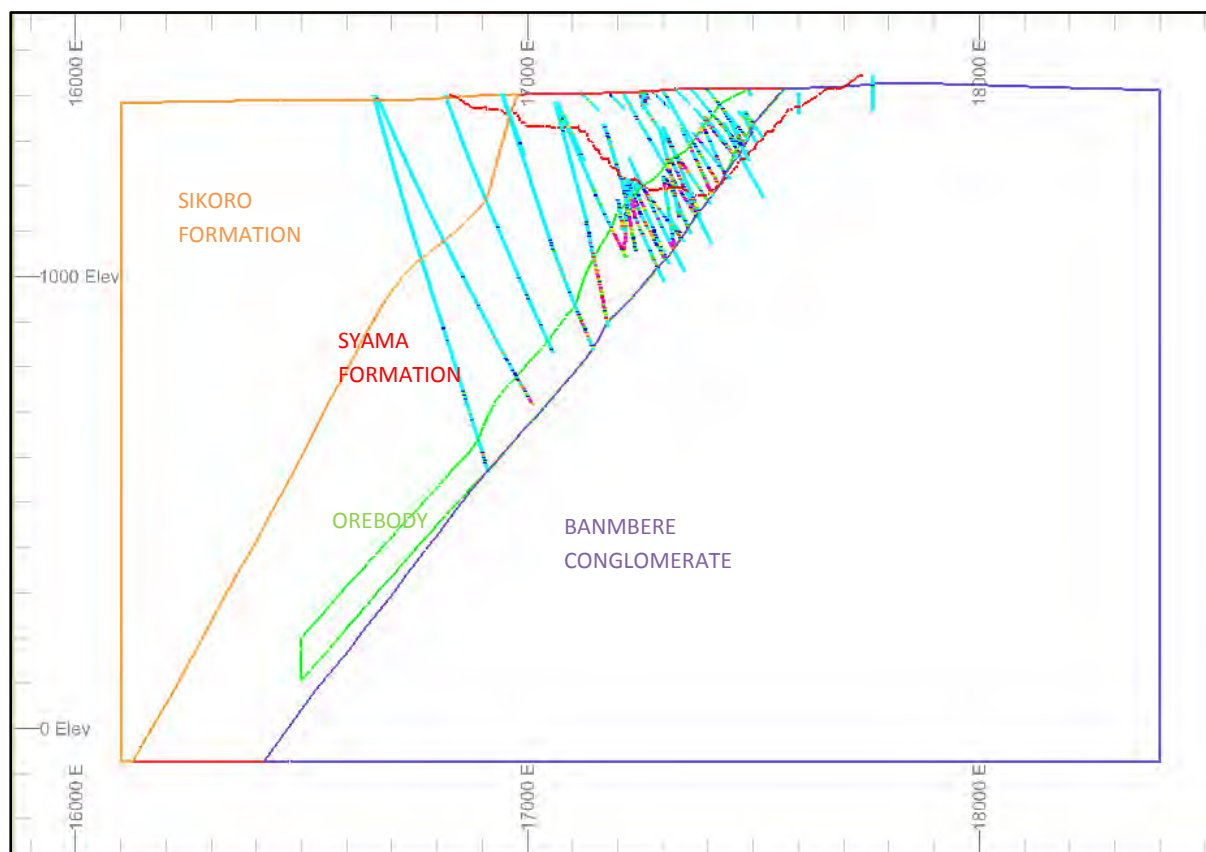


**Figure 13.1 Mineral Resource workflow**

### 13.3 GEOLOGICAL MODEL AND MINERALISATION DOMAINS

Geological understanding of the Syama deposit is well defined, informed by geological observation from the open pit as well as from drilling data. Syama is located in the northeast striking and west-dipping Syama formation, which is flanked by the Sikoro Formation to the west and the Banmbere Conglomerate of the N'golopene Group to the east. The principal structural feature in the open pit is the Syama-Bananso Fault Zone (SBFZ) which is exposed in the pit for over 200 metres and which separates the Syama Formation and the N'golopene Group conglomerates.

Three lithological wireframes, representing the Sikoro Formation, Syama Formation and the Banmbere Conglomerate, were created (). The Sikoro and the Banmbere formation are known to be barren of mineralisation.

**Figure 13.2 Geological and mineralisation wireframes supplied by Resolute (source: Optiro, 2017)**

The mineralised domain was developed using a categorical indicator method to identify regions of the Syama Formation that were more likely to host elevated gold grades. Gold grade thresholds that best discriminated the two populations were identified by studying the overall grade distribution. Based on all the composites, it was determined that the natural mineralisation cut-off grade was 1.0 ppm gold. The composites were coded with a categorical indicator (IND) as shown:

$$IND = \begin{cases} 1 & \text{if } Au \text{ grade} \geq 1.0 \\ 0 & \text{Otherwise} \end{cases}$$

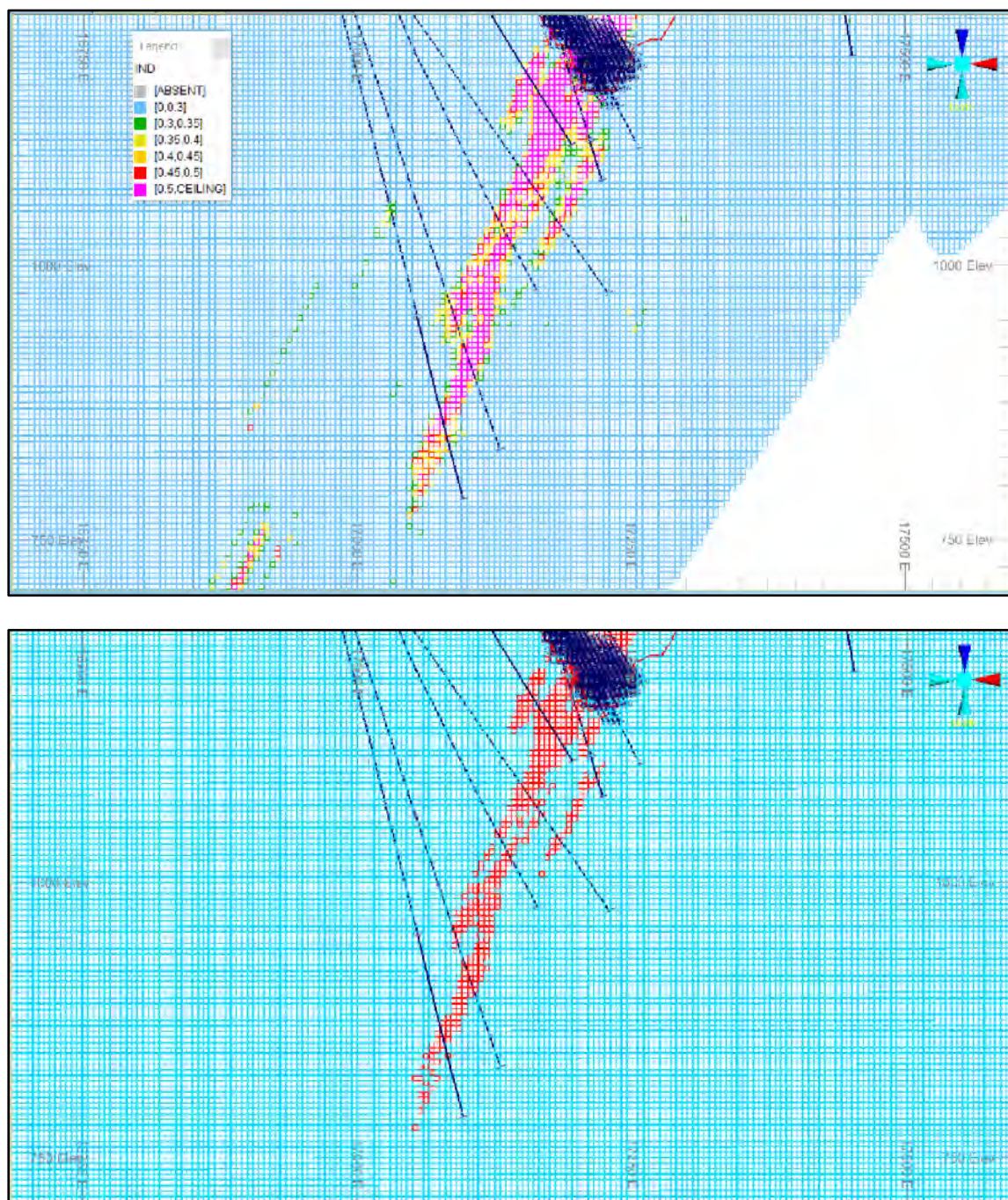
Variograms were generated for the indicator, and the orientation of the directions was guided by the orientation of the Syama Formation. The probability (IND) that the block grade was above or below the 1.0 ppm Au threshold was estimated using Ordinary Kriging into a block size of 5 mE by 12.5 mN by 5 mRL. The estimation had a search ellipse set to the ranges of the variograms. A maximum of five composites from a drillhole were permitted to participate in each block probability estimate. Multiple search passes were completed. The primary search required between 10 and 24 composites to inform a block estimate. The secondary search doubled the search radii and the minimum number of samples was reduced to eight. The tertiary search decreased the minimum required composites to six and tripled the search radii.

After visual and statistical examination of the drillhole data against the probability estimates, a probability of 0.45 (45%) was selected to discriminate mineralised from background gold grade conditions. Further criteria were required to reduce extrapolation beyond the sample data limits.



This led to the compilation of a limit wireframe based on a block kriging variance of less than 0.5. Blocks outside this limit were discarded. The remaining blocks and drillhole composites were assigned to either waste (0) or mineralised (1) domains (Figure 13.3).

**Figure 13.3** Domaining created using the Categorical Indicator approach; West-East cross section along 23,050 mN. Blocks coloured on probability of mineralisation (top image). Bottom image represents the final domaining (red – mineralisation and blue – waste) (source: Optiro, 2017)



### 13.4 DATA CONDITIONING

Data for the Mineral Resource comprises diamond and in-pit grade control RC drilling. Using Datamine software, the data was flagged inside the three-dimensional lithological wireframes. A composite length of 1.5 metres was selected as appropriate as this is the dominant length of the grade control drilling. The lithological domain data was assessed using traditional statistics,

including histogram analysis, log probability and mean/variance plots. The downhole compositing process has had minimal impact on the mean grade or the coefficient of variation (CV). The composites were then tagged as either mineralised or waste based on the CIK estimation results (Table 13.3).

**Table 13.3 Composite statistics**

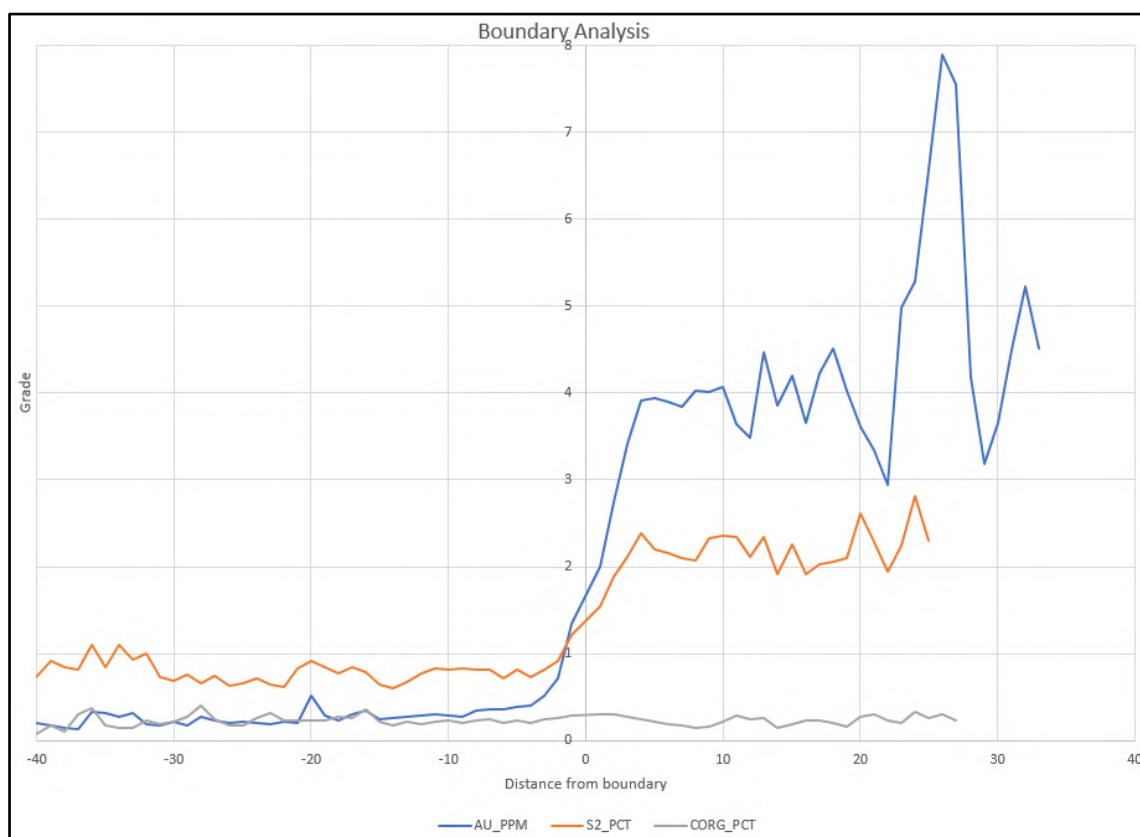
Domain	Mineralised	Waste
Samples	54,244	112,620
Minimum	0.00	0.00
Maximum	760.00	144.69
Mean	3.75	0.33
Standard deviation	7.00	1.21
CV	1.87	3.71
Variance	49.06	1.47

### 13.4.1 BOUNDARY ANALYSIS

As well as gold, the resource model included estimates for sulphide sulphur (S2) and organic carbon (Corg) which assist with metallurgical characterisation.

A boundary analysis was carried out on the composites using the gold mineralisation domain to determine if it was material to sulphur and carbon estimation. Figure 13.4 shows the analysis results which indicate that both gold and sulphide sulphur grade contrasts are present at the domain boundary. There is, however, no organic carbon grade contrast across the boundary. These results support the utilisation of the mineralisation domain as a hard grade boundary for gold and sulphide sulphur, but a soft boundary for organic carbon during grade estimation.

**Figure 13.4** Boundary analysis of gold, sulphur and organic carbon using the gold domain (source: Optiro, 2017)



#### 13.4.2 DRILL TYPE COMPARISON

Preliminary analysis of the exploration drilling grade data identified a gradual decline in average gold grade with increasing depth below surface. There was consequently a concern that the inclusion of the grade control data might bias the block grade estimates below the pit within the range of influence of this data. To test this possibility, a shape was put around the pit and all the samples were selected within this perimeter; these samples were then compared in 10 metre slices by elevation.

Table 13.4 shows the grade control (GC average gold, sulphide sulphur (S2) and organic carbon (CORG) grade of that 10 metre elevation with the number of composites and the exploration (EXP) average gold, S2 and CORG grade, as well as the difference. In general, the EXP samples tend to be lower grade for all three elements. This could be a function of the small number (around 5% of the GC samples). The average grades below the pit (below 1100 mRL show there is no trend in the EXP grades.

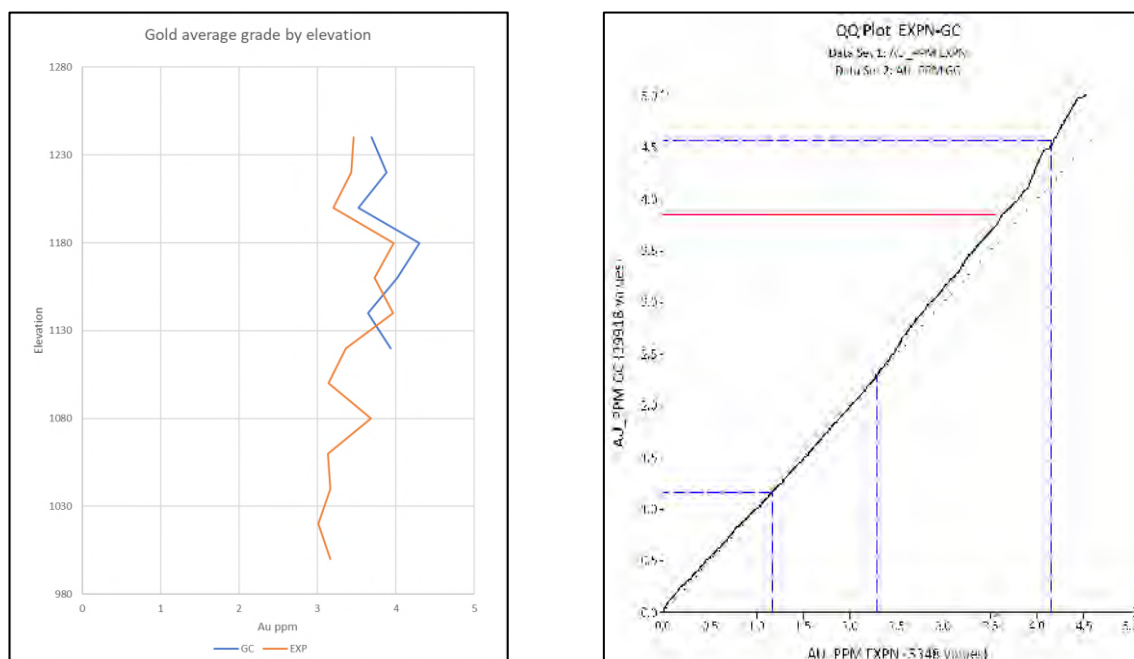


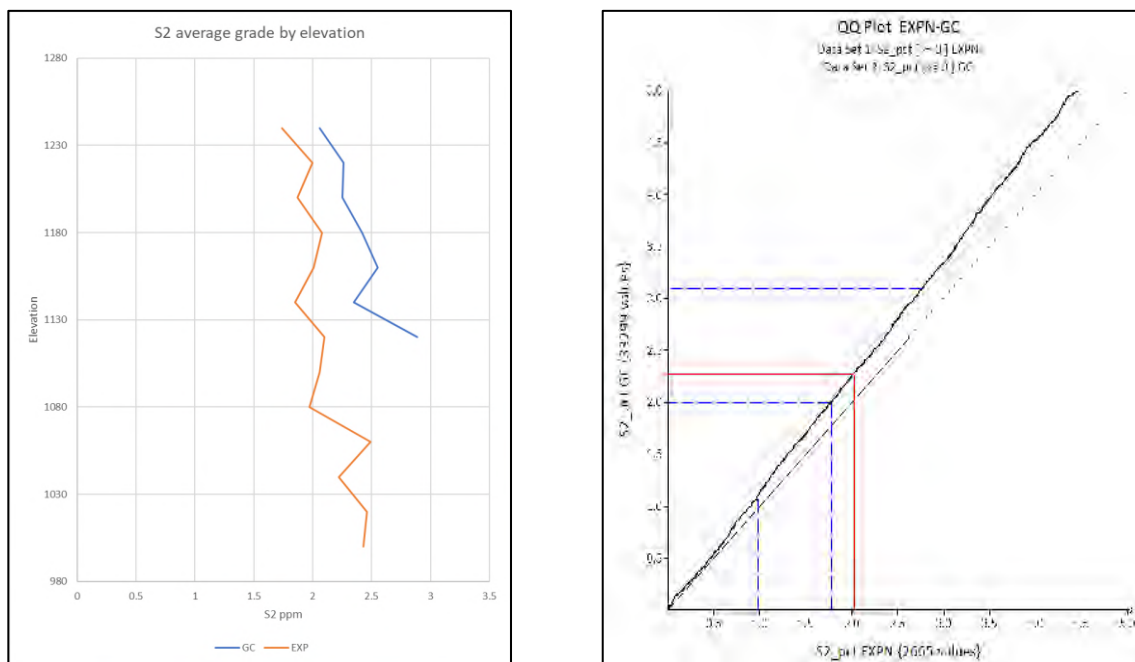
**Table 13.4 Grade control (GC) average gold, S2 and Corg grades versus the exploration (EXP) grades for 10 m elevations**

RL to	RL from	Au ppm					S2					Corg				
		GC	No. comps	EXP	No. comps	Diff	GC	No. comps	EXP	No. comps	Diff	GC	No. comps	EXP	No. comps	Diff
1240	1220	3.69	6228	3.46	390	-6%	2.06	6045	1.74	95	-16%	0.27	7268	0.39	137	44%
1220	1200	3.88	8107	3.43	328	-12%	2.26	8101	2	130	-12%	0.28	16112	0.27	205	-4%
1200	1180	3.52	10141	3.2	502	-9%	2.25	10128	1.87	244	-17%	0.29	16619	0.24	211	-17%
1180	1160	4.3	8498	3.97	707	-8%	2.42	6389	2.08	363	-14%	0.34	9039	0.33	185	-3%
1160	1140	4.02	5356	3.73	781	-7%	2.55	2147	2.01	301	-21%	0.31	2542	0.28	111	-10%
1140	1120	3.64	1543	3.96	825	9%	2.35	473	1.85	288	-21%	0.31	497	0.28	20	-10%
1120	1100	3.93	45	3.36	1759	-15%	2.89	16	2.1	1230	-27%	0.16	12			
1100	1080			3.14	991				2.06	643						
1080	1060			3.68	964				1.97	602						
1060	1040			3.13	493				2.49	200						
1040	1020			3.16	372				2.22	140						
1020	1000			3.01	333				2.46	111						
1000	980			3.16	242				2.43	107						

Elevation plots of the GC versus EXP average gold grade shows that in general they have the same trends (Figure 13.5). The QQ plot indicated there is no bias in the data up to a grade of around 3 ppm. Above 3 ppm there is a slight bias in favour of the GC samples (Figure 13.5). The S2 elevation plot shows a similar trend in both data sets, with the GC data higher (Figure 13.6). The QQ plot indicated that up to around 0.75% S2 there is no bias; above this grade there is a positive proportional bias to the GC samples (Figure 13.6).

The results of the data comparison between the GC data and the EXP data show that there is a slight positive bias to the GC data; however, at the grades of interest to Syama, there is no reason for omitting the GC data from the underground estimation. There was no comparison done for COrg as there is no definition of mineralisation and therefore all the data is being used in the estimation.

**Figure 13.5 Gold elevation plot (left) and QQ plot (right)**

**Figure 13.6 S2 elevation plot (left) and QQ plot (right)**

### 13.4.3 TOP-CUTS

Top-cut analysis was completed using a combination of approaches, including examination of the grade distributions (histograms and probability plots), domain statistics and population disintegration. Although the statistical measures of outlier grade distribution were not extreme, the outliers were identified in only two holes. Therefore, it was decided to top-cut the data to reduce the effect of these two holes. The top-cuts selected, and the impact on the domain statistics for all composites are presented in Table 13.5.

**Table 13.5 Top-cut composite data summary**

Description	No. composites	Uncut			Top-cut used			Cut		% Diff	
		Max	Mean	CV	Value	Nos.	%ile	Mean	CV	Mean	CV
Au min	54,224	760.00	3.76	1.87	<b>100.00</b>	10	99.9%	3.72	1.35	-1%	-28%
Au waste	107,155	144.69	0.34	3.62	<b>1.50</b>	5,094	95.2%	0.25	1.60	-28%	-56%
S2 min	39,105	42.00	2.24	0.68	<b>15.00</b>	2	99.9%	2.24	0.67	0%	-2%
S2 waste	43,306	22.60	0.75	1.05	<b>8.00</b>	6	99.9%	0.75	1.03	0%	-2%
Corg	76,191	23.98	0.27	1.64	<b>10.00</b>	3	99.9%	0.27	1.61	0%	-2%

### 13.5 VARIOGRAPHY

Variography for the mineralised domain was completed in Supervisor v8.7 using normal-score transformed data with the variogram model back-transformed prior to use. Directions of maximum continuity were chosen after carefully reviewing the mineralisation orientation. The downhole variogram was used to define the nugget component of the modelled variogram and the spatial variograms were modelled using spherical structures. All back-transformed variogram models are presented in Table 13.6.

**Table 13.6 Back-transformed variogram model used for categorical and grade estimation**

Lode	Axis	Direction	Nugget	Structure 1		Structure 2		Structure 3	
				Sill	Range	Sill	Range	Sill	Range
Categorical	Along strike	00→010	0.12	0.45	10	0.33	60	0.10	215
	Down dip	-55→280			14		55		85
	Across plane	28→168			6		22		25
Au	Along strike	00→010	0.25	0.55	10	0.14	45	0.07	170
	Down dip	-55→280			7		26		125
	Across plane	24→172			5		17		30
S2	Along strike	00→010	0.08	0.52	6	0.18	30	0.22	85
	Down dip	-55→280			9		37		75
	Across plane	12→181			5		10		32
Corg	Along strike	00→000	0.22	0.55	13	0.13	31	0.11	110
	Down dip	-55→270			8		47		60
	Across plane	08→174			5		11		25

## 13.6 DENSITY

The initial bulk density work started with BHP in 1991 when determinations were made on 31 unbroken diamond drill core samples as part of the sulphide feasibility study. The procedure used by BHP involved drying the core, which was then weighed using a 4-kg precision laboratory balance. The core was lowered into a graduated cylinder and the volume loss measured. The bulk density was estimated using the following formula: Bulk density (unbroken core) = weight/volume.

Bulk Density (dry) estimates that were completed by Resolute have used a similar immersion method that was conducted by SOMISY personnel or at an external laboratory. A limited number of bulk density estimates were completed by the caliper method as part of a metallurgical testwork programme. The proportion of the data that is represented in each of the bulk density methods is presented in Table 13.7.

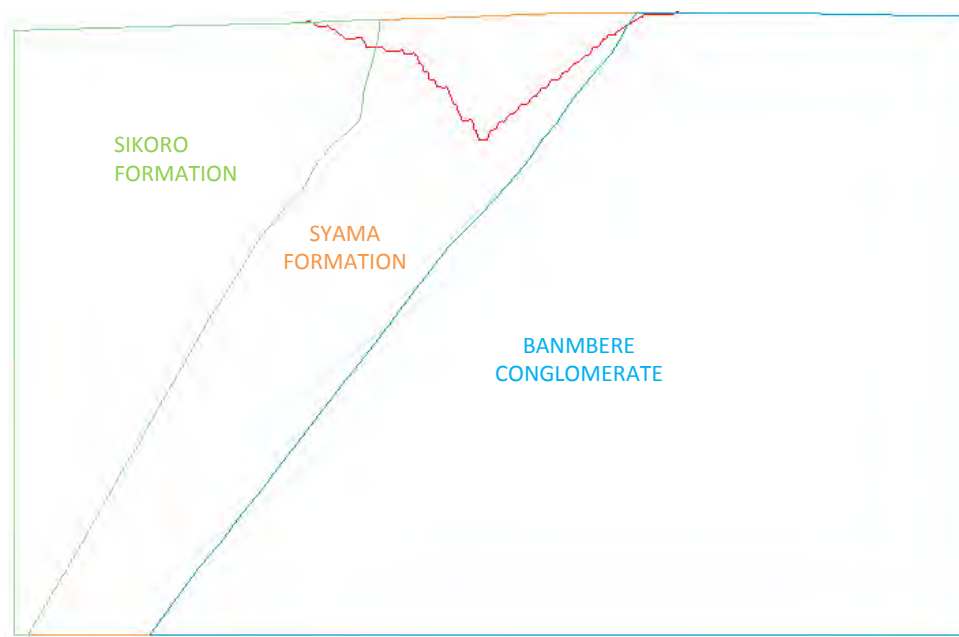
**Table 13.7 Relative percentages for each bulk density method**

Method	Percent
Historic BHP	2%
Caliper	1%
SGS immersion	8%
SOMISY immersion	89%

An analysis was carried out on 7,050 density measurements which are spread throughout the deposit within the fresh rock. The range in density was 2.52 to 3.98 g/cm<sup>3</sup> a review was done on mineralisation and waste as well as the three main lithologies being the Sikoro Formation, Syama Formation and the Banmbere Conglomerate. There was no difference in the mean density between the mineralised samples and the waste samples. The lithology showed there was a difference between the Syama Formation and the other two formations. It was decided that the density would be assigned per lithology.

The wireframes were used to assign bulk density average values to the Resource block model (Figure 13.7). No oxide material is included in the Syama Mineral Resource. Table 13.8 details the dry bulk density measured applied to the Resource.



**Figure 13.7 Density wireframes used at Syama****Table 13.8 Applied dry bulk density**

Domain	Dry density (t/m <sup>3</sup> )
Sikoro Formation	2.75
Syama Formation	2.82
Banmbere Conglomerate	2.75

### 13.7 BLOCK MODELLING

A block model was created in Surpac utilising the block model parameters presented in Table 13.9. The block model is not rotated and was created using the local mine grid. Comparisons between the domain wireframes and block model volumes confirms that these parameters appropriately capture the mineralisation.

**Table 13.9 Syama block model parameters**

	Northing (mN)	Easting (mE)	Elevation (mRL)
Minimum coordinates	22,456.25	16,600	475
Maximum coordinates	23,906.25	17,800	1,475
Parent block size Syama(m)	12.5	5	5
Parent block size Nafolo (m)	25	10	10
Minimum block Size (m)	12.5	5	5

Kriging Neighbourhood Analysis (KNA) was undertaken using Supervisor v8.7 to ensure that the optimal block size and estimation parameters (minimum and maximum numbers of informing samples, search radius and discretisation) were selected. Using the domain Variography and several block locations, comparative metrics (kriging efficiency, slope of regression and number of negative weights) were analysed. In summary, two block sizes were chosen, one for Syama where the drill spacing is closer and one for Nafolo where the average drill spacing is larger. A block size of 5 mE by 12.5 m N by 5 mN was selected for Syama and 10 mE by 25 mN by 10 mRL was selected for Nafolo.

This is the most appropriate block size to collectively best represent the mineralised volume and match the average drill spacing, while minimising conditional bias in the estimation.

Results also showed that a minimum of 10 samples and a maximum of 30 samples were appropriate. The KNA results also suggest that the estimate is not sensitive to the size of the search ellipse nor the levels of block discretisation and, consequently, the search ellipse was set to the ranges of the variogram for each domain while the discretisation was set to 5 E by 10 N by 5 RL.

### 13.8 GRADE ESTIMATION

The block model was exported into Datamine Studio RM for estimation using Ordinary Kriging (OK) with top-cut composites. The mineralised domain was treated as a hard boundary for estimation of gold and S2 while there was no domaining for the estimation of Corg.

Grade estimation was undertaken on a parent cell size scale, thus all sub-cells within the same parent cell and domain received the grade estimate. Three search passes, with increasing search distance and decreasing minimum sample numbers, were employed to inform the model (Table 13.10). Average grades were assigned to blocks which were not informed in the three passes (Table 13.11). This situation applied to less than 1% of the mineralised blocks.

**Table 13.10 Estimation parameters used in the Resource**

Analyte	Search pass 1	Search pass 2	Search pass 3
Categorical	215 m by 85 m by 25 m 10 to 24 samples	430 m by 170 m by 50 m 8 to 24 samples	645 m by 255 m by 75 m 6 to 24 samples
Au	170 m by 125 m by 30 m 10 to 30 samples	170 m by 125 m by 30 m 8 to 30 samples	510 m by 375 m by 90 m 6 to 30 samples
S2	85 m by 75 m by 35 m 10 to 30 samples	85 m by 75 m by 35 m 8 to 30 samples	255 m by 225 m by 105 m 6 to 30 samples
COrg	110 m by 60 m by 25 m 10 to 30 samples	110 m by 60 m by 25 m 8 to 30 samples	330 m by 180 m by 75 m 6 to 30 samples

**Table 13.11 Default grades assigned to un-estimated blocks**

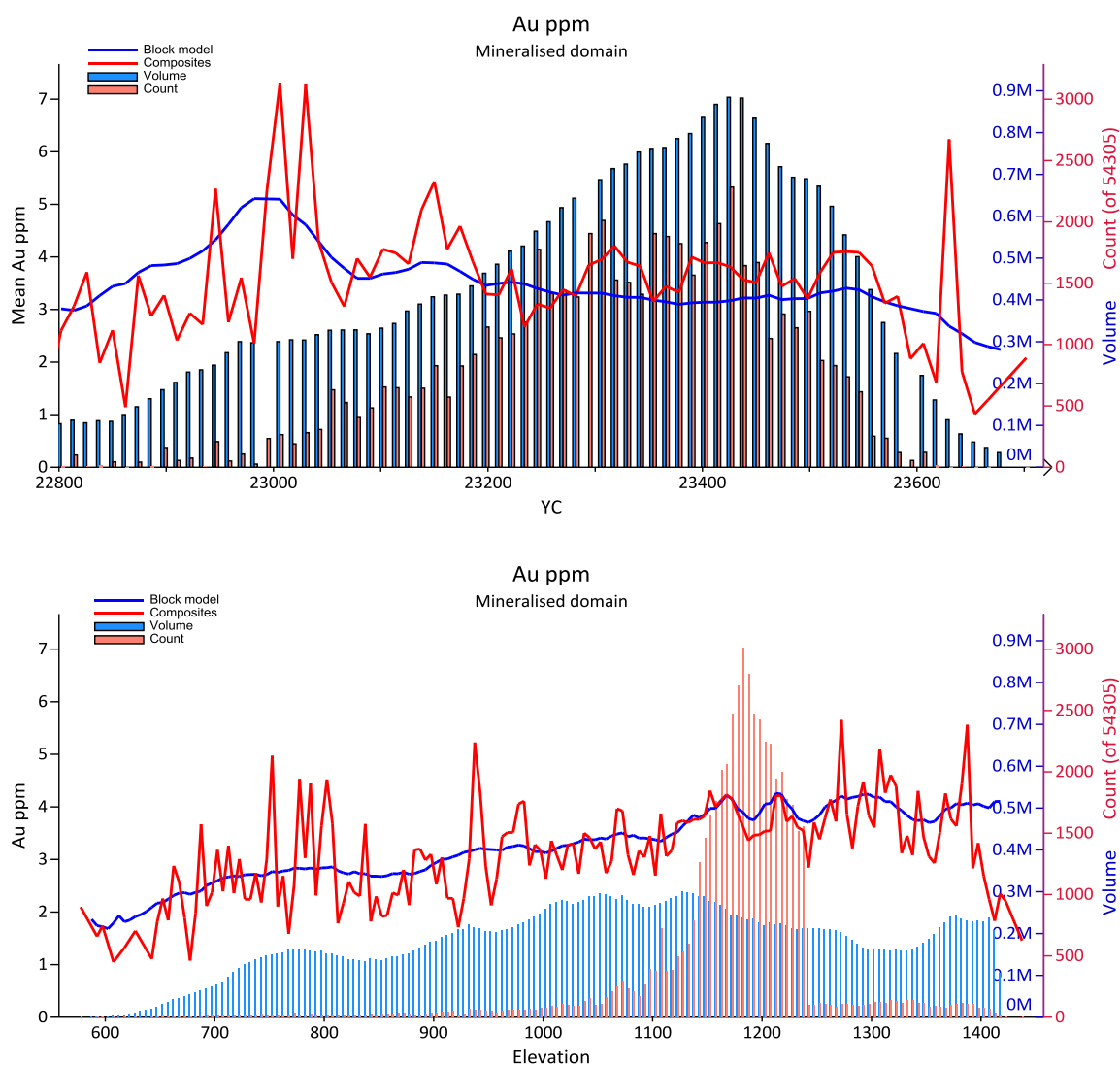
Type	Domain	Au	S2	CORG
Mineralisation	400	3.42	2.22	0.25
Waste	200	0.05	-	
	400	0.14	0.89	

### 13.9 MODEL VALIDATION

Initial validation consisted of a visual comparison of the input samples and the estimated block grade in cross section. Global domain comparison between the top-cut composites and the block model estimates were also completed (Table 13.12). Composites were also declustered for this comparison. Validation trend plots were generated for the mineralised domain along easting, northing and elevation dimensions (Figure 13.8).

**Table 13.12 Global composite and estimate mean grades**

Element	Mineralisation		
	Au_ppm	S2%	COrg%
Block model	3.45	2.22	0.25
Declustered composites	3.18	2.02	0.24
Difference – blocks model vs declustered composites	7.8%	9.0%	4.2%
Naïve Composites	3.73	2.24	0.27
Difference – blocks model vs composites	-7.5%	-0.9%	-7.4%

**Figure 13.8 Validation trend plots, northing (top) and elevation (bottom)**

## 13.10 CLASSIFICATION

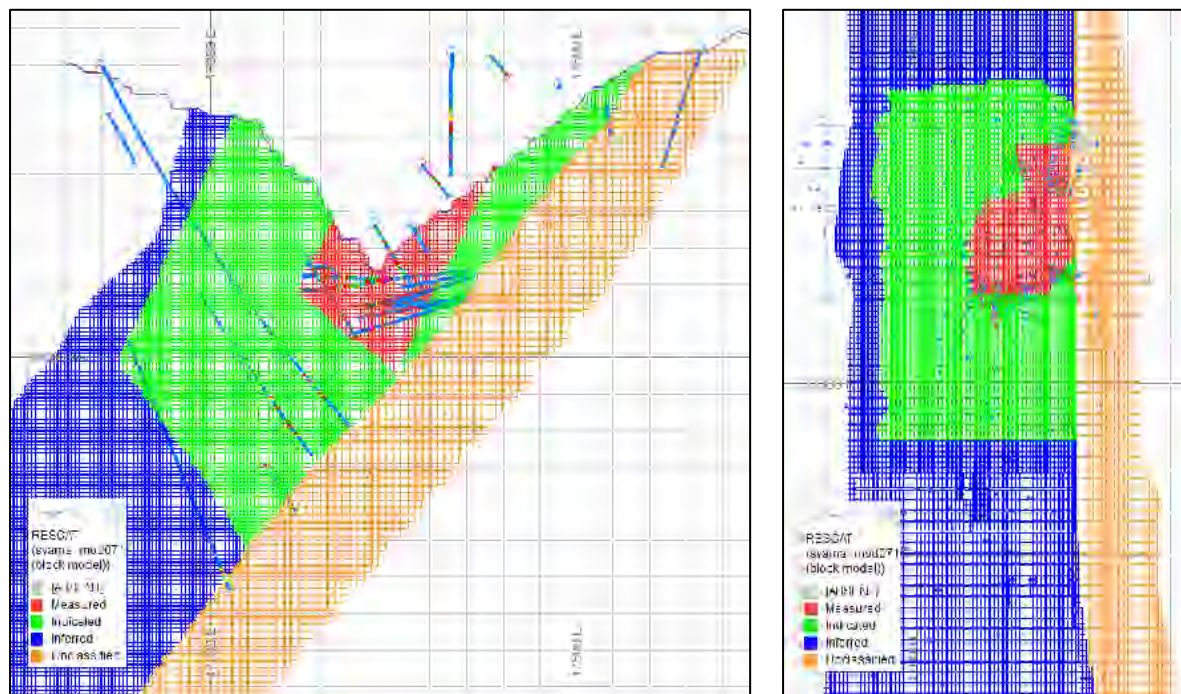
The 2018 Mineral Resource has been classified into Measured, Indicated and Inferred categories in accordance with the JORC Code (2012).

The default classification for the mineralisation is an Inferred Mineral Resource. Measured Mineral Resources are defined by a contiguous zone where the informing drilling is the underground holes which are generally 25 m spacing. The Indicated zones are where the nominal drillhole density is around 75 m by 75 m. The down dip base of the Indicated region has been moved up-dip where the informing drillholes at depth are wider spaced. The southern boundary for the Indicated has

terminated at 22,800 mN where the drilling to the south into the Nafolo (Figure 5.1) area is wider spaced.

An example of the applied resource classification is presented in Figure 13.9.

**Figure 13.9 Applied Mineral Resource classification (right – plan view and left – Section 23,225 mN)**



### 13.11 PREVIOUS MINERAL RESOURCE ESTIMATES

The previous Mineral Resource for Syama underground of 55.9 Mt at 3.2 g/t gold for 5.7 Moz of gold was declared by Resolute on 23 October 2017 (ASX). An estimate was completed following the discovery of Nafolo and was generated as per the current Resource. The 23 October 2017 Mineral Resource forms the basis of the current declared Ore Reserve presented in Section 15. The October 2017 Syama underground Mineral Resource was classified as Indicated and Inferred Resources only and is presented in Table 13.13. The 23 October 2017 Mineral Resource has been reported using a cut-off grade of 1.5 g/t gold.

**Table 13.13 Previous Mineral Resource as at 23 October 2017**

Resource classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (Moz)
Indicated	45.6	3.2	4.7
Inferred	10.3	3.0	1.0
<b>Total</b>	<b>55.9</b>	<b>3.2</b>	<b>5.7</b>

Note: Totals may not sum up due to rounding. Reported above a cut-off grade of 1.5g/t gold.

The October 2017 Mineral Resource was chosen, rather than the December 2018 Mineral Resource to generate the current Ore Reserve as the difference between the two resources was not considered material. The December 2018 Mineral Resource at the Syama Gold Mine was completed after the Ore Reserve estimation. Given the immaterial difference in the December 2018 Mineral Resource relative to the October 2017 Mineral Resource once depletion has been taken into account, there was no need to remodel the Ore Reserve. The December 2018 resource estimate has an

increase in tonnes of 2%, no change in the grade and an increase in contained gold of 3%. A further 32 holes were drilled into the deposit after the October 2017 estimate, which were focused on the underground north of 23,500 mN and at Nafolo, south of 22,800 mN.

## 13.12 TABAKORONI MINERAL RESOURCE ESTIMATE

### 13.12.1 OVERVIEW

The Tabakoroni Mineral Resource model was updated in March 2019 to include drilling up until February 2019.

### 13.12.2 MINERAL RESOURCE TABULATION

The Mineral Resource for Tabakoroni as at 31 March 2019, is presented in Table 13.14. Open Pit resources have been reported above a cut-off of 1.0 g/t gold and the Underground resources have been reported above a cut-off of 1.5 g/t gold. This tabulation excludes surface stockpiles.

**Table 13.14 Tabakoroni Mineral Resource declared at 31 March 2019**

Tabakoroni 31 March 2019 Mineral Resource				
Area	Category	Tonnes (000s)	Gold (g/t)	Ounces (000s)
Tabakoroni Open Cut	Measured	540	5.21	90
	Indicated	410	5.09	70
	Inferred	0	3.38	0
	<b>Sub total</b>	<b>950</b>	<b>5.15</b>	<b>160</b>
Tabakoroni Underground	Measured	130	4.68	20
	Indicated	1,680	5.18	280
	Inferred	3,360	5.09	550
	<b>Sub total</b>	<b>5,170</b>	<b>5.11</b>	<b>850</b>
<b>Measured total</b>		<b>670</b>	<b>5.11</b>	<b>110</b>
<b>Indicated total</b>		<b>2,090</b>	<b>5.17</b>	<b>350</b>
<b>Inferred total</b>		<b>3,360</b>	<b>5.08</b>	<b>550</b>
<b>Grand total</b>		<b>6,120</b>	<b>5.11</b>	<b>1,010</b>

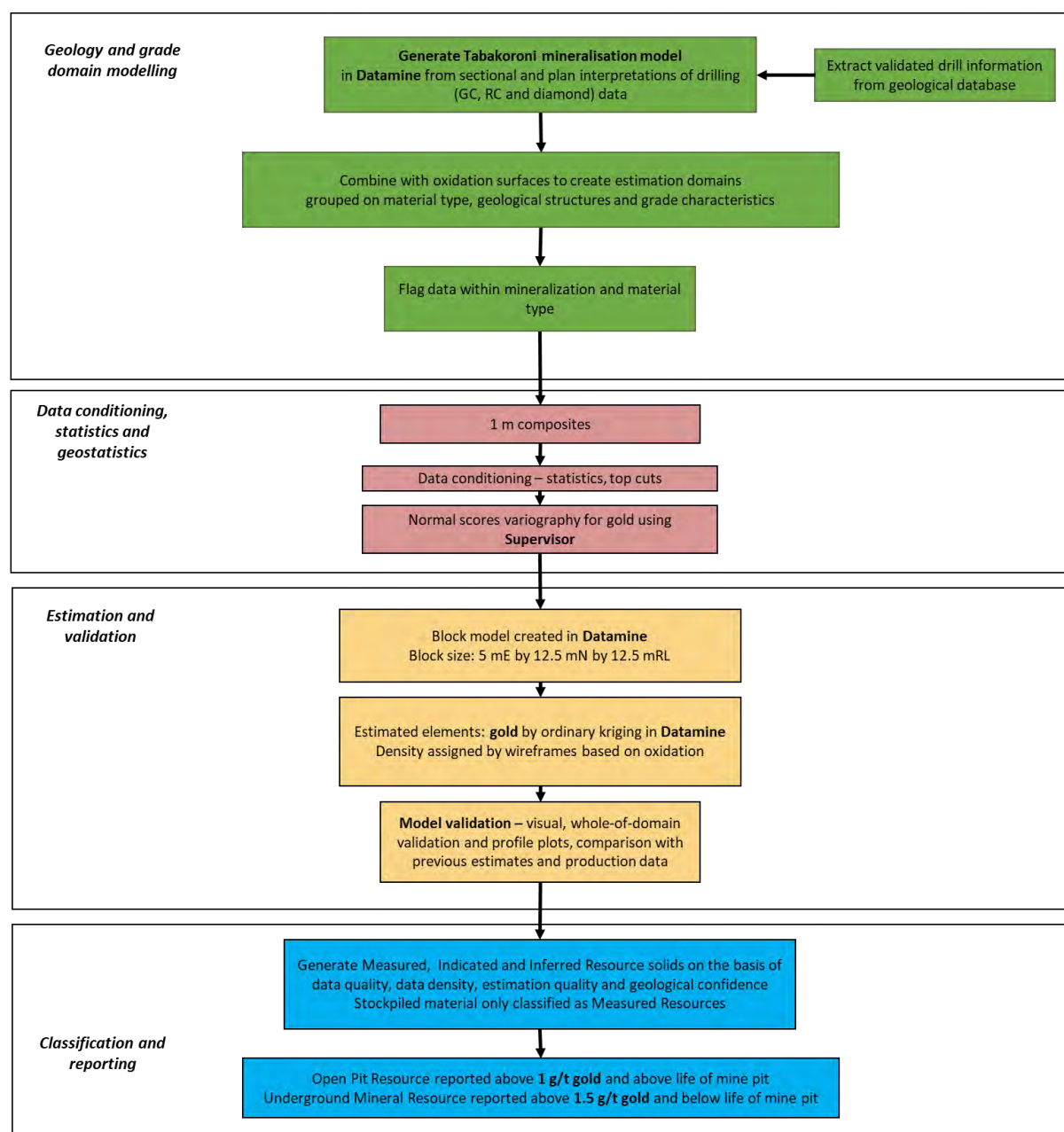
Notes:

1. Totals may not sum due to rounding.
2. Open cut material reported above current life of mine pit design and above a gold cut off of 1.0 g/t.
3. Underground material reported below the current life of mine pit design and above a gold cut-off of 1.5g/t.

### 13.12.4 MINERAL RESOURCE WORKFLOW

A simplified workflow of the Mineral Resources process is presented in 13.10.

**Figure 13.10 Tabakoroni Mineral Resource workflow**



### 13.12.5 GEOLOGICAL MODEL AND MINERALISATION DOMAINS

Mineralised wireframes developed at a nominal 1 g/t Au cut-off and a minimum downhole thickness of 2 m were used to flag resource composites and code domain proportions in the block model. The model was further divided into oxide, transitional and fresh rock domains using triangulated surfaces supplied by Resolute. The estimates are constrained by a topographical survey.

Four domains (Table 13.15 and Figure 13.11) have been identified at Tabakoroni. The main domain (Domain 100) is the Tabakoroni Main Shear Zone (TMSZ) which is a steeply-dipping shear mineralised over 1.8 km of strike. A second domain (Domain 200) was created for the parallel lodes adjacent to the TMSZ, and there are a number of shear-parallel smaller lodes, predominantly around

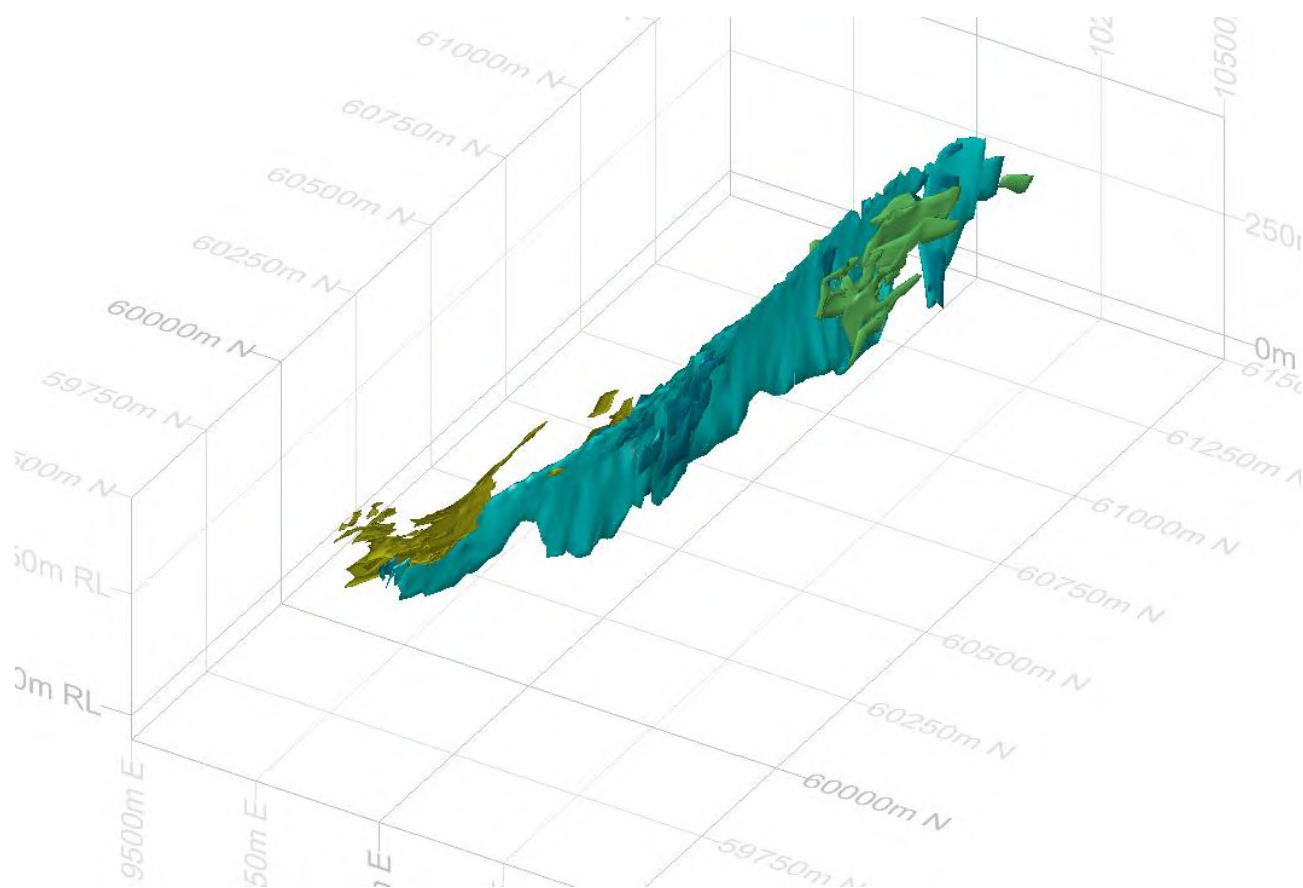


the central portion of the deposit. Another domain (Domain 300) was created for the shallow westerly-dipping lodes in the southern portion of the deposit. These lodes are dipping at 45 degrees and appear to overprint the TMSZ. The final domain created (Domain 400) was the steeply dipping mineralisation in the northeastern portion of the deposit, which strikes at 20 degrees to the northeast.

**Table 13.15** The wireframe names and corresponding domain numbers used to code the wireframes and block model

Name	Domain number
TMSZ	100
TMSZ 1	200
South lodes	300
NE lodes	400
Waste	0

**Figure 13.11** Tabakoroni mineralisation wireframes (domain 100 – aqua, domain 200 – blue, domain 300 – yellow and domain 400 – green) looking northwest



### 13.12.6 DATA CONDITIONING

Data for the Mineral Resource comprises RC diamond and in-pit grade control RC drilling. Using Datamine software, the data was flagged inside the three-dimensional lithological wireframes. A composite length of 1 metre was selected as appropriate as this is the dominant length of the diamond drilling. The mineralised domain data was assessed using traditional statistics, including histogram analysis, log probability and mean/variance plots. The downhole compositing process has had minimal impact on the mean grade or the coefficient of variation (CV). The composites were analysed by domain and are displayed in Table 13.16.

**Table 13.16 Tabakoroni domain composite statistics**

	Domain				
Statistic	100	200	300	400	0
No samples	7,201	2,765	3,726	966	136,379
Au ppm ave.	7.86	4.30	3.17	7.73	0.20
Variance	1,164.99	1,324.13	105.90	2,212.58	1.86
CV	4.34	8.46	3.25	6.09	6.77

**TOP-CUTS**

Top-cut analysis was completed using a combination of approaches, including examination of the grade distributions (histograms and probability plots), domain statistics and population disintegration. Although many of the statistical measures of outlier grade distribution were not extreme, all domains contained some outlier values. Therefore, it was decided to top-cut the data to reduce the local impact of these samples on the estimate. The top-cuts selected, and the impact on the domain statistics for all composites are presented in Table 13.17.

**Table 13.17 Tabakoroni top-cut composite data summary**

Domain	Top-cut	Percentile	Number cut	Mean			Standard deviation			CV		
				Un-cut	Cut	Diff%	Un-cut	Cut	Diff%	Un-cut	Cut	Diff%
0	5	99.80%	218	0.20	0.19	-8.1%	1.37	0.40	-71.1%	6.75	2.12	-68.6%
100	100	98.70%	92	7.86	6.09	-22.5%	34.14	14.21	-58.4%	4.34	2.33	-46.3%
200	70	99.70%	8	4.30	3.36	-22.0%	36.40	6.21	-82.9%	8.46	1.85	-78.1%
300	35	99.30%	25	3.17	2.83	-10.6%	10.29	4.09	-60.3%	3.25	1.45	-55.5%
400	65	99.00%	10	7.75	5.24	-32.3%	47.11	9.47	-79.9%	6.08	1.81	-70.3%

**13.12.7 VARIOGRAPHY**

Variography for the mineralised domain was completed in Supervisor v8.7 using normal-score transformed data with the variogram model back-transformed prior to use. Directions of maximum continuity were chosen after carefully reviewing the mineralisation orientation. The downhole variogram was used to define the nugget component of the modelled variogram and the spatial variograms were modelled using spherical structures. All back-transformed variogram models are presented in Table 13.18.

**Table 13.18 Back-transformed variogram model used for grade estimation at Tabakoroni**

Domain	Axis	Direction	Nugget	Structure 1		Structure 2		Structure 3	
				Sill	Range	Sill	Range	Sill	Range
100	Along strike	00→000	0.22	0.65	12	0.07	13	0.05	75
	Down dip	-90→000			9		36		50
	Across plane	00→000			7		10		10
200	Along strike	00→010	0.34	0.49	13	0.08	40	0.09	120
	Down dip	-90→000			10		40		70
	Across plane	-05→000			10		13		14
300	Along strike	00→000	0.40	0.24	35	0.22	50	0.13	175
	Down dip	-35→270			15		30		65
	Across plane	00→000			1.5		5		20
400	Along strike	00→020	0.22	0.57	10	0.12	60	0.10	95
	Down dip	-75→290			10		30		40
	Across plane	05→019			18		19		20
0	Along strike	00→000	0.22	0.65	12	0.07	13	0.05	75
	Down dip	-90→000			9		36		50
	Across plane	00→000			7		10		10



### 13.12.8 DENSITY

Dry Bulk Density estimates were compiled by Resolute and external laboratories using the immersion (Archimedes) method. A breakdown of bulk density measurements by time period and laboratory is in Table 13.19.

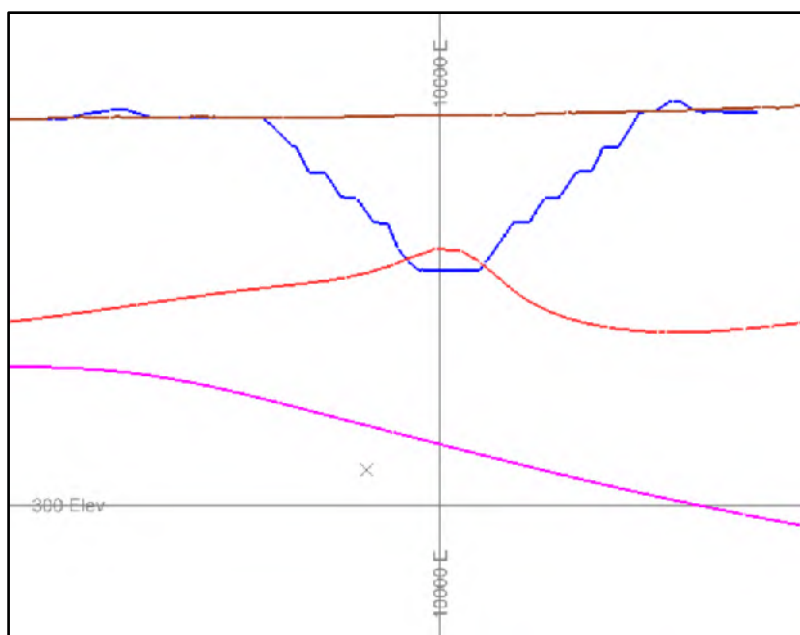
**Table 13.19** Relative percentages for each bulk density by time period and laboratory at Tabakoroni

Laboratory	Year	Percent
SOMIFY	2007	5%
SOMIFY	2008	8%
SOMIFY	2018	33%
Unknown	?	20%
ALS	2008	1%
Analabs	2006	34%

The 1,716 density measurements were taken throughout the deposit within material of different oxidation states. The range in density was 1.31 to 3.60 g/cm<sup>3</sup>. An analysis was carried out of density values within mineralisation and waste as well as the three weathering types. There was no difference in the mean density between the mineralised samples and the waste samples. The weathering analysis showed that there was a difference between the oxidation, transition and fresh samples, and it was decided that the density would be assigned per weathering state.

The weathering wireframes were used to assign density average values to the resource block model (Figure 13.12). Table 13.20 details the dry bulk densities applied to the Resource.

**Figure 13.12** Weathering wireframes used at Tabakoroni (pink – top of fresh, red – bottom of oxidation and brown – Topo). Section 60025 mN



**Table 13.20** Applied dry bulk density

Material Type	Dry density (t/m <sup>3</sup> )
Oxide	2.75
Transitional	2.82
Fresh	2.75

### 13.12.9 BLOCK MODELLING

A block model was created in Datamine software, utilising the block model parameters presented in Table 13.21. The block model is not rotated and was created using the local mine grid. Comparisons between the domain wireframes and block model cell volumes confirms that these parameters appropriately capture the volumes of the mineralisation.

**Table 13.21 Tabakoroni block model parameters**

	<b>Northing (mN)</b>	<b>Easting (mE)</b>	<b>Elevation (mRL)</b>
<b>Minimum coordinates</b>	59,400	9,300	-50
<b>Maximum coordinates</b>	61,737.5	10,800	450
<b>Parent block size (m)</b>	12.5	5	12.5
<b>Minimum block Size (m)</b>	3.125	1	3.125

Kriging Neighbourhood Analysis (KNA) was undertaken using Supervisor v8.7 to ensure that the optimal block size and estimation parameters (minimum and maximum numbers of informing samples, search radius and discretisation) were selected. Using the domain variography and several block locations, comparative metrics (kriging efficiency, slope of regression and number of negative weights) were analysed. A block size of 5 mE by 12.5 m N by 12.5 mRL was selected for Tabakoroni. This is the most appropriate block size to collectively best represent the mineralised volume and match the average drill spacing, while minimising conditional bias in the estimation.

Results showed that a minimum of 8 samples and a maximum of 30 samples were appropriate. The KNA results also suggest that the estimate is not sensitive to the size of the search ellipse nor the levels of block discretisation and, consequently, the search ellipse was set to the ranges of the variogram for each domain while the discretisation was set to 3 E by 5 N by 5 RL.

### 13.12.10 GRADE ESTIMATION

The block model was estimated using Ordinary Kriging (OK) with top-cut composites. For the TMSZ dynamic anisotropy was utilised to account for the undulating nature of the shear zone. The mineralised domain was treated as a hard boundary for estimation, while the weathering surfaces were treated as soft boundaries. Grade estimation was undertaken on a parent cell scale; thus all sub-cells within the same parent cell and domain received the grade estimate. Three search passes, with increasing search distance and decreasing minimum sample numbers, were employed to inform the model (Table 13.22). All of the blocks were filled within the first three passes.

**Table 13.22 Estimation parameters used in the Tabakoroni resource**

<b>Domain</b>	<b>Search pass 1</b>	<b>Search pass 2</b>	<b>Search pass 3</b>
100	75 m by 50 m by 10 m 8 to 30 samples	75 m by 50 m by 10 m 6 to 30 samples	225 m by 150 m by 30 m 4 to 30 samples
200	120 m by 70 m by 14 m 8 to 30 samples	120 m by 70 m by 14 m to 30 samples	360 m by 210 m by 42 m 4 to 30 samples
300	175 m by 65 m by 20 m 8 to 30 samples	175 m by 65 m by 20 m 6 to 30 samples	525 m by 195 m by 60 m 4 to 30 samples
400	95 m by 40 m by 20 m 8 to 30 samples	95 m by 40 m by 20 m 6 to 30 samples	285 m by 120 m by 60 m 4 to 30 samples
0	75 m by 50 m by 10 m 8 to 30 samples	75 m by 50 m by 10 m 6 to 30 samples	225 m by 150 m by 30 m 4 to 30 samples

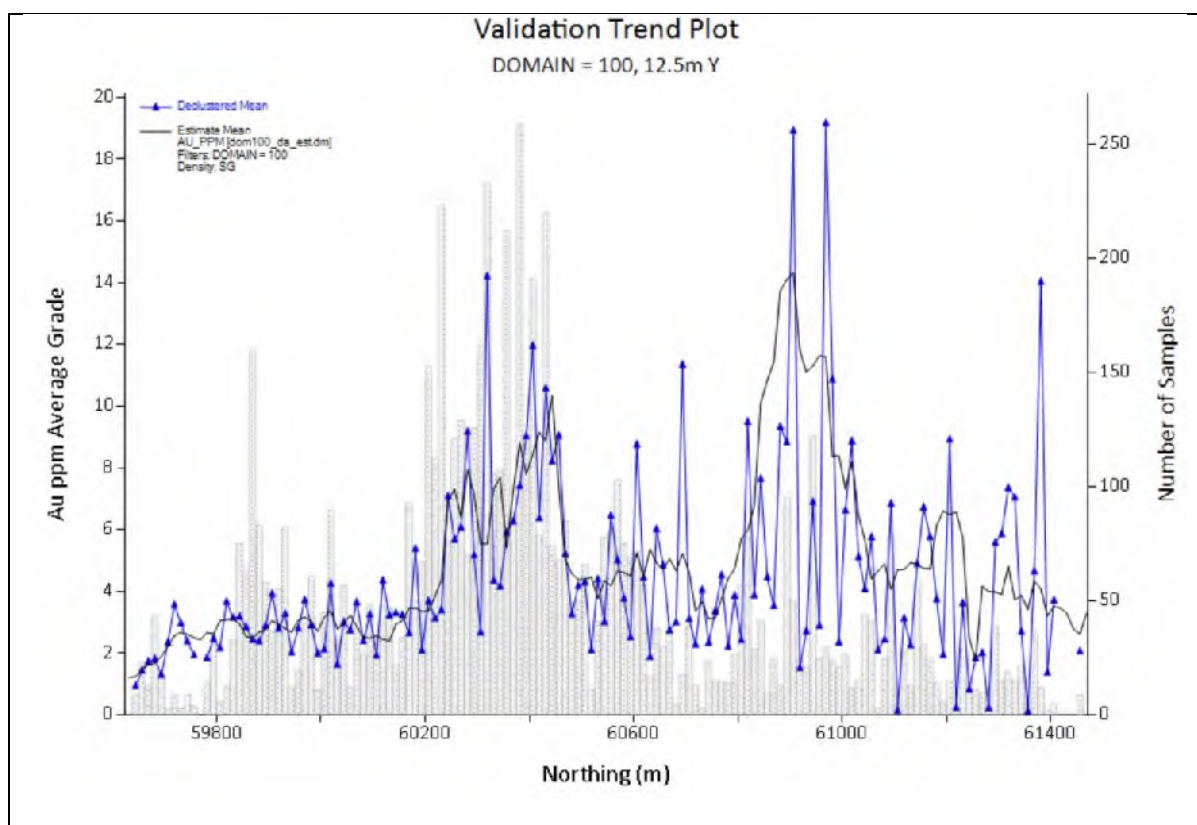
### 13.12.11 MODEL VALIDATION

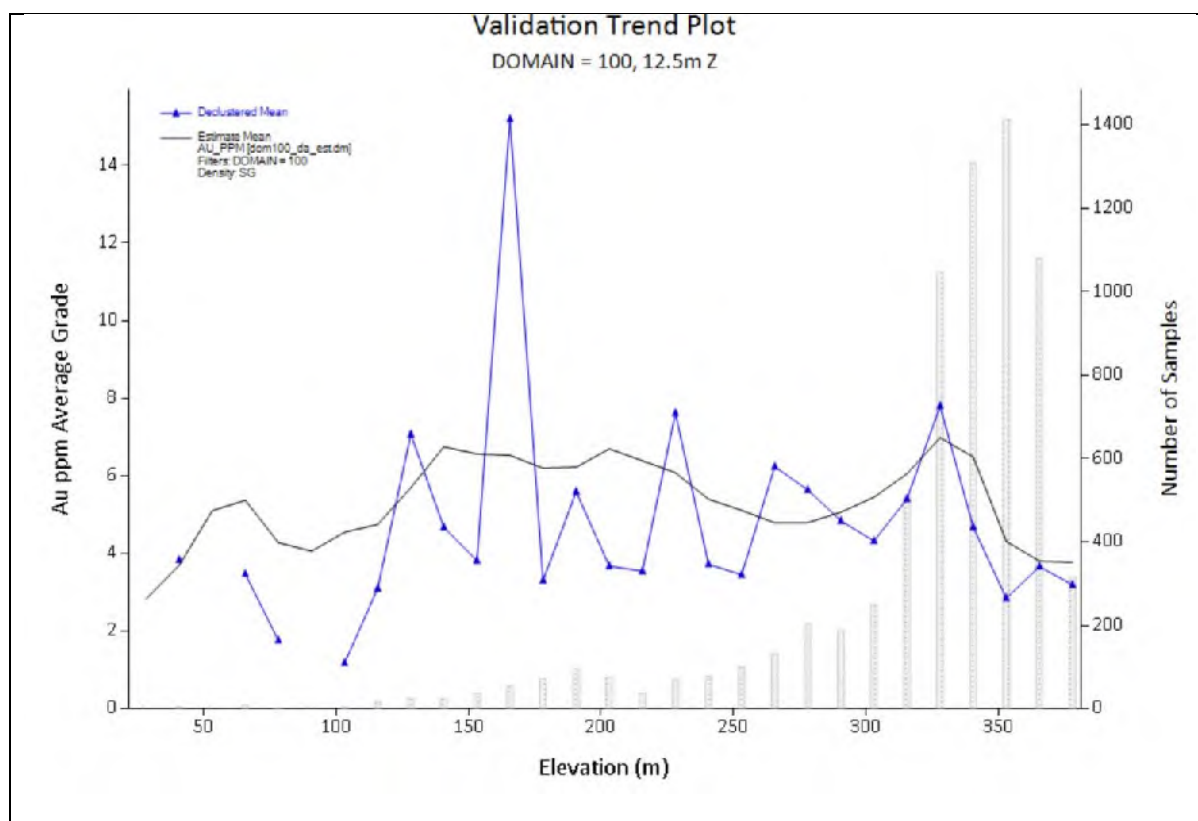
Initial validation consisted of a visual comparison of the input samples and the estimated block grades in cross section. Global domain comparisons between the top-cut composites and the block model estimates were also completed (Table 13.23). Composites were declustered for this comparison. Validation trend plots were generated for the mineralised domain along northing and elevation dimensions (Figure 13.13).

**Table 13.23 Global composite and estimate mean grades at Tabakoroni**

Domain	Mineralisation				Waste
	100	200	300	400	
Block model	5.68	3.75	3.38	5.17	0.14
Declustered composites	5.06	3.74	3.30	5.00	0.14
Difference – blocks model vs declustered composites	12.2%	0.3%	2.4%	3.4%	0.0%
Naïve Composites	6.04	3.36	2.83	5.24	0.19
Difference – blocks model vs composites	-6.0%	11.6%	19.4%	-1.3%	-26.3%

**Figure 13.13 Validation trend plots, northing (top) and elevation (bottom) for Domain 100 at Tabakoroni**



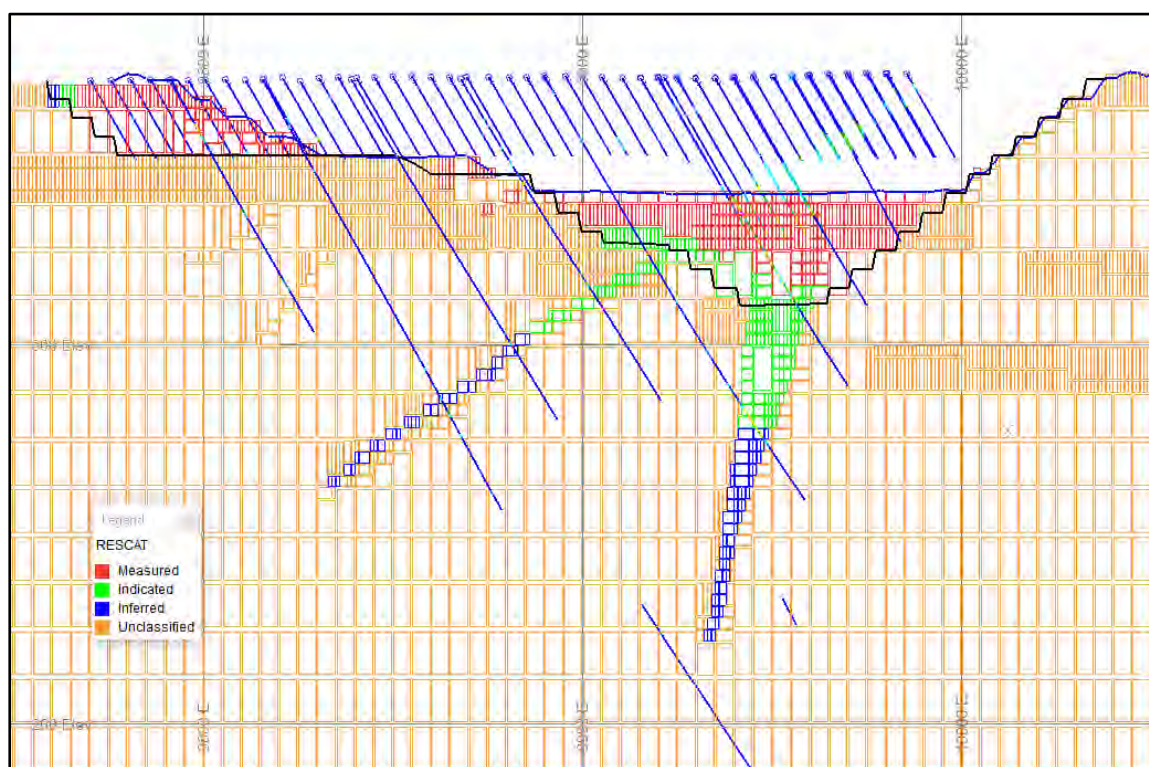


### 13.12.12 CLASSIFICATION

The 2019 Tabakoroni Mineral Resource has been classified into Measured, Indicated and Inferred categories in accordance with the JORC Code (2012). The default classification for the mineralisation is an Inferred Mineral Resource. Measured Mineral Resources are defined within a contiguous zone where the informing drilling is from the grade control, generally at a regular 12.5 m spacing. The Indicated zones have been created where the nominal drillhole density is around 50 m by 50 m and there is good confidence in the geology and gold grade continuity. The Inferred Mineral Resource classification has been applied to extensions of mineralised zones on the margins of the deposit where drill spacing is more than 50 m x 50 m down to the extents of mineralisation at depth.

An example of the applied resource classification is presented in Figure 13.14.

**Figure 13.14 Applied Mineral Resource classification at Tabakoroni (Section 59,825 mN with current pit design in black and the pit as of 31<sup>st</sup> March 2019 in blue)**



### 13.12.13 PREVIOUS MINERAL RESOURCE ESTIMATES

Resolute has previously declared a Mineral Resource of 740,000 oz (9.74 Mt at 2.4 g/t Au; reported above a cut-off of 1.0 g/t) for Tabakoroni, as at 31 December 2018. The Mineral Resource was prepared by MPR Geological Consultants (MPR) in April 2018 using a Multiple Indicator Kriging (MIK) technique for estimation. The Mineral Resource for Tabakoroni is presented in

Table 13.24.

**Table 13.24 Mineral Resources for Tabakoroni as at 31 December 2018**

Resource classification	Tonnes (kt)	Gold grade (g/t)	Contained gold (koz)
Measured	2,800	2.9	260
Indicated	3,770	2.2	280
Inferred	3,180	2.0	200
<b>Total</b>	<b>9,740</b>	<b>2.4</b>	<b>740</b>

Note: Reported above a cut-off of 1.0 g/t Au

The April 2018 Mineral Resource was chosen to generate the current Ore Reserve as the updated Tabakoroni Resource was only completed in March 2019. The Reserves are currently being updated with the new Mineral Resource. Resolute has chosen to report the March 2019 Mineral Resource as it gives a more realistic view of the potential of the deposit.



## 14 ORE RESERVE ESTIMATES

### 14.1 INTRODUCTION

Ore Reserves at Syama, most recently reported on 31 December 2018, comprise the Syama Underground Ore Reserve and Syama surface stockpiles. The Syama Underground Ore Reserves have been declared on the basis of a revised Definitive Feasibility Study (DFS; refer to ASX announcement 3 July 2018) update using the October 2017 Mineral Resources (see Section 14).

The Syama Ore Reserves have been prepared under the direction of Competent Persons using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

### 14.2 ORE RESERVES METHODOLOGY

In June 2016, Rolute completed the Original Definitive Feasibility Study (refer ASX announcement 30 June 2016). The Original DFS mining strategy consisted of the following:

- Ore production rate of 2.4 Mtpa;
- Sub level caving (SLC) – a high productivity, non-selective mechanised mining method;
- Twin decline access;
- Conventional, manually operated mining equipment; and
- Sublevel open stope mining of mineralisation external to the SLC footprint.

The current Ore Reserve was declared on the basis of a DFS update using the October 2017 Mineral Resources (see Section 14.12). The 2018 Ore Reserves comprises the following key updates:

- Ore production rate remains at 2.4 Mtpa;
- Implementation of automation of loading and haulage;
- Establishment of a new mine design;
- Modelling of SLC cave draw, dilution and recovery;
- Completion of a three-dimensional cave geotechnical model;
- Development of a revised cost model; and
- Completion of a revised mine schedule.

The 2018 Ore Reserve contains approximately 48% more ore tonnes and 38% additional contained ounces than the 2016 Ore Reserve. Only Mineral Resources below the base of the final open pit and below the 1,250 mRL have been considered in the mining studies.

Sublevel caving was first selected as the primary mining method for the Syama Underground Mine in the Snowden study (Snowden, 2014). Sublevel caving requires a mine design that is centred on the need to optimise the stope production and therefore stope design is the key consideration for level layout, level accesses and the required capital development that services these areas.

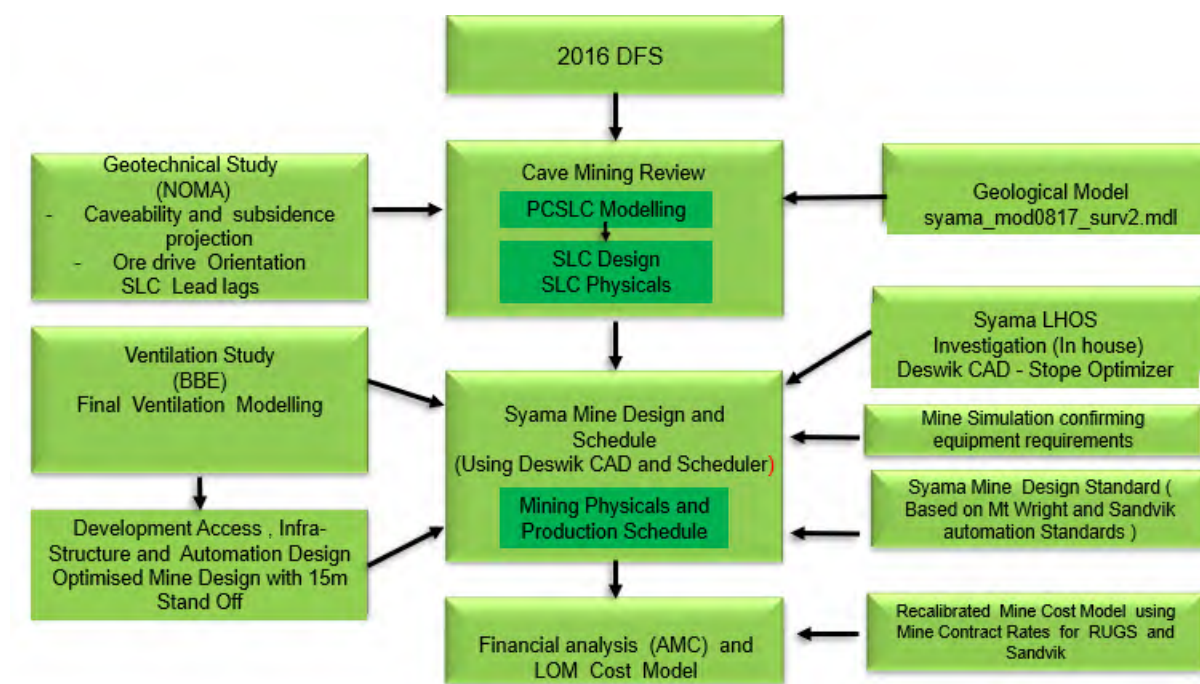
The cave modelling was conducted using the Dassault Geovia PCSLC software and followed a similar approach to the previous modelling conducted by Snowden Consultants in 2014 as part of the original DFS. Mine Stope Optimiser (MSO) was used to determine an economic envelope of mine shapes at 1 to 1.9 g/t cut-off grade. Dilution and overdraw was then modelled by Dassault Geovia and Mining Plus consultants using PCSLC software. A total of eight modelling runs were constructed

with different spatial ring footprints. The final cave model for Syama suggests that the cave should perform well with 94% recovery of tonnes, 89% recovery of metal and 13% dilution. The results of the modelling provided a basis for estimating tonnes and grade in each ring, later scheduled in the Life of Mine Plan. Scheduling was completed by Unearthed AS consultants using Deswik LOM Scheduler

Long Hole Open Stopping (LHOS) will be utilised outside of the main sublevel cave. Mining of the LHOS areas will be sequenced after the completion of the cave mining on each level. Areas amenable to LHOS after the removal of the SLC footprint were defined using a 2.5 g/t gold cut-off in DeswikCAD Stope Optimiser. Stope widths were set to a 3 m minimum, with a maximum of 12.5 m strike and 25 m height. Although previously held in Ore Reserves, scheduling of these LHOS areas was not included in previous Life of Mine (LOM) schedules. The proportion of Ore Reserves currently designed to be mined by LHOS is approximately 7% of the 2018 Ore Reserve.

A summary of the 2018 Ore Reserve process is presented in Figure 14.1. Inputs to the 2018 Ore Reserve included the October 2017 Mineral Resource, the NOMA Consulting (NOMA) geotechnical study (NOMA, 2018), updated ventilation modelling and a recalibrated mine cost model.

**Figure 14.1 Ore Reserve estimation process at Syama (source: Resolute)**



A full discussion of the modifying factors and assumptions used to generate the 2018 Syama Underground Ore Reserve is presented below.

### 14.3 ORE RESERVE ASSUMPTIONS

A full list of parameters used in the Syama Underground Ore Reserve is presented in Table 14.1.

**Table 14.1 Parameters used to generate the 2018 Syama Underground Ore Reserve**

Parameter	Unit	Value
Metallurgical recovery	%	89
Gold price	USD/oz	1200

Parameter	Unit	Value
<b>Operating unit costs (including pre-production)</b>		
Mining cost	USD/t	19.90
Processing cost	USD/t	19.40
General and Administration cost	USD/t	4.90
Royalty, refining costs and silver credits	USD/t	5.80
<b>Operating and Capital costs</b>		
Pre-production capital	USDM	116
Ramp-up capital	USDM	97
Sustaining capital	USDM	255
Operating cost (including royalties)	USDM	1,758
All-in Sustaining costs (AISC)	USD/oz	746
Mine Life (including pre-production)	years	16

### 14.3.1 COMMODITY PRICES

A gold price of USD 1,200 was used to prepare the 31 December 2018 Ore Reserve estimate.

### 14.3.2 MINING DILUTION

Dilution and overdraw was modelled for the SLC using Dassault Geovia PCSLC software by Mining Plus in January 2018. It is expected that overall the SLC will achieve 94% recovery of tonnes, 89% recovery of metal and 13% dilution. The results of the modelling provided a basis for estimating tonnes and grade in each of the ring shapes to be later scheduled in the Life of Mine Plan.

Mining dilution within the LHOS portion of the reserve has been assumed to be 10% with mining recovery set to 95%.

### 14.3.3 GEOTECHNICAL PROVISIONS

Production development is aligned to a strike of 270°, compatible with the modelled principle stress directions. A series of scheduling rules based on a stress sensitivity analysis have been applied to the mine schedule.

### 14.3.4 METALLURGICAL RECOVERY

The Ore Reserves were estimated using ore processing recovery factors as outlined in Section 13. These equate to a gold recovery of 89%.

### 14.3.5 COST ESTIMATES

The capital and operating cost model is based on the incumbent, RUGS (Rock UnderGround SARL - Byrnegut's Mali based underground mining contractor) contractor rates for a three-year period to September 2019, with owner operating costs being developed from first principles for using fixed and variable components for RUGS mining rates and Sandvik maintenance rates. Allowances were made for regional efficiencies, supervision and training. Current processing and administration costs were applied. The average mining cost (including decline development, raises and contractor margin) is estimated at USD19.90/t. Infrastructure capital costs are estimated to be USD116 M. Treatment and refining charges have been derived from current operating costs.



#### **14.3.6 CUT-OFF GRADE**

The orebody mining outline was designed using a cut-off grade of 1.9g/t gold based on current overhead and treatment costs and processing recovery from the open pit operations, combined with DFS estimates for the underground component of the mine and confirmed with completion of the AMC Cost Study in January 2018.

#### **14.3.7 ENVIRONMENTAL APPROVALS AND PERMITS**

Syama as a whole is in a mature phase of its operating life with environmental management permitted by an Environmental Authority and supported by an Environmental Management Plan. Syama operates in accordance with its Environmental and Social Impact Assessment – Société des Mines de Syama, Syama Gold Mine, Mali, dated 2007. Tailings storage for the life of mine is forecast to be impounded over the existing footprint area approved in the Environmental and Social Impact Study.

#### **14.3.8 ROYALTIES**

A royalty of 6% is payable to the Government of Mali. An additional USD5 per ounce is payable to Randgold pursuant to the terms articulated in Section 4.5 above.

#### **14.3.9 ECONOMIC TEST**

The Syama LOM Plan prepared for the 2018 Feasibility Study includes the mining and processing of the Ore Reserve at a rate of 2.4 Mtpa. The LOM Plan includes a detailed financial model which shows a positive NPV at a USD1,200 gold price.

### **14.4 SYAMA PROJECT ORE RESERVE**

Resolute has declared Ore Reserves for all of its Mali Projects, including the Syama Underground Mine and the Tabakoroni Open Pit, as at 31 December 2018. These are presented in Table 14.2. They include, on a 100% basis, gold inventories managed and controlled by Resolute. Resolute's economic ownership in Mali is 80% of Syama (20% Mali Government) and 90% of Tabakoroni (10% Mali Government). The Ore Reserve has been quoted using a variety of cut offs and gold prices (see note).

While the Tabakoroni Mineral Resource was generated in March 2019 and has been declared publicly by Resolute, there has been insufficient time to regenerate the Ore Reserve based upon this resource, and the current Tabakoroni Ore Reserve is based upon a Mineral Resource generated in April 2018.

**Table 14.2 Syama Ore Reserves at 31 December 2018**

Project	Proven Reserves			Probable Reserves			Total		
	Tonnes (kt)	Grade (g/t gold)	Gold (koz)	Tonnes (kt)	Grade (g/t gold)	Gold (koz)	Tonnes (kt)	Grade (g/t gold)	Gold (koz)
Syama underground	0	0.0	0	35,040	2.7	2,980	35,040	2.7	2,980
Syama stockpiles	100	2.5	10	2,270	1.3	100	2,360	1.4	100
<b>Sub total (sulphides)</b>	<b>100</b>	<b>2.5</b>	<b>10</b>	<b>37,310</b>	<b>2.6</b>	<b>3,080</b>	<b>37,410</b>	<b>2.6</b>	<b>3,090</b>
Satellite deposits	0	0.0	0	0	0.0	0	0	0.0	0
Satellite stockpiles	970	1.4	40	1,630	1.1	60	2,600	1.2	100
<b>Sub total satellite deposits</b>	<b>970</b>	<b>1.4</b>	<b>40</b>	<b>1,630</b>	<b>1.1</b>	<b>60</b>	<b>2,600</b>	<b>1.2</b>	<b>100</b>
Tabakoroni Open Pit	1,450	3.2	150	640	2.4	50	2,090	3.0	200
Tabakoroni stockpiles	320	2.1	20	0	0.0	0	320	2.1	20
<b>Sub total Tabakoroni</b>	<b>1,770</b>	<b>3.0</b>	<b>170</b>	<b>640</b>	<b>2.4</b>	<b>50</b>	<b>2,410</b>	<b>2.8</b>	<b>220</b>
<b>Syama Total</b>	<b>2,830</b>	<b>2.4</b>	<b>220</b>	<b>39,580</b>	<b>2.5</b>	<b>3,180</b>	<b>42,410</b>	<b>2.5</b>	<b>3,410</b>

Note:

1. Totals may not sum due to rounding.
2. Ore Reserves are presented on a 100% managed basis.
3. Syama is 80% owned by Resolute.
4. Tabakoroni is 90% owned by Resolute.
5. Syama Underground Ore Reserves are reported at a 1.9 g/t cut-off, using a gold price of USD1,200/oz. Satellite Deposits are reported at a 1.5 g/t cut-off. Tabakoroni Open Pit Ore Reserves are reported at a 1.1 g/t cut-off using a gold price of USD1,250/oz.

## 14.5 SYAMA ORE RESERVE

The declared Syama Ore Reserve as at 31 December 2018 comprises both surface stockpiles and the Syama Underground Ore Reserve. The Syama Stockpile Ore Reserve comprises 100 kt at 2.5 g/t gold for 10 koz Proven Reserve and 2,270 kt at 1.3 g/t gold for 100 koz Probable Reserve.

The Syama Underground Ore Reserve is based on the 23 October 2017 Mineral Resource for Syama Underground (ASX release 23 October 2017). The Syama Underground Ore Reserve (Table 14.3) comprises all the Measured and Indicated Mineral Resources in a Probable Ore Reserve totalling 35.0 Mt at 2.7 g/t gold for 3.0 Moz reported above a 1.9 g/t gold cut-off. The Ore Reserve has been classified as a Probable Ore Reserve as some of the modifying factors are only at a PFS ( $\pm 25\%$ ) level of confidence. Approximately <1% of Inferred Ore Resources has been included in the lower levels of the mine plan as part of the cave dilution inventory. This does not materially affect the outcome of the Life of Mine Plan.

**Table 14.3 Syama Underground Ore Reserve as at 31 December 2018**

	Proven Reserves			Probable Reserves			Total		
	Tonnes (kt)	Grade (g/t gold)	Cont. gold (koz)	Tonnes (kt)	Grade (g/t gold)	Cont. gold (koz)	Tonnes (kt)	Grade (g/t gold)	Cont. gold (koz)
<b>Syama Underground</b>	0	0	0	35,040	2.7	2,980	35,040	2.7	2,980
<b>Stockpiles</b>	100	2.5	10	2,270	1.3	100	2,360	1.4	100
<b>Total</b>	<b>100</b>	<b>2.5</b>	<b>10</b>	<b>37,310</b>	<b>2.6</b>	<b>3,080</b>	<b>37,410</b>	<b>2.6</b>	<b>3,090</b>

## 14.6 TABAKORONI ORE RESERVE

A current Ore Reserve of 254,000 oz (2.69 Mt at 2.9 g/t Au, reported above a cut-off of 1.1 g/t Au) has also been declared for open pit mining at Tabakoroni, using a gold price of USD1,250. The Ore Reserve for Tabakoroni is presented in Table 14.4. This Ore Reserve is for the previous open cut resource model dated April 2018; Resolute is currently updating the Tabakoroni Ore Reserves with the new Mineral Resource, which will result in the declaration of an open pit and an underground reserve.

**Table 14.4 Ore Reserve for Tabakoroni as at 31 December 2018**

Reserve classification	Tonnes (kt)	Gold grade (g/t)	Contained gold (koz)
Proved	1,830	3.1	190
Probable	860	2.4	70
<b>Total</b>	<b>2,690</b>	<b>2.9</b>	<b>260</b>

Note: Reported above a cut-off of 1.1 g/t Au, using a gold price of USD1,250

During 2018, Resolute completed the construction of a haul road connecting Tabakoroni to Syama. Open pit operations commenced at Tabakoroni in July 2018, with high grade oxide and transitional material to be processed through the Syama oxide circuit. Processing of Tabakoroni ore commenced in November 2018.

## 15 MINING METHODS

### 15.1 BACKGROUND

Open pit mining at the main Syama Open Pit concluded in May 2015.

Development of the Syama Underground mine commenced in September 2016 using a temporary in-pit portal. The project has subsequently established a long-term twin decline access portal within a box cut adjacent to the open pit. At the effective date of the report (31 December 2018 for the all of Syama, except for Tabakoroni, which has an effective date of 31 March 2019), development has been completed down to 1030L Level (1030 mRL). Sub-level caving production commenced in December 2018.

### 15.2 SUBLEVEL CAVING

Sublevel cave (SLC) type mining was identified as the optimum stoping methodology for the Syama Project by Snowden in 2014 as part of the Pre-Feasibility Study into underground mining (Snowden, 2014). Traditional SLC was selected for the following reasons:

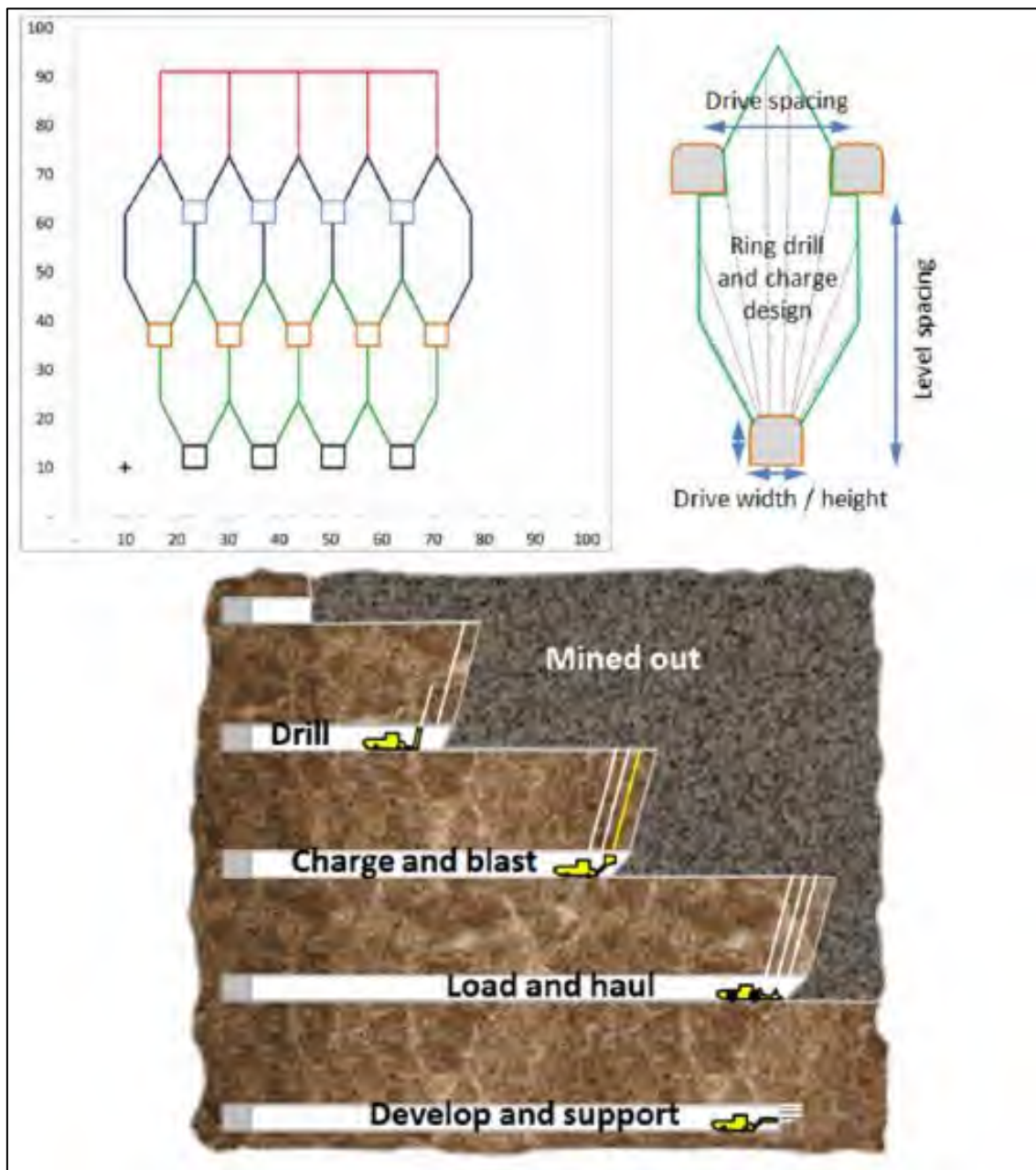
- The orebody geometry and geotechnical conditions are amenable to SLC;
- SLC is a highly mechanised mining method, well-understood and used in many operations around the world, including by Resolute at the Mt Wright mine in Australia;
- The subsidence zone will not impact on critical infrastructure;
- Compared with other traditional stoping methods, SLC has greater flexibility, selectivity, less dilution and a better cost profile;
- The SLC layout allows easy access to ore from other stoping sources adjacent to the SLC footprint which could potentially be economically extracted.

SLC is a bulk, low-selectivity, underground mining method. The orebody is accessed through regularly spaced drawpoints (14 m spacing) on multiple levels (25 m spacing). Drawpoints are offset between levels to provide a regular, honeycomb layout in cross section, as shown in Figure 15.1. The bulk of the material is broken through drilling and blasting of regularly spaced, fan-shaped rings along each ore drive. Caving (or self-mining) of the hangingwall material takes place as the blasted material is removed. Due to the way blasted material flows inside a SLC, only part of a blasted ring can be removed on the level on which it was blasted, while the remaining material of that ring falls to the levels below. Over-drawing material from a ring will result in dilution (caving of uneconomic material) from above the orebody being drawn down into the drawpoint. This forms an important consideration in the design of the development layout and ring design to maximise ore recovery and minimise dilution entry into the cave system.

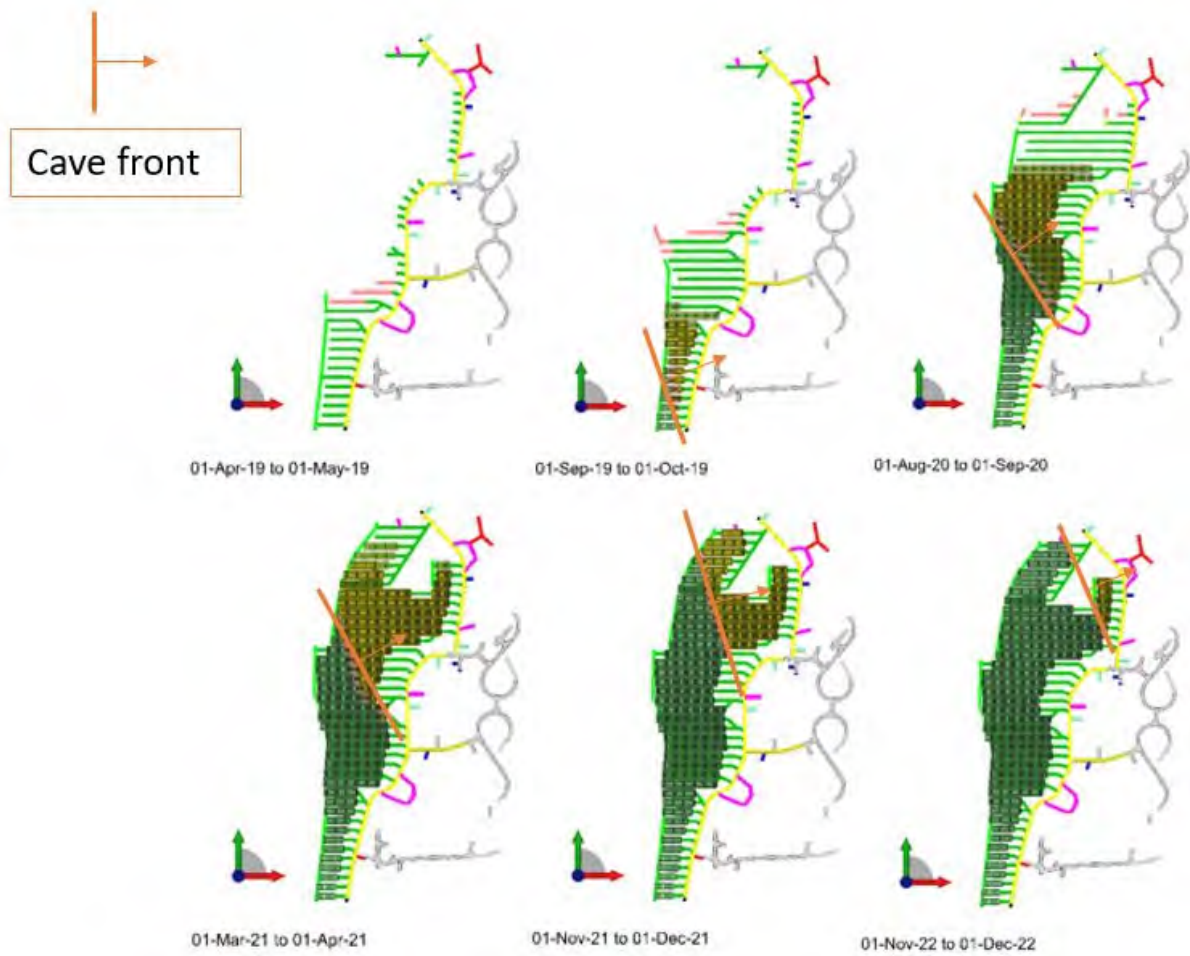
The central footprint of Syama deposit varies in width from 40 m to 50 m wide in the south, up to 100 m wide in the north. The strike of the ore is close to 600 m in the upper levels but reduces at depth as the resource drilling density reduces. The orebody dips at between 60° to 70° to the northwest. With this type of geometry, a typical SLC would be set up in a transverse configuration with the drawpoints designed perpendicular to the strike of the ore body. Due to geotechnical and operational considerations, the current development is designed east-west, with the cave front being progressed at approximately 140° - 320° (Figure 15.2).

The current footprint of the Syama SLC Underground project is shown in Figure 15.3.

**Figure 15.1** Typical sub level cave layout; cross sectional view (top) and long section view (bottom)  
(source: Resolute, 2016)



**Figure 15.2** Plan view of 1080 Level showing typical draw-point orientation and cave front (source: Mining Plus, 2018)





**Figure 15.3 Plan view of the Syama Underground footprint showing access points and development (source: Resolute)**



### 15.2.1 GEOTECHNICAL CONSIDERATIONS

Empirical assessment of the Syama ground conditions indicate that the SLC hangingwall caving will initiate once it is undercut by an area with a hydraulic radius greater than 15m in at least 50% of ground conditions. As support for the eastern side of the hangingwall span has been removed by the pit, it is expected that caving will readily initiate during the first SLC lift. Fragmentation analyses demonstrate that approximately 98% by volume of all blocks formed by caving will be less than 2 m<sup>3</sup> in volume, with the mean block size being 1.1 m<sup>3</sup>.

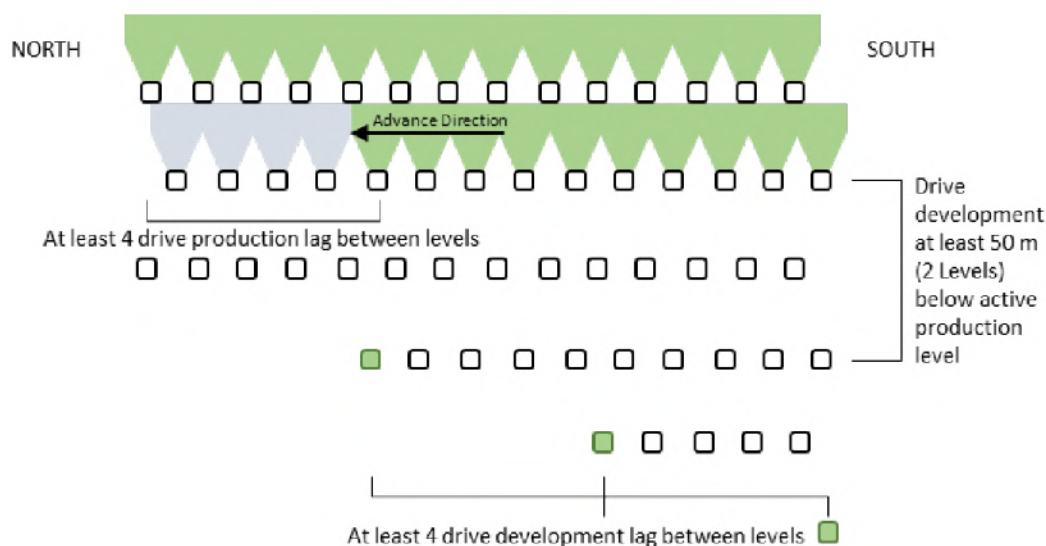
Adequate support of most of the mine development can be achieved using a combination of grouted rock-bolts and fibre reinforced shotcrete, supplemented by cable-bolts as required for wide excavations or particularly adverse ground conditions. Spacing of rock-bolts will vary with conditions, from 1.6 m to 0.9 m. Shotcrete thickness will vary from a nominal 50 mm to 100 mm in severe conditions, namely development through the Syama-Bananso Shear Zone (SBSZ). Minimum stand-off distances of 15 m will be used to manage stress related issues to the interaction of the SLC to major adjacent structures (i.e. SBSZ).

Estimation of the subsidence from the caving has been modelled using numerical modelling. Ground movements are expected to be associated with elastic strain only, with surface infrastructure located on the eastern side of the Syama Pit expected to only suffer minor cracking or tilting, well within typical serviceable limits. On the western side (hangingwall), ground movements will increase as the cave line moves outside the current Pit extents, but these are not expected to adversely affect any infrastructure.

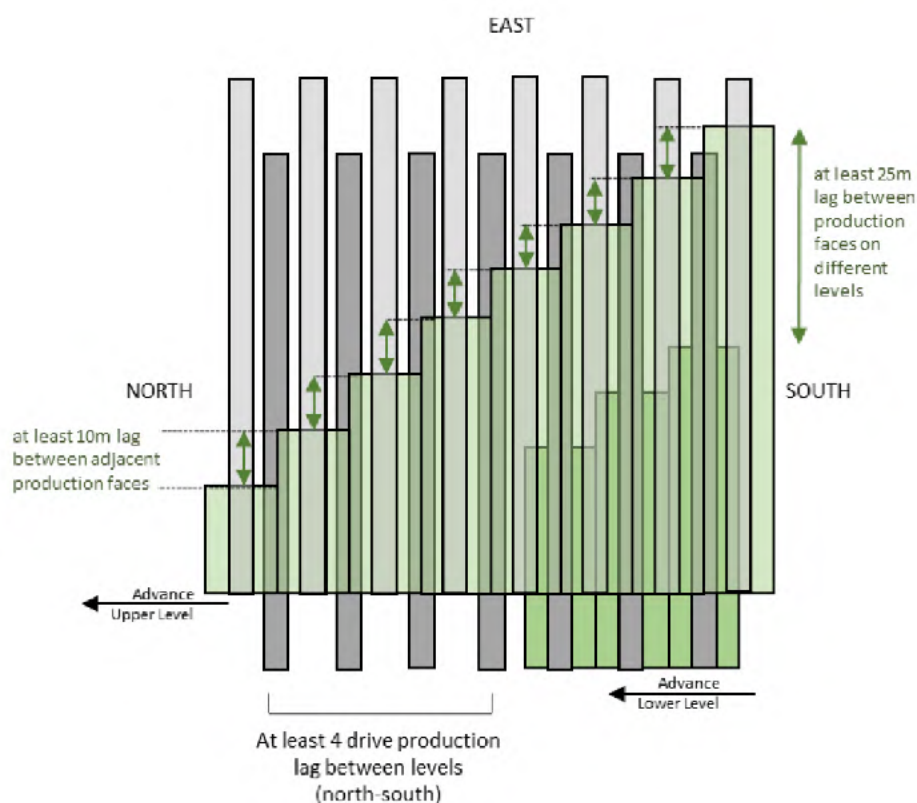
AMC conducted a site visit to Syama in December 2017. Observations on ground behaviour during this visit found that the measured principal stress orientation used in previous studies (derived from very few acoustic emission stress measurements) was not compatible with the site geology. Based on the significant impact that the in-situ stress regime (magnitude and direction) can have on the performance of a propagating cave and/or the infrastructure stability, AMC recommended a review of the principal stress directions. NOMA Consulting (NOMA) was contracted to undertake a large-scale, three-dimensional numerical model to assess the SLC performance in response to the assumed principal stress directions. The NOMA modelling concluded that production development be aligned at 90°-270° (east-west) and a series of scheduling rules were also developed and applied in the mine production schedule. These include:

- **Production advance in a south-north orientation:** 50 m spacing between the production horizon and active development. A lead lag of at least 4 drives should exist between levels for both production and development (Figure 15.4).
- **Production advance in an east-west orientation:** 35-40 m spacing between adjacent drive development. At least a 10 m lead lag should be maintained between adjacent production faces and a 25 m lag maintained between production faces on different levels (Figure 15.5).

**Figure 15.4 South-North orientation (longitudinal view) recommendations (source: NOMA, 2018)**





**Figure 15.5 East-west orientation (plan view) recommendations (source: NOMA, 2018)**

Hollow inclusion stress measurements were conducted in mid-2018 which validated AMC's observations that the stress direction is roughly east-west.

### 15.2.2 HYDROLOGICAL CONSIDERATIONS

A hydrogeological review carried out by Jon Hall, Senior Principal Hydrogeologist for RPS Group, utilised previous reports, data from vibrating wire piezometers, standing piezometers and a site visit to the Syama open pit. The report indicated that the rocks are generally hydraulically tight, with a low overall bulk permeability, and inflows to the pit from the local groundwater system are minimal (<10l/s).

There are two distinct seasons in southeastern Mali; a dry season from November to April and a wet season from May to October. Peak rainfall occurs in the months of July to September. During these months there are significant rainfall events, with increased risk of runoff to the cave subsidence zone. An inflow of water and accumulated sediments can potentially lead to a significant risk of a mud rush event at the draw points of active lifts and must be adequately managed. Pumping systems for dewatering of the underground mine must be flexible, able to handle low flows during the dry season and high flows during the wet season. As such, volume rates of 1,000m<sup>3</sup>/day for the dry season and 20,000m<sup>3</sup>/day for the wet season have been used to design the dewatering system.

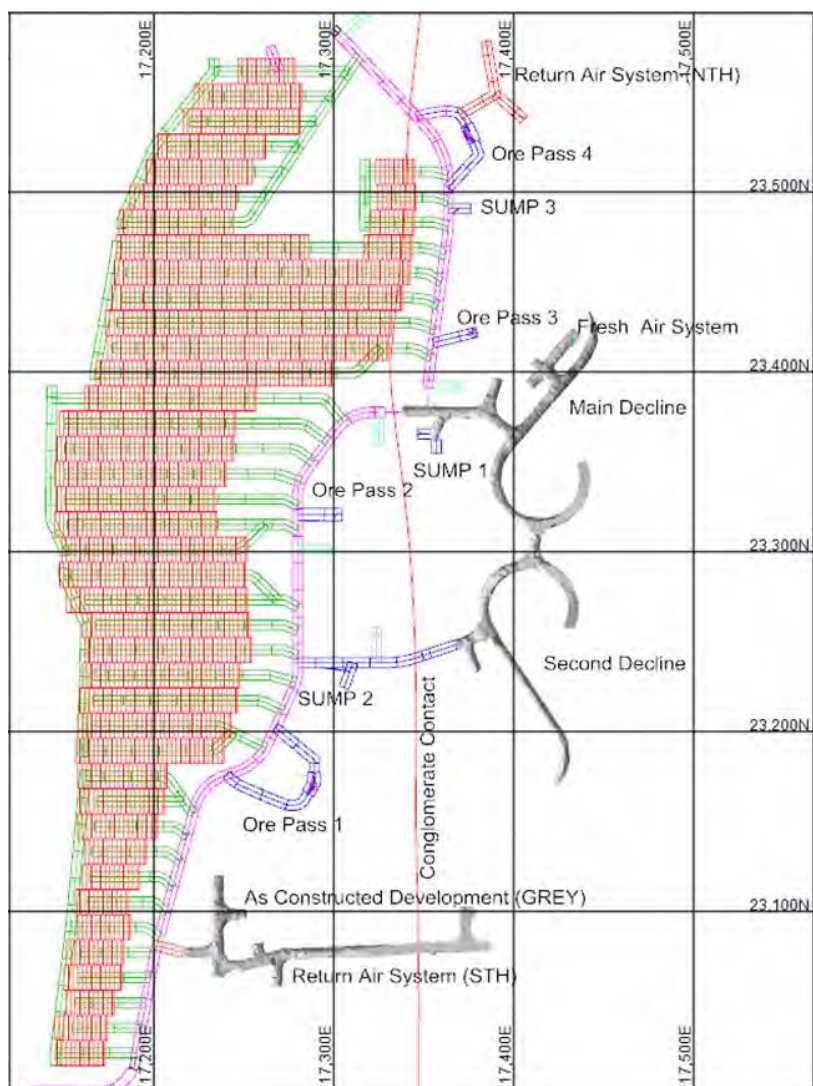
The current pumping system consists of large submersible pumps located in sumps, which pump to pumping stations staged at 100 m vertical intervals throughout the mine. A combination of Warman pumps at the 1105L and 1239L Pump Stations will be used to transfer the water to surface. A dual piping system between levels has been utilised to allow for some flexibility in flow rates. It is expected that most of the surplus water from underground will be utilised by the two processing plants, with any excess water being pumped to a raw water storage pit.

### 15.2.3 MINE DESIGN

The mine design is centred on the need to optimise the stope production; thus the stope design is a major consideration for the level layout and level access. Other considerations include ventilation, drainage and dewatering, infrastructure requirements, geotechnical considerations, automation efficiency, cost and timing. Key features of the mine design are summarised below:

- Two declines are to be developed, with each production level accessible by both declines. The two declines are split into an autonomous trucking decline and a manual service decline.
- Level development is planned on 25 m vertical spacing. Each level is designed to have numerous ore passes (4-6), allowing for productive autonomous loading. Ore passes are 100 m long, interconnecting 4 levels.
- A footwall drive (FWD) provides access to all ore drawpoints, sumps, ore pass tipping areas, return air systems and both declines.
- Slot drives are developed on the hangingwall side of each level for the initial undercut up-hole excavation.
- Drawpoints are evenly spaced at 14 m horizontally (centre to centre), orientated at 90°-270° and vary in length depending upon the width of the orebody.
- Stope designs were based upon the following considerations:
  - Upper levels should lead ahead of lower levels by at least 45° to avoid under-mining upper levels.
  - Ring design drill and blast parameters are based on an eight-hole pattern
  - Holes are dumped 10° forward, at 89 or 102 mm in diameter and are drilled with a burden of up to 2.5 m depending upon hole diameter.
- Ventilation: The primary intake system will include the two declines and a 3.5 m vertical fresh air raise (FAR) system which will open into the pit. Fresh air will enter each level from the declines/FAR where it will be distributed using a secondary fan system throughout the levels. Exhaust air will exit the workings through return air ways (RAW).

A typical level design (1080 level) is presented in Figure 15.6.

**Figure 15.6 Transverse sub level caving – 1080 level design (source: Mining Plus, 2018)**

A summary of the mining physicals for the 2018 DFS is presented in Table 15.1.

**Table 15.1 2018 DFS mining physicals**

	Unit	2018 DFS
<b>Underground development</b>		
Decline development	m	10869
Vertical development	m	3738
Level development	m	81928
Total development	m	96465
<b>Ore production</b>		
Development ore	kt	3.319
Stoping ore	kt	31870
Total ore	kt	35188
Metal grade (ROM)	g/t Au	2.68
Metal contained (ROM)	koz	3042

#### 15.2.4 AUTOMATION

Following the completion of the Original DFS in June 2016, Resolute began an investigation into the potential benefits of introducing automation at the mine. The key benefits that have been identified for automation include:

- Increased machine productivity and performance;
- Reduction in number of machines required leading to capital and maintenance savings;
- Reduced risk and better safety outcomes;
- Reduction in required personnel underground;
- Lower production costs per tonne;
- Greater control of mining, with less variation which results in less dilution;
- Reduction in equipment wear and damage;
- Increased productivity and efficiency and optimised scheduling;
- Greater machine life; and
- Opportunity for mining rate increases without the requirement for additional infrastructure.

Resolute has entered into a framework agreement which sets out the key parameters of the commercial relationship between Resolute and Sandvik for the full automation of the Syama Underground, including the delivery of mobile and fixed equipment, operating software, maintenance of mobile equipment and delivery of training to maintenance and operational personnel. Sandvik announced the signing of this agreement on 11 June 2018.

The Sandvik Framework Agreement secures the terms for the next 3 years and will facilitate the implementation of current and future Sandvik technology without having to revisit contractual arrangements for every purchase. To fully automate the Syama Underground mine, Sandvik is delivering the AutoMine® and OptiMine® systems for planning, analysis, process optimisation and automation, and a full fleet of Sandvik TH663 trucks, LH621, LH517 and LH514E loaders.

The Syama autonomous fleet will comprise five Sandvik TH663 (63 t) trucks and a combination of two LH621, two LH517 and five LH514E loaders. The autonomous loading fleet will service ore passes and utilise a standalone decline for autonomous trucking.

Simulation modelling using FlexSim has confirmed that the planned mining fleet will satisfy the 2.4 Mtpa production target using the current mine design and expected mining activities (including drilling operations, charge and blast processes). The fleet will be managed using the Sandvik AutoMine and OptiMine systems for planning, analysis, process optimisation and automation.

#### 16.2.5 LONG HOLE OPEN STOPING

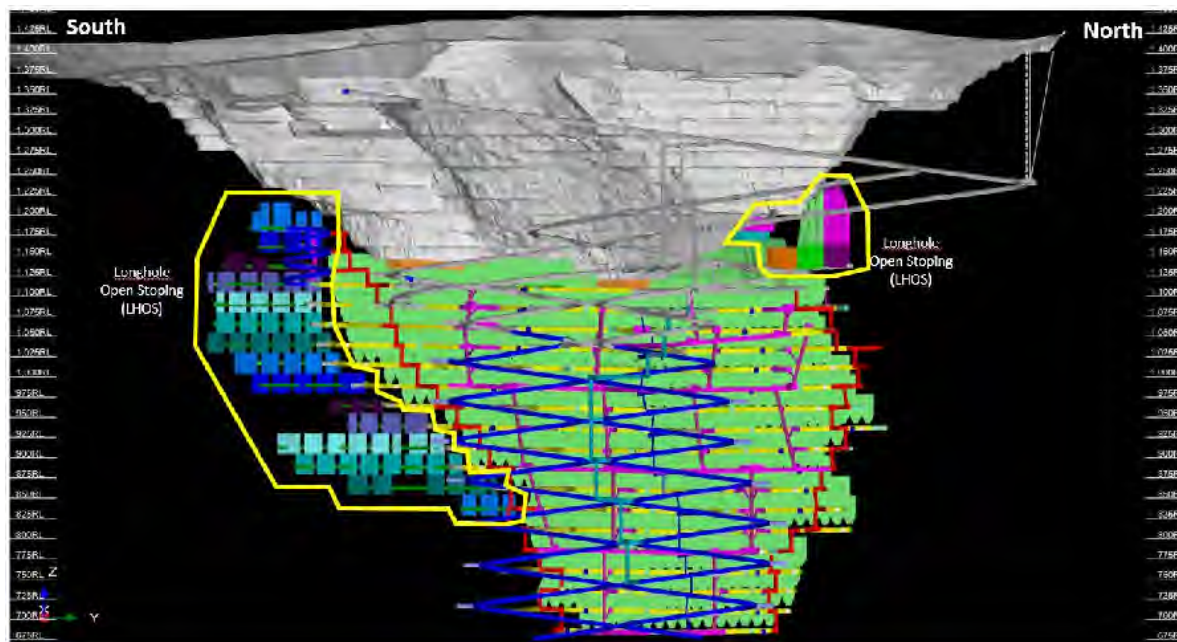
For areas outside of the SLC footprint, Longhole Open Stopping (LHOS) is the preferred method of extraction. This includes areas to the south (Figure 15.7) which are the on-strike extension to the SLC footprint, but where the orebody is substantially narrower (<20 m), as well as additional stopes in other areas of the mine. The LHOS areas were identified using Mineable Stope Optimiser (MSO), which processed the entire orebody with the SLC footprint later removed. The MSO evaluation was based upon a 2.5 g/t cut-off grade. A stope height of 25 m, with widths ranging from 3 m to 20 m was used. No dilution offset has been applied.

These areas were initially identified in the 2016 Feasibility Study but are yet to be included in the Life of Mine (LOM) Plan. They are expected to be mined after the cave is completed on each level. The proportion of LHOS contributes approximately 7% by volume to the Ore Reserves at Syama.

Table 15.2 Modelled maximum mobile equipment required (source: Mining Plus, 2018)

Equipment	Maximum required
Jumbo	3
Rock bolter	2
Production Drill	5
<b>Autonomous Fleet</b>	
Loader	5
Truck	5
<b>Conventional Fleet</b>	
Loader	4
Truck	3
Charge-up	2
IT	4
Grader	1
Water cart	1
Spraymec	2
Agi Truck	4
Scaler	1

Figure 15.7 Long section (looking west) of Syama, showing footwall development and stope blocks within orebody. Peripheral LHOS block are highlighted in yellow (adapted from Mining Plus, 2018)



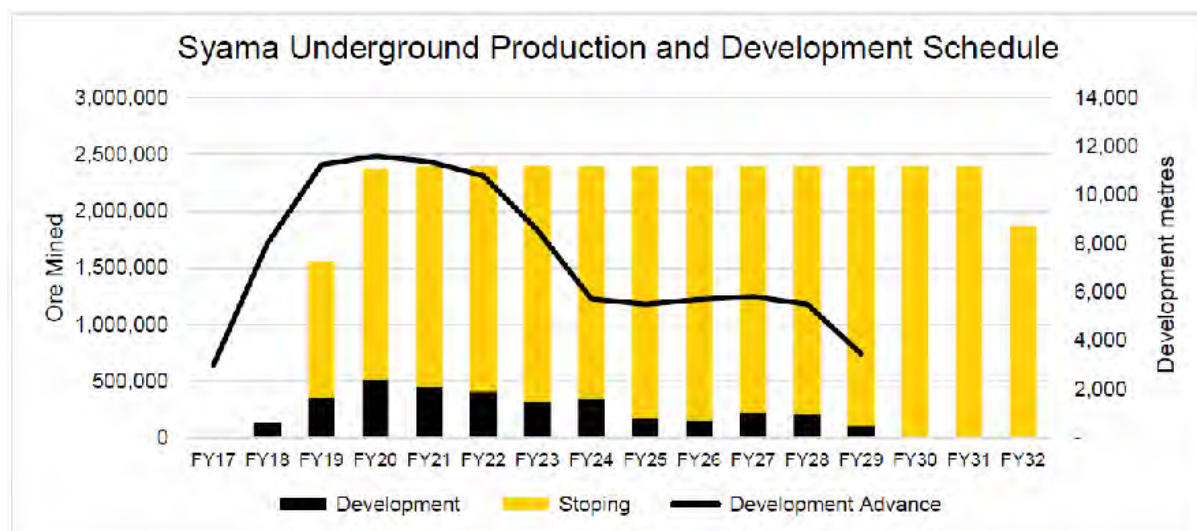
### 15.3 MINE PRODUCTION SCHEDULE

The 2018 Syama mine production schedule was based on detailed SLC modelling, current mine designs and comparative mining rate assumptions. The Syama Underground is scheduled to produce a total of 32.2 Mt ore and 3 Mt waste, with a mine life of 14.08 years (Figure 15.8). The 2018 DFS mining schedule currently shows Syama Underground reaching full production by mid-2019, with a mine life until 2032. Resolute is now aiming to achieve commercial production from

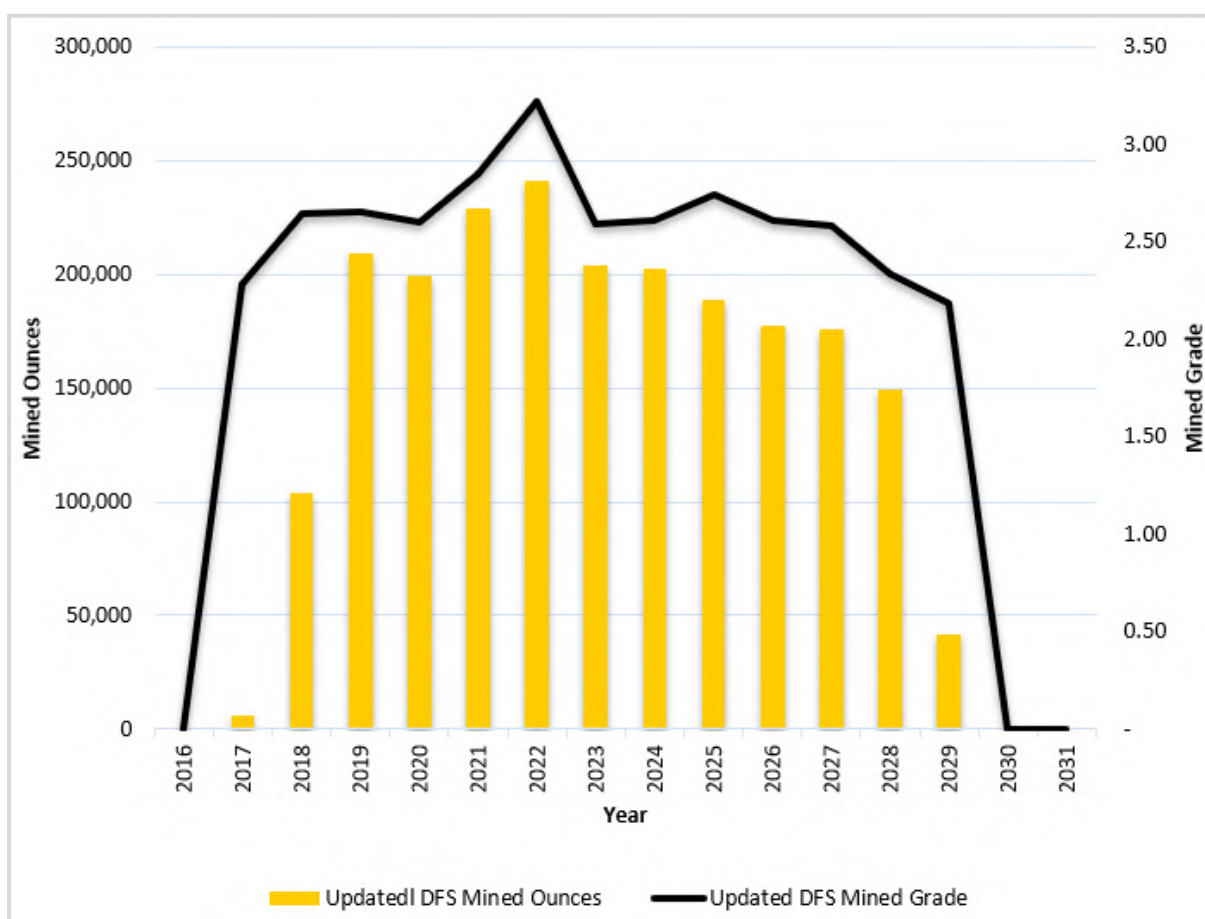


the Syama Underground Mine in the September 2019 Quarter. Peak ounce production is expected in FY2022 (Figure 15.9).

**Figure 15.8 Syama Underground mining schedule (source: Resolute, 2018b)**



**Figure 15.9 Mined grade and ounce profile**



Scheduling of the SLC has been completed using Dassault Geovia PCSLC software under the guidance of cave mining specialist, Tony Diering. The cave modelling involved several stages, whereby the main assumptions of the cave footprint cut-off and the draw point shut-off grade were tested to optimise the metal recovery. The cave modelling for Syama suggests that the cave should

perform well with 94% recovery of tonnes, 89% recovery of metal and 13% dilution. Results from the cave modelling were used to assist with the DFS Update mine design and resulted in additional levels being added to the mine design.

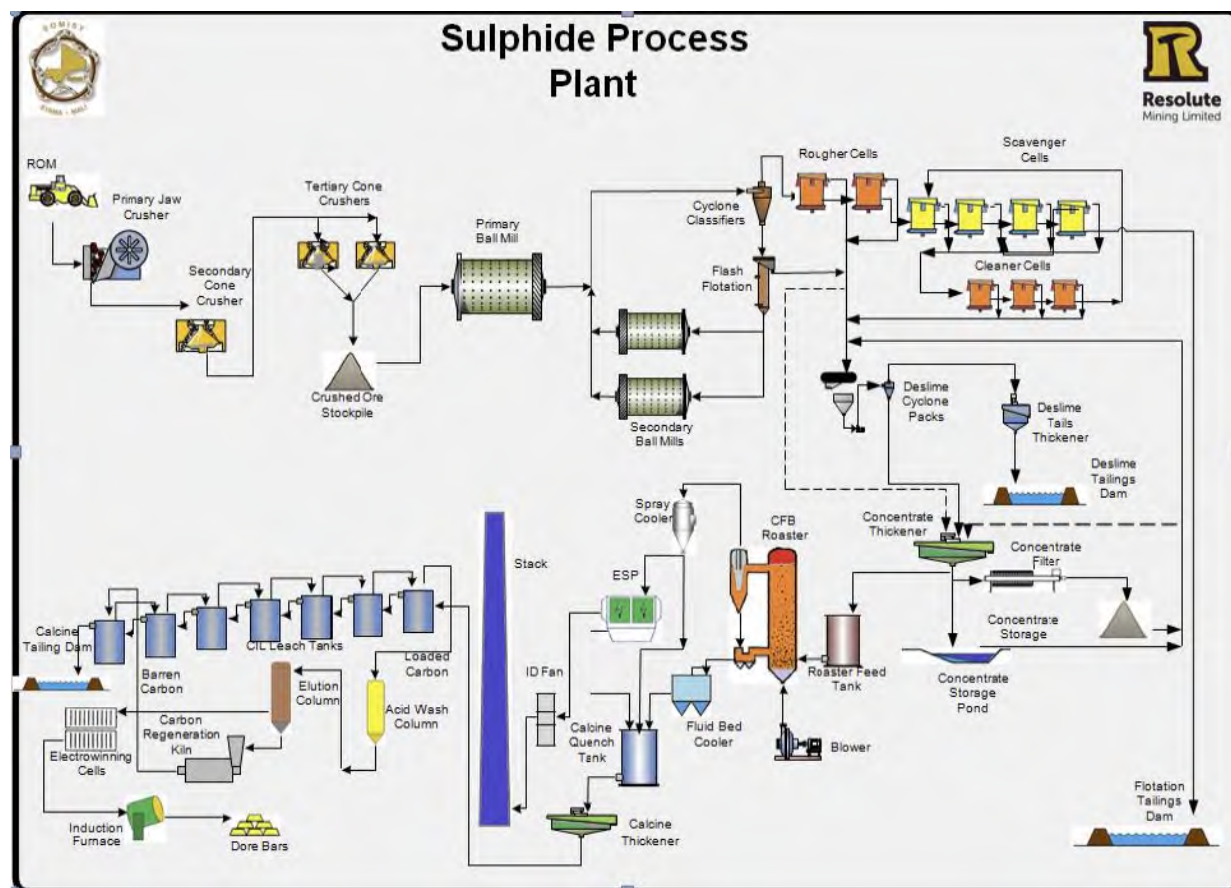
Key points of the mine schedule are summarised below:

- Development rates used in the scheduling of 240 m/month per jumbo are considered appropriate when compared with similar sized SLC operations (Mining Plus, 2018).
- A daily drawpoint extraction limit of 274 t was applied as per the 2016 DFS.
- Other limiting factors (hauling capacity) are all within acceptable limits.
- Sequencing of SLC rings was scheduled to take into account the geotechnical considerations. Mining will aim to produce a flat cave front which will assist with the interaction, improving productivity through more active drawpoints.





Figure 16.2 Syama sulphide process plant flowsheet (source: Mining Plus, 2018)



Resolute has commenced implementation of a series of processing upgrades with the objective of increasing the total sulphide gold recovery to 89% or above. While it has always been considered desirable to achieve sulphide (fresh ore) recoveries at these levels, it has not been operationally possible with the historic infrastructure, flowsheet, and operating model. The initial programme (Project 85), which has now been commissioned, is expected to increase sulphide recoveries from 78% to a minimum of 85%.

Beyond Project 85, Resolute has been working with Outotec, the manufacturer of the Syama roaster, in developing a new roaster technology that will produce a low carbon calcine with the aim of further improving CIL recovery. This new technology will allow Resolute to modify the current single-stage Circulating Fluidized Bed roaster into a Low Carbon Roaster (LCR). This second programme (LCR) is expected to increase sulphide recoveries to at least 89%. The current and predicted recoveries from P85 and LCR are detailed in Table 17.1.

**Table 16.1 Current and predicted future sulphide plant recovery gains at Syama (source: Mining Plus, 2018)**

Flowsheet Component	Recovery for various processes				
	Current	P85	P85 w/o Regrind	LCR	LCR with finer Primary Grind
	%	%	%	%	%
Flotation	88.1	88.1	88.1	88.1	91.0
Roaster	99.0	99.0	99.0	99.0	99.0
Calcine CIL	89.0	90.7	89.4	94.5	94.5
Float Tail CIL	-	5.0	5.0	5.0	3.8
Overall Recovery %	77.6	84.1	83.0	87.4	88.9
Recovery Gains %	-	6.5	5.3	9.8	11.3

## 16.1 PROJECT 85

The process upgrades included in Project 85 consist of the following work:

1. Flotation Tails CIL: calcine CIL circuit has been repurposed to treat the flotation tails
2. New Calcine CIL: a new dedicated calcine CIL circuit has been installed and commissioned
3. Regrind: the coarse calcine product will now be regrind prior to CIL
4. Upgrade of current flotation circuit: A series of minor upgrades are being completed to the current flotation circuit to improve the operational performance.

These enhancements have been progressively installed since October 2017. The major components of Project 85 have now been commissioned and have commenced operation. The full benefits of Project 85 will be realised once the Syama Underground Mine is in full operation and a constant source of high-grade ore can be processed through the enhanced plant configuration. At present the sulphide plant is processing lower grade stocks supplemented by some underground development ore. During periods where the plant is processing underground development ore, higher recoveries consistent with Project 85 expectations have already been recorded, providing confidence in the effectiveness of the improvements.

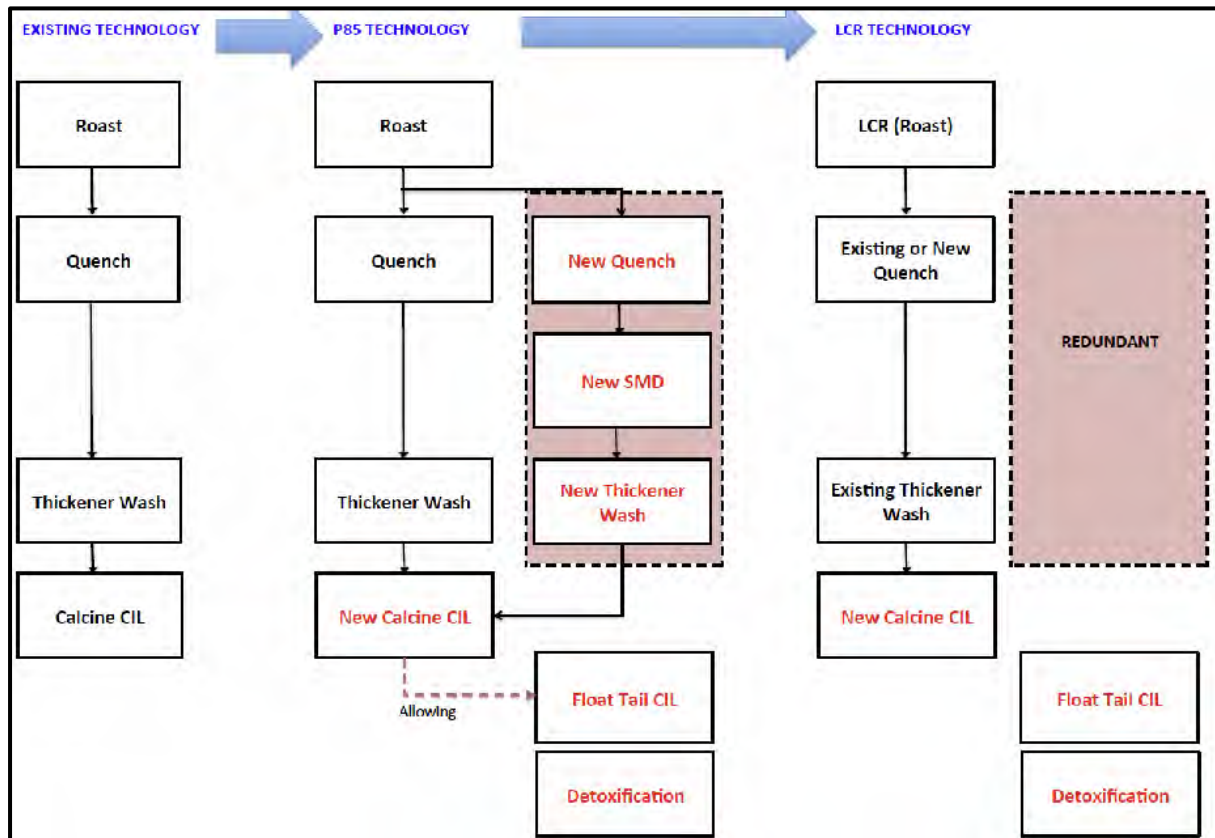
## 16.2 LOW CARBON ROASTER (LCR)

Through a series of improvements, the roaster has recently been running above design capacity at 25 t/h. The LCR will allow this to be increased further to 30 t/h. By significantly reducing the organic carbon in the calcine being fed to the calcine CIL circuit, the LCR will contribute to an increase in the overall sulphide gold recovery above the benefits already mentioned in Project 85. This additional recovery is expected to result in total sulphide recoveries of at least 89%.

Following the commissioning of Project 85, Resolute expects to operate the sulphide processing plant at a steady state for an extended period before the further modifications required to implement the LCR are undertaken. The LCR is currently scheduled to be fully operational in 2021 and recoveries in the Syama LOM have been forecast accordingly.

However, it has been recognised by Resolute that there needs to be a trade-off study conducted on the Current-P85-LCR strategy given that various components of the P85 upgrade will become redundant as soon as the LCR system is operational and may not justify the spend associated with P85. The expected flowsheet changes are displayed in Figure 16.3.

**Figure 16.3** Development scheme for Syama flowsheet (including redundant components of P85 once LCR is introduced) (source: Mining Plus, 2018)





## 17 PROJECT INFRASTRUCTURE

### 17.1 SITE ACCESS

Being a fully operational mine site, Syama has a well-established road network within the site and well-established roads from the site connecting it to the local villages and major roads of Mali. No additional infrastructure is required. The current airstrip facility is underutilised but is adequate for any additional flights required by the mine.

### 17.2 BUILDINGS

Supporting infrastructure on site consists of a large stores complex, large workshop complexes for fixed plant and open pit mobile plant, office complex for processing staff, office complex for mining staff (houses both contractor and personnel), sample preparation and analysis laboratory, medical centre, administration office complex, air strip and accommodation for housing expatriate and senior national staff. There are vacant workshops and offices that are not required for existing operations but these may be utilised for underground operations.

The physical influence of the underground SLC has also been considered. There is a risk of some subsidence to the west of the current pit; fortunately there is limited infrastructure on this side of the pit and all services will be re-routed to the west of the waste dumps or to the east of the pit.

The Syama site layout is shown in Figure 17.1.

**Figure 17.1** Syama site layout (orange lines are roads and green lines are fences)(source: Resolute)



### 17.3 WATER SUPPLY

The primary storage of raw water is within the old Beta open pit and the Syama open pit. The Syama pit is replenished from rain and run off, while the old Beta pit is replenished via water pumped from the Bagoé River during the wet season and water pumped from the underground operation. Access to water from the Bagoé River is restricted during the dry months.

The water captured within the pit limits will make its way into the underground mine and will be pumped out to the process water dam or Beta open pit. Resolute also supplements the process water using reclaimed water from the tailings storage facilities maintained on site.

The current water supply strategy has demonstrated itself to be effective for the needs of the operation and is expected to continue.

### 17.4 POWER SUPPLY

Historically, Resolute has operated a 28MW diesel fired power station at Syama. The Syama power station was originally established by BHP and contains a fleet of diesel generators which have been progressively expanded to meet operational requirements. The current configuration consists of two 5MW Allen units and a series of smaller Caterpillar and Cummins units. Total available power at Syama from these units is approximately 34 MW. The sulphide processing plant is the main user of power at Syama at a projected 18 MW, with underground operations expected to utilise 8 MW at peak production, and between 5 - 6 MW during steady state operation.

Resolute has been examining opportunities to reduce the mine's reliance on diesel, and reduce costs, for many years. The current cost to generate power at Syama at prevailing diesel fuel prices is approximately USD\$0.20/kWh.

Prior to 2016, Resolute had been working with the Mali government on a possible high voltage grid connection between the city of Sikasso and Syama. The Syama Grid Connection Project (SGCP) contemplated the construction of a 225kV electrical transmission line to provide the mine with reliable and lower cost power. The SGCP was suspended in June 2016 following a comprehensive review of the project and an assessment of possible energy alternatives.

The Company has signed a Joint Development Agreement with Ignite Energy Projects Pty Ltd for the development of a 50 MW hybrid power solution. The hybrid plant will be funded and constructed under an Independent Power Producer model whereby Ignite Energy will be responsible for the design, construction, ownership, funding and operation of the new hybrid power plant on an exclusive basis and will supply power to Resolute on a guaranteed basis subject to a maximum tariff over a term of between 12 and 20 years.

The new Syama power concept solution will comprise an advanced combination of modern Heavy Fuel Oil (HFO) and Solar PhotoVoltaic generation (Solar PV) with a hybrid Energy Management System. HFO fuel costs are typically 40% to 50% lower than diesel, with larger modern generating units substantially more efficient than Resolute's current engines. The addition of a component of low cost power from Solar PV, and the use of batteries to provide spinning reserve and manage loads more efficiently, is projected to result in a substantial reduction in Syama power costs. Power costs at Syama are expected to reduce by up to 40%, materially impacting the operating costs, particularly in reducing the sulphide processing cost.

## 17.5 TAILINGS

The current Syama Tailings Storage Facility (TSF) was constructed in 1990. It was initially designed by BHP. Knight Piésold was appointed by Randgold to continue the design of the TSF and more recently Worley Parsons was appointed by SOMISY to continue the TSF design.

A study on the future Syama Tailings Storage Strategy was completed by Worley Parsons in February 2015. The study examined options for tailings handling and storage for the life of mine, optimised for the Syama Project moving from open pit to underground production. The main drivers for future tailings storage requirements are the tailings streams from Flotation Treatment (FT) and Oxide Treatment (OT) processes.

The mine currently produces four tailings streams, which are stored in the following cells within the TSF: Flotation (sulphides) FTSF, oxide OTSF, calcine CTSF and carbon CECSF (CORG). The existing TSF has capacity for 5.3 Mt (Golder, 2018). There is a preference for maintaining the tailings depositions to the existing landform to reduce the surface footprint (Figure 17.2) and, as such, the TSF embankments will be raised 1.94 m annually for the FTSF and 4.59 m for the OTSF for a combined 2.73 m annually (Golder, 2018). The TSF cells have been constructed initially with downstream raises, which have then been changed to upstream raises. The FTSF is the largest tailings cell and has been raised at least 8 times, with another raise currently under construction. The first (and last) downstream raise of the OTSF has recently been completed. The tailings tonnages into the CTSF and CORE are low and whilst important, are not currently cause for concern.

Figure 17.2 Syama TSF (source: Worley Parsons, 2017)





## **18 GOLD REFINING**

### **18.1 REFINING**

At Syama, gold is smelted onsite as dore bars. The bars are shipped offsite by armoured transport to a gold refinery in Switzerland where refining is completed under routine commercial terms.

Gold credits are transferred to the Perth Mint in Australia after subtraction of the refining costs. Some credits are received for silver where the content exceeds a specified percentage.

## 19 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

### 19.1 BACKGROUND

Syama has a varied history of environmental activities and community consultation through the different ownership periods which has led historically to some negative impacts. It is a requirement of Decree No. 03-594/P-RM of 31 December 2003 that an Environmental and Social Impact Study (Étude d'Impact Environnemental et Social – EIES) must be undertaken to update the potential environmental and social impacts of the mine's redevelopment.

Many studies were undertaken by BHP and Randgold to characterise the environmental and social conditions of Syama. SOMISY and Resolute have undertaken further studies to update the finding of the earlier studies and to analyse the gaps within these. This has allowed the proper evaluation of the potential environmental and social impacts and risks related to the operation of Syama.

### 19.2 ENVIRONMENTAL STUDIES

A summary of the identified potential major issues and the predicted outcomes after mitigation and management are as follows (SOMISY, 2007):

- 1) Air pollution from airborne particulates and gaseous emissions:
  - Sulphur dioxide emissions will meet the World Bank Emission (1995) daily and yearly average ground level guidelines
  - There will be no emission of arsenic to the air
  - On occasions, slightly elevated dust concentrations from work areas may occur
- 2) Modification of stream hydrology through alteration of flow, erosion and siltation from storm water runoff:
  - No significant or detrimental pollution is expected
- 3) Abstraction of processing water from the Bagoë River under low flow conditions:
  - No significant impact on the Bagoë River flows are expected
- 4) Deterioration in surface water quality, in particular with suspended solids:
  - No significant or detrimental pollution is expected
- 5) Contamination of surface waters from chemical and fuel spills:
  - No significant or detrimental pollution is expected
- 6) Contamination of surface and ground water immediately down gradient of the Tailings Storage Facility and Cofferdam:
  - No pollution of surface or ground water with cyanide is expected
  - Planned remedial activities will see sulphate levels reduced
- 7) Acid mine drainage from waste rock:
  - Historical analysis indicates that the high carbonate content of the waste rock will suppress any potential acid generation
  - No pollution of surface or ground water is expected
- 8) Hydrocarbon contamination of soils, surface and ground water from fuel spills:
  - No pollution is expected
- 9) Erosion of oxide waste rock dumps and exposed unvegetated areas:

- No residual detrimental impacts are anticipated from soil erosion where rehabilitation has been completed
  - Some localised increase in suspended solids levels within surface waters during the wet season may occur
- 10) Additional clearing of some 74 ha causing a cumulative impact of 440 ha of land and fauna habitat of which some 300 ha will require rehabilitation:
- No ecologically sensitive areas will be impacted
  - No reduction in biological diversity of the area is expected
  - Impacts from clearing will be temporary and mostly reversible as sustainable uses can be achieved beyond the Mine life
  - The additional clearing required is within the delineated mine area and these areas are not farmed
- 11) Threat to biological diversity from the spread of invasive plant species such as *Typha Australis*:
- There will be a reduction in the spread of invasive species through the introduction of control measures
- 12) Impact on community land occupation, resource access and production activities:
- No relocation of any settlement and population will be required
  - Although mine activities will disrupt the surrounding communities, employment opportunities and improvement in local infrastructure are clearly perceived to outweigh any potential impacts
- 13) Impact on community health due to the mine affecting air and water quality, and degradation of health, hygiene and sanitation due to an increased population:
- Management of air and water quality within the mine site will minimise any potential impacts on downstream users
  - Community health programmes will be improved with the provision of assistance to the communal authorities in matters of health and sanitation.

### 19.3 LEGAL REQUIREMENTS AND OTHER OBLIGATIONS

The legislative and statutory texts in place in Mali, as well as the standards of international institutions for protection and environment management, are summarised in the sections below. Where appropriate standards and guidelines are not covered by Malian legislation or regulations SOMISY has and will adopt the appropriate international standard or guideline.

#### 19.3.1 MALIAN GOVERNMENT

In Mali, the environment is under the supervision of the Department of the Environment and Sanitation, but other Ministries, particularly those in charge of Mines, Energy and Water, Agriculture, Industry and Health are involved in the management of the environment.

The National Direction of Sanitation and Control of Pollution and Noxious Substances (DNACPN), within the Department of the Environment and Sanitation, are in charge of policy development and the control standards regarding environmental management. It is most directly concerned with environmental impact assessments of projects. The DNACPN requested an Environmental Impact Assessment be completed prior to Syama recommencing operations in 2007. This was completed in 2007 and an Environmental Licence obtained.

The National Management of Water Supply, Industry and Health are in charge of policy development and the control standards in their respective fields of competence.

Faced with persistent threats of degradation of the Niger River basin resources, the Government created, within the Ministry of the Environment and Sanitation, the Agency for the Development of the Niger River Basin (ABFN).

### 19.3.2 MALIAN LEGISLATION

Table 19.1 shows the main environmental legislative and legal texts which govern environmental management and the industrial sector in Mali.

**Table 19.1 Summary of legislative and statutory texts (SOMISY, 2007)**

No.	Ordinances, Laws and Decrees	Content
1	Law No. 01-004/AN-RM of 27 February 2001	Rural Charter
2	Law No. 01-020/AN-RM of 30 May 2001	Pollution and Nuisance
3	Law No. 02-006 of 31 January 2002	Water Code
4	Law No. 03-006 21 May 2003	Creation of Malian Agency for the Development of Domestic Energy and Rural Electrification (AMADER)
5	Law No. 05-050 of 19 August 2005	Modification of Law No. 91-048/AN-RM of February 26, Investment Codes
6	Law No. 96-91/AN-RM of 1 August 1996	Code of Domains and Land
7	Law No. 95-003/P-RM of 18 January 1995	Organisation of Transport and Commerce Operations
8	Law No. 95-004 of 18 January 1995	Forest Resources Management Conditions
9	Law No. 95-031 of 20 March 1995	Wildlife and Habitat Protection and Management
10	Law No. 95-032 of 20 March 1995	Fishing and Fish Farming Management
11	Law No. 96-050 of 16 October 1996	Construction Principals and Management Local Authorities, Public and Private
12	Law No. 98-066 of 30 December 1998	Code of territorial communities in the Republic of Mali modifying Law No. 95-034 of 12 April 1995
13	Decree No. 01-394/P-RM of 6 September 2001	Solid Waste Management Methods
14	Decree No. 01-395/P-RM of 6 September 2001	Management Methods for Waste Water and Sewage
15	Decree No. 01-396/P-RM of 6 September 2001	Noise Pollution Management Methods
16	Decree No. 01-397/P-RM of 6 September 2001	Air Pollution Management Methods
17	Decree No. 03-226/P-RM of 30 May 2003	Organisation and Operation Methods of AMADER
18	Decree No. 03-594/P-RM of 31 December 2003	Rules and Procedures for Environmental Impact Assessments
19	Decree No. 90-033/P-RM of 19 February 1990	Construction Permit Regulations
20	Decree No. 98-402/P-RM of 17 December 1998	Taxation of Wood Exploitation and Distribution of Revenues
21	Decree No. 99-205/P-RM of 4 October 1999	Woodcutting Procedures according to State Forest Domain
22	Decree No. 99-255/P-RM of 15 September 1999	Ordinance Application Methods
23	Ordinance No. 00-019/P-RM of 15 March 2000	Organisation of the Electricity Sector
24	Ordinance No. 00-021/P-RM of 15 March 2000	Creation of an Electricity Regulation Commission
25	Ordinance No. 98-027/P-RM of 25 August 1998	Creation of National Direction of Sanitation and Control of Pollution and Nuisance

## **19.4 COMMUNITY**

Syama operates in the area of Sikasso, Circle of Kadiolo, and Rural Commune of Fourou. The operations directly and/or indirectly affect the environment characteristics of the following five villages: Fourou – head village of the Commune, Syama, Bananso, Tambélini and Loulé.

### **19.4.1 POLICY HIGHLIGHT**

As an ongoing mining operation, SOMISY has developed good relationships with the surrounding communities and has established a Community Development Policy for its operations area. This policy is based on:

- The willingness to make local communities responsible stakeholders by having trust in themselves being active rather than spectators of their own development process;
- The commitment to the promotion of a mutual culture of understanding, solidarity and respect inclusive of linguistic and cultural diversity, which are the foundation of any dynamic society;
- A sustainable partnership with a stakeholder's synergy for all questions related to the life of the local communities; and
- Emphasis being put on dialogue and consultation to strengthen good relations leading to research action, identification, choice and implementation of beneficial community development projects.

### **19.4.2 LOCAL DEVELOPMENT PROJECTS**

SOMISY works with the Rural Commune of Fourou to foster the growth of development projects. These include plains development, fish farming, vegetable farming, soap making, crop improvement, development of related activities and road building. SOMISY's policy is:

- To take into account all tools of existing planning within the commune;
- To consider the judicial planning of the resources of the commune through a global development strategy;
- To reinforce strategies of local socio-economic development promotion;
- To progressively reduce the dependence of the communities accommodating the actual actions of the mine from the previous period to the closure;
- To improve the management of the available resources;
- To improve the lifestyle of the community;
- To suitably attract foreign partners for potential investments in other sectors; and
- To take into account the environmental impacts to prevent damage such as the pollution of waters, the atmospheric pollution and the destruction of the fauna and flora.

### **19.4.3 FARM LAND COMPENSATION**

SOMISY is committed to live in harmony with and protect the interests of the local communities surrounding the mine. Mining activities cannot be carried out without sometimes causing disturbances to these communities. A Reflection Committee on Compensation Mechanism of Field Land Owners has been established, and through this group a compensation process has been established.

#### **19.4.4 LOCAL LABOUR RECRUITMENT**

As part of the community relations management plan SOMISY has committed to fill unskilled positions with local people, this is further broken down to the following ratios:

- 75% for the Collectivity (Fourou Rural Commune)
- 15% for the District of Kadiolo
- 5% for the Region of Sikasso
- 5% for the rest of the Republic of Mali

#### **19.5 CLOSURE**

As an ongoing mining operation Syama has developed a mine closure strategy to satisfy both the statutory requirements and Resolute's standards. This strategy includes:

- Making safe the open pit wall crests;
- Closure of the surface portals and accesses to the underground by filling the first 20 metres with rock;
- Profiling and rehabilitation of waste dumps;
- Profiling and rehabilitation of ore pads;
- Ripping and rehabilitation of roads and the air strip;
- Removal of plant, equipment, buildings and other infrastructure;
- Profiling and rehabilitation of other disturbed areas;
- Covering, profiling and rehabilitation of TSFs; and
- Ongoing monitoring.

The current strategy allows for progressive rehabilitation of waste dumps and the other major works (removal of plant, buildings and infrastructure, rehabilitation of TSFs) carried out on completion of the operation. Allowance has been made for monitoring of the environmental impact for 3 years after final mine closure and the preparation of closure and relinquishment reports.

Table 19.2 is the estimate for completion of the closure works described above and has been calculated on the basis of estimated unit rates and known quantities (volumes, area, time, etc).

**Table 19.2 Closure cost estimate summary (source: Resolute, 2016)**

<b>Cost category</b>	<b>Cost estimate</b>
Post closure management	USD651,000
Open Pits	USD210,249
Underground Mines	USD200,000
WRDs/ROM pads	USD5,941,397
TSFs	USD3,915,354
Roads/airstrips	USD407,074
Borrow pits	USD14,720
Exploration Disturbance	USD1,441
Production and monitoring bores	USD60,000
Infrastructure	USD6,639,980
Monitoring	USD705,000
Consultants	USD580,000
<b>Total</b>	<b>USD19,326,214</b>

## 20 CAPITAL AND OPERATING COSTS

The capital and operating development cost model is based on the incumbent contractor rates for a three year period to June 2022, with owner-operating costs being developed from first principles for ore production over the remaining mine life. Development quantities are based on the mining physicals as described in Section 16. All cost estimates are provided in USD as at 30 June 2018. The Life-of-Mine All-In Sustaining Cost for Syama Underground is estimated at USD 746/ounce.

### 20.1 CAPITAL COST ESTIMATES

Project capital expenditure estimates accompanying the declared Ore Reserves are quoted in USD. The capital cost estimates are summarised in Table 20.1. Total capital spend is projected to be USD468 M over the life of the Project.

**Table 20.1 Capital spend summary (source: Mining Plus, 2018)**

Cost category	Total expenditure (USD M)
UG mobile mining equipment	73
UG fixed equipment	36
UG capital infrastructure	4
UG capital development	335
Treatment capital	17
Tailings Storage Facility (TSF)	3
Sustaining projects	0
<b>Total</b>	<b>468</b>

### 20.2 OPERATING COSTS

Project operating cost estimates accompanying the declared Ore Reserves are based on quantities derived from the LOM schedule, combined with a cost model developed by AMC Consultants. Unit costs for consumables are based on contractor rates and supplier quotations, together with benchmark data from comparative sites. Mining fixed costs include management supervision, geology, survey and haulage and have been also been built up from first principles. The maintenance costs for the underground fleet are based on preliminary rates from Sandvik AB - Mining and Rock Technology (Sandvik), who will be providing a complete maintenance service for Syama Underground. A summary of the operating unit cost of production as per the major reporting areas is provided in Table 20.2.

**Table 20.2 Operating unit cost summary (source: Mining Plus, 2018)**

Cost category	Estimate USD/t milled
Underground mining	19.9
Treatment	19.4
General and Administration	4.9
Royalties, refining costs and silver credits	5.8
<b>Total</b>	<b>46.9</b>



## 21 ECONOMIC ANALYSIS

Syama is a robust long-life asset comprising parallel sulphide and oxide processing plants. For the financial year ending 30 June 2018 (FY18) gold production from Syama was 194koz at an all in sustaining cost of USD 998/oz (Resolute, 2018c), predominantly from low grade stockpiles and satellite open pit material. The move from open pit to underground mining is expected to extend the mine life beyond 2032. Mining will be via sublevel caving, a high productivity, non-selective mechanised mining method at a rate of 2.4 Mtpa. Extraction will be automated, using a fleet of autonomous loaders and trucks utilising a customised decline system. Additional production is generated from longhole open stoping from the perimeter of the orebody, outside the current limits of the SLC footprint.

A variety of gold price points (US\$1,050 to US\$1,300) and discount rates were used to assess the robustness of the project, likely payback periods, the breakeven point and the projected internal rate of return. Study results confirm that Syama Underground is both technically and financially viable with a long mine life and significant growth potential. Under base case economic assumptions, the mine achieves positive NPV and IRR of over 20%. In the estimate, a gold price of USD1,200 per ounce was assumed. The Life of Mine All-In Sustaining Costs for Syama Underground mine is USD 746/oz (Resolute, 2018b).

### 21.1 FORECAST COSTS

The major capital expenditure for the Syama project will be the Syama Underground Project. During 2017, Resolute released a revised Definitive Feasibility Study Update for the underground project based on increased mining development from an expanded Mineral Resource. The project also adopted mining automation which resulted in reduced mining costs over an extended mine life.

A summary of the key operating metrics for the Syama Underground mine are presented in Table 22.1.

**Table 21.1 Syama Underground project forecast costs**

	Unit	DFS Update
<b>Underground development</b>		
Decline development	m	10,869
Vertical development	m	3,738
Level development	m	82,919
Total development	m	97,526
<b>Ore Production</b>		
Development ore	kt	3,319
Stoping ore	kt	31,870
Total ore	kt	35,188
Metal grade (ROM)	g/t	2.69
Metal contained (ROM)	koz	3,042
<b>Metal Recovery</b>		
Processing recovery	%	89%
Metal recovered	koz	2,697
<b>Operating Unit Costs (including pre-production)</b>		
Mining	USD/t	19.9
Processing	USD/t	19.4
G&A	USD/t	4.9
Royalty, refining costs and silver credits	USD/t	5.8
<b>Capital Cost</b>		
Sustaining capital	USDM	255
<b>AISC</b>	<b>USD/oz</b>	<b>746</b>

The forecast gold price and exchange rate assumptions are presented in Table 21.2.

**Table 21.2 Forecast gold price and exchange rates**

Description	Metric	Budget AUDM
<b>Macroeconomics</b>		
Gold Price (USD/oz - real)	USD/oz	1,275
Gold Price (AUD/oz - real)	AUD/oz	1,700
Silver Price (USD/oz - real)	USD/oz	17
FX (AUD:USD)	AUD:USD	0.75

## 22 ADJACENT PROPERTIES

Properties adjacent to Syama have no material impact on the Mineral Resources or Ore Reserves and are not considered relevant.

## 23 OTHER RELEVANT DATA AND INFORMATION

There is no other data which is relevant to Syama at the effective date of the report (31 December 2018 for all of Syama, except for Tabakoroni, which has an effective date of 31 March 2019).

## 24 CONCLUSION

Syama has been a robust oxide and sulphide open pit mining operation with substantial Ore Reserves. The current expansion to underground mining at Syama is progressing well and there is no reason to doubt that mine production will increase significantly once the underground project is producing.

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## 26 GLOSSARY OF TERMS

Abbreviations	Explanation
\$	Dollars
%	percentage
°C	degrees Celcius
µm	one millionth of a metre
°	degrees
AAS	Atomic Absorption Spectrometry
ABFN	Agency for the Development of the Niger River Basin (Mali)
ABFN	Agency for the Development of the Niger River Basin
ABN	Australian Business Number
agi	Agitator
AISC	All-In Sustaining Cost
ALS	Australian laboratory services
ASX	Australian Securities Exchange
Au	Gold
Au-AA25	25 g Fire assay for gold (ALS)
AUD	Australian Dollars
AusIMM	Australian Institute of Mining and Metallurgy
BBWI	Bond Ball Mill Work index
BHP	Broken Hill Proprietary
BSc	Bachelor of Science
CEng	Chartered Engineer
CIK	Categorical Indicator Kriging
CIL	Carbon-in-leach
cm <sup>3</sup>	cubic centimetre
Corg	organic Carbon
CP	Chartered Professional of the AusIMM
CRM	Certified Reference Material
CV	Coefficient of variation
DD	Diamond drilling
DFS	Definitive Feasibility Study
Dwi	Drop Weight index
etc	etcetera
ft	feet
FTSF	Flotation Tailing Storage Facility
FWD	Footwall drive
FX	Foreign exchange
FY	Financial Year
g	Grams
g/cm <sup>3</sup>	grams per cubic centimetre
g/t	grams per tonne
Ga	Billion years
GIS	Geographic Information System
GPS	Global Positioning System

Abbreviations	Explanation
Grad Dip	Graduate Diploma
Ha	Hectare
HFO	Heavy Fuel Oil
Hons.	Honours
hr	Hour
ID	Inverse Distance
incl.	include
IP	Induced polarisation geophysical survey
IPP	Independent Power Producer
IRR	Internal rate of return
JORC	Joint Ore Reserves Committee
kg	kilogram
km	kilometre
km <sup>2</sup>	square kilometre
KNA	Kriging Neighbourhood Analysis
koz	Thousand ounces
kt	kilotonnes
ktpa	kilotonnes per annum
kW	kilowatts
kWh	kilowatt hours
L	Litres
L/s	Litres per second
LCR	Low Carbon Roaster
LG	Low Grade
LH514E	Sandvik 14t underground loader
LH517	Sandvik 17t underground loaders
LH612	Sandvik 21t underground loader
LHOS	Long hole open stope
LOM	Life of Mine
LOMP	Life of Mine Plan
Ltd	Limited
m	metre
M	million
m/km	Metres per kilometre, gradient measurement
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metres
Ma	million years
MAIG	Member of the Australian Institute of Geoscientists
mASL	Metres above sea level
MAusIMM	Member of the Australian Institute of Mining and Metallurgy
max.	maximum
MDL	Mineral Development Licence
mE	meters Eastings
MIK	Multiple Indicator Kriging
MIMMM	Member of the Institute of Materials, Mining and Metallurgy



Abbreviations	Explanation
min.	minimum
ML	Mining Lease
MLpa	Million litres per annum
mm	millimetres
mm/hr	millimetres per hour
mN	metres Northings
Mo	molybdenum
MOU	Memorandum of understanding
Moz	Million ounces
MPa	Megapascals, a unit of rock strength
MR Act	Mineral Resources Act
mRL	metres Reduced Level
MSc	Masters of Science
MSO	Mine stope optimiser (software)
Mt	million tonnes
Mtpa	million tonnes per annum
MW	Megawatt, one million watts
MW	Mega watt or Molecular weight
N	north
N Dip	National Diploma
NDACPN	National Direction of Sanitation and Control of Pollution and Noxious Substances (Mali)
Ni	nickel
Nos.	number
NPV	net present value
NSR	Net smelter return
NSW	New South Wales
OHP	open hole percussion
OK	ordinary kriging
ori	orientation
OT	Oxide Treatment
OTSF	Oxide Tailings Storage Facility
oz	troy ounce (31.1g)
P <sub>80</sub>	80% passing
P <sub>85</sub>	85% passing
PFS	Pre-Feasibility Study
PMA	Particle Mineralogical Analysis
PO	post office
PoW	programme of work
ppm	Parts per million
Pty	Propriety
PV	PhotoVoltaic
QAQC	quality assurance, quality control
QEMScan	Quantitative Evaluation of Minerals by SCANNing electron microscopy
QQ	quantile-quantile
RAB	Rotary Air Blast drilling

Abbreviations	Explanation
RAW	Return air way
RC	Reverse Circulation drilling
RC-D	Reverse circulation collar with diamond drill tail
RL	Reduced Level
RML	Resolute
ROM	Run of Mine
RQD	Rock Quality Designation
RTK DGPS	Real Time Kinematic Differential Global Positioning System
S	sulphur
Sb	antimony
SBFZ	Syama-Bananso Fault Zone
SBSZ	Syama-Bananso Shear Zone
SD	standard deviation
SEIS	Supplementary Environmental Impact Statement
SGS	Standard Global Services
SLC	sub-level caving
SMUs	Selective Mining Units
SOMISY	Société des Mines de Syama
SQL	Structured Query Language
t	metric tonnes
t/m <sup>3</sup>	tonnes per metre cubed
TMA	Trace Mineral Search Analysis
tph	Tonnes per hour
TSF	Tailings storage facility
TSX	Toronto Securities Exchange
TSX-V	Toronto Venture Exchange
UDS M	United States dollars, Millions
UG	Underground
UNDP	United Nations Development Program
USA	United States of America
USD	United States Dollars
UTM	Universal Transverse Mercator
V	volts
vs	versus
WA	Western Australia
WGS84	World Geodetic System 1984
WRDs	Waste Rock Dumps
XRD	X-ray powder diffraction

Term	Explanation
alloy	A combination of metals or of a metal and another element.
alteration	A change in mineralogical composition of a rock through reactions with hydrothermal fluids, temperature or pressure changes.
aluminium	A chemical element with symbol Al and atomic number 13. It is a silvery-white, soft, nonmagnetic and ductile metal in the boron group
andesite	Andesite is an extrusive igneous, volcanic rock of intermediate composition. Andesite is the volcanic equivalent of diorite, the word andesite is derived from the Andes Mountains in South America.
Archaean	A geological period from 4,000 to 2,500 million years before present day.
Archimedes principle	Archimedes' Principle is that an object totally or partially immersed in a fluid (liquid or gas) is buoyed (lifted) up by a force equal to the weight of the fluid that is displaced. It has numerous applications, one of which is the determination of density and specific gravity.
argillite	A compact rock, derived from either mudstone or shale that has undergone a higher degree of induration but is less clearly laminated than slate.
arsenic	A chemical element with symbol As and atomic number 33. Arsenic occurs in many minerals, usually in combination with sulfur and metals, but also as a pure elemental crystal. Arsenic is a metalloid.
artisanal mining	Surface and sometimes underground mining carried out by unlicensed, generally illegal, local inhabitants, generally with minimal technology.
auger	a drill for boring holes
basalt	A fine grained extrusive igneous rock that is typically low in silica, is dark in colour and consists mostly of plagioclase feldspar and pyroxene.
blank	Samples whose grade is (practically) zero.
breccia	Fractured or broken rocks, cemented or formed into a solid layer.
brecciated	Converted into or resembling a breccia.
brecciated siltstone	A siltstone containing small fragments of breccia.
brecciation	Converted into or resembling a breccia.
calcine	reduce, oxidize, or desiccate by roasting or exposing to strong heat
carbonaceous	A rock or sediment that is rich in carbon or containing organic matter.
carbonate	A class of sedimentary rocks composed primarily of carbonate minerals. The two major types are limestone and dolomite.
carbonate rock	A sedimentary rock generally formed in shallow marine conditions which is characterised by the presence of varying amounts of calcium carbonate or magnesium carbonate. Coral reefs and/or marine creatures may contribute to the constituents in the rock.
chert	A very fine grained sedimentary rock composed of silica.
chlorite	A group of mostly green minerals of varying composition often found as alteration products of ferromagnesian minerals.
clast	A fragment of rock, originating from larger rocks, broken off by the processes of physical weathering of a larger rock.
clastic	A rock composed of fragments or particles of various sizes.
clast-supported	Conglomerate with over 15% by volume of larger rock fragments rather than the finer grained matrix
clay	Clay is a finely-grained natural rock or soil material that combines one or more clay minerals with possible traces of quartz (SiO <sub>2</sub> ), metal oxides (Al <sub>2</sub> O <sub>3</sub> , MgO etc.) and organic matter.
cofferdam	a watertight enclosure pumped dry to permit construction work below the waterline
collar	starting point of a drillhole.
collar (drilling)	The collar is the start point of a drillhole, or the preliminary step in drilling to cause the drill bit to engage in the rock.
comminution	reduction in the particle size of crushed rock in a process plant.
composite	A sample comprised of a number of smaller samples.
concentrate	End product of the crushing, grinding, and flotation processes.
conglomerate	A coarse-grained sedimentary rock composed of a substantial component of rounded to subangular rock fragments embedded in a matrix of fine grained or cementing material
craton	An old stable portion of the earth's crust, generally of Archaean age
cutback	

Term	Explanation
cyanide	A chemical compound that contains the group $C\equiv N$ . This group, known as the cyano group, consists of a carbon atom triple-bonded to a nitrogen atom. Commonly used in the processing of gold.
cyclone	A mechanical concentration device to separate particles from air using vortex separation
database	A collection of information that is organized so that it can be easily accessed, managed and updated
Datamine	a software package used to create 3D geological models
Datashed	A geological database software package.
decline	Underground ramp access typically established as a spiral tunnel which circles downwards adjacent to the orebody. It begins with a portal, or opening to surface.
deformation	Term used to describe the alteration which changes the character and/or configuration of rocks caused by stress. Stresses on rocks can stem from various sources, such as changes in temperature or moisture, shifts in the Earth's plates, sediment buildup or even gravity.
deleterious	An element or mineral in a concentrate for which a penalty may be charged when the concentrate is sold.
deleterious (au)	An element or mineral in a that is unwanted.
density	Density describes how compact or how concentrated something is, or put another way density is the ratio between mass and volume or mass per unit volume.
density log	Graphical representation of rock density down a borehole as measured by a geophysical probe.
deposit	Earth material of any type, either consolidated or unconsolidated, that has accumulated by some natural process or agent. The term applies to material left by water, wind, ice, volcanoes and other agents.
deposition	The layering, placing, or throwing down of any material, specifically the constructive process of accumulation into beds, veins, or irregular masses of any kind of loose rock by any natural agent.
detrital	Rock in small particles or other material worn or broken away from a mass, as by the action of water or glacial ice
development	Collective term describing the underground tunnels mined in order to extract the mineralised material.
dewatering	the removal of water
diamond drilling	Drilling method that uses a rotating bit encrusted with diamonds to collect a cylinder of rock. Drilling fluids may be used.
disseminated	An ore deposit consisting of fine particles of the ore mineral dispersed through the enclosing rock.
domain	A homogenous zone within a mineral deposit consisting of a single grade population, orientation of mineralisation and geological texture.
dore	A semi-pure alloy of gold and silver, usually created at the site of a mine. It is then transported to a refinery for further purification.
drawpoint	An underground opening at the bottom of a stope where broken ore of higher level is extracted
drillhole	A hole drilled in the ground used for exploratory purposes.
drillhole data	Data collected from the drilling, sampling and assaying of drillholes.
ductile	A response to stress in which material is capable of permanent deformation without rupture.
duplicates	A set of two samples taken at the same time and in the same way.
electrification	the action or process of charging something with electricity
electrowinning	Electrowinning, also called electroextraction, is the electrodeposition of metals from their ores that have been put in solution via a process commonly referred to as leaching
Electrum	Electrum is a naturally occurring alloy of gold and silver, with trace amounts of copper and other metals
en echelon	Structural features within rock which appear as a set of short, closely-spaced parallel or sub-parallel lenses. They originate as tension fractures that are parallel to the major stress orientation in a shear zone. They are subsequently filled by precipitation of a mineral, typically quartz or calcite to form veins.
erosion	the process of gradual destruction or diminution of rock by wind, water or other natural agents
estimate	is to calculate a value of a variable that is as representative as possible to the 'true' unknown value.

Term	Explanation
extrapolation	the action of estimating or concluding something by assuming that existing trends will continue or a current method will remain applicable.
fault	A planar fracture or discontinuity in a volume of rock, across which there has been significant displacement as a result of rock-mass movement
fault breccia	Rock type which is produced by movement along a fault.
fauna	the animals of a particular region, habitat, or geological period
feasibility study	A mining and or processing study into the economic development of a project for which the inputs have an accuracy of 5% to 10%.
flora	The plants of a particular region, habitat, or geological period.
flotation	A metallurgical concentration method whereby bubbles of air are used to separate crushed sulphide particles from waste rock of a different density or different physical characteristics.
flowsheet	A diagram commonly used in chemical and process engineering to indicate the general flow of plant processes and equipment.
flyght	Electrical submersible pump
foliation	Parallel orientation of platy minerals or mineral banding in rocks.
footwall	The underlying side of a fault, orebody or mine workings.
formation	The fundamental unit of lithostratigraphy. A formation consists of a certain amount of rock strata that have a comparable lithology, facies or other similar properties
fracture	A break in a rock due to mechanical failure by stress.
fragmentation	the process or state of breaking or being broken into fragments
fresh	unweathered rock
fusion	the process or result of joining two or more things together to form a single entity
gangue	The non-economic portion of a mineralised rock.
geology	Geology is a science which is concerned with the solid Earth, the rocks of which it is composed, and the processes by which they change over time.
geometallurgical	the practice of combining geology or geostatistics with metallurgy, or, more specifically, extractive metallurgy, to create a spatially or geologically based predictive model for mineral processing plants
geophysical survey	A survey that measures the physical properties of rock formations, commonly magnetism, specific gravity, electrical conductivity and radioactivity.
geotechnical	A generic term for work carried out using the mechanical properties of rocks.
geotechnical analysis	Analysis of the factors affecting the stability of a rock mass.
geotechnical core logging data	Data collected on the geotechnical properties of rock mass by examining diamond drill core.
geotechnical strength testing	Analysis of the factors affecting the stability of a rock mass.
gold	a yellow malleable ductile element that occurs chiefly free or in a few minerals. It is a precious metal, which is used in jewellery, and to guarantee the value of currencies.
gold characterisation study	A study designed to determine the nature (size, shape and deportment) of gold particles in a given rock type, leading to, among other outcomes, an assessment of a minimum sample size for accurate determination of gold content.
graphitic	Pertaining to rocks containing graphite. Graphite is carbon derived from carbonaceous material of organic origin. Common in metamorphic rocks such as gneisses, marbles, and schists.
gravel	Rock that is between 2 to 63 mm in its longest dimension
greywacke	A variety of sandstone generally characterized by its hardness, dark colour, and poorly-sorted, angular grains of quartz, feldspar, and small rock fragments set in a compact, clay-fine matrix.
grouted	The process of filling a completed drillhole with cement
Gyro downhole survey	A downhole survey tool which does not rely on the properties of a magnet, and thus gives a very accurate reading of the location of a drillhole at depth.
hangingwall	The overlying side of a fault, orebody or mine workings.
heterogeneous	diverse in character or content.
highway	A highway is any public or private road or other public way on land. It is used for major roads, but also includes other public roads and public tracks
hydrology	the branch of science concerned with the properties of the earth's water, and especially its movement in relation to land
hydrothermal	Relating to fluids which contain minerals of interest and water, generally at elevated

Term	Explanation
	temperatures.
Indicated Mineral Resource	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.
Inferred Mineral Resource	An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drillholes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.
intrusion	The action or process of forcing a body of igneous rock between or through existing formations, without reaching the surface
iron	Iron is a chemical element with symbol Fe (from Latin: ferrum) and atomic number 26. It is a metal in the first transition series. It is by mass the most common element on Earth, forming much of Earth's outer and inner core. It is the fourth most common element in the Earth's crust.
iron oxides	Minerals composed of iron and oxygen, e.g. hematite, magnetite.
jumbo	Electro-hydraulic rock drilling machine used in underground mining activities
Kriging	Is a family of geostatistical estimation methods which use a distance weighting technique which is based upon the relative spatial continuity of the samples.
Kriging efficiency	Kriging efficiency is a measure of the effectiveness of the kriged estimate to reproduce the local block grade accurately.
Kriging Neighbourhood Analysis	A KNA provides a quantitative method of testing different estimation parameters (e.g. block size) and, by assessing their impact on the quality of the resultant estimate, select the optimal value for each parameter.
lag	The distances between pairs at which the variogram is calculated is called the lag
lamprophyre	any dark intrusive rock in which dark minerals occur both as phenocrysts and as groundmass, typically occur as dykes or sills
landsat	Any of various satellites used to gather data for images of the Earth's land surface and coastal regions. These satellites are equipped with sensors that respond to Earth-reflected sunlight and infrared radiation.
laterite	A soil residue composed of secondary oxides of iron, aluminium or both.
lava	hot molten or semi-fluid rock (magma) that has erupted from a volcano or fissure in the Earth's surface, or a solid rock resulting from cooling of this.
leach or leaching	the action of a chemical on a mineral or substance where the substance becomes soluble is removed from the host material.
lead	Lead is a chemical element with symbol Pb and atomic number 82. It is a heavy metal that is denser than most common materials. Lead is soft and malleable, and also has a relatively low melting point. When freshly cut, lead is silvery with a hint of blue; it tarnishes to a dull grey colour when exposed to air.
level	horizontal underground development used to access the mineralisation for mining
lithology	The study and description of rocks, including their mineral composition and texture.
logging	The practice of recording detailed geological information from drilled core or samples
longhole mining	style of underground mining which requires two excavations within the mineralisation at different elevations below surface. Holes are drilled between the two excavations and loaded with explosives. The holes are blasted and the ore is removed from the bottom excavation.
mafic igneous rocks	Silicate minerals, magmas, and volcanic and intrusive igneous rocks that have relatively high concentrations of the heavier and darker minerals.
massive	A rock that is homogeneous in appearance
massive texture	general term that refers to a texture that has a homogenous appearance over wide areas, and displays an absence of banding, shear fractures or other similar features.
matrix	The fine-grained materials that surround larger grains in a rock
matrix-supported	A sedimentary rock of which a defined majority is the fine-grained matrix as opposed to the clasts, clasts constitute less than 15% of its volume.
mesothermal	A hydrothermal mineral deposit formed at considerable depth.
metallurgy	Study of the physical properties of metals as affected by composition, mechanical working and

Term	Explanation
	heat treatment.
mill or milling	a stage in the processing plant where the ore is ground to a particular particle size to enable the optimal extraction of the commodity of interest.
mineral	a naturally occurring inorganic element or compound having an orderly internal structure and characteristic chemical composition, crystal form, and physical properties.
Mineral Assemblage	The minerals that compose a rock, especially in an igneous or metamorphic rock. The term includes the different kinds and relative abundances of minerals, but excludes the texture and fabric of the rock.
Mineral Resource	The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which ore Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Competent Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Competent Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cut-off grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Competent Person should state if the assessment is based on any direct evidence and testing.
Mineral Resource	'A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.' JORC 2004.
mineralisation (mineralised)	The process by which a mineral or minerals are introduced into a rock, resulting in a valuable deposit.
mineralisation solid	See wireframe.
mineralogy or mineralogical	The study of minerals: formation, occurrence, properties, composition and classification.
nugget	Naturally occurring, visible piece of native gold, either in situ or as a gold particle
nugget effect	A variability component reflecting the short-scale differences in grade for a set of assays.
ore	Mineralised material which is economically mineable at the time of extraction and processing.
Ore Reserve	'An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.' (JORC, 2004)
ore sorting	A generic term for one of a number of techniques for separating rocks based upon one or a combination of physical, chemical or electrical properties, e.g. density, brightness, conductance.
ore zone /ore body	Zone of mineralised material.
orebody	Usually refers to the deposit as a whole.
ounce	See "troy ounce"
photovoltaic	relating to the production of electric current at the junction of two substances exposed to light
piezometers	a device used to measure liquid pressure in a system by measuring the height to which a column of the liquid rises against gravity, or a device which measures the pressure (more precisely, the piezometric head) of groundwater at a specific point
plateau	It is an area of a highland, usually consisting of relatively flat terrain that is raised significantly above the surrounding area, often with one or more sides with steep slopes.
platinum	a chemical element with symbol Pt and atomic number 78. It is a dense, malleable, ductile, highly unreactive, precious, silverish-white transition metal. Its name is derived from the Spanish term <i>platino</i> , meaning "little silver".
polymictic	A sedimentary rock comprising of several different clast types
portal	Access point from surface to an underground mine

Term	Explanation
Pre- Feasibility Study (PFS)	A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resource may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.
Probable Ore Reserve	A 'Probable Ore Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. (JORC, 2004)
Proterozoic	Era of the geological time scale within the Precambrian eon containing rocks of approximately 1000 – 2500 million years old.
Proved Ore Reserve	A 'Proved Ore Reserve' is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. (JORC, 2004)
pyrite	Iron disulphide, (FeS <sub>2</sub> ).
QAQC	Quality Assurance/Quality Control – a set of tests to ensure precision, accuracy and lack of bias of grade and bulk density measurements.
RAB drilling	Rotary air blast (RAB) drilling is one of the fastest, cheapest and easiest ways for miners to obtain a sample from their resource. In RAB operation, a spinning tungsten drill bit forces its way down through the ore, blowing fragments back up to the surface for examination. RAB drilling is generally used for relatively shallow depths up to 25m, or to remove soft rock on top of the deposit.
refinery	Facility where a crude or semi-finished commodity (such as metal, or oil) is converted into a finished or higher grade product.
refractory ore	A "refractory" gold ore is an ore that has ultra fine gold particles disseminated throughout its gold occluded minerals. These ores are naturally resistant to recovery by standard cyanidation and carbon adsorption processes.
regolith	Unconsolidated rock material resting on bedrock, found at and near the surface of the Earth. Residual regolith is formed by the mechanical and chemical weathering of bedrock; transported regolith is moved and deposited by processes acting at or near the Earth's surface.
rehabilitate	Land rehabilitation is the process of returning the land in a given area to some degree of its former state, after some process (industry, natural disasters, etc.) has resulted in its damage.
rheology	Rheology is the study of flow and deformation of materials under applied forces
rifle splitter	A static and fractional sub-sampling device that can be used for dividing a lot of dry particulate material into two half-lots.
rig	Piece of mobile equipment e.g. a drill rig
rings	collective group of drillholes used to extract ore during the stoping process
roast or roasting	Roasting is a process of heating of sulfide ore to a high temperature in presence of air. It is a step of the processing of certain ores. More specifically, roasting is a metallurgical process involving gas–solid reactions at elevated temperatures with the goal of purifying the metal component(s)
royalty	Compensation or a fee paid for a licence or privilege for the use of a natural resource (e.g. mining lease) or intellectual property (e.g. brand, copyright, process).
sandstone	Sedimentary rock consisting of sand or quartz grains cemented together
satellite deposit	small, isolated deposit close to or adjacent the namesake deposit
savannah	a grassy plain in tropical and subtropical regions, with few trees.
sediment	Loose, unconsolidated deposit of debris that accumulates on the Earth's surface.
sedimentary	Rock forming process where material is derived from pre-existing rocks by weathering and erosion.
sedimentary facies	A condition or set of conditions in which a specific sedimentary rock was deposited; a generic name for a type of rock.



Term	Explanation
sericite alteration	a fine-grained fibrous variety of muscovite, found chiefly in schist.
shale	A detrital sedimentary rock composed of clay minerals with a well marked bedding plane usually due to the alignment of the clay minerals.
shear	Type of fault.
shear zone	A shear zone is a tabular to sheetlike, planar or curvilinear zone composed of rocks that are more highly strained than the rocks adjacent to the zone. Typically this is a type of fault, and may form zones of much more intense foliation, deformation, and folding. En echelon veins or fractures may be observed within shear zones.
shield	A shield is generally a large area of exposed Precambrian crystalline igneous and high-grade metamorphic rocks that form tectonically stable areas.
shotcrete	Sprayed concrete is concrete or mortar conveyed through a hose and pneumatically projected at high velocity onto a surface, typically reinforced with steel fibres. Used in underground settings as a form of ground support.
silicates	any of the many minerals consisting of silica combined with metal oxides, forming a major component of the rocks of the earth's crust.
sill (intrusive)	A sill is a flat sheet like intrusion that has intruded between older layers of sedimentary rock, beds of volcanic lava or tuff, or along the direction of foliation in metamorphic rock. A sill is a concordant intrusive sheet, meaning that a sill does not cut across pre-existing rock beds.
siltstone	A type of sedimentary rock where the individual particles are predominantly between <0.05mm in size.
silver	a chemical element with symbol Ag and atomic number 47. A soft, white, lustrous transition metal, it exhibits the highest electrical conductivity, thermal conductivity, and reflectivity of any metal. The metal is found in the Earth's crust in the pure, free elemental form ("native silver"), as an alloy with gold and other metals, and in minerals such as argentite and chlorargyrite. Most silver is produced as a byproduct of copper, gold, lead, and zinc refining.
slot	the initial void created in underground stoping techniques in order to progress blasting
smelter	an installation or factory for smelting a metal from its ore
spectroscopy	Spectroscopy is the study of the interaction between matter and electromagnetic radiation.
sprymec	Concrete spraying machine
Stockpile	A stockpile is a pile or temporary storage location used during mining operations for storing large quantities of material.
stope	Stoping is the process of extracting bulk tonnes of the desired ore or other mineral from an underground mine, leaving behind an open space known as a stope.
stope backfill	Material (commonly tailings or a mixture of tailings and cement) backfilling open spaces (mined areas) of an underground mine.
stratigraphy	The study of stratified rocks, their timing, characteristics and correlations in different locations.
strike	Geological measurement – the direction of bearing of bedding or structure in the horizontal plane.
structure	Geologic structures are usually the result of the powerful tectonic forces that occur within the earth. These forces fold and break rocks, form deep faults, and build mountains.
sumps	Underground water storage areas
syn-tectonic	At the same time as deformation takes place.
tail/tailings	The residue from a mineral processing plant, generally pulverised waste rock.
tectonics	The study of processes that move and deform the Earth's crust.
thrust fault	A type of reverse fault where the fault plane slopes that have a dip of 45 degrees or less.
trench	A narrow excavation used is exploration sampling
troy ounce	A troy ounce is a unit of measure used for weighing precious metals that dates back to the Middle Ages. Originally used in Troyes, France, one troy ounce is equal to 31.21 grams
underground mining	Underground hard rock mining refers to various underground mining techniques used to excavate precious minerals and gems such as gold, silver, nickel, and diamonds.
unmineralised	devoid of economic mineralisation
valorisation	is the increase in the value of capital assets through the application of value-forming labour in production.
variogram	A graphical representation of how the variance between points in space changes over increasing distances in different direction within a given domain.

Term	Explanation
variography	Definition of the three-dimensional grade continuity of drillhole samples by estimating and modelling the relationship between grade similarity and distance in every direction and at every sample spacing.
vein	A tabular or sheetlike body of one or more minerals deposited in openings of fissures, joints, or faults.
veinlet	A small or secondary vein.
ventilation	the provision of fresh air to underground workings
volcanic	An igneous rock of volcanic origin.
volcaniclastic	Relating to or denoting a clastic rock which contains volcanic material
volcanics	Sequence of strata formed from an erupting volcano.
wallrock	rock that is immediately adjacent to a mineral vein, fault, or igneous intrusion.
waste	Material which is not mineralised or mineralised material which is not economically mineable.
waste dump	a large mound or hill of mining waste at the surface of a mine
weathering	The process by which rocks are broken down and decomposed by the action of wind, rain, changes in temperature, plants and bacteria.
wireframe	A surface or 3D volume formed by linking points together to form triangles. Wireframes are used in the construction of block models.



# **Resolute Mining Limited**

## **Competent Persons Report for the Ravenswood Gold Mine, Queensland, Australia**



**Prepared for Resolute Mining Limited**

**Date: 17 June 2019**

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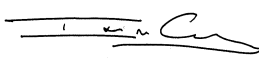
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		Date:	17 June 2019

Important Information:

This Report is provided in accordance with the scope of work provided by Optiro Pty Ltd (Optiro) to Resolute Mining Limited and the terms of Optiro’s Consulting Services Agreement (the Agreement). Optiro has consented to the use and publication of this Report by Resolute Mining Limited for the purposes set out in Optiro’s scope of work, in accordance with the Agreement and as set out in this Report. Resolute Mining Limited may reproduce copies of this entire Report in accordance with its responsibilities under JORC Code (2012) only for those purposes but may not and must not allow any other person to publish, copy or reproduce this Report in whole or in part without Optiro’s prior written consent. Optiro consents to the inclusion of this Report in the Prospectus and to references to any part of this Report in the Prospectus.

## Competent Persons Report on the Ravenswood Gold Mine, Queensland, Australia

The following Competent Persons Report (CPR) has been prepared for Resolute Mining Limited (Resolute). It describes one of Resolute's existing operating mines (the Ravenswood Gold Mine) and the potential Ravenswood Expansion Project, which is one of its main growth opportunities. Proceeding with the Ravenswood Expansion Project is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute. The Ravenswood Gold Mine, located in northern Queensland, approximately 1,000 km north-northwest of the state capital, Brisbane.

For the purposes of Prospectus Rule 5.5.3R(2)(f), Optiro is responsible for this Competent Persons Report as part of the Prospectus to be published by Resolute in connection with its application for admission to the Official List, Standard Segment and to trading on the London Stock Exchanges Main Market for listed securities and declares that it has taken all reasonable care to ensure that the information contained within this report is, to the best of its knowledge, in accordance with the facts and contains no information likely to affect its import. This declaration is included in the Prospectus (Section 2.2) in accordance with item 1.2 of Annex 2 of the Prospectus Regulation. The Competent Persons have given and have not withdrawn their written consent to the issue of the Prospectus with the inclusion of its name and references to it in the form and context in which they appear within it.

Prepared for

Resolute Mining Limited

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**Date of report: 17 June 2019**

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## **1. SUMMARY**

### **1.1. PROJECT DESCRIPTION**

Carpentaria Gold Pty Ltd (Carpentaria), a 100% owned subsidiary of Resolute, is the 100% owner and operator of the Ravenswood Gold Mine (Ravenswood or the Project). Ravenswood is located in North Queensland, 120 km south of the Port City of Townsville, and 1,000 km north-northwest of Brisbane, or approximately 90 km by road from the town of Charters Towers in the township of Ravenswood (Figure 3.1). Ravenswood is a mature operation, having been in continuous production since 1987.

### **1.2. GEOLOGY AND MINERALISATION**

The Ravenswood gold deposits lie within the Lolworth - Ravenswood Block of the Charters Towers Province, which is an elongate, east-west orientated composite batholith of Ordovician to Permian (485.4 – 252.2 Ma) age. The deposits are hosted by an intrusive diorite of Siluro-Devonian (443.4 – 358.9 Ma) age within the Jessop Creek Tonalite. The mineralising event is approximately 80 Ma younger than the Ravenswood Granodiorite, with both the main Nolans/Sarsfield and Mt Wright mineralisation dated as Carboniferous (310 Ma).

Regional structure is dominated by NW to NNW trending faults, which are essentially transfer faults perpendicular to the basin margins. The Sarsfield and Nolans gold deposits are located within and around the junction of three prominent fault systems in the southern part of the Ravenswood goldfield. No association between the host lithology and gold mineralisation has been established other than it is a suitable competent host that allowed the cross-cutting sulphide veins to develop.

### **1.3. MINERAL RESOURCES**

The Sarsfield and Buck Reef West Mineral Resources have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

The Mineral Resources for Sarsfield was estimated by Nic Johnson, a full-time employee of MPR Geological Consultants Pty Ltd who is independent of Resolute. The Buck Reef West Mineral Resources were estimated by Susan Havlin, an employee of Optiro who is independent of Resolute.

The Mineral Resources for Sarsfield and Buck Reef West, as at 31 December 2018, are presented in

Table 1.1. Open Pit Mineral Resources for both areas have been reported above a cut-off of 0.4 g/t gold and for Sarsfield above -250 mRL (approximately 500 m below surface).

**Table 1.1 Ravenswood Mineral Resources as at 31 December 2018**

As at 31 December 2018	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz
	kt		koz	kt		koz	kt		koz	kt		koz
Sarsfield	43,250	0.8	1,120	38,500	0.7	880	22,080	0.7	520	103,830	0.8	2,520
Buck Reef West	830	1.5	40	36,550	1.0	1,220	8,660	1.0	280	46,040	1.0	1,540
Sarsfield Mineralised Waste	0	0.0	0	0	0.0	0	33,700	0.4	400	33,700	0.4	400
<b>Sub-total (OP)</b>	<b>44,090</b>	<b>0.8</b>	<b>1,160</b>	<b>75,040</b>	<b>0.9</b>	<b>2,110</b>	<b>64,440</b>	<b>0.6</b>	<b>1,200</b>	<b>183,570</b>	<b>0.8</b>	<b>4,460</b>
Mt Wright	290	3.6	30	0	0.0	0	470	3.6	60	770	3.7	90
Welcome Breccia	0	0.0	0	0	0.0	0	2,040	3.2	210	2,040	3.2	210
Stockpiles (UG)	0	0.0	0	10	1.6	0	0	0.0	0	10	1.6	0
<b>Sub-total (UG)</b>	<b>290</b>	<b>3.6</b>	<b>30</b>	<b>10</b>	<b>1.6</b>	<b>0</b>	<b>2,510</b>	<b>3.3</b>	<b>260</b>	<b>2,810</b>	<b>3.3</b>	<b>300</b>
<b>Ravenswood Total</b>	<b>44,380</b>	<b>0.8</b>	<b>1,190</b>	<b>75,050</b>	<b>0.9</b>	<b>2,110</b>	<b>66,950</b>	<b>0.7</b>	<b>1,460</b>	<b>186,380</b>	<b>0.8</b>	<b>4,760</b>

Note: Mineral Resources are inclusive of Ore Reserves.

## 1.4. ORE RESERVES

The Ore Reserves have been reported as at 31 December 2018 (Table 1.2). Ore Reserves at Ravenswood comprise Sarsfield, Nolans East and Buck Reef West (BRW) open pit reserves, the remnant Mt Wright Underground Ore Reserves and associated surface stockpiles. The Ravenswood Ore Reserves are a subset of the Ravenswood Mineral Resources and include both Measured and Indicated Mineral Resources. Inferred Mineral Resources have not been used in the estimation of the 2018 Ore Reserves.

**Table 1.2 Ravenswood Ore Reserve as at 31 December 2018**

Ore Reserves	Proved			Probable			Total		
	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)
Sarsfield	31,530	0.7	720	18,250	0.7	360	19,780	0.7	1,080
Nolans East	0	0.0	0	0	0	0	0	0.0	0
Buck Reef West	970	1.3	40	18,590	1.0	600	19,570	1.0	640
Stockpiles (O/C)	360	0.6	10	10	1.6	0	370	0.6	10
<b>Sub-total (OP)</b>	<b>32,860</b>	<b>0.7</b>	<b>760</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,720</b>	<b>0.8</b>	<b>1,720</b>
Mt Wright	160	2.2	10	0	0.0	0	160	2.2	10
Stockpiles (UG)	0	0.0	0	0	0.0	0	0	0.0	0
<b>Sub-total (UG)</b>	<b>160</b>	<b>2.2</b>	<b>10</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>160</b>	<b>2.2</b>	<b>10</b>
<b>Ravenswood Total</b>	<b>33,030</b>	<b>0.7</b>	<b>780</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,880</b>	<b>0.8</b>	<b>1,730</b>

The Ore Reserves have been prepared under the direction of a Competent Person using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

The Ravenswood Ore Reserve was based on a conventional open pit mining scenario utilising an excavator and trucking fleet to extract material. The analysis is based on a gold price of AUD1,575 and mining cut-off of 0.3 g/t gold at Sarsfield and AUD1,600 and 0.4 g/t gold cut-off at BRW.

## **1.5. ENVIRONMENT**

An Environmental Authority (EA) has been issued for the mining of both the BRW and Sarsfield pits. There are some outstanding permitting requirements; however, none of these are considered significant risks that could materially affect the development of the Project.

Any potential expansion of the Nolans Tailings Storage Facility (NTSF) requires approval from the Queensland Department of Environment and Science (DES), expected in mid-2019. Similarly, it is intended that a portion of the Life of Mine tailings will be deposited in the completed BRW pit. This will also require DES approval, which has not yet been granted.

## **1.6. CAPITAL AND OPERATING COSTS**

Both capital and operating costs have been generated from a combination of current operating experience at Ravenswood as well as first principle estimations, market-based enquiries/quotes and consultant estimates.

The capital costs included in this report for Ravenswood are estimated to be AUD327M and include provision for the potential Ravenswood Expansion Project, includes the Nolans processing plant expansion, expansion and construction of the NTSF project as well as several important infrastructure projects (Ravenswood School relocation, powerline relocation, and road realignment). This estimate also includes the purchase of mine equipment to commence such proposed operations. The Company is currently undertaking optimisation work with a view to reducing capital and operating costs and thereby enhancing project returns.

Operating costs have been estimated based on delivery of a nominal 5 Mtpa to the Nolan processing plant, producing between 108 koz to 150 koz of gold per annum from FY2020 to FY2031. The All-In Sustaining Cost is estimated at AUD1,063/oz over the LOM.

## **1.7. CONCLUSION**

Production from Mt Wright will cease during Q4 2019 as Resolute takes steps to transition to a large scale, low cost open pit mining operation which will extend the mine life to at least 2032 as part of the potential Ravenswood Expansion Project. Proceeding with the Ravenswood Expansion Project is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute. The Ravenswood Expansion Project, which will involve the transition to a high-tonnage, low-grade and low-cost open pit operation centred around an extension to the existing Sarsfield open pit and a greatly expanded pit operation at Buck Reef West.

The current configuration of the Nolans processing plant is 2.8 Mtpa ore with three-stage crushing, SAG, ball mill and CIP process, together with a gravity circuit. Ravenswood, through its mining operations at Mt Wright mine, currently produces gold from low grade, less economic ore sourced from the Mt Wright Mine. Production at Mt Wright will cease during Q4 2019 at which point production will continue from stockpiled ore. The Ravenswood Expansion Project will, if implemented, see the plant expanded to a milling capacity of 5 Mtpa, together with a larger capacity crushing circuit which can be used to beneficiate lower grade ore through crushing and screening



ahead of the milling and CIP circuits. This expansion of both the pits and the processing plant requires an estimated life of mine capital expenditure of approximately AUD327M, excluding a closure cost of AUD48M. The main items of capital are the processing plant expansion, the mining fleet, the expansions to the Nolans tailings facility and re-deposition of the current Sarsfield in-pit tailings.

If Resolute is not be able to undertake the Ravenswood Expansion Project it would result in a continuation of treatment of lower grade, less economic ore, or the project being put on care and maintenance.

## 2. INTRODUCTION

### 2.1. SCOPE OF THE REPORT

This Competent Persons Report (CPR or the report) was prepared for Resolute Mining Limited (Resolute), a company currently listed on the Australian Securities Exchange (ASX). The purpose of this CPR is to support Resolute's application to the Financial Conduct Authority (FCA) for all of its issued Ordinary Shares to be admitted to the standard listing segment of the Official List of the FCA and to the London Stock Exchange plc (LSE) for trading of the shares on the main market of the LSE by providing a description of work to date and current resources and reserves at Resolute's Ravenswood Gold Mine (Ravenswood, or the Project) located 1,000 km north-northwest of Brisbane, Queensland, Australia.

This Report has been written to comply with the reporting requirements of JORC Code (2012) and has an effective date of 31 December 2018.

This CPR has been prepared, to the extent required and in accordance with:

1. The Prospectus Rules published by the FCA and governed by the UKLA (Prospectus Rules);
2. The Prospectus Directive (2003/71/EC); and
3. Sections 131 to 133 and Appendices I and II of the document titled "ESMA update of the CESR recommendations: the consistent implementation of Commission Regulation (EC) No. 809/2004 implementing the Prospectus Directive" and dated 20 March 2013.

### 2.2. CONSENT AND AUTHORISATION OF COMPETENT PERSONS

The principal author of this CPR is Ian Glacken (FAusIMM (CP), FAIG, MIMMM, CEng)). The contributions of the authors are shown in Table 2.1.

**Table 2.2 Ravenswood Gold Mine CPR – authors and contribution**

Name	Position	Qualifications and memberships	JORC Code 2012 contribution	Years of experience
Ian Glacken	Director, Optiro Pty Ltd	MSc, FAusIMM (CP), FAIG, MIMMM, CEng	Overall report compilation	35 Years
Susan Havlin	Senior Consultant, Optiro Pty Ltd	BSc (Hons), MEconGeol, MAIG (CP)	Competent Person, Mineral Resources for Buck Reef West	18 Years
Nic Johnson	Director, MPR Geological Consultants Pty Ltd	MAIG (RP)	Competent Person, Mineral Resources for Sarsfield	30 Years
John Millbank	Principal Mining Consultant, Proactive Mining Solutions	MAusIMM (CP)	Competent Person, Ore Reserves	28 Years

The Competent Persons, Susan Havlin and Nic Johnson (Mineral Resources) and John Millbank (Ore Reserves), take full responsibility for the relevant areas of this CPR.

Susan Havlin is professionally qualified and a Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation and reporting of Mineral Resources for gold deposits of this type. Susan Havlin consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

Nic Johnson is professionally qualified and a Member in good standing and is subject to the enforceable rules of conduct of the Australian Institute of Geoscientists and has more than five years relevant experience in the estimation, assessment, evaluation and reporting of Mineral Resources for gold deposits of this type. Nic Johnson consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

John Millbank is professionally qualified and is a Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation, economic extraction and reporting of Ore Reserves for deposits of this type. John Millbank consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

The effective date of this report is 31 December 2018.

## **2.3. PRINCIPAL SOURCES OF INFORMATION**

The Competent Persons confirm that there have been no material change in the resources and reserves at Ravenswood since the effective date of the report (31 December 2018) and the date of this report.

## **2.4. PRINCIPAL SOURCES OF INFORMATION**

Information used in compiling this report was derived from reports and data provided from various authors and Resolute. This report draws upon previous Mineral Resource and Ore Reserve estimates carried out by Resolute, and external consultants contracted by Resolute, for Ravenswood.

Optiro has made all reasonable enquiries to establish the completeness and authenticity of the information provided.

## **2.5. SITE VISIT**

The Ore Reserves Competent Person, John Millbank has visited Ravenswood, with the most recent visit being in November 2017. Nic Johnson, the Competent Person for the Sarsfield Mineral Resources, has also visited Ravenswood, with the most recent visit being in June 2013. Susan Havlin has not visited Ravenswood.

## **2.6. INDEPENDENCE**

Optiro is an independent consulting and advisory organisation which provides a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The principal office of Optiro is at 16 Ord Street, West

Perth, Western Australia, and Optiro's staff work on a variety of projects in a range of commodities worldwide.

Each of the Competent Persons are independent of Resolute, its directors, senior management and its other advisers; have no economic or beneficial interest (present or contingent) in Resolute or in any of the mineral assets being evaluated and are not remunerated by way of a fee that is linked to the admission or value of Resolute.

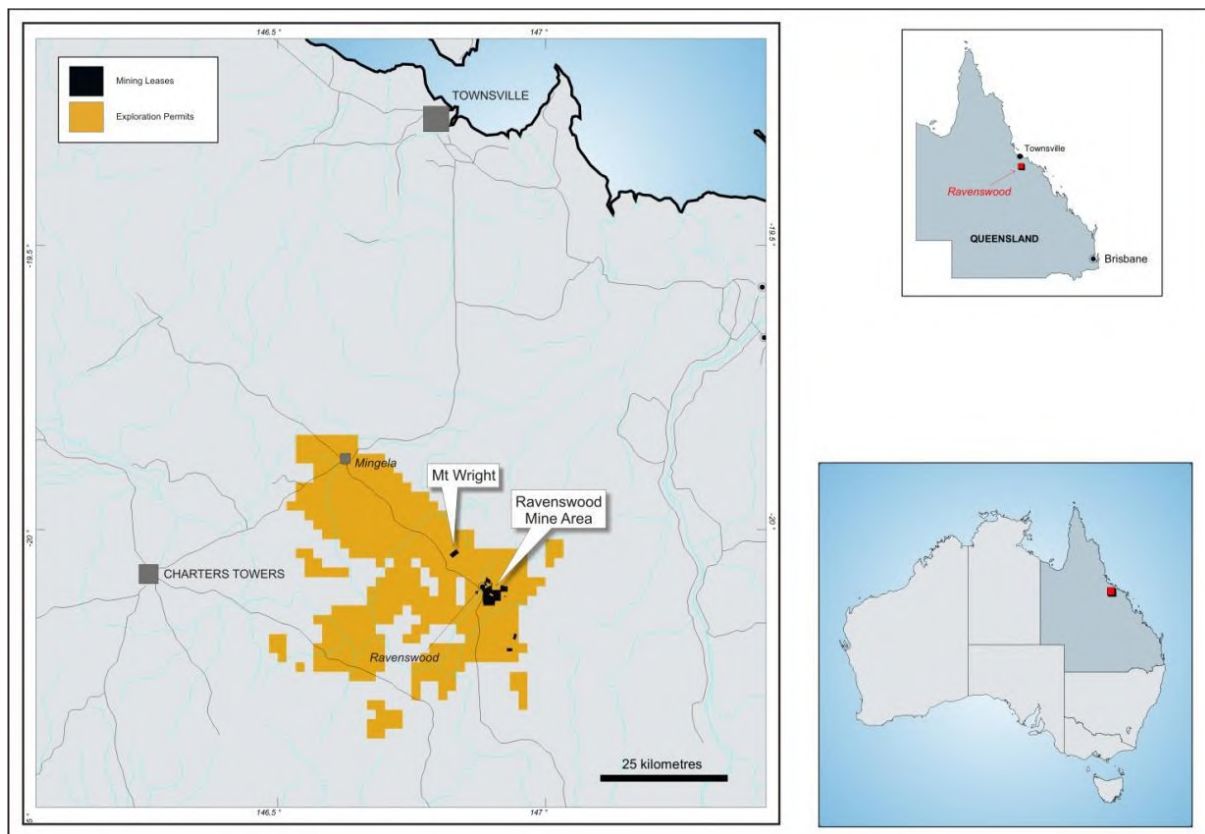
### 3. PROPERTY DESCRIPTION AND LOCATION

#### 3.1. PROJECT LOCATION AND OWNERSHIP

Carpentaria Gold Pty Ltd (Carpentaria), a 100% owned subsidiary of Resolute, is the 100% owner and operator of the Ravenswood Gold Mine (Ravenswood or the Project).

The Ravenswood gold mining and treatment operations are located in North Queensland (20.105°S, 146.895°E or UTM zone 55K 489150 mE, 7776950 mS), 120 km south of the port city of Townsville, and 1,000 km north-northwest of Brisbane, in the township of Ravenswood (Figure 3.1). The historic mining town of Ravenswood is also approximately 90 km by road east from the town of Charters Towers and 65 km north-northwest of the head of the Burdekin Dam (Figure 4.1). The Project area is within the local government region of Charters Towers, on the traditional lands of the Birriah People.

**Figure 3.1** Location of the Ravenswood project (source: Resolute)



The Ravenswood township has a total population of approximately 350 people, not including the mine's 300-person camp. The non-mining related sector of the population is comprised predominantly of local cattle grazing families, retired prospectors and small business operators. The Ravenswood township is a 140-year-old historical mining town and houses many structures from the 1880-1900 era. As a reflection of its importance, the entire township was listed with the National Trust in 1974. This listing poses no material obstacles to the Ravenswood operation. Local service infrastructure includes two hotels, a convenience store, roadhouse, gravel airstrip and recreational facilities. The airstrip is suitable for medium sized turboprop aircraft.



Competent Persons Report on the Ravenswood Gold Mine, Queensland,  
Australia

Tenement no.	Holder	Interest	Status	Grant date	Expiry date	Area (Ha)	Area (km <sup>2</sup> )
ML 1379	CARPENTARIA GOLD PTY. LTD.	100%	Granted	28 Nov 1974	30 Nov 2034	12.5	0.13
ML 1380	CARPENTARIA GOLD PTY. LTD.	100%	Granted	28 Nov 1974	30 Nov 2034	60.8	0.61
ML 1394	CARPENTARIA GOLD PTY. LTD.	100%	Granted	1 Mar 1979	31 Mar 2028	32.4	0.32
ML 1395	CARPENTARIA GOLD PTY. LTD.	100%	Granted	21 Apr 1977	30 Apr 2018	2.0	0.02
ML 1404	CARPENTARIA GOLD PTY. LTD.	100%	Granted	1 Mar 1980	28 Feb 2022	100	1.00
ML 1412	CARPENTARIA GOLD PTY. LTD.	100%	Granted	15 Jan 1981	31 Jan 2023	2.02	0.02
ML 1416	CARPENTARIA GOLD PTY. LTD.	100%	Granted	14 May 1987	31 May 2023	2.0	0.02
ML 1417	CARPENTARIA GOLD PTY. LTD.	100%	Granted	14 May 1987	31 May 2023	1.2	0.01
ML 1418	CARPENTARIA GOLD PTY. LTD.	100%	Granted	14 May 1987	31 May 2023	2.0	0.02
ML 1435	CARPENTARIA GOLD PTY. LTD.	100%	Granted	25 Jul 1985	31 Jul 2027	115.9	1.16
ML 1451	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Mar 1986	31 Mar 2026	50.0	0.50
ML 1452	CARPENTARIA GOLD PTY. LTD.	100%	Granted	15 Dec 1988	31 Dec 2019	50.0	0.50
ML 1520	CARPENTARIA GOLD PTY. LTD.	100%	Granted	27 Oct 1988	31 Oct 2024	24.0	0.24
ML 1532	CARPENTARIA GOLD PTY. LTD.	100%	Granted	24 Oct 1985	31 Oct 2027	0.20	0.002
ML 1574	CARPENTARIA GOLD PTY. LTD.	100%	Granted	24 Sep 1987	30 Sep 2027	103.0	1.03
ML 1639	CARPENTARIA GOLD PTY. LTD.	100%	Granted	24 Sep 1987	30 Sep 2027	31.3	0.31
ML 1640	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Aug 1987	31 Aug 2027	130.0	1.30
ML 1682	CARPENTARIA GOLD PTY. LTD.	100%	Granted	22 Oct 1992	31 Oct 2022	347.6	3.48
ML 1692	CARPENTARIA GOLD PTY. LTD.	100%	Granted	2 Feb 1989	30 Apr 2028	2.782	0.03
ML 1722	CARPENTARIA GOLD PTY. LTD.	100%	Granted	5 Sep 1991	30Apr 2028	58.46	0.59
ML 1736	CARPENTARIA GOLD PTY. LTD.	100%	Granted	13 Jun 1991	30 Jun 2028	8.0	0.08
ML 1753	CARPENTARIA GOLD PTY. LTD.	100%	Granted	20 Dec 1990	30 Apr 2028	97.47	0.97
ML 10039	CARPENTARIA GOLD PTY. LTD.	100%	Granted	14 Nov 1991	31 Aug 2020	0.288	0.003
ML 10040	CARPENTARIA GOLD PTY. LTD.	100%	Granted	9 Apr 1992	31 Oct 2019	0.8	0.008
ML 10041	CARPENTARIA GOLD PTY. LTD.	100%	Granted	9 Apr 1992	31 Oct 2019	0.8	0.008
ML 10170	CARPENTARIA GOLD PTY. LTD.	100%	Granted	16 Dec 1993	31 Dec 2011	362.6	3.63
ML 10237	CARPENTARIA GOLD PTY. LTD.	100%	Granted	29 Mar 2007	31 Mar 2027	10.87	0.11
ML 10268	CARPENTARIA GOLD PTY. LTD.	100%	Granted	1 Sept 2004	31 Aug 2014	20.71	0.21
ML 100143	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100144	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100145	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100146	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100147	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100148	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100149	CARPENTARIA GOLD PTY. LTD.	100%	Application	22 Aug 2017			
ML 100156	CARPENTARIA GOLD PTY. LTD.	100%	Application	13 Oct 2017			
ML 100172	CARPENTARIA GOLD PTY. LTD.	100%	Application	31 Oct 2017			
EPM 9165	CARPENTARIA GOLD PTY. LTD.	100%	Granted	7 Apr 1993	6 Apr 2019	1200.0	12.0
EPM 14778	CARPENTARIA GOLD PTY. LTD.	100%	Granted	21 Nov 2005	20 Nov 2020	5100.0	51.0
EPM 15099	CARPENTARIA GOLD PTY. LTD.	100%	Granted	15 May 2006	14 May 2021	16200.0	162.0
EPM 16118	CARPENTARIA GOLD PTY. LTD.	100%	Granted	11 Feb 2015	10 Feb 2020	18000.0	180.0
EPM 16203	CARPENTARIA GOLD PTY. LTD.	100%	Granted	27 Sep 2007	26 Sep 2022	6000.0	60.0
EPM 18029	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Feb 2014	5 Feb 2019	6000.0	60.0
EPM 18121	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Jan 2014	5 Jan 2019	17700.0	177.0
EPM 18514	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Jan 2014	5 Jan 2019	10500.0	105.0
EPM 19273	CARPENTARIA GOLD PTY. LTD.	100%	Granted	6 Feb 2014	5 Feb 2019	18000.0	180.0
EPM 25387	CARPENTARIA GOLD PTY. LTD.	100%	Granted	29 May 2014	28 May 2019	2700.0	27.0



Tenement no.	Holder	Interest	Status	Grant date	Expiry date	Area (Ha)	Area (km <sup>2</sup> )
EPM 25521	CARPENTARIA GOLD PTY. LTD.	100%	Granted	19 Mar 2015	18 Mar 2020	15000.0	150.0
EPM 26220	CARPENTARIA GOLD PTY. LTD.	100%	Granted	19 Dec 2016	18 Dec 2021	18000.0	180.0
EPM 26221	CARPENTARIA GOLD PTY. LTD.	100%	Granted	19 Dec 2016	18 Dec 2021	27600.0	276.0

Optiro is not qualified to provide legal opinion on the status of the Project licences but has reviewed Resolute's licence permits and found them to be in good order. Optiro is satisfied that Resolute has good and valid title to the described licences required to explore and undertake mining and processing on the Project in the manner proposed. Resolute has met or exceeded licence conditions and expenditure and Optiro considers it likely that the licences will be renewed as and when required. Any future mining outside of the current mining licence will require the grant of additional mining licence.

### 3.3. LEGISLATION, PERMITTING AND AGREEMENTS

Australian and Queensland mining law provides that all Mineral Resources are administered by the State Government through the Department of Natural Resources, Mines and Water (NRMW).

The regulation of the exploration for and production of minerals and coal in Queensland is pursuant to the Mineral Resources Act 1989 (Qld) (MR Act). The MR Act establishes a regime to be met by entities seeking to engage in the extraction of minerals. This typically begins with gaining an exploration permit for minerals (EPM).

An EPM allows its holder to enter the land included in the EPM (subject to the agreement of any land owner or occupier) to undertake exploration activities to determine the existence, quality and quantity of minerals within the permit. All exploration activity is conducted within Queensland Government authorised tenure, with all permits and leases held by Carpentaria Gold, which is an 100% wholly-owned subsidiary of Resolute. Formal individual agreements are negotiated with the traditional landowners and property owners for each of the exploration prospects before carrying out exploration activities. If exploration identifies the existence of minerals, the holder may make an application for a mineral development licence (MDL) or mining lease (ML). Exploration activities conducted within these leases are highly regulated and reports are routinely submitted to the Queensland government containing details of work conducted in the area and expenditure.

A MDL allows the holder to undertake more comprehensive activities to evaluate the development potential of the defined resource. For commercial production, however, a ML is required. The holder of a ML is permitted to mine specific minerals and to carry out activities associated with mining. Under the MR Act, mining leases can be issued for any specified mineral. A mining lease allows the holder to machine-mine for specified minerals and to conduct other activities associated with mining or promoting the activity of mining. Before a ML is granted, a resource authority is required from the appropriate environmental authority. Any native title requirements need to be addressed before grant.

### 3.4. NATIVE TITLE

Native title rights and interests are those rights in relation to land or waters that are held by Aboriginal or Torres Strait Islander peoples under their traditional laws and customs, and which are



recognised by the common law. Native title was first accepted into the common law of Australia by the High Court of Australia's decision in *Mabo (No 2)* in 1992.

Australian law recognises that, except where native title had been wholly extinguished by the historical grant of freehold, leasehold and other interests, native title exists where Aboriginal people have maintained a traditional connection to their land and waters substantially uninterrupted since sovereignty. The rights and interests vary from case to case, but may include the right to live and camp in the area, conduct ceremonies, hunt and fish, build shelter, and visit places of cultural importance. Some native title holders may also have the right to control access.

The Native Title (Queensland) Act 1993 confirms Queensland's existing ownership of any natural resources. The National Native Title Tribunal is the body that rules on disputes between mining tenement applicants and native title parties. The Queensland Government is liable for any compensation payable as a result of validation of past acts (before 1 January 1994) or intermediate period acts (between 1 January 1994 and 23 December 1996), and the past extinguishment of native title.

Australian law also requires that native title approval be obtained before mining applications can commence.

### **3.5. ROYALTIES**

Royalties on minerals are payable annually to the Queensland State Government through the Department of Natural Resources and Mines on an ad valorem (contained value) basis, with various costs being permitted as a deduction from sales revenue.

Gold royalty rates in Queensland vary between 2.5% and 5.0% of value, depending on average metal prices, and as per Schedule 3 of the Mineral Resources Regulation of 2003. No royalty is payable on the first AUD100,000 of the combined value of certain minerals sold, disposed of or used in a financial year (the royalty-free threshold). The gold royalty rate for 2017/18, published by the Office of State Revenue, is 5.0%.

Where freehold land was held prior to 1904, all Mineral Resources were owned by the title holder.

## 4. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 4.1. ACCESSIBILITY

The Project is located in North Queensland, 120 km south of the port city of Townsville, and approximately 90 km west by road from the town of Charters Towers. The Project and townsite is connected to the main Townsville - Charters Towers - Mount Isa A6 Flinders Highway, via Mingela, by 40 km of good quality asphalt public road (Figure 4.1).

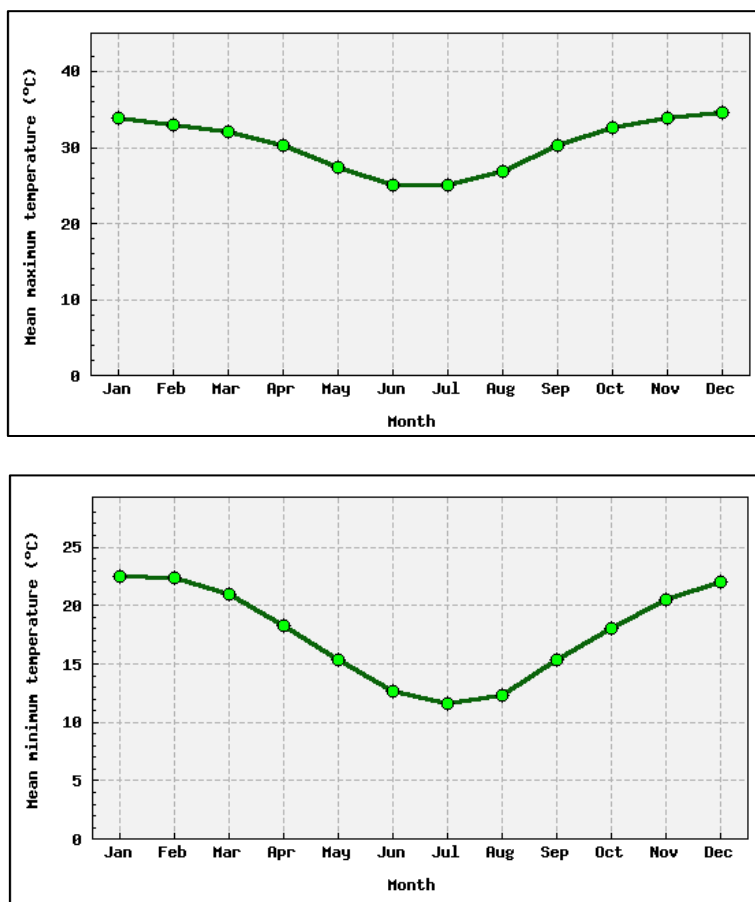
**Figure 4.1** Access via Queensland road network (source: State of Queensland)



### 4.2. CLIMATE

The climate is sub-tropical, with a wet season between November and April and a pronounced dry season during the rest of the year. Daily maximum temperatures average up to 34.6°C between October and March, with mild daily minimums and cold nights in May to August with temperatures down to 11.6°C (Figure 4.2).

**Figure 4.2** Mean daily maximum and minimum temperatures for Charters Towers (source: Australian Bureau of Meteorology)

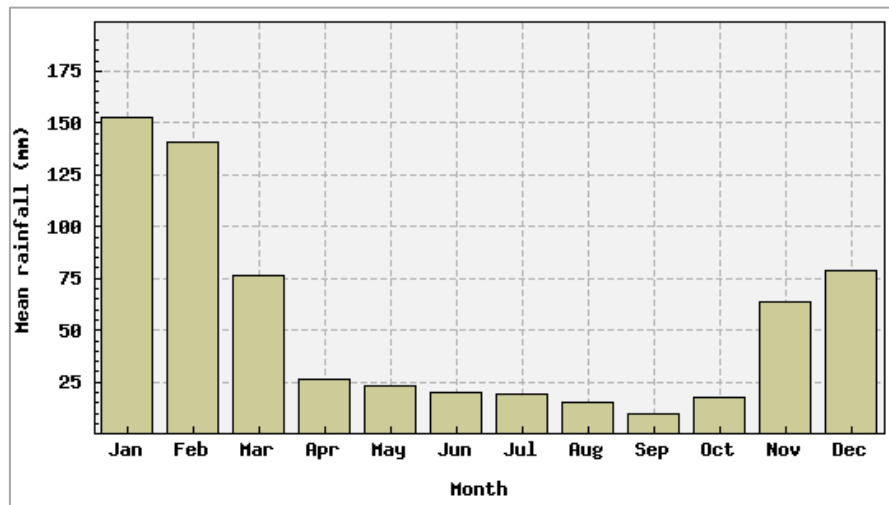


The average annual rainfall for the region is 643.4 millimetres, with two thirds occurring from December to March, and with the July to October period being the driest (Figure 4.3). The main rain influence is derived from moist onshore northeasterly trade winds during the mid to late summer period. Storms can be common during the early summer due to the influence of the monsoon while cyclones moving inland from the coast can cause heavy rainfall during this period. Rainfall variability from year to year is high.

The average annual evaporation rate of 2,906 millimetres is well in excess of annual rainfall, with evaporation also exceeding rainfall in every month of the year.

The mean daily maximum and minimum temperature ranges and rainfall data quoted and displayed in Figure 4.2 and Figure 4.3 were recorded at Charters Towers, the closest Australian Bureau of Meteorology station to Ravenswood. Due to their proximity the two towns are considered to experience very similar climatic conditions.

**Figure 4.3** Average monthly rainfall at Charters Towers (source: Australian Bureau of Meteorology)



### 4.3. PHYSIOGRAPHY AND VEGETATION

Ravenswood lies on the western side of the Great Dividing Range. The topography surrounding Ravenswood is gently undulating, with few steep features and is generally wooded, providing grazing for beef cattle that represent the main cash economy of the district after mining. Vegetation in the region characteristically ranges between large Eucalypt forest, box and ironbark woodlands and open downs, to gidgee/brigalow dominated areas. A wide variety of native flora and fauna find refuge in remnant brigalow and softwood scrub. Across the region significant amounts of land have been extensively cleared for agricultural production. Examples of the typical vegetation and physiography are shown in Figure 4.4.

**Figure 4.4** Typical topographic and vegetation setting, Charters Towers/Ravenswood region (source: Future Beef 2017)





#### 4.4. LOCAL RESOURCES AND INFRASTRUCTURE

The population of the township is approximately 350. The population of Ravenswood was recorded as 349 in the 2011 Census, which includes the township and surrounding pastoral properties in the greater Ravenswood area. The local population is predominantly:

- Elderly retirees;
- Rural landholders/primary producers;
- Employees of Carpentaria;
- Operators of local businesses; and
- Government employees (such as police and local council).

There is only one school in Ravenswood, which is a small primary school ranging from Preparatory to Grade 6. The nearest secondary schooling is available via daily commute to Charters Towers or via boarding in either Charter Towers or Townsville.

The demographics of Ravenswood dictate that the majority of the site employees are on a drive-in-drive-out (DIDO) basis. The infrastructure and facilities are not available in Ravenswood to support a large proportion of residential employees and many employees prefer to live in the larger nearby regional centres of Townsville, Charters Towers and the Burdekin region (i.e. Ayr, Home Hill). There is a large selection of suitably qualified people available within a 150 km radius of Ravenswood, with only limited specialist positions requiring travel from farther afield.

Charters Towers (65 km west-northwest of the mine or 90 km by road) is the administration centre for the Regional Council and has a population of approximately 11,800. The district has had a very stable population over the last approximately 30 years, with the economy based on the mining, agriculture (predominantly beef), and education (specifically boarding schools for remote rural families).

The nearby major centre of Townsville (approximately 130 km east) is the largest regional centre in Australia and is home to approximately 230,000 permanent residents (2016 Census). It encompasses a total land area of 3,733 km<sup>2</sup> and has numerous rural and coastal communities and residential areas scattered throughout the area. The Flinders Highway is the major transport corridor in the region, running from Townsville in the east across to Mount Isa in the west.



## 5. HISTORY

The Ravenswood Goldfield was discovered in 1868 and was developed during two main periods of mining. The first period, circa 1880, was predominantly alluvial mining and shallow (down to 20 m) oxide reef mining. The second period, from 1897 to 1914, was undertaken by the New Ravenswood Company. This company introduced cyanidation processing technology and established underground shaft mines on the major reefs. Early underground mining focussed on thin, high-grade ore shoots and shafts were developed up to a depth of 400 m. In total, the field produced 950,000 ounces until 1914, when a bitter miners strike, First World War-related labour shortages and issues related to increasing mining depths brought an end to production. At its peak there were 5,000 people on the Ravenswood Goldfield.

Carpentaria Gold's involvement at Ravenswood began with the pegging of exploration permits in 1978. Modern mining operations commenced in 1987 with a 0.25 Mtpa carbon-in-pulp (CIP) plant and heap leach operation located at Sandy Creek, 4 km to the east of Ravenswood. The Nolans deposit was discovered in 1992, about 1.5 km south of Ravenswood.

In December 1992, the operating company, Mount Isa Mines Ltd (MIM), entered into a Tribute Agreement with Haoma North West NL (Haoma) covering the exploitation of the Nolans Mining Lease ML 1394. A new 2.1 Mtpa carbon-in-leach (CIL) plant and supporting infrastructure was commissioned at Nolans in a processing joint venture between MIM (50.1%) and Haoma (49.9%) in October 1995. MIM was appointed as the manager and operator to develop the Nolans deposit by open cut mining. The joint venture mining of the Nolans pit started in 1995 and lasted until 2001.

The large tonnage, low-grade Sarsfield deposit, 1 km to the northwest of Nolans pit, was discovered in 1994. The Sarsfield area borders on the residential boundaries of the Ravenswood township but lies wholly within existing mining leases, in areas previously worked by Carpentaria. In February 1996, after 146 holes were drilled totalling 29,560 m, exploration of the Sarsfield area delineated a resource of 24.5 Mt grading 1.4 g/t Au for a total of 1.13Moz contained gold.

A feasibility study was completed in 1999 into the expansion of the Nolans plant to exploit the Sarsfield resource. The feasibility was based on both direct treatment of higher grade ores (0.9 g/t Au) and the beneficiation of the lower grade (0.6 to 0.9 g/t Au) material to improve economics. In 2002, the CIL plant was expanded to 4.5Mtpa and Haoma's interest reduced to 33.3%. In March 2003, MIM increased its interest to 100% with the purchase of Haoma's interests in Nolans for AUD20 million. Beneficiation lasted until December 2004, when the treatment strategy was changed to a 0.8g/t Au feed direct to the mill and 0.4 to 0.8g/t Au crushed then screened directed to the mill. Scatting from the mill was increased from 8% to 14%.

MIM developed the resource and managed mining from the 1980s. Resolute purchased Carpentaria Gold from Xstrata Queensland in March 2004, following Xstrata's successful takeover of MIM in 2003.

Historically, from commencement in 1868, until 1967, the field had reported production of approximately 950,000 ounces of gold. During the second, modern mining phase, commencing with Carpentaria, an approximate additional 2.4 Moz have been produced. The production history of

Ravenswood is summarised in Table 5.1. Table 5.2 summarises the key dates for the Sarsfield open pit project.

**Table 5.1 Historical production from the Ravenswood operations (source: Resolute)**

Source	Period	Tonnes	Au (g/t)	Ounces (oz)
Historical Production	1868-1967			950,000
Slaughter Yard Creek	1987-1990	526,000	2.7	45,660
OCA Pit	1987-1989	290,000	3.4	31,700
Buck Reef West Pit	1987-1990	160,000	2.8	14,403
OCA U/G	1991	149,000	4.1	19,641
Area 4 Pit	1990	50,000	2.4	3,858
Mt Wright Glory Hole	1990	105,000	5.1	17,298
Area 5 Pit	1988-1991	260,000	2.4	20,062
Mellanuer and Shelmalier	1990-1991	48,000	3.5	5,401
Area 2 U/G	1992-1993	210,000	12.0	81,019
Nolans Open Pit	1993-2001	15,000,000	1.5	723,380
Haoma Production				40,000
Sarsfield Pit	2002-2009	45,838,400	1.2	1,395,553
<b>Total</b>				<b>3,347,975</b>

**Table 5.2 Summary of the key dates and events for the Ravenswood Project**

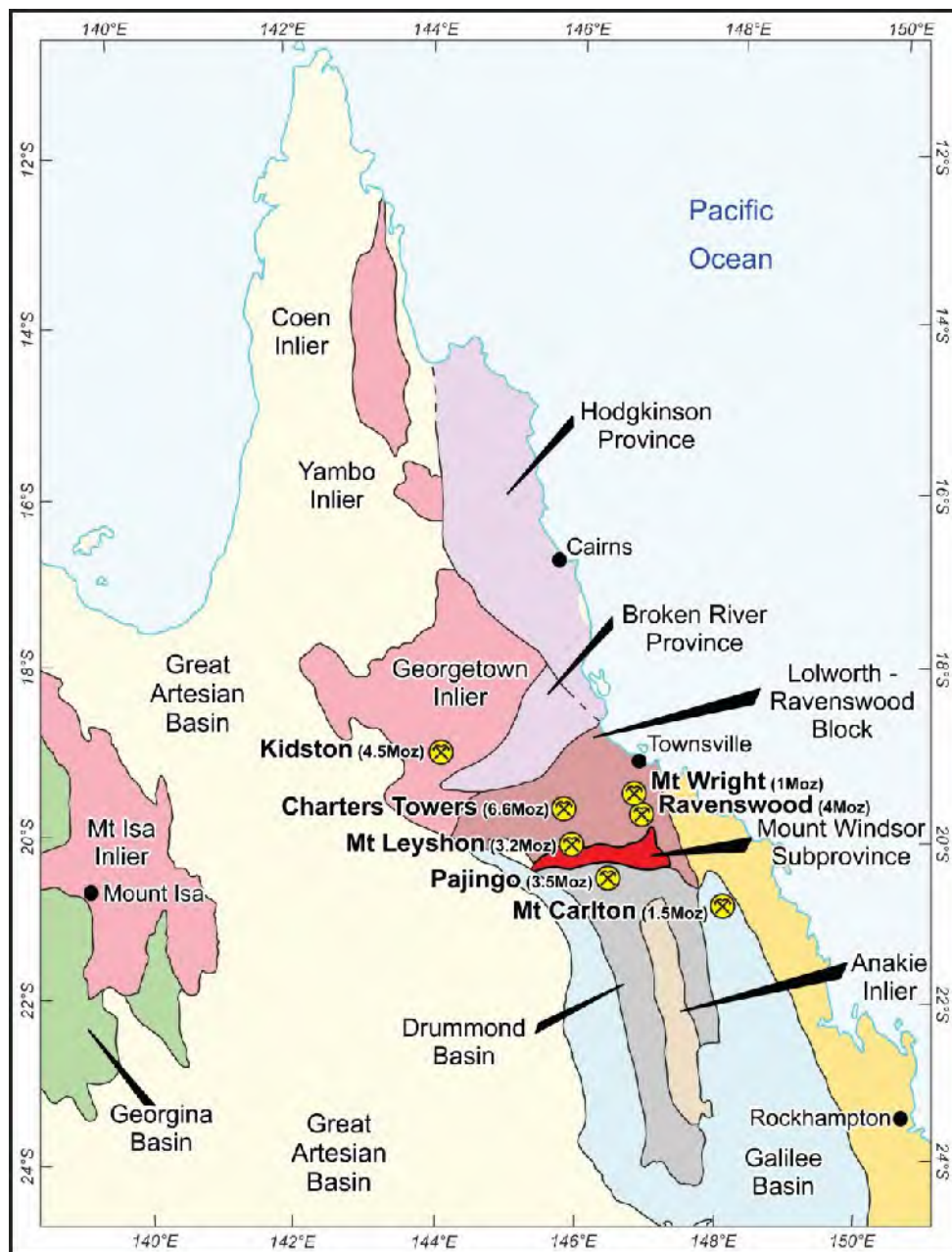
Period	Event
1868	Gold discovered in Ravenswood and district
1868 – 1872	Alluvial and oxide reef mining at Ravenswood
1880 – 1917	Hard-rock mining era
1978	Carpentaria Gold Pty Ltd granted exploration and mining tenements
1988	Commencement of Sandy Creek Heap Leach and CIL plants (250,000tpa)
1993	Trial mining of Nolans Deposit through Sandy Creek CIL plant
1994	Sandy Creek Heap Leach decommissioned
1995	2Mtpa CIL plant commissioned at Nolans
1995 – 1996	Sarsfield Deposit discovered
2001	JV with Haoma formed to mine the Nolans Deposit
July 2000	Mining commenced in Sarsfield pit
2001	JV with Haoma concluded
2002	Nolans CIL Plant upgrade to 4.5Mtpa commenced
2003	Carpentaria Gold acquires 100% interest in Nolans
March 2003	Upgraded Nolans CIL plant commissioned
June 2003	Xstrata acquires MIM Holdings (including 100% owned Carpentaria Gold)
March 2004	Resolute Mining Ltd acquires Carpentaria Gold from Xstrata
February 2009	Sarsfield open pit closed and used as tailings storage facility

## 6. GEOLOGICAL SETTING AND MINERALISATION

### 6.1. REGIONAL GEOLOGICAL SETTING

The Ravenswood gold deposits lie within the Lolworth - Ravenswood Block of the Charters Towers Province, which is an elongate, east-west orientated composite batholith of Ordovician to Permian age (Figure 6.1). The outcropping dimensions of this batholith are in the order of 150 km by 220 km.

Figure 6.1 Regional geological setting of the Ravenswood District (source: Resolute)



Note: Moz refers to aggregate amounts of Resources, inclusive of Reserves.



The Lolworth – Ravenswood Block in the vicinity of Ravenswood is locally termed the Ravenswood Granodiorite Complex. It comprises multiple series of nested intrusives, ranging compositionally from ultrabasic to felsic. Locally in Ravenswood, the dominant host to the mineralisation, the Jessop Creek Tonalite, is a Silurian phase of the main intrusive complex. To the south of the township, in faulted contact with the tonalite, is a series of Cambro-Ordovician volcanics termed the Mt Windsor Volcanics. Roof pendants in the town area of Late Cambrian to Early Ordovician sedimentary and volcanic basement rocks, in conjunction with other textural evidence, suggest that the current erosion level is close to the batholith roof.

The mineralising event is approximately 80 million years younger than the Ravenswood Granodiorite, with both the main Nolans/Sarsfield and Mt Wright mineralisation dated as Carboniferous (310 Ma).

Regional structure is dominated by northwest to north-northwest trending faults, which are essentially transfer faults perpendicular to the basin margins. The Sarsfield and Nolans gold deposits are located within and around the junction of three prominent fault systems in the southern part of the Ravenswood goldfield.

Weathering over the known mineral deposits persists to an average of 15m below surface. Supergene effects are restricted to a discontinuous horizon within a partially oxidised zone, less than 5 m thick.

## **6.2. LOCAL AND MINE GEOLOGY**

### **6.2.1. STRATIGRAPHY**

The Ravenswood gold deposit is hosted by an intrusive diorite of Siluro-Devonian age within the Jessop Creek Tonalite in the Ravenswood Batholith (Figure 6.2). In the project area the Jessop Creek Tonalite can be divided into diorite, quartz diorite and minor gabbro components. Boundaries between these units vary from sharp to indistinct, and often show complex relationships, including stoping, xenoliths and irregular dykes. No association between the host lithology and gold mineralisation has been established, other than that it is a suitable competent host that allowed the cross-cutting sulphide veins to develop.

The Sarsfield gold deposit (Figure 6.3) extends over an area 800 m by 900 m, encompassing the historic SYC, OCA, Area 4, Area 5 open cut and OCA underground mines, and abuts the western end of the Nolans deposit. The deposit comprises numerous zones of sulphide vein networks constrained by several intersecting vertical fault zones in the dioritic host rock.

Weathering persists to an average of 15 m below surface. Supergene effects are restricted to a discontinuous horizon within a partially oxidised zone, less than 5 m thick.

Figure 6.2 Ravenswood deposit geology and location plan (source: Resolute)

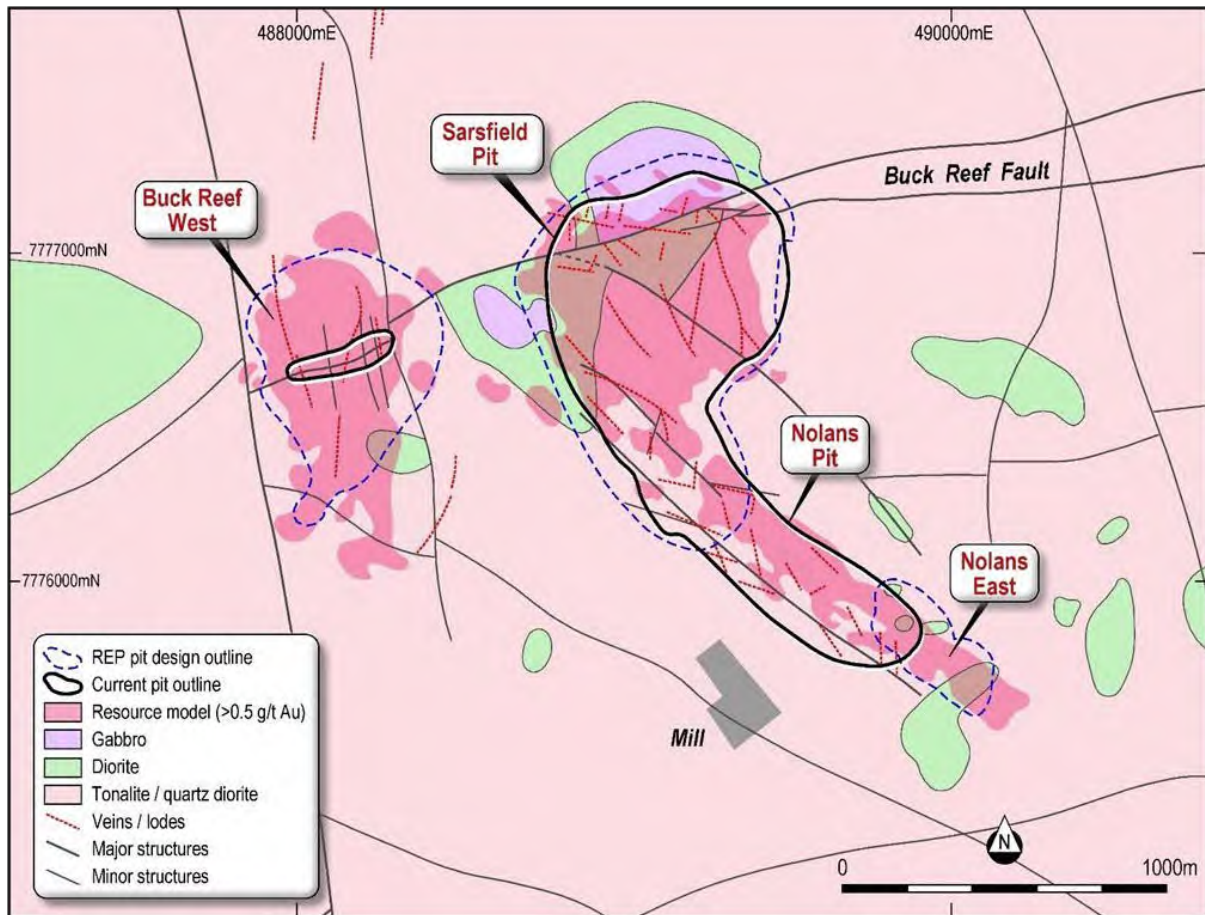
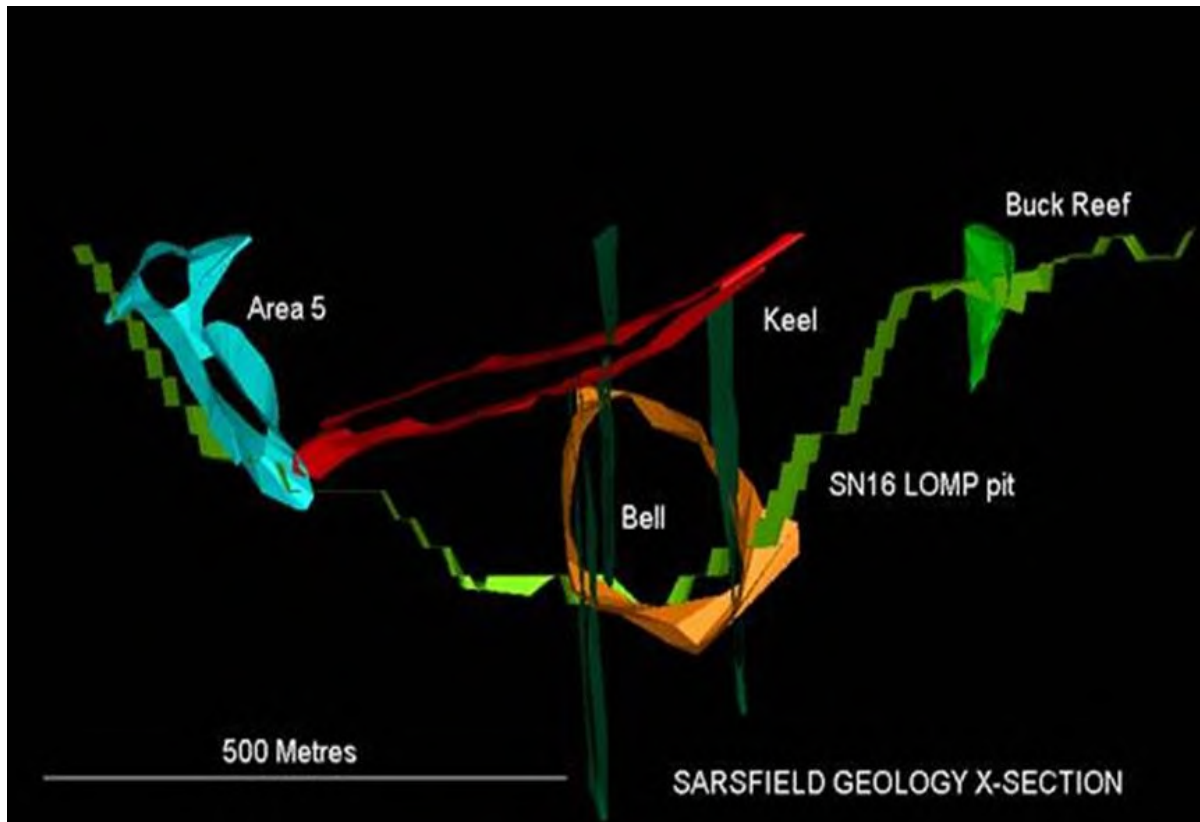


Figure 6.3 Cross-section of Sarsfield deposit geology (source: Resolute)



#### 6.2.2. STRUCTURE

Three dominant structures are currently recognised within the Ravenswood deposit; these structures appear to constrain the gold mineralisation. The Ravenswood Lineament, also known as the Jessop Creek Fault Zone, has a northerly strike, the Connolly Lineament, also known as the Plumwood Fault, strikes east-northeast and the Mosgardies Shear Zone, striking east, can all be seen to control the extent of mineralisation within the Ravenswood area. The major structures combine with numerous subordinate structures to develop a vast network of faults, shears and veins intersecting across the deposit area (Collett et al 1998).

Structural timings are very challenging to define definitively due to the history of multiple reactivation across the structures within the area and limited visual control surfaces within an intrusive terrane. The main structural features have been divided, according to accepted order of formation and structural type, into three groups detailed by Collett et al (1998) and described below.

##### SUBVERTICAL BRITTLE SHEAR STRUCTURES

The subvertical brittle shears display a predominantly easterly strike but can be subdivided into three groups based on their strike: 60°, 80° and 120°. The width of these structures is commonly 0.5 to 2 m; however, they can range from hairline traces up to approximately 10 m. The group is considered an important control on mineralisation; however, it is secondary to the moderately dipping joints and veins in importance. The individual structures can extend for hundreds of metres and are characterised by intense chloritic alteration and brecciation.

### **MODERATELY DIPPING JOINTS AND VEINS**

Characterised by intense thin sericite-chlorite selvages and quartz-sulphide vein fill, the moderately dipping joints and veins host the majority of gold mineralisation at Ravenswood. Reverse dip reactivation of the joints and veins appears to have resulted in them undergoing dilation, with up to eight phases of reactivation recognised. Structural geometries are diverse and range from single, multiphase crack-seal veins to areas of sub-parallel closely spaced veins to anastomosing and branching vein networks.

### **LATE STEEPLY DIPPING (UNMINERALISED) FAULTS**

The youngest structures observed within the deposit are steeply-dipping faults characterised by intense clay-sericite wall rock alteration and carbonate fill. A large number of these structures are considered to be a reactivation of pre-existing shears.

#### **6.2.3. ALTERATION**

Collett et al (1998) note that the alteration at Ravenswood consists of multiple overprinted phases, associated with veining and infill, which they have broadly assembled, from earliest to latest, into seven groups:

#### **SERICITE-CHLORITE**

The first alteration phase comprises minor sericite and chlorite altered wall rock adjacent to barren quartz filling. It is also observed associated with the sub-vertical brittle shear structures as non-continuous selvages.

#### **POTASSIUM FELDSPAR AND EPIDOTE-ALBITE**

Both the potassium feldspar and the epidote-albite alteration phases occur following broadly distributed micro-veins. The potassium feldspar alteration occurs as a selvage to potassium feldspar-amphibole-magnetite veinlets, while the epidote-albite alteration can be observed as a selvage to epidote-quartz veinlets.

#### **POTASSIC**

Potassic alteration is primarily a semi-pervasive style observed around structures; however, in areas such as around the Buck Reef in the SYC and OCA pits the entire rock has been replaced by biotite. In less intense zones the biotite is observed to replace hornblende and primary biotite. Epidote, potassium feldspar (white), pyrite (+/- rare molybdenite) are associated with the potassic alteration phase.

#### **PROPYLITIC**

This is seen as an intense chlorite selvage associated predominantly with the sub-vertical shear zones observed following actinolite-filled veins and breccias. The intensity of alteration appears to be directly associated with the intensity of the shearing or the size of the structure, with single or smaller structures showing weak alteration, while areas with multiple structures show substantial wall rock alteration.

## **PHYLIC**

The phyllic alteration phase (sericite-calcite-chlorite-pyrite) characterises the main gold mineralisation event. The alteration is generally observed as a narrow, intense, zoned wall rock selvage which completely replaces original pre-existing minerals. Associated gold mineralisation has been seen on grain boundaries and as fracture fills of pyrite, arsenopyrite, sphalerite and quartz. The gold is free milling.

## **SERICITE-SILICA-CARBONATE**

The deposit shows a number of brecciation phases from angular to milled, well rounded wall rock and vein fragments with a matrix of rock flour. The matrix is observed to be altered by sericite-silica-carbonate.

## **SERICITE-CHLORITE**

The most recent alteration phase is the sericite-chlorite zone, developed adjacent to carbonate-filled vein structures and structures such as the Jessop Creek fault zone.

The alteration mineralogy associated with the deposit is complicated by the reactivation of multiple structures; however, this generally indicates a system of multiple fluids, progressing from hot potassic (biotite), through cooler propylitic and phyllic phases, and finally onto carbonate alteration as the system cools.

### **6.2.4. SARSFIELD MINERALISATION**

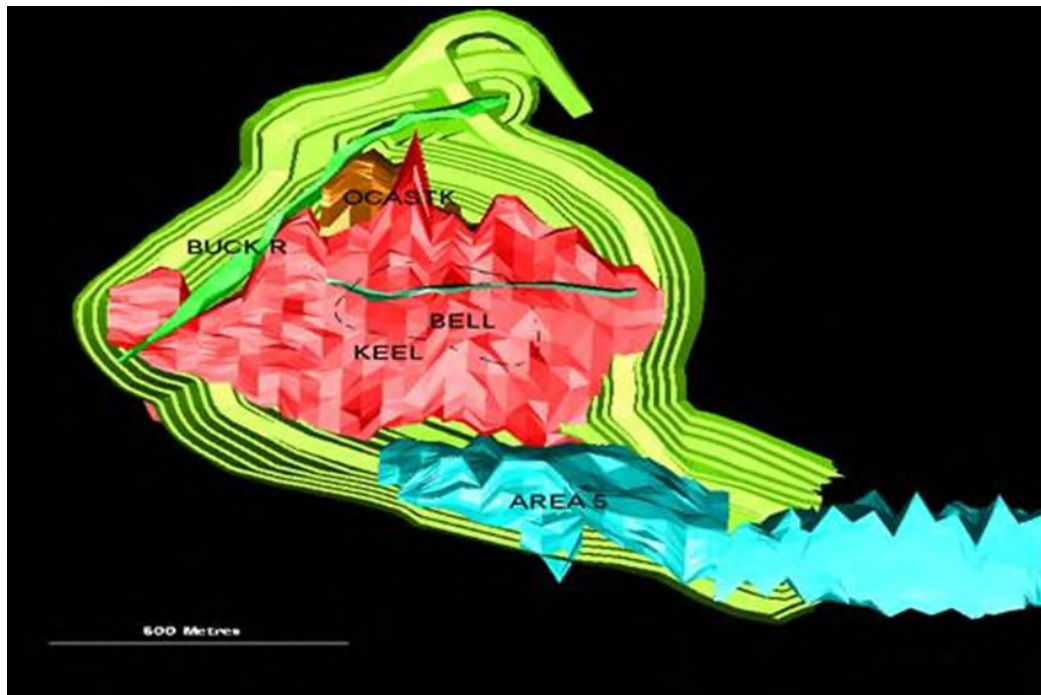
Gold mineralisation occurs in variably-oriented sulphide quartz veins, mineralised shear zones and within zones of quartz stockwork. The gold mineralisation comprises several structurally controlled mineralised zones, namely the Keel Zone, OCA Stockwork, Area 5 Zone, Buck Reef and A4 Fault.

Areas of weak veining separate the more strongly stockworked areas into discrete zones. Individual veins vary in width from hairline fractures, up to 1 to 2 m locally. Commonly, individual veins can be traced over strike and dip lengths in excess of 100 m. Very rarely are veins developed over less than 5 m. Mineralisation extends from the surface, which has an average elevation of 300 mRL, has been essentially tested by drilling to 0 mRL and is open at depth.

The main gold-bearing phase is characterised by phyllic alteration with narrow selvages of sericite, calcite, chlorite and pyrite associated with quartz sulphide veins. Gold is free-milling and occurs on grain boundaries and in fractures in pyrite, pyrrhotite, sphalerite, arsenopyrite and quartz. The highest-grade mineralisation is associated with sphalerite and arsenopyrite.

The Sarsfield gold mineralisation comprises several structurally controlled mineralised zones (Figure 6.3 and Figure 6.4).

Figure 6.4 Sarsfield mineralised zones (source: Resolute)



The seven main zones are as follows:

#### **BUCK REEF**

The Buck Reef zone, a sub-vertical shear structure, encompasses the Buck Reef mineralised shear and adjacent stockwork mineralisation in the northwestern part of the deposit. It has a north-northeast strike and dips steeply to the southeast. Previous mining on this zone has been undertaken at the SYC and OCA pits and OCA underground block.

The Buck Reef structure is up to 30 m wide and 500 m long in the Sarsfield project area. Individual shears within this structure vary in width from a few centimetres to 15 m. Gold mineralisation occurs in moderately-dipping sulphidic shoots within the shear.

The Buck Reef is arguably the most prominent, and important, structural feature in the Ravenswood goldfield. It is known from alteration and dating studies to be one of the oldest features in the field and appears to have been the focus of significant fluid channelling and repeated structural reactivation throughout the development of the gold system. Repeated structural reactivation on the fault has allowed moderate to intense levels of fluid-wall rock interaction. Potassic alteration partly overprinted by a semi-pervasive chloritisation characterises the zone. Where mineralised vein networks crosscut the fault, dilated zones within the fault are altered by phyllic minerals and associated iron and base metal sulphides. Magnetic intensities reflect the alteration system about the fault, varying from local highs where the potassic-magnetite introduction is preserved, to magnetic lows where the pre-existing wall rock and later alteration have been partly obliterated.

#### **KEEL ZONE**

The Keel Zone in the central portion of the deposit is an arcuate zone extending from the old SYC pit to beyond the old Area 4 pit in the east. A compartment of parallel, shallowly south-dipping vein

structures composed of quartz, carbonate and sulphides forms the Keel. It is up to 32 m thick and has a strike length of 600 m.

In places there is interpreted reverse dip movement on the Keel Zone where it appears to have displaced older faults, such as the A4 shear. The central higher part of the keel has a 40° strike change, which may have been caused by the same event that produced a similar bend in the Buck Reef.

### **BELL ZONE**

Named for its “cow bell” shape, the Bell Zone is located at depth in the centre of the Sarsfield deposit. A significant body of vein networks, the Bell Zone appears to have formed at the intersection of the main zone of north-dipping vein networks and the Area 4 fault zone. At the eastern end of the Bell Zone, it is interpreted to coalesce into a narrow zone around the Area 4 fault. Gold grades relate to individual veins, with conjugate veins dipping south as well as intersections with the Area 4 fault, of which there are up to three separate structures on some sections.

### **OCA STOCKWORK**

A zone of vein networks occurs adjacent to the bend in the Buck Reef, around the location of its intersection with the keel. It is likely that this zone represents an area of structural complexity and dilation, as evidenced by the higher than average gold grades and apparent thickening of the keel in this area. This domain is limited in strike length to approximately 100 m. On either side the keel resumes its normal dimensions and the Buck Reef straightens to assume a more northeast-southwest (grid) orientation.

### **NORTH VEINS**

A north-dipping stockwork covers the entire area from the Buck Reef across to the Area 5 – Nolans fault zone. To the east drilling suggests that it is less well mineralised. The stockwork has been reactivated about the Keel structure which itself represents the conjugate to the North Veins. The Buck Reef Area 4 and Area 5 - Nolans shears represent release structures, which have compartmentalised the dilation in the north veins. Locally both south- and north-dipping vein sets exist within the stockwork.

The veins are typically less than one metre in width and dip north at 20-30 degrees. They comprise a significant portion of the resource and have the dominant orientation of the Bell mineralisation.

### **AREA 5 ZONE**

The Area 5 Zone, in the southern part of the deposit, is the western extension of the mineralised corridor containing the Nolans deposit, albeit after a change in strike. The zone strikes east-west and passes through and beneath the old Area 5 pit. Individual veins in the zone are predominantly shallow and south-dipping, while the zone dips steeply to the north. A pod of high grade (>2 g/t Au average) occurs at the intersection of the Nolans Fault with a prominent vein set over a vertical distance of 40 m beneath the old Area 5 pit void.

### **AREA 4 FAULT**

The Area 4 Fault in the northern part of the deposit is a highly compartmentalised yet important vertical structure. It bifurcates with both east - west and northwest - southeast striking

components. It exists as both a single shear zone and two to three separate shear zones, and although essentially vertical, it changes in orientation in places both horizontally and vertically.

Exhibiting both brittle shear and fault textures with evidence that it hosts the early silicification and potassic alteration events, the structure is interpreted to be of a similar age to the Buck Reef and the Nolans – Area 5 faults. The structure is broadly parallel to Nolans – Area 5 and thus it probably formed under the same stress regime. The fault intersects the Buck Reef on the east end of the SYC pit.

Interestingly, a zone of moderate to strong magnetite depletion occurs around the Area 4 Fault for almost 100 m and over much of its strike length. Because it is within 100 m of the Buck Reef over much of its strike, the rock mass between these two structures is moderately demagnetised.

By its geographical association, it is clearly a primary control on dilation associated with several of the Sarsfield mineralised domains, specifically the Bell Zone, OCA Stockwork and local areas of the Keel Zone and north dipping veins.

#### **6.2.5. BUCK REEF WEST MINERALISATION**

The Buck Reef West (BRW) gold mineralisation comprises several structurally controlled mineralised zones. The main zones are described below.

##### **SUNSET LODE**

The Sunset lode was the largest vein structure mined in the Ravenswood area. The lode dips moderately (with an average of 50° but varying between 30° to 70°) to the northeast (035°) and extends for over 390 m in strike length and over 300 m down dip. The width varies between 20 cm and 3 m and is estimated to have yielded over 208,000 ounces. Historic workings and current drilling show the system to be irregular in strike and dip, with branching of the veins occurring often. The lode was mined along two main shoots. In the upper levels the ore veins were 60 cm to 73 cm wide, with the lower levels being less than 30 cm wide.

The Sunset lode is predominantly developed to the north of the Buck Reef Fault (BRF) but is interpreted to pass through the fault and intersect the General Grant – Area 2 vein system to the south. The genetic relationship between the BRF and the Sunset lode remains unclear, but they appear to be linked by source. The BRF is demonstrably an earlier structure; however, both grades and continuity of mineralisation decrease with distance from the BRF, implying that the presence of the BRF was important in the formation of this lode.

##### **GENERAL GRANT LODE**

The General Grant lode strikes north and dips to moderately (45°) to the east. The lode was worked from 1870 to approximately 1912 over a length of 44 m and to a depth of 190 m, with a historical production of 24,385 ounces. The vein varies in width from 20 cm to 37.5 cm, with two main shoots exploited within the lode, an upper and a lower shoot. The majority of the upper lode was mined to the north of the BRF, and when the shoot passed through the fault the reef pinched out and the grade dropped. The lower shoot lay to the south of the BRF; it was a narrow (12.5 cm to 20 cm wide) vein but was rich in gold. As with the upper lode but in reverse, driving north through the BRF saw the vein rapidly pinch out and eventually mining was abandoned.



The General Grant structure continues to the North and is likely represented by the MSA mineralisation mined by MIM and since backfilled to become a golf course. To the South the General Grant lode likely merges with Area 2 mineralisation, as described below.

### **DUKE OF EDINBURGH LODGE**

The Duke of Edinburgh lode strikes north-northwest and dips irregularly to the east between 30° and 50°, being steeper towards the surface and shallowing with depth. The lode was worked along a horizontal length of 180 m and a vertical depth of 150 m. The highest-grade ore was stoped south of the BRF, from veins averaging 17.5 cm wide grading up to 186.6 g/t Au (Levingston 1974), with the same mineralogy as the other lodes.

### **AREA 2**

A recent underground mining operation exploited the southern extension of the General Grant lode known as Area 2. The upper development concentrated on a narrow 80 m by 150 m shoot occurring on a slight flexure in the main Grant structure. The lower workings continued down another 100 m and extended out towards the south for approximately another 100 m. The veins were narrow, often less than 50 cm wide, and reportedly would pinch and swell and splay erratically along the length of the structure. Grades were reported as being very high (several 10s of ounces per tonne) and 210,000 t @ 12 g/t Au was mined for 81,000 oz Au.

### **GRANT/SUNSET PARALLEL VEINS AND LODES**

Tension and shear veins that trend variably sub-parallel or conjugate to the Sunset and General Grant lodes occur throughout the deposit. These veins comprise 34% of the in-pit resource and decrease in density away from the main structures. Recent modelling has resolved several lodes that extend over 100 m and trend parallel to the General Grant and Sunset structures.

### **BUCK REEF FAULT (BRF)**

Fault-hosted mineralisation along the BRF comprises 13% of the in-pit resource. The sub-vertical, east-trending BRF has been traced over 5 km from the Jessop Creek Fault in the west, through Buck Reef and Sarsfield pits, to an unnamed northwest-trending fault in the east. The BRF is typically seen as a zone of anastomosing shears around a central breccia with an overall disturbance zone of up to 10 m wide. Alteration around the fault varies with depth from carbonate to silica to sulphide with increasing proximity to mineralisation. Pyrrhotite is the dominant sulphide; however, the best grades occur when sphalerite +/- chalcopyrite are present. Mineralisation in the Buck Reef Fault is mostly likely associated with the main Sunset and General Grant lodes with reverse movement on the lode structures locally reactivating the Buck Reef Fault during mineralisation. As in Sarsfield, where the BRF intersects other mineralised structures, the grades exponentially increase. The north-striking, shallowly west-dipping Wilson Fault offsets the Buck Reef Fault with an apparent ~40m reverse movement. Continuity of mineralisation across both structures indicates that the faults were pre-mineralisation.

### **6.2.6. MINERAL ASSOCIATIONS**

Gold is contained within the lodes and smaller veins and along faults as breccia fill, and there is little to no gold in the granitic wall rocks. Gold occurs on the grain boundaries and in fractures within sulphide minerals in the veins and shears and a significant proportion (approximately 30%) of the

gold can be recovered as free-gold. Dominant sulphides are pyrite, chalcopyrite, sphalerite, arsenopyrite and pyrrhotite, with other minor minerals including molybdenite, tetrahedrite, galena, magnetite, marcasite, electrum, bismuthinite, melnikovite, pyrite and chalcocite. The highest gold grades are associated with veins that contain sphalerite and or arsenopyrite.

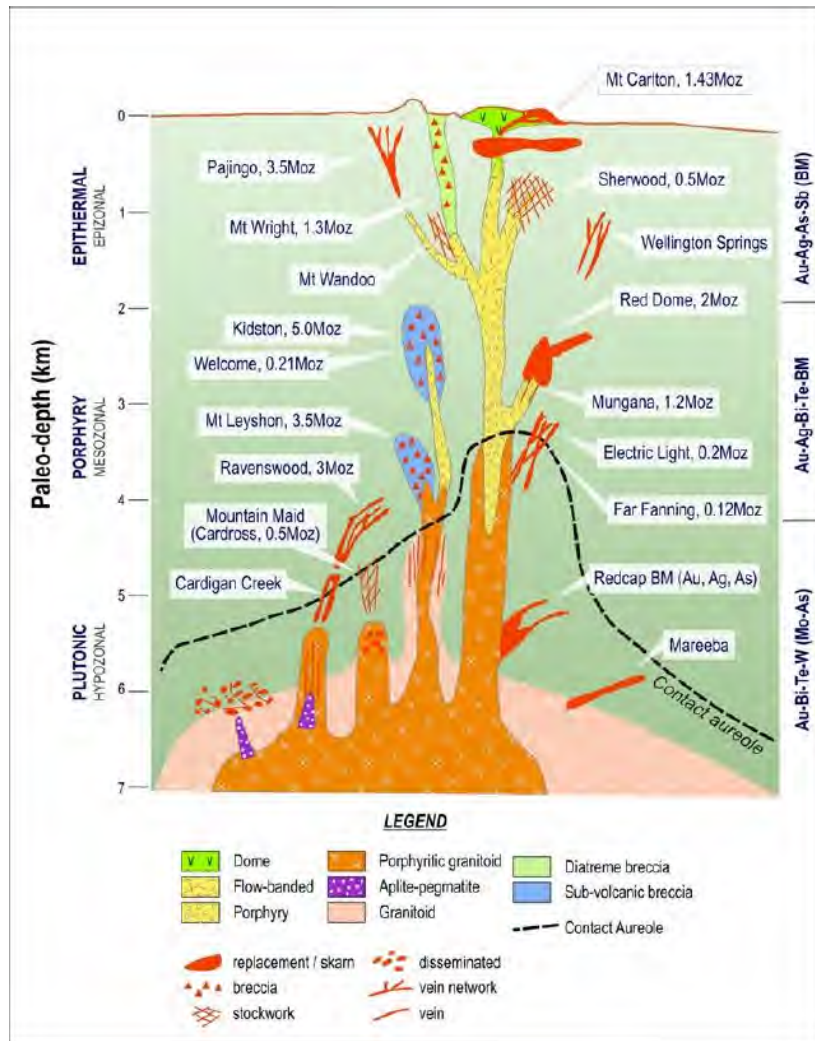
## 7. DEPOSIT TYPE

The Ravenswood gold deposit can be described as an intrusion (porphyry) related gold system, with mineralisation associated with vein stockworks which appears to be spatially related to Carboniferous sub-volcanic activity.

The intrusion-related gold systems (IRGS) of north Queensland are linked with the Kennedy Igneous Association, with intrusives found along the NW-trending Townsville-Chillagoe-Mornington Island belt (Morrison and Beams, 2015). The region is dominated by I-type magma emplacement recognised by Sillitoe and Thompson (1998) as being associated with significant intrusion-related, vein gold deposits.

IRGS in the area typically display variable mineralisation styles, igneous complex emplacement depths, metal associations and ages of mineralisation (Early Carboniferous to Early Permian). The deposits tend to be predominantly vein and/or breccia-hosted, forming at mesozonal (porphyry) emplacement depths. As the majority of systems are emplaced at porphyry-level depths and there is a dominant association with intrusive porphyry complexes the deposits have, in the past, been considered “porphyry gold” deposits (Morrison and Beams, 2015). Figure 7.1 is a diagrammatic depiction of the intrusion-related, vein-associated gold deposits (including Ravenswood), as postulated by Morrison and Beams (2015).

Figure 7.1 Schematic intrusion-related, vein gold deposit model (source: Morrison and Beams, 2015)



## 8. EXPLORATION

The Ravenswood goldfield was discovered in 1868, with the bulk of approximately 900,000 oz of gold production from the historically mined lodes at Sunset, General Grant and Duke of Edinburgh prior to 1918.

Carpentaria, under both MIM and Resolute, has conducted exploration in the Ravenswood area since the 1980s, and many company reports exist detailing the exploration and resource development since that time. Carpentaria commenced mining operations at Ravenswood in 1987 following the definition of Ore Reserves at SYC, OCA and Buck Reef West. Continued exploration by Carpentaria defined further open cut orebodies at Area 4, Area 5 and MSA, and underground orebodies at OCA and Area 2.

The Nolans orebody was defined in the early 1990s and exploration outlined the Sarsfield orebody in 1994. Underground orebodies were defined and mined at Nolans North, Buck Reef West and Area 2 in the early- to mid-2000s. The Mt Wright breccia and dyke hosted deposit was discovered in 1992 and commenced mining in 2006.

Drilling has focussed on Nolans (61,181 m), Sarsfield (180,138 m), Buck Reef West (117,876 m), and Mt Wright (60,672 m). In addition, Carpentaria has drilled 141,300 m on other prospects located within an approximate 50 km radius of Ravenswood. Drilling at Buck Reef West and Sarsfield has been carried out during numerous campaigns over several years. Methods of drilling have included Aircore, Percussion, Reverse Circulation, and Diamond Core, with resource calculations predominantly based upon results from RC and Diamond drilling.

Exploration has also utilised a variety of geophysical techniques (magnetics, induced polarisation, electromagnetics, gravity, radiometrics, and seismic), a variety of geochemical methods (soil sampling at various spacing, rock chip sampling), and several geological studies variably focussed on lithology, alteration, mineralisation, and structure. University-based research studies have also been completed on each of the main deposits and several other prospects in the region (e.g. Welcome, Glenroy).

## 9. DRILLING

### 9.1. COLLAR AND DOWNHOLE SURVEYING

The principal drilling methods used for exploration and Mineral Resource Definition at Sarsfield (Table 9.2) and Buck Reef West (Table 9.3) have included reverse circulation (RD) and diamond (DD) drilling, air core (AC), open hole percussion (OHP) and rotary air blast (RAB) drilling. Additionally, water bores (WB), underground sludge holes and surface trenches have also been completed and recorded in the drilling database, although these results have been excluded from any resource estimation. DD holes are sometimes pre-collared using OHP, AC and RC methods. Only OHP, RC and DD holes were used for the estimation; however, all sample types were used to guide interpretation and modelling. Table 9.1 details drilling by year and company across the project.

Recent diamond drilling has been completed using a variety of core sizes ranging from NQ (47.6 mm), HQ (63.5 mm) to PQ (85.0 mm). Historic diamond drilling has been done with BQ (36.4 mm), NQ, HQ and some unspecified sizes. Holes were drilled on a nominal even-spaced grid pattern, with collar and downhole surveys used to accurately record final locations. Industry standard sampling, assaying and QAQC practices were applied to all forms of drilling completed by Resolute. Documentation on historic drilling and QAQC, undertaken by Xstrata and MIM, is incomplete; however, there is no reason to assume that acceptable industry standard practices were not applied.

Buck Reef West and Nolans East have been drilled initially on a nominal 20 m drill spacing, with further infilling to a 10 m nominal spacing.

**Table 9.2 Sarsfield (plus Nolans) drilling by hole type**

Hole Type	Number holes	Metres	% Total metres	Samples
Reverse Circulation	688	90,830	75.8	53,911
Diamond	134	28,957	24.2	27,700
RC pre-collar DD	79			
Total	901	119,787	100	81,611

**Table 9.3 Buck Reef West drilling by hole type (from June 2018 resource estimate)**

Hole Type	Number holes	Metres	% Total metres	Samples
Open Hole Percussion	94	24,442	21.2	38,119
Reverse Circulation	240	34,434	29.9	
Diamond	140	55,619	48.2	53,883
OHP pre-collar DD	146			
AC pre-collar DD	15			
RC pre-collar DD	48			
AC		803	0.7	
<b>Total</b>	<b>683</b>	<b>115,298</b>	<b>100</b>	<b>92,002</b>

The Sarsfield deposit has been drilled on local grid-orientated, north-south traverses at mostly 25 metre intervals along the extent of the identified gold mineralisation. Above 100 mRL (the surface is

at approximately 300 mRL) all drilled sections have holes at least spaced at approximately 50 metres; however, each alternate 50 m section features infill holes that have reduced the average spacing to approximately 25 metres. The broader 50 m by 50 m drill pattern persists below 100 mRL down about -100 mRL. Below -100 mRL, minimal drilling information is available. The majority of drillholes are angled at dips of -70 degrees to vertical. The angled drillholes are predominantly oriented toward grid south.

**Table 9.4 Total drilling completed by company and year**

Contractor	Description	Period
LDC	Leanda Drilling Company	1980 – 1992
RKD	RockDrill Drilling Company	1985 – 1986
WLS	Wallis Drilling Company	1986
STN	Stanley Drilling Company Pty Ltd	1986 – 1992
ASD	AusDrill Drilling Company	1996
PDC	Pontil Pty Ltd Drilling Contractors	1998 – 1999
RDS	Ryan Drilling Services	2003 – 2004
FAM	Faminco Mining Services	2003 – 2004
CDS	Core Drilling Services (QLD)	2004
OME	OME Drilling Pty Ltd	2004
DTQ	Drill Torque Queensland	2005 – 2008
CTN	Centurion	2012 – 2015
AED	Associated Exploration Drillers Pty Ltd	2016 – 2017
TLD	Titeline Drilling	2017
Eagle	Eagle Drilling	2017 – 2018

Diamond core interval recoveries are measured by reconciling against the driller's depth blocks in each core tray with data recorded in the database. For some historical drilling programmes recovery data has rarely been logged and recorded with the historical data. Recovery data is typically not recorded for RC, OHP and AC drilling. Drilling and sampling crews were informed of the importance of core recovery. Measures taken to maximise recovery include the selection of drilling methods and core sizes suited to the geology and mineralisation. Appropriate measures are taken to maximise sample recovery and ensure the representative nature of the samples.

At the Buck Reef West deposit core recovery was reduced within areas of historic stoping. Areas of stoping have been identified in the drilling and sampling database and excluded from the resource volume estimate through the use of interpretative wireframes. No other significant core loss or recovery issues have been noted across the project. No apparent relationship was observed between core recovery and gold grade for any of the recent drilling methods.

Figure 9.1 and Figure 9.2 show, in plan, the drilling coverage of Sarsfield and Buck Reef West respectively. In Figure 10.1, warm colours denote higher gold grades and cooler colours lower grades.



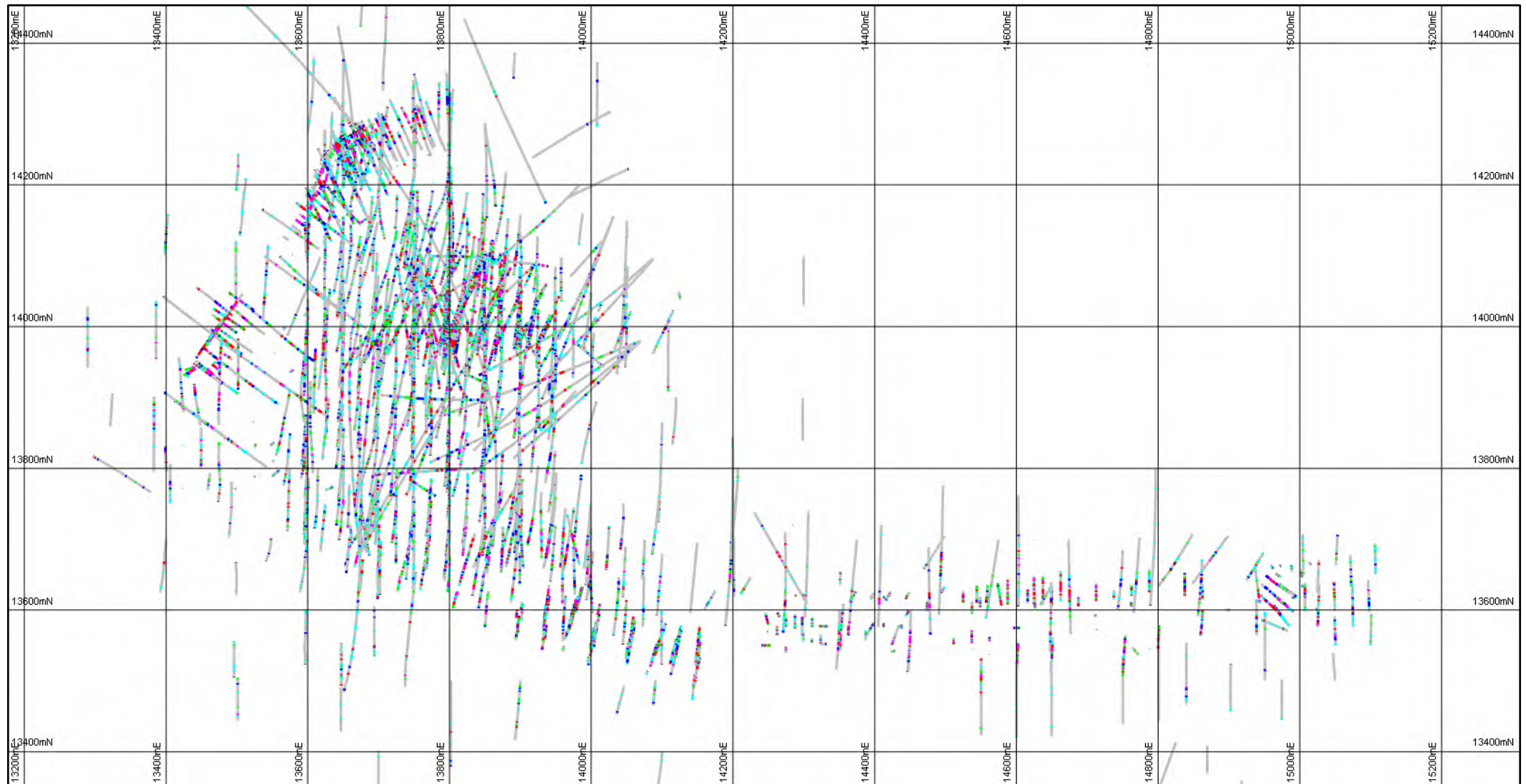
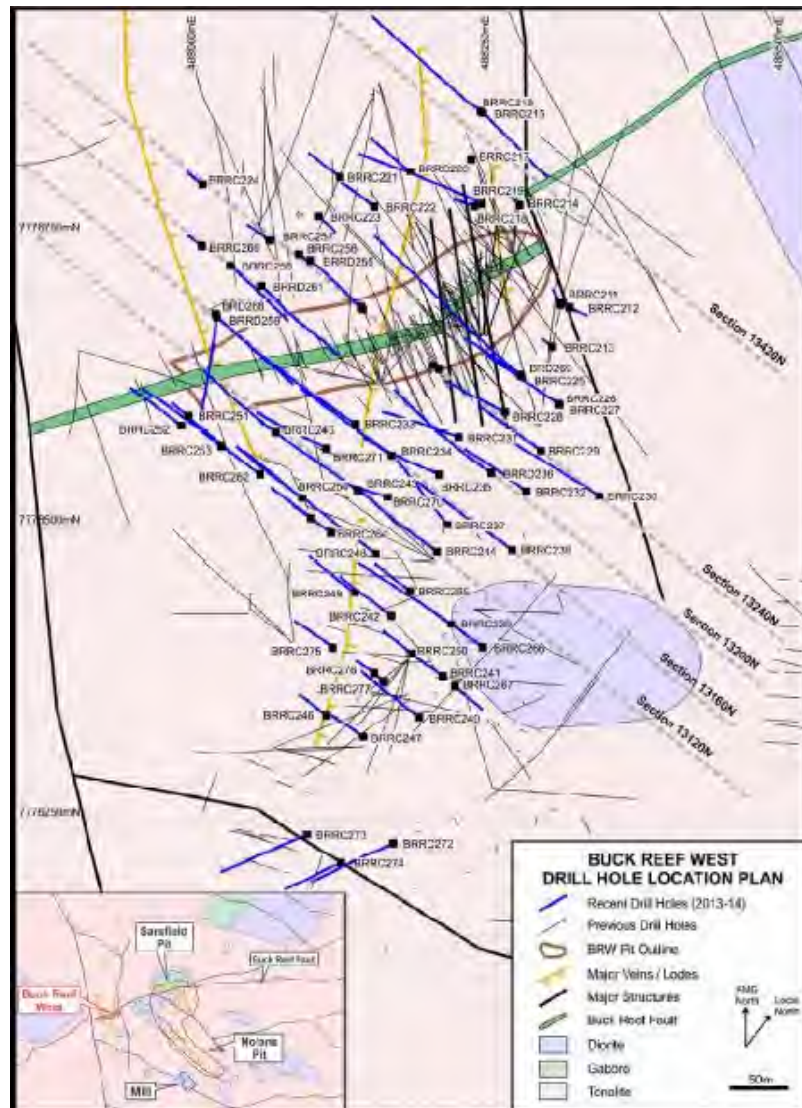
**Figure 9.1 Plan view of the Sarsfield drill coverage (all drilling types)**



Figure 9.2 Plan of Buck Reef West drill coverage



## 9.2. COLLAR AND DOWNHOLE SURVEYING

Survey of CG drillhole locations was performed by the Ravenswood survey department using total station EDM (Leica TPS1100 total station) and a local grid system. The accuracy of the survey measurements meets acceptable industry standards.

All bearings report to orientations in the local A45 grid. Grid north is oriented 030° east of magnetic north. 0mRL is equivalent to 32.813 Australian Height Datum.

Pre-1990 downhole surveys were predominantly completed using single shot cameras. Historical downhole directional surveys were undertaken, by MIM personnel in 1996, using a Wellnav multi-shot camera. The downhole distance between surveys varied between 5 and 20 metres. Magnetic susceptibility measurements were recorded from all percussion and core samples collected during the feasibility drilling.

While downhole surveys were completed for most drillholes (using a single shot camera in most cases) the quality was variable, with significant intervals being affected by magnetic interference.

Compounding this issue, it appears that desurveyed intervals calculated from limited original surveys had been entered into the original datasets as primary surveys in places. These were removed by Resolute, resulting in minor changes to sample locations.

The predominant downhole survey methods used during this time include magnetic tools such as electronic single and multi-shot surveys (Table 9.5) as well as non-magnetic tools, including north seeking gyro. The tools used varied according to accuracy requirements, location, geology and budget. Subsequently, the electronic multi-shot has been the default tool used for downhole surveys and often the minimum requirement for accurate surveys since it has become readily available for use. However, for areas with high magnetic interference or where higher accuracy was required, such as deep drilling, a tool such as the EZ-Gyro was used in preference to the multi shot.

The following summary information was recorded for the Buck Reef West 2018 model (Table 9.5). The downhole survey data was validated by Resolute staff.

**Table 9.5 Summary of downhole survey techniques**

Survey method	Count	% of total
Electronic multi-shot	3,710	51
Electronic single-shot	905	13
Mechanical single-shot	1,063	15
Non-recorded method	429	6
North-seeking gyro	796	11
Globaltech Pathfinder multi-shot	32	< 1
Globaltech Pathfinder single-shot	8	< 1
Planned collar data (not surveyed)	42	1
Projected (duplicated shallow depth survey projected to surface – when no 0m survey exists)	31	< 1
RTK-GPS collar survey	1	< 1
Set-up (pre-drilling compass or surveyor mark-up/rig alignment – collar unsurveyed)	190	3

## 9.3. CORE MANAGEMENT

### 9.3.1. CORE ORIENTATION

Collar coordinates for recent drillholes are picked up in UTM by contract and staff surveyors using the Leica 1203 DGPS surveying instrument. The survey pickup method has not been recorded in the database records for many historic holes; however, the veracity can be assumed due to the long history of production within the mining leases.

Downhole surveys are collected at 30 m intervals using a variety of instruments, including Gyro, Deviflex, single shot and multi shot. Coordinates and azimuth are reported in UTM AMG84 Zone 55. Coordinates are translated to local mine grids where required.

All diamond drill core from recent drill programmes, completed by Resolute, featured orientation at 30 m downhole intervals, using both ball mark and ACT core tool devices. It is unknown what method was routinely used for historic data. In 1996, two core orientation methods were used for

the geotechnical drilling at Sarsfield, namely the Van Ruth spikes and crayon tip spear methods. Both methods were applied to every 3 m core run.

The orientation of structures was determined by measuring the circumference angle clockwise from the lowest point on the structure to the core orientation line. The downhole distance to the lowest point on each structure and the dip were also measured. Drillholes were drilled predominantly perpendicular to mineralised domains where possible. No orientation-based sampling bias has been identified in the data.

#### **9.3.2. CORE MARK-UP**

Oriented core is marked-up in metre intervals. The metre intervals are marked once each core run had been fitted together, measured, the amount of recovered core reconciled to the interval drilled as defined by core blocks, the position of core blocks checked relative to core face breaks and if necessary, drillers' rod counts referenced to resolve core block issues. All core is photographed after orientation and metre mark ups but prior to cutting.

#### **9.3.3. LOGGING**

Geological logging has been conducted for all recent and historic RC, AC, OHP and DD drillholes. RC drillholes are logged on 1 m intervals and DD drillholes are logged to geological unit intervals. Historic RC, AC and OHP holes were logged to match the sampling interval of 1 m or 2 m. The sample is selected on a 1 m interval basis for logging and is the equivalent of the sample sent to the laboratory for analysis. A scoop of sample is extracted from the bag, washed in a wire sieve to remove excess dust and mud and visually assessed by the rig geologist using a hand lens. The rock chips are logged into a spreadsheet using a controlled drop-down list compatible with the company database.

The diamond core intervals selected for logging are firstly recorded by lithology, then further broken down by alteration and mineralisation. Results are recorded into the same Excel spreadsheet as the RC log, maintaining consistency.

RC logging is completed directly at the rig, while diamond core is logged at the core yard. RC chips are logged by geologists and diamond core is logged by geological technicians.

Geotechnical rock mass logging, structure orientation, recovery and magnetic susceptibility data are measured and recorded for diamond core. Diamond core is photographed (wet and dry) for recent data but few photographs exist for historic core; RC chips are occasionally photographed for recent data, and RC, AC and OHP chips have not been photographed for historic data.

Recent diamond core and RC holes have been logged onto a laptop computer, either at the drill site (RC) or the core shed (DD), using Excel templates. Data is validated prior to import to the drillhole database. Historic logging was completed on paper templates at the core shed or drill rig and occasionally entered into the computer database via an Excel template.

Holes are logged in their entirety. Data collected routinely during logging, and from drillholes, includes detailed geological information (rock type, mineralogy, veining), structural and geotechnical data, magnetic susceptibility, metallurgical and petrological data, waste geochemical characterisation, geochemical analysis, gold assays, selective multi-element geochemistry and a full

suite of QC data. The logging geologist, the date logged and any extra comments about the interval are also recorded.

Geotechnical logging is undertaken by the field technical staff under the supervision of the logging geologist. Geotechnical logging was also carried out by consultant geotechnical engineers. The first task is core orientation; the location of core blocks is temporarily marked on the core before pieces of core are transferred onto a 6.5 m long V-bench (orientation rack). The rack contains four levels and enough space for 28 m of core. The bottom of the core mark is located and rotated to the side of the v-bench to facilitate a straight line when transcribing the line onto the core. The rest of the core run is rotated and fitted together along this same line. The line is drawn on as a solid only after three consecutive drillers marks match up, with the highest confidence rating of three recorded. If only two marks line up the drawn line is dashed and has a confidence rating of two. One orientation mark is drawn as a dash and dot line and given a one confidence rating, and no orientation marks are dotted and given a zero rating. The core is then measured up and temporary marks drawn onto the core using chalk. The core is returned to the trays in the correct order, and when all metre marks are checked as correct the marks are redrawn with permanent markers or paint pens.

Rock Quality Designation (RQD) is determined as the sum of the lengths of core greater than 10 cm as a percentage of each metre of core recovered. RQD data is collected on a metre by metre basis from the top of the hole and entered into a spreadsheet, along with the orientation confidence, the loggers name and the date.

Specific gravity readings are also a part of the geotechnical log. A segment of core 10 to 20 cm long is selected by the logging geologist every two metres within the mineralised zone and every 10 m outside of the mineralised zone in the waste rock. The top and bottom interval is recorded on the core, the core is weighed dry and immersed in water and weighed again, and the results are entered into the same spreadsheet.

The spreadsheet is uploaded into the company database by the database administrator.

#### **9.3.4. SAMPLING**

##### **RC DRILLING**

The geologist and field technicians take responsibility to ensure that the drilling company provides a high-quality sample. Avoiding contamination is a crucial part of this process. Staff are instructed to remove all gold jewellery prior to any sampling on an RC drill rig.

For RC drilling programmes pre-2016, a one metre sample was riffle split (25:75) directly off the cyclone, then the smaller portion was split again (50:50), with one split collected in a large green plastic bag and the other split collected in a calico sample bag (average weight 2-3.5 kg). For RC drilling post-2016, samples were collected over a 1 metre interval using a trailer mounted cyclone. Samples were homogenised within the cyclone prior to passing through a cone splitter, and a 2-3 kg sample was collected in a pre-numbered calico bag. The calico bag was written up with a designated Resolute sample number and was sent to the laboratory for gold or multi-element analysis. The small green plastic bag was labelled with the drill hole number and 'depth\_to' written below and retained for emergency re-sampling or check sampling later.

All samples were collected every metre at the drill rig during the drilling process, and sample recovery and condition for all samples was noted. About 6% of the historical RC samples at Buck Reef West were collected using a cone splitter; the split ratios are unknown. All RC chips were geologically logged. Recovery and RQD forms were completed for all diamond core.

Care is taken by geologists to ensure that no cross-contamination occurs between samples, with a number of procedures in place to achieve this. If RC samples are observed to be moist or damp, the hole is finished off with a diamond tail. All RC holes are blown clean between samples and cyclones and splitters are cleaned during rod changes.

Sample size for every metre is recorded in the sample book as undersize (U), Oversize (O) or Normal (N) compared to the expected recovery. The sample condition for every metre is recorded in the sample book as wet (W), moist (M) or dry (D). For resource drilling programmes, it is critical that RC holes remain dry and a more accurate indication of sample recovery is used. Where possible, each 25% split sample bag is weighed (usually ~10kg), with the result quadrupled to obtain the actual recovery weight. Weighing is done using bathroom scales. The expected volume of material is estimated by confirming the bit/hole diameter with the driller and multiplying the area of the hole by 100 cm (length of the drilling interval). The volume is then multiplied by an estimate of the bulk density to provide an expected sample weight versus actual weight. The recording of the sample weight, assuming consistent recoveries, is useful in assigning bulk densities later.

The calico bag RC samples intended for assaying are put into large green plastic bags in groups of five (<20 kg) which is completed during sampling at the drill rig. The non-assayed RC samples in the small plastic bags are temporarily stored at the core shed and arranged in sample order for easy future reference. All areas that have not been sampled are identified in the sample book with an explanation, which is then recorded in the database.

Sampling (plastic) and collection (calico) bags is clearly and accurately labelled with permanent ink marker pens prior to the commencement of drilling each drill hole. This serves to limit error and confusion of drilling depth while drilling is proceeding. The drill log and sample book are regularly checked against the hole depth as drilling proceeds to ensure compatibility. The driller is consulted regarding the end of starter rod depth (EOSRD) prior to starting the first drill hole of each programme. This will vary from rig to rig and hole to hole depending on the drill hole dip. A small sieved sample from each 1 m sample is collected and placed into a clearly labelled chip tray for future reference. A representative sample is preferred with several larger chips from the metre included where possible.

Transportation of samples from the drilling site to the sample storage or sample dispatch area is undertaken with great care. When travelling from distant exploration sites where the road conditions are bad, samples (and sampling equipment) are firmly secured with rope.

In general, the RC sample condition and size was good throughout the programme.

## **DIAMOND DRILLING**

Core is prepared and processed by field technicians and geologists before being sampled and dispatched to the laboratory for analysis. Proper core handling procedures and presentation of the core in the core trays is a very important factor in the quality, and therefore the reliability of the

geological data collected. The core is subject to as little disturbance as possible after it has been removed from the hole.

The core is placed in trays starting from the top left corner like the lines on a page. Suitable core blocks are clearly marked with the hole depth and placed in the tray by the drillers at the end of each drill run irrespective of the length of the run. Additional blocks recording intervals of core loss or cavities are also placed in the tray. The trays are labelled with the hole number, tray number and the top left-hand corner of the edge of the tray is labelled 'START'.

Core is placed loosely in the trays and not wedged so tightly into the trays that the ends of the trays are bent. If a piece of core must be broken by the driller to fit it into the tray, the break or breaks are clearly identified by marking the core on both sides of all such breaks with an 'X'. Core is not unnecessarily broken. The driller will reconstruct the core after it has been placed in the tray to ensure that pieces of core are not lost, rotated end for end, or misplaced in the tray.

Transportation from the drilling site to the core yard is undertaken with great care to avoid disturbance of the core. When travelling from distant exploration sites where the road conditions are bad, the trays are firmly secured in a core-carrying frame and tied down with rope. After the core has been delivered to the core yard or logging area it is prepared before being logged by the geologist, which often requires further cleaning of the core. Residues of drilling mud must be washed off with water or removal of grease/oil with solvent or degreasing fluid.

All diamond core was oriented using both ball mark and ACT core tool devices, geologically/structurally logged (including some geotechnical logging) and all core photographed after orientation and metre mark-ups but prior to cutting. Diamond core samples to be analysed are taken as half core. Sample intervals are taken on the whole metre intervals from the top of the drillhole or from geological boundaries. The drill core is cut using an Almontie automatic core saw. The core is placed in a core boat with the cut line (typically the orientation line when present) placed at the top slightly to the right side of the blade; using this method retains the orientation line and maintains a consistent cut line along the core. The core is removed from the core boat and carefully placed back into the core tray, checking that the core ends match and the orientation is correct.

A sampling sheet is obtained from the geologist prior to sampling beginning. The sampling sheet details the hole number, the sample numbers, the sample intervals, the duplicates, blanks and standards required and where they are to be inserted. Sample bags used are ordered with printed unique numbers; prior to 2018 a single sampling ticket was also placed into each bag. The sampler uses the sampling sheet to select the corresponding metre interval and places the half core that does not have the orientation line into the sampling bag. Individual sample bags are packaged into larger bags and are zip tied. Each bag is labelled with the sample numbers contained in each bag, the company name and the laboratory name.

Historically diamond core was sampled using one or two metre samples that were cut, with half sent for analysis. Historical RC, OHP and AC samples were collected at one or two metre intervals that were riffle split; however, the weight of the samples is unclear. Most of the diamond core throughout the programme was in good condition with high core recoveries.

Historical sampling procedures are considered to have been appropriate at the time.

## 10. SAMPLE PREPARATION, ANALYSIS AND SECURITY

For the majority of the resource samples (RC and DD), Australian Laboratory Services Pty Ltd (ALS) Townsville acted as the primary laboratory for final sample preparation and analysis. The Ravenswood onsite laboratory completed the initial sample preparation stages of drying and crushing prior to despatch to ALS Townsville. SGS Townsville was used to conduct independent umpire checks. All laboratories used operate to international standards and procedures and take part in the NATA round robin inter-laboratory test survey.

### 10.1. SAMPLE DISPATCH

Both RC chip and diamond core sampling were completed by Resolute personnel. Preliminary sample preparation in the Ravenswood mine assay laboratory was conducted by suitably trained and qualified Ravenswood staff prior to dispatch of the crushed sample to Townsville.

The sample chain of custody is managed by Carpentaria Gold personnel. Both RC and diamond core samples are securely stored on site for logging and sampling procedures prior to being dispatched to the ALS Townsville laboratory for assay analysis. Dispatch sheets are used to document sample numbers through the delivery process. ALS laboratories maintain a Webtrieve application to confirm and monitor samples and jobs within the laboratory process.

Samples are transported to the ALS laboratory in Townsville as required. ALS crosschecks that all samples have been received per the Sample Submission Sheet from the Ravenswood office. Samples are processed and assayed without ALS having any reference to the actual hole number or interval the sample represents. Blanks, standards, and duplicates, supplied by Resolute, are inserted in sequence amidst the routine samples to be assayed.

Returned assay results are reported by the laboratory in CSV format and are imported into the SQL database without adjustment or modification. Historic assay files were reported by the laboratory in CSV, SIF, text, paper and unknown formats and either transcribed into appropriate electronic formats, or directly imported into the SQL database. It appears that no adjustment was made to the assay data.

### 10.2. SAMPLE PREPARATION

Sample preparation of both RC and DD samples, begins in the Ravenswood site laboratory and is conducted by Resolute prior to dispatch to ALS Townsville. The preliminary sample preparation completed at Ravenswood entails:

- Drying in a moderate oven;
- Crushing the 2-4 kg (DD), or 2-3.5 kg (RC), sample to <2.0 mm using a Boyd crusher; and
- Rotary splitting to produce duplicates and reduce the sample to a maximum of 3 kg directly from the splitter.

ALS Townsville has also been used for the preliminary sample preparation. When the initial preparation is completed at ALS the process is as follows:

- Drying of the sample at low temperature to allow further preparation;
- Crushing and splitting (core only) to obtain a representative sample of reduced weight; and

- Atom mill grinding of large fragments to expose/release gold in the coarse fraction.

After crushing and splitting, all samples undergo final preparation and analysis at ALS Townsville. The laboratory procedures adopted by ALS Townsville for the samples are as follows:

- Samples are receipted and confirmed correct, as per the sample submission sheets, by the ALS personnel;
- Samples are loaded into an oven at 60°C for drying;
- Sub-sampling with a riffle splitter takes place to obtain a representative sample of reduced weight (approximately 1 kg);
- Pulverising of the split sample in an LM5 crusher to achieve a P85 of 75 microns;
- Splitting 200 g of pulp generated from the pulveriser;
- Sub-sampling of 30 g from 200 g sample for fire assay technique Au-AA25 (or 50 g sample for Au-AAS26);
- The residual pulp is stored;
- Pulps are periodically returned to Ravenswood.

### **10.3. ANALYSIS**

#### **10.3.1. PRE-RESOLUTE ANALYSIS**

Pre-Resolute, 1996 to 2001, geochemical analysis of RC, AC, OHP and DD was completed predominantly by ALS Townsville using a 50 g sub-sample from a 400 g pulp analysed by fire assay with technique PM209.

#### **10.3.2. RESOLUTE ANALYSIS**

Post-2001, the routine Resolute RC and DD samples for Mineral Resource Estimation are assayed for gold by ALS Townsville using either method code Au-AA25, which uses a 30 g aliquot, or Au-AAS26, which uses a 50 g fire assay fusion with atomic absorption spectroscopy (AAS) instrument finish. The analytical methods are appropriate for the style of mineralisation at Ravenswood.

If a multi-element analysis is requested method ME-MS61 is used, which employs a four-acid digest on a 25 g sample with either ICP-MS and/or ICP-AES to finish.

Some RC and blasthole grade control samples are analysed by the Pulverise and Leach (PAL) method at the Ravenswood Gold Mine laboratory. The PAL method employed at Ravenswood involves rapid cyanide leaching of 1 kg samples in batches of 52 cast-iron pots to which water (1 litre) and grinding media (2 kg; 12.5 mm and 25 mm) have been added. The pots are agitated for 70 minutes, progressively grinding and leaching the samples. The liquor is retrieved, allowed to settle and a 10 ml aliquot is then extracted and analysed by AAS to determine the gold content. Tail/residual analysis testwork on different mineralogies indicates recoveries commonly of the order of 94 to 96%. The PAL method has been the preferred grade control assay technique used on site since 2003.

No geophysical tools were used to determine elemental concentrations used in resource estimations.



## 10.4. SECURITY

The sample chain of custody is managed by Resolute personnel.

Drilling is conducted across private mining leases, with access onto freehold land through a series of gates. Drill rigs are left unattended at shift changes, during which time there is either a supervisory or security presence. Core from the drill rigs, with the top core trays lidded and all trays securely strapped for transport, is transferred daily from the rig to the core laydown/storage area. Chip samples, from AC, RC and OHP, are bagged and securely-tied shut before transport from the drill site.

All drill samples are put into large green plastic bags immediately after being sampled and as soon as a plastic bag contains 5 samples it is cable tied. They are either taken directly to the mine site laboratory at the end of each day, or temporarily stored on a loading dock at the back of the Buck Reef West core shed until they are despatched to ALS Townsville. Despatches to Townsville involve only Carpentaria Gold Exploration personnel and Exploration Department Toyota tray-back vehicles. Due to time and personnel constraints, samples during the 2018 programme were despatched to ALS from site using NQX transport (a private commercial transport company). Samples were receipted by ALS personnel, with batches cross-checked by sample numbers and the total number of samples received. A paper trail exists from the time the sample is taken to when the laboratory receives and analyses them.

ALS laboratories maintains a Webtrieve application to confirm and monitor samples and jobs within the laboratory process. It is assumed that appropriate security protocols were taken for historical drillhole samples to be despatched to the laboratory.

The sampling methods, chain of custody procedures, sample preparation procedures and analytical techniques are all considered appropriate by the Competant Person and are compatible with accepted industry standards.

## 11. DATA VERIFICATION

Quality control programmes were routinely undertaken during drilling utilised for the creation of the resource models. Measures undertaken include routine insertion of certified reference materials (standards) and blanks into the sample stream. Field duplicate sampling and umpire sampling programmes are also routinely undertaken. Results received from the laboratories include screening checks from the crushing and pulverisation stages of sample preparation, as well as routine laboratory duplicate results.

Reports are prepared for every resource model, documenting and analysing the QAQC activities associated with the batches of samples used to estimate grades into the model.

### 11.1. SARSFIELD QAQC

This discussion summarises the QAQC results applicable to batches containing drill holes used for the Sarsfield February 2013 resource model. The details in this section are summarised from a standalone report titled '*1302.sarsfield.qaqc.report.docx*'.

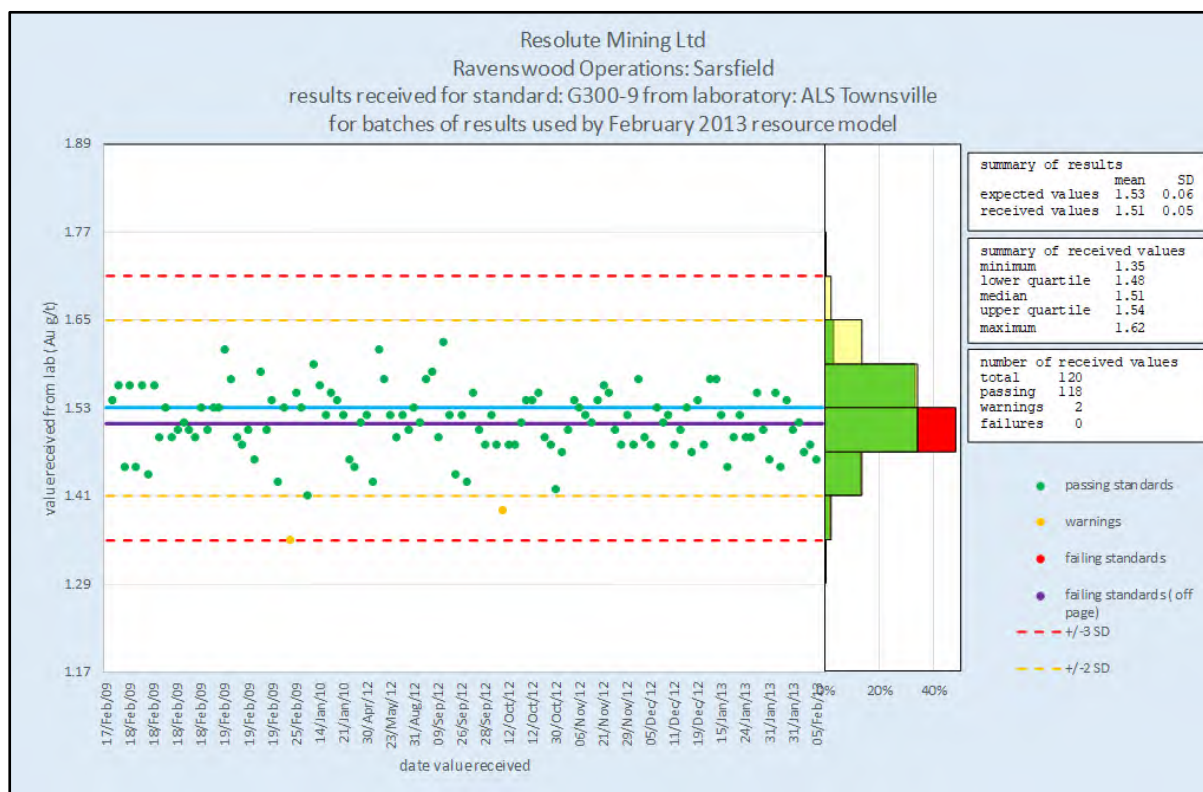
A total of 743 batches of samples were associated with the Sarsfield samples. 43 batches of samples were analysed by the mine laboratory, and 604 batches of sample were submitted to ALS Townsville. A significant proportion of the sampling used for the model was imported from older databases compiled by previous owners of the project, and the laboratory used for these samples was not recorded in the database. A list of the laboratories used, and the number of samples submitted to each, is presented in Table 11.1.

**Table 11.1 Laboratories used for Sarsfield samples**

Laboratory / source	No. batches	No. samples	% of Total
Acquire historic drilling data from rav-exploration database	1	45,653	37.4
ALS Charters Towers (analysis only)	15	1,203	0.9
ALS Nolans Ravenswood (onsite analytical services)	4	319	0.3
ALS Townsville	604	68,757	56.2
Analabs Townsville	76	2,269	1.8
MINELAB Ravenswood Laboratory	43	4,032	3.3
<b>TOTAL</b>	<b>743</b>	<b>122,233</b>	<b>100.0</b>

Total of 1,134 CRMs (standards) were submitted with the drilling used for the Sarsfield MRE. A total of 598 and 450 CRMs were been submitted with batches for ALS Townsville and historic acquire data respectively. The insertions rates for the two largest datasets, ALS Townsville and historic acquire, are less than 1% and considerably below industry standard rates. The historic acquire data has a failure rate of approximately 6% reported, while batches submitted to ALS Townsville show a failure rate of 2%. The samples from the historic acquire data and ALS Townsville account for 93.6% of the data used for the Sarsfield MRE. The weighted average failure rate of CRMs for greater than 93% of the MRE data is 3.6%. The QP considers this to be an acceptable failure rate. As a multiplot of all the CRM results has not been generated it is possible that a high number of failures are in fact resulting from CRM swaps. Figure 11.1 shows, as an example, the results for G300-9 CRM submitted to ALS Townsville. The performance of ALS Townsville on the CRM analysis is considered to be excellent.

Figure 11.1 Sarsfield CRM G300-9 results from ALS Townsville



For the Sarsfield MRE a total of 1,761 blanks were included within batches for analysis to check cross sample or equipment contamination. Of the blanks, 771 were inserted by the laboratory as part of their internal controls, with the remaining 990 blanks submitted to the laboratory with company batched/samples. The blank analyses were completed by ALS Townsville. All submitted blanks returned values within acceptable limits.

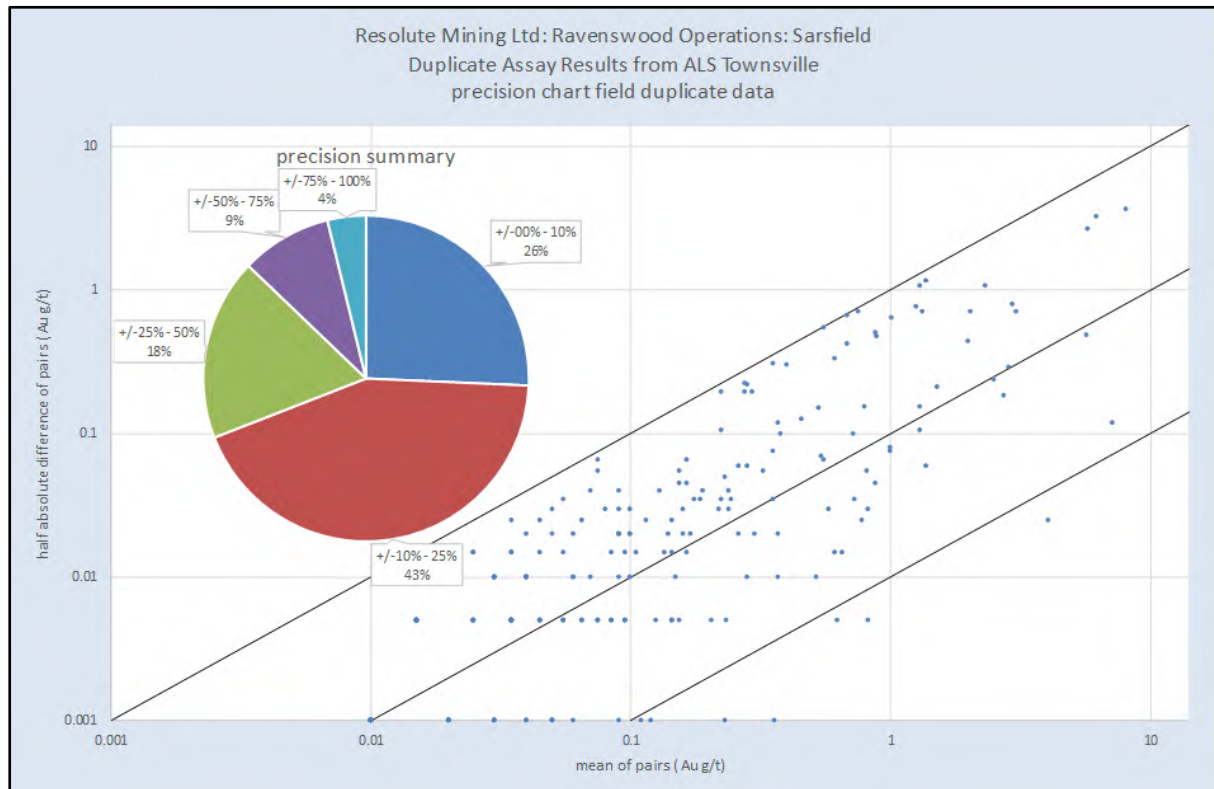
All laboratories routinely conduct sieving tests after crushing and pulverising material as a check on the process. A check of the data showed that none of the batches of samples for the Sarsfield Mineral Resource update (2013) had results from crushing tests. Only 300 results were received from pulverisation checks and of these results 20, or 7%, returned values of less than 85% passing 75µm.

Duplicate samples were submitted for both ALS Townsville and the Ravenswood laboratory. ALS Townsville received 871 coarse duplicates and 288 field duplicates and completed 798 laboratory pulp duplicates. Resolute completed analysis of 45 field duplicates in the Ravenswood (MINELAB) laboratory. The performance of the duplicate samples is generally excellent. There is a trend for the field duplicate samples to return values lower than the original sample, but the effect is not very strong. No evidence of bias is evident in the laboratory duplicate results.

Figure 11.2 shows the half absolute difference/pair mean plot for pairs of the field duplicates analysed at ALS Townsville. The chart shows that 26% of the pairs have a relative difference of better than 10% and that 69% of the pairs have a relative difference of better than 25%.

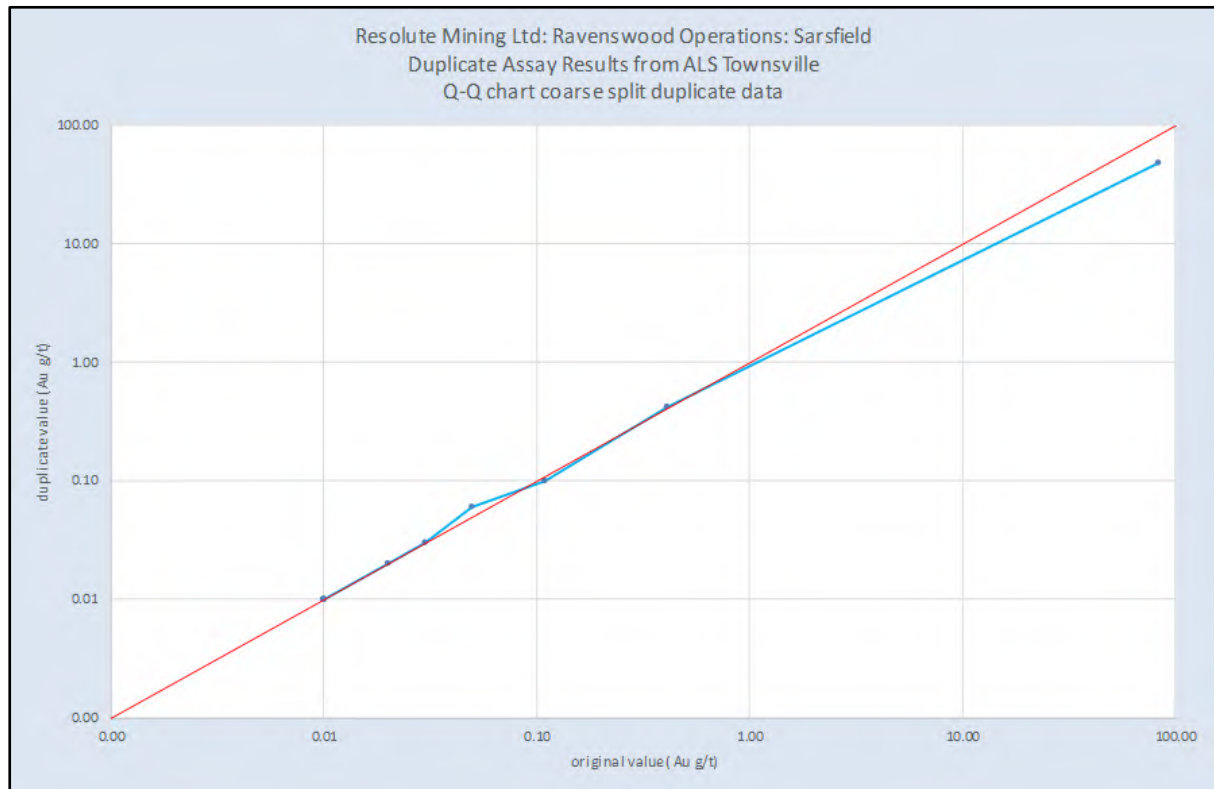
Forty-five field duplicates were also submitted to the onsite (MINELAB) and there was found to be an excellent correlation.

**Figure 11.2 Sarsfield ALS Townsville analysed gold field duplicates precision plot**



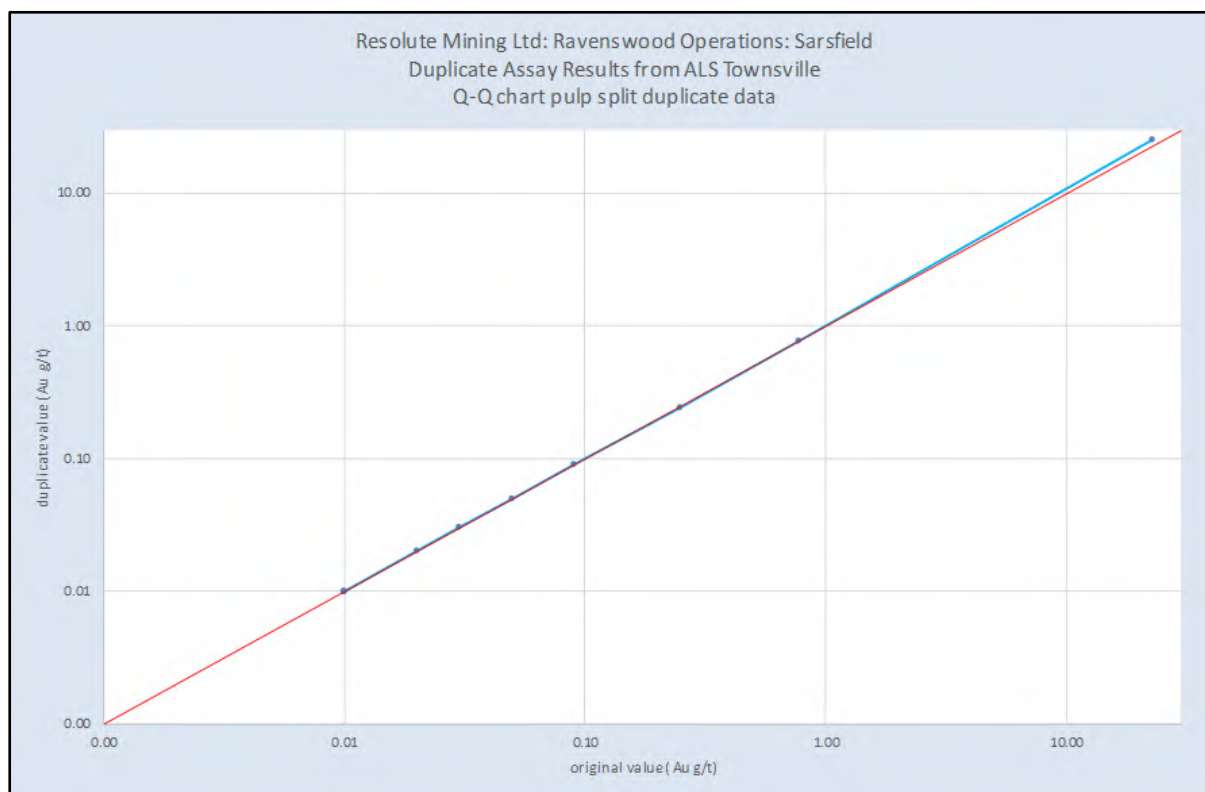
ALS Townsville also completed 871 coarse duplicate analyses for the Sarsfield data used in the updated Mineral Resource estimate. The QP found that scatter and QQ plots (Figure 11.3) show good correlation between the original and duplicate values; hence no bias was evident in the results.

**Figure 11.3 Sarsfield ALS Townsville gold coarse duplicate Q-Q plot**



A total of 798 pulp duplicate analyses were completed by Resolute at ALS Townsville for the Sarsfield Mineral Resource estimate. Very good correlation was observed between the original and duplicate analyses, with no significant bias evident in scatter or Q-Q plots (Figure 11.4).

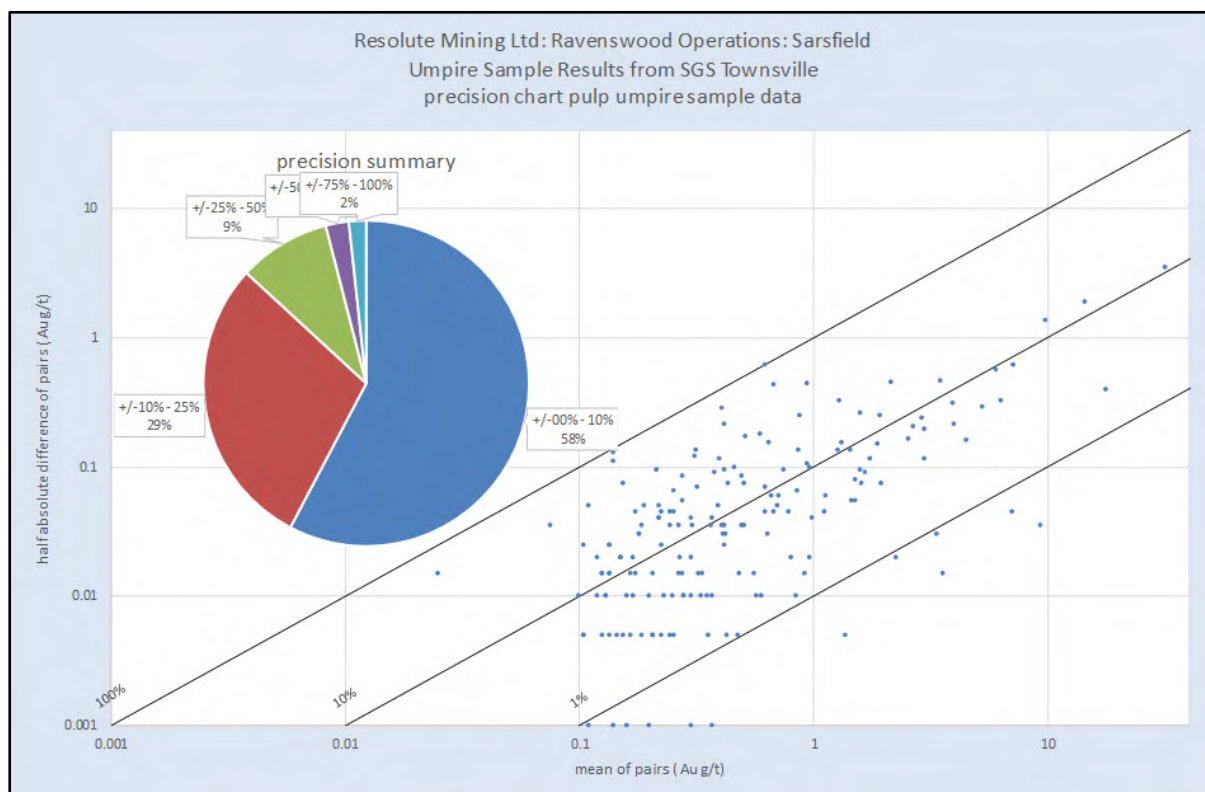
**Figure 11.4 Sarsfield ALS Townsville gold pulp duplicate Q-Q plot**



Umpire sampling was completed at SGS Townsville on 175 pulp samples. Overall, there was very good correlation between the two data sets and no bias was observed in the results. Resolute staff reviewed sample precision of the umpire samples by comparison of the relative difference of the pairs. Figure 11.5 shows that 58% of the pairs have a relative difference of less than 10% and that 87% of the pairs have a relative difference of less than 25%.

Overall, results from QC checks at the individual laboratories have shown good results and the data is considered suitable for Mineral Resource estimation.

**Figure 11.5 Sarsfield gold umpire analysis precision plot**



## 11.2. BUCK REEF WEST QAQC

Resolute has reviewed QC data between 2009 and 2018, for the Buck Reef West batches containing drillholes used for the Buck Reef West June 2018 resource model. A total of 462 batches of samples were found to be associated with the Buck Reef West MRE, with 135 batches of samples were analysed by the mine laboratory, 324 batches of sample were submitted to ALS Townsville, the laboratory used for the remaining samples is unknown.

1,725 CRMs were included with batches of samples used in the Buck Reef West Mineral Resource model. Only nine failing results (0.5%) were reported. Results received for CRMs were excellent, with very few values falling outside of two standard deviations from the expected values. There is evidence of a general low bias in the results particularly for CRMs with an expected value less than 2g/t; however, in most cases the standard deviation of the results received is significantly lower than the certified standard deviation. Figure 11.6 is an example of the results for G300-9 CRM.

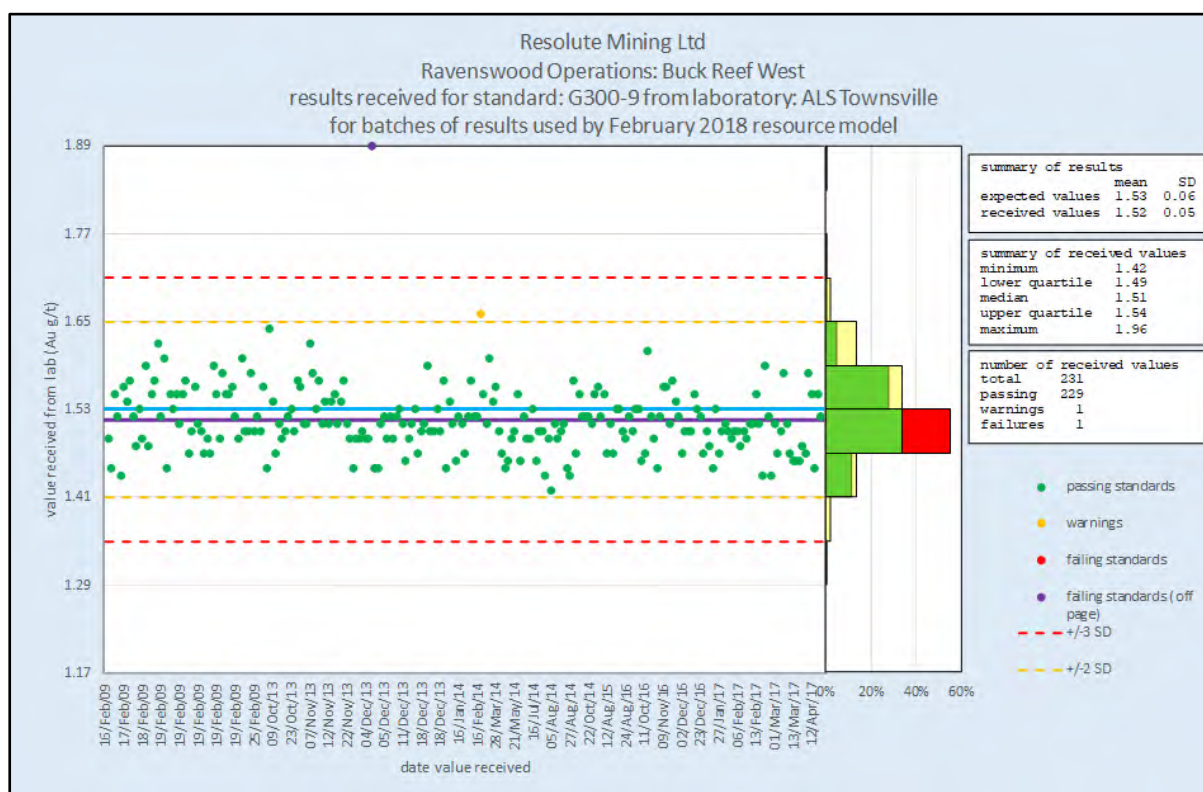
Resolute reports insertion rates for CRMs of recent data to be 1 in 20.

Resolute submitted and analysed 5,605 blanks in the batches for the Buck Reef West Mineral Resource estimate. Of these, 2,016 were inserted by the laboratory as part of its internal QC, 394 values were the result of analysing quartz flushes and 3,195 blanks were submitted to the laboratory with company samples. Resolute reports certified blank and non-certified blank insertion rates of 1:20 and 1:15 respectively for recent sample data.



Results received for blanks are generally good. Notable is the number of high values returned for quartz flushes, possibly indicating that the pulverisation mills are not being properly cleaned between samples and that quartz flushes should be routinely requested particularly following samples where coarse gold is expected. There is a group of failures from basalt blanks relating to sampling collected in 2009 and 2013. Figure 11.7 is an example of the performance of the blanks submitted to ALS as a part of the Buck Reef West QC protocols.

**Figure 11.6 Buck Reef West CRM G300-9 results from ALS Townsville**



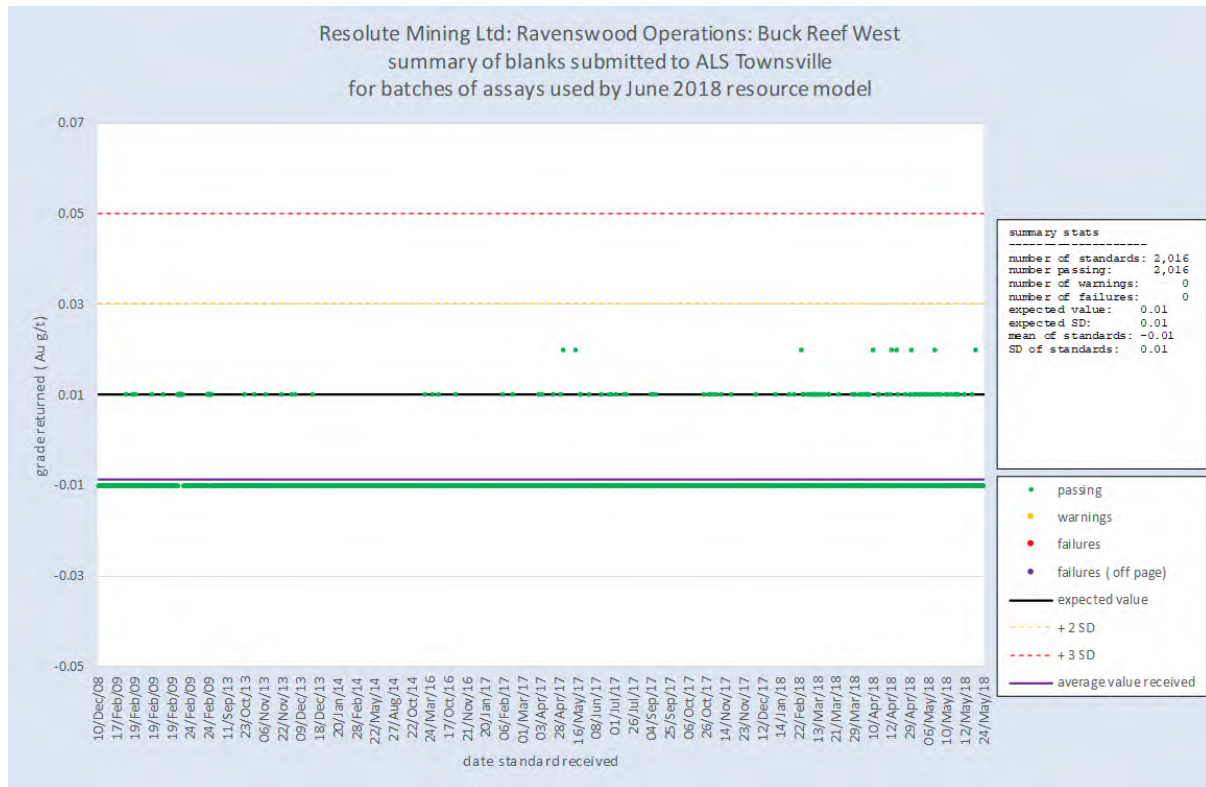
The results received from the blanks submitted are considered to accord to industry accepted standards.

Ravenswood routinely conducts sieving tests at all laboratories after crushing and pulverising material as a check on the process. From the analysis, it was evident that no crushing size checks had been completed; however, 1,738 sieve tests were completed on pulverised material. The results from pulverisation checks are excellent, with 95% of samples passing 75  $\mu\text{m}$  (the acceptable level is 85% passing 75  $\mu\text{m}$ ).

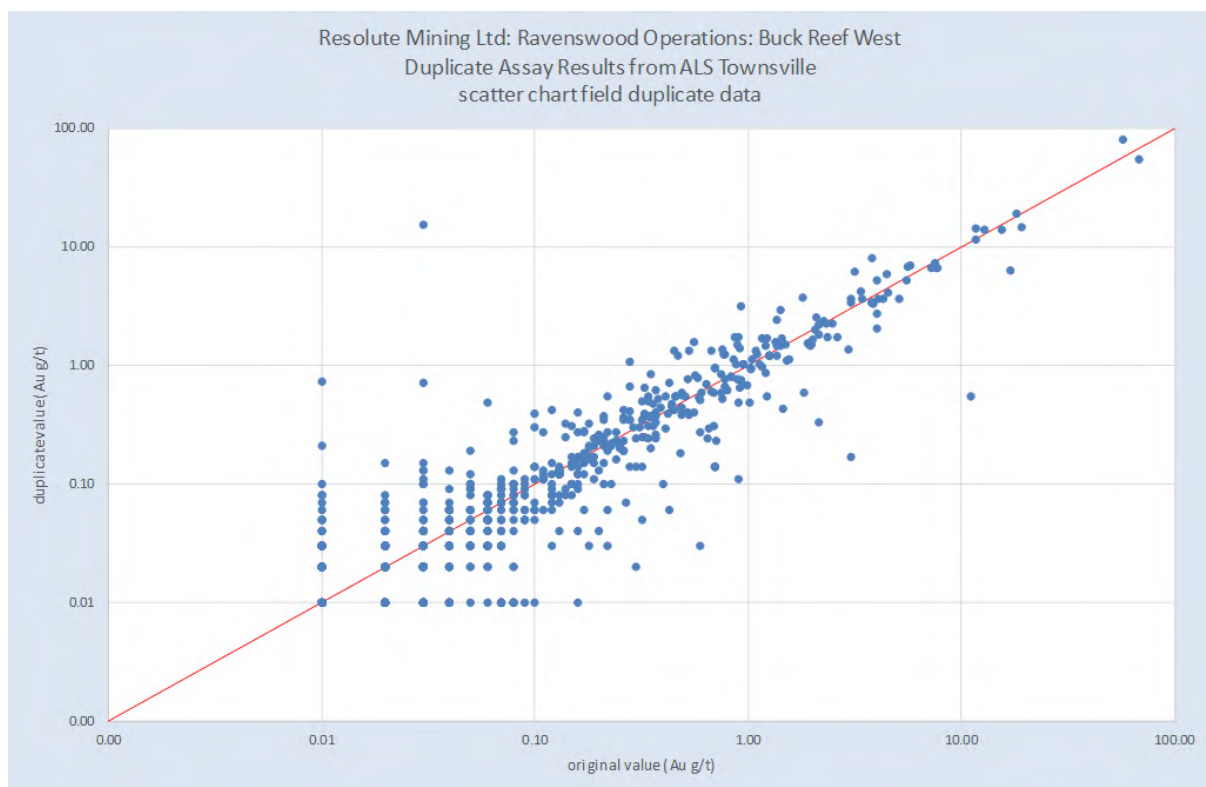
Field, coarse and pulp duplicates were submitted and analysed at ALS Townsville. Additional field duplicates were analysed at the MINELAB onsite at Ravenswood. 1,590 field duplicates were submitted to ALS Townsville and 85 to the onsite MINELAB laboratory. Insertion rates of field and coarse duplicates are reported to be 1:30 and 1:15 respectively. Analysis of Q-Q and scatter plots of the results, comparing the original to duplicate, showed a very good correlation and no evident bias (Figure 11.8).



**Figure 11.7 Buck Reef West blank results from ALS Townsville**

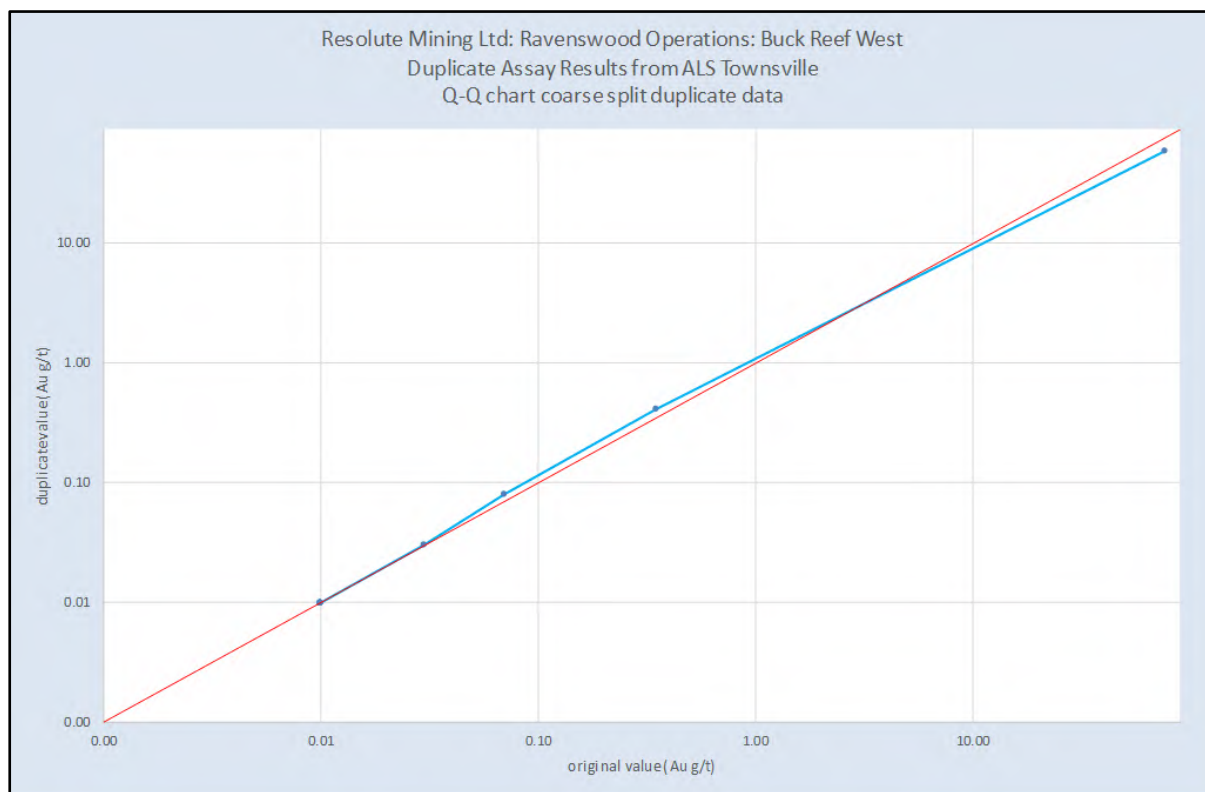


**Figure 11.8 Buck Reef West ALS Townsville field duplicate scatterplot analysis**



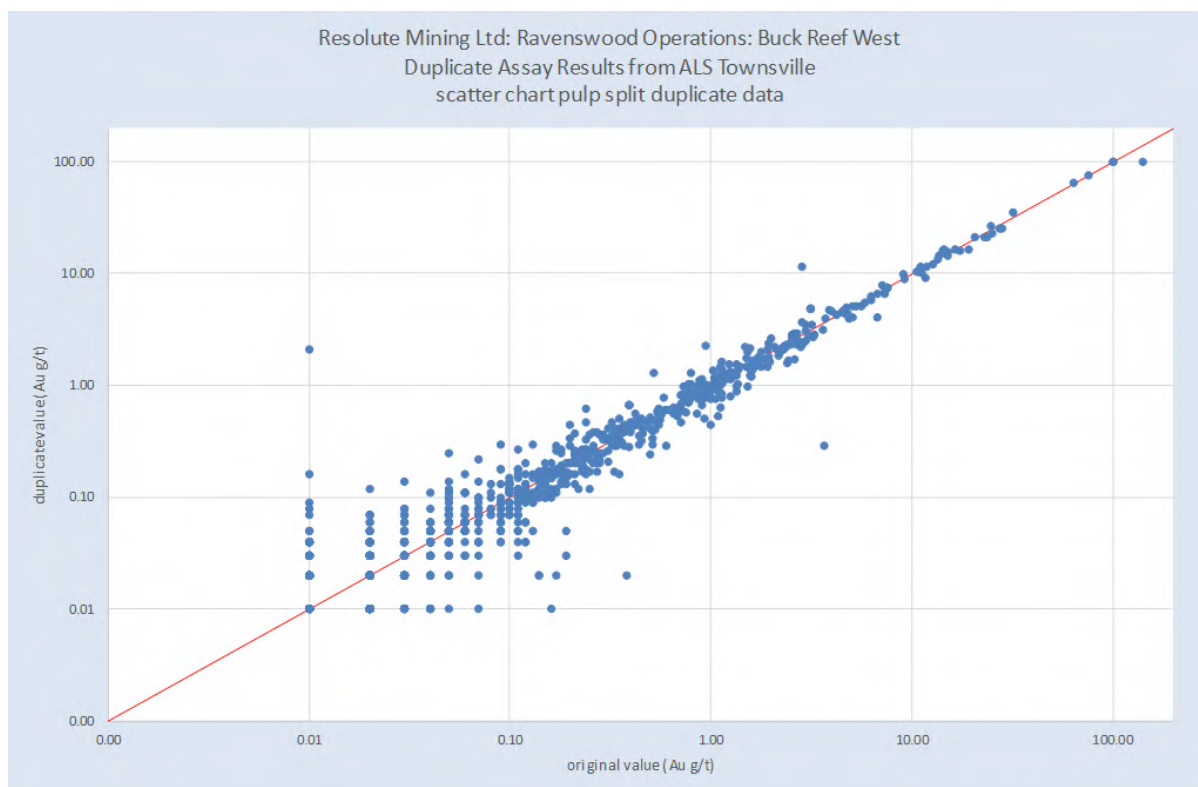
Scatter and Q-Q plots were used to analyse 2,720 coarse split duplicates submitted to ALS Townsville. Results were found to show good correlation and no bias. Figure 11.9 is an example of the Q-Q analysis of the coarse split duplicates analysed at ALS Townsville.

**Figure 11.9 Buck Reef West ALS Townsville coarse duplicate Q-Q plot analysis**



A total of 2,699 results were received from ALS Townsville from pulp duplicate analysis. Scatter and Q-Q plot analyses were completed to evaluate the correlation and performance with results was considered to be very good, with no bias evident (Figure 11.10).

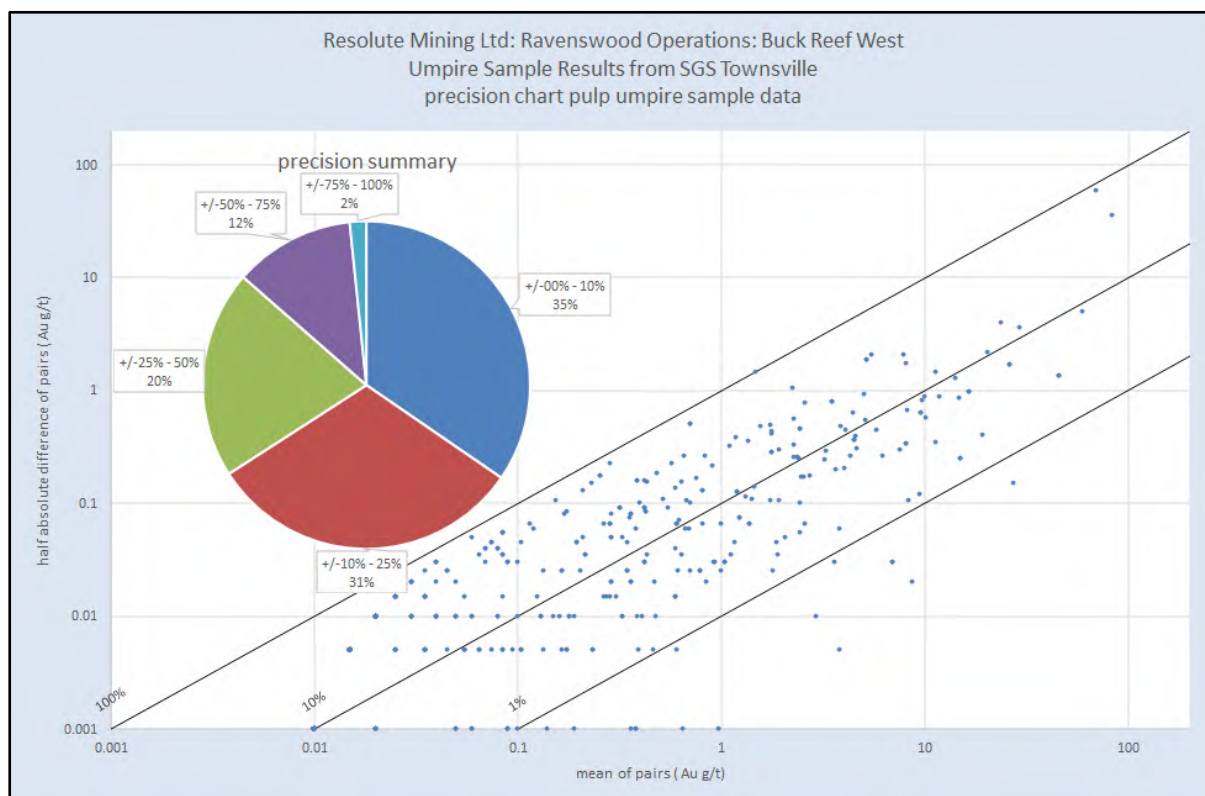
**Figure 11.10 Buck Reef West ALS Townsville pulp duplicate scatterplot analysis**



No precision (i.e. half absolute relative difference) plots appear to have been generated as a part of the QC of the duplicates.

As part of the resource modelling exercise a programme of umpire sampling was undertaken. The umpire analysis was completed by SGS Townsville. 428 samples were identified for the programme based on those intersections making a significant contribution to the contained metal in the model. Resolute staff reviewed sample precision of the umpire samples by comparison of the relative difference of the pairs, Q-Q and scatter plots. Figure 11.11 shows that 35% of the pairs have a relative difference of less than 10% and that 66% of the pairs have a relative difference of less than 25%.

**Figure 11.11 Buck Reef West SGS Townsville umpire analysis precision plot (Au)**



The results from both duplicate and umpire sampling are considered excellent. Overall, results from QC checks at the individual laboratories have shown good results and the data is considered suitable for Mineral Resource estimation.

### 11.3. DATA MANAGEMENT

Historic drillholes were logged onto paper templates and partially logged digitally into Excel templates with lookup codes, validated and then compiled into the database. Some historic drill logs have only partially been loaded onto the database, with existing geotechnical and geological logs available as paper copies only. Historic assay files were reported by the laboratory in CSV, SIF, text, paper and unknown formats and either transcribed into appropriate electronic formats, or directly imported into the SQL database. It appears that no adjustment was made to the assay data.

Resolute uses the DataShed software system to maintain its database. Recent drillholes have been logged digitally into Excel templates with lookup codes, validated and then compiled into a relational SQL2018 database using DataShed data management software which then performs verification checks. These include checking for missing sample numbers, matching sample numbers, changes in sampling codes, inconsistent 'from-to' entries, and missing fields. Assay files are reported by the laboratory in CSV format and are imported into the SQL database without adjustment or modification. Results are not finalised in the database until the QAQC administrator approves the results. The database is backed up on a daily basis to the head office server.

#### **11.4. VERIFICATION**

Data is of good quality with regular inspections of tools and machinery used to collect the data and monthly QAQC analysis of all assay results received (refer to Sections 11.1 to 11.3). Data collected on an ongoing basis includes mapping, rock chip, soil, drill chip and drill core samples and assays, geophysical data and various technical investigations (e.g. petrology, structural geology assessments) and the associated location information for this data.

The company's focus is on sample quality. For soil samples specific procedures have been developed that sampling crew supervisors are required to attain proficiency. For non-core drill samples emphasis is on sample location, sample recovery (weight) and minimising potential sample contamination. For drill core samples the location (both correct positioning down the hole as well as hole path surveys) and sample recovery is monitored as the hole is being drilled.

All assays are checked and verified in accordance with Resolute's QAQC and database management procedures. QAQC procedures have been in place for all of the Resolute and, and previous historic owner's drilling programmes at Ravenswood. The verification of significant intersections has been completed by company personnel and the Competent Persons. External audits of procedures indicate that protocols are within industry standards for recent drilling. No evidence of external reviews has been recorded for historical drilling data.

For geophysical data regular checks are made on the instrument performance and the actual data collected, and any possible drift of the recorded parameter is determined by establishing a base station. The reliability of location data is checked by visual presentation.

## 12. MINERAL PROCESSING AND METALLURGICAL TESTING

### 12.1. BUCK REEF WEST METALLURGICAL TESTWORK

The most recent metallurgical testwork was carried out in 2018, on several composites of Buck Reef West ore. The testwork included comminution to determine unconfined compressive strength, impact crushing work index, abrasion index, and ball mill work index, as well as head assays and extractive testwork. The objective of the extractive testwork was to determine likely gold extraction via gravity gold recovery and subsequent cyanide leaching. Key results and outcomes from the testwork are summarised in Table 12.1 and Table 12.2.

**Table 12.1 BRW comminution results**

ID	UCS Mpa	Crusher work index kWh/t	Ai	Bond work index (212 µm) kWh/t
1	74	5.0	0.1666	21.8
2	85	7.4	0.1711	20.9
3	81	5.6	0.1681	22.8
4	101	6.3	0.2176	23.2
5	70	4.4	0.2041	21.2
6	80	4.9	0.2736	21.8
7	68	7.7	0.1527	19.6
8	73	5.0	0.1709	20.6

**Table 12.2 BRW gravity and cyanide leach test results**

ID	Grind	Grade	Gold extraction, %				Tails	Reagents, kg/t	
	P80, µm	g/t Au	Gravity	8 hr	24 hr	48 hr	g/t Au	NaCN	Lime
1	180	3.94	33.7	71.3	83.1	87.7	0.49	0.64	1.41
	160	4.03	33.0	70.4	83.0	89.2	0.44	0.78	1.48
2	180	2.69	28.6	73.8	84.3	90.0	0.27	0.79	1.04
	160	2.55	30.1	71.7	87.1	93.3	0.17	0.81	0.99
3	180	2.48	28.4	82.5	91.1	92.7	0.18	0.70	0.69
	160	2.54	27.7	81.2	89.8	92.5	0.19	0.67	0.81
4	180	1.89	39.2	81.5	91.2	94.5	0.11	0.51	0.39
	160	1.90	39.1	83.1	93.5	97.1	0.06	0.36	0.53
5	180	2.82	28.2	68.9	80.1	86.0	0.40	0.85	1.32
	160	2.77	28.6	62.5	77.2	85.9	0.39	0.63	1.38
6	180	4.29	23.7	85.6	91.5	92.4	0.33	0.32	0.46
	160	4.85	21.0	86.3	93.9	94.7	0.26	0.37	0.39
7	180	4.87	26.2	71.8	85.1	89.9	0.49	0.82	0.90
	160	5.03	25.3	67.1	83.3	91.6	0.43	0.43	0.88
8	180	5.36	26.2	71.0	83.3	90.0	0.54	0.91	1.14
	160	5.31	26.5	65.5	82.2	92.1	0.42	0.97	1.21

Gravity gold recovery was reasonably consistent, ranging from 21% to 39% and averaging 29%, while overall gold extraction ranged from 86% to 97% averaging approximately 91% after 24 hr leaching. Gold extraction improved at the finer grind size for all composites except for composites 3 and 5.

## 12.2. SARSFIELD METALLURGICAL TESTWORK

### 12.2.1. HISTORICAL SARSFIELD METALLURGICAL PERFORMANCE

It was recognised during early operation of the Nolans processing plant that beneficiation of the ore could be achieved based on the gold grade of the reject SAG mill scats. Scats are small pebble sized particles that are too hard to be ground in the mill. They exit the mill together with ground slurry and are separated using a trommel screen which is attached directly to the SAG mill discharge trunnion. The scat rate was observed to be between 3% and 10% of the mill feed, with gold grade between 0.05 g/t Au and 0.10 g/t Au. Scats are typically transported to the waste dump for disposal. The production rate of scats is summarised in Table 12.3.

**Table 12.3 Historical plant production data**

Year	Milled	Throughput	Grind	Scats		Milled	Recovery	Recovered
	Mt	t/hr	P80 um	Mt	g/t Au	g/t	%	oz
2004	5.35	633	165	0.581	0.26	1.08	84.0	147,887
2005	5.15	612	165	0.968	0.27	1.08	82.3	144,774
2006	5.030	610	174	0.779	0.19	1.03	82.2	136,772
2007	4.711	575	183	0.435	0.18	1.02	79.1	122,610
2008	5.162	615	174	0.553	0.17	1.13	84.9	159,618
2009	2.023	587	187	0.19	0.13	1.02	83.8	56,424

In 1998, a parcel of 27 kt of Nolans ore was trialled through the processing plant crushing circuit. Table 12.4 summarises the results.

**Table 12.4 Nolans beneficiation trial results (source: Resolute, 2018)**

Feed			Beneficiated ore			Rejected oversize (P80 45 mm)				
Tonnes	g/t Au	Oz	Tonnes	g/t Au	Oz	Tonnes	g/t Au	Oz	% of Au	% Mass
27,131	1.45	1,264	17,556	1.88	1,061	9,575	0.66	203	16	35

Despite recognised limitations to the secondary crusher configuration and screen aperture size, the promising Nolans trial results provided encouragement to proceed with further testing on the Sarsfield resource. Based on the considerable amount of operational knowledge gathered to date while treating Sarsfield and Nolans ore, it is reasonable to expect that the metallurgical performance of future Sarsfield production will be similar to that experienced previously.

### 12.2.2. 2004 LOW-GRADE SCREENING TRAIL

In 2004, a parcel of 54 kt of Sarsfield ore was trialled through a screening plant. The objective of the trial was to determine:

- If low-grade ore from Sarsfield could be effectively and economically upgraded by simple screening; and
- To confirm data from previous trials.



The trial involved treating seven individual low-grade ore blocks from various sections of the Sarsfield pit. The results are summarised in Table 12.5.

**Table 12.5 Summary of low-grade Sarsfield screening trial**

Parameter	Feed	Product, mm			
		+150	-150 + 50	-50 + 25	-25
Mass, t	54,670	25,620	12,740	6,770	9,540
Mass Distribution, %	100	47	23	12	17
Grade, g/t Au	0.47	0.08	0.46	0.71	1.35
Au distribution, %	100	8	23	19	50
Upgrade factor	1.0	0.2	1.0	1.5	2.9

The results suggest that the Sarsfield low-grade ore can be upgraded over the screen aperture tested with mass and gold recovery to the -25 mm fraction averaging 17% and 50% respectively. Further mass and gold recovery to the -150 mm fraction averaged 53% and 93% respectively.

### 12.2.3. 2013 EXPANSION PROJECT COMMINUTION TESTWORK

In 2013, a metallurgical testwork programme was undertaken on samples from the Sarsfield resource as part of the Sarsfield Expansion Project. Two composites, assaying 0.8 g/t Au and 0.5 g/t Au, were prepared and responded well to processing, achieving:

- Up to 80% recovery of gold by gravity into a concentrate of 1% to 2% by weight, with gold flakes up to 500 µm observed;
- Cyanide leach gold extraction of 90% to 95%, with or without the gravity stage, leaving tailings which assayed <0.1 g/t Au;
- A slight increase in gold dissolution with the use of PbNO<sub>3</sub>;
- 62% of the gold was recovered by gravity for the 0.5 g/t Au sample and approximately 80% of the gold was recovered by gravity for the 0.8 g/t Au;
- The leach response appeared to be relatively insensitive to grind between 200 µm and 100 µm;
- Low lime and cyanide reagent consumptions.

Comminution testing was also undertaken on three drillhole samples. Results are provided in Table 12.6.

**Table 12.6 Summary of Sarsfield 2013 comminution results**

Sample	UCS	DWi	Ai	RWi	BWi
	Mpa	kWh/m <sup>3</sup>		kWh/t	kWh/t
ND447	82	7.13	0.5232	19.0	17.6
ND451	88	7.08	0.4893	18.5	17.4
ND509	66	7.74	0.5065	20.1	17.6



## 13. MINERAL RESOURCE ESTIMATES

The Ravenswood Mineral Resources have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

### 13.1. RAVENSWOOD GOLD OPERATIONS

Two resource models were used for the Ravenswood Expansion Project Feasibility Study. The model for the Sarsfield deposit was updated by MPR Geological Consultants (MPR) in April 2015. The Buck Reef West model was prepared internally by Resolute personnel in July 2018.

A discussion of each model is presented in the following sections. The discussion of the Sarsfield resource and was extracted from a report provided by Resolute (2018) titled 'Ravenswood Expansion Project – Feasibility Study Report'. The discussion of the Buck Reef West resource was extracted from a report provided by Resolute (2018a) titled 'Buck Reef West Resource Model'.

Reported total Mineral Resources for Ravenswood, as at 31 December 2018, are detailed in Table 13.1 below (Resolute, 2019). This CPR focuses on the material open pit assets for Ravenswood, which are described separately in Sections 13.2 and 13.3.

**Table 13.1 Total Ravenswood reported Mineral Resources as at 31 December 2018**

As at 31 December 2018	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz	Tonnes	g/t	oz
	kt		koz	kt		koz	kt		koz	kt		koz
Sarsfield	43,250	0.8	1,120	38,500	0.7	880	22,080	0.7	520	103,830	0.8	2,520
Buck Reef West	830	1.5	40	36,550	1.0	1,220	8,660	1.0	280	46,040	1.0	1,540
Sarsfield Mineralised Waste	0	0.0	0	0	0.0	0	33,700	0.4	400	33,700	0.4	400
<b>Sub-total (OP)</b>	<b>44,090</b>	<b>0.8</b>	<b>1,160</b>	<b>75,040</b>	<b>0.9</b>	<b>2,110</b>	<b>64,440</b>	<b>0.6</b>	<b>1,200</b>	<b>183,570</b>	<b>0.8</b>	<b>4,460</b>
Mt Wright	290	3.6	30	0	0.0	0	470	3.6	60	770	3.7	90
Welcome Breccia	0	0.0	0	0	0.0	0	2,040	3.2	210	2,040	3.2	210
Stockpiles (UG)	0	0.0	0	10	1.6	0	0	0.0	0	10	1.6	0
<b>Sub-total (UG)</b>	<b>290</b>	<b>3.6</b>	<b>30</b>	<b>10</b>	<b>1.6</b>	<b>0</b>	<b>2,510</b>	<b>3.3</b>	<b>260</b>	<b>2,810</b>	<b>3.3</b>	<b>300</b>
<b>Ravenswood Total</b>	<b>44,380</b>	<b>0.8</b>	<b>1,190</b>	<b>75,050</b>	<b>0.9</b>	<b>2,110</b>	<b>66,950</b>	<b>0.7</b>	<b>1,460</b>	<b>186,380</b>	<b>0.8</b>	<b>4,760</b>

Note: Totals may not sum due to rounding. Reported above a 0.4g/t gold cut-off.

### 13.2. SARSFIELD MINERAL RESOURCE ESTIMATE

#### 13.2.1. OVERVIEW

MPR was retained by Resolute to undertake estimates of remaining gold resources of the Sarsfield deposit (Sarsfield). The model was updated in 2015.

For the Sarsfield open pit deposit, the Mineral Resource block model estimate was completed using Multiple Indicator Kriging (MIK). The MIK method uses indicator variography based on the resource composite sample grades within distinct mineralised populations bounded by wireframe models. Within each domain the gold grade continuity was characterised by indicator variograms at 14 indicator thresholds spanning the global range of grades based on 2 metre downhole composites.

The Mineral Resource estimates were used as the basis for open pit optimisation, mine planning and scheduling. The resource estimate reported herein is an update to an MPR study in June 2012 and

these studies follow the estimates undertaken by MPR staff while at Hellman and Schofield Pty Ltd between 2005 and 2007.

### 13.2.2. MINERAL RESOURCE TABULATION

The Mineral Resources for Sarsfield as at 31 December 2018, are presented in Table 13.2. Open Pit Resources have been reported above a cut-off of 0.4 g/t gold.

**Table 13.2 Sarsfield Mineral Resource reported as at 31 December 2018**

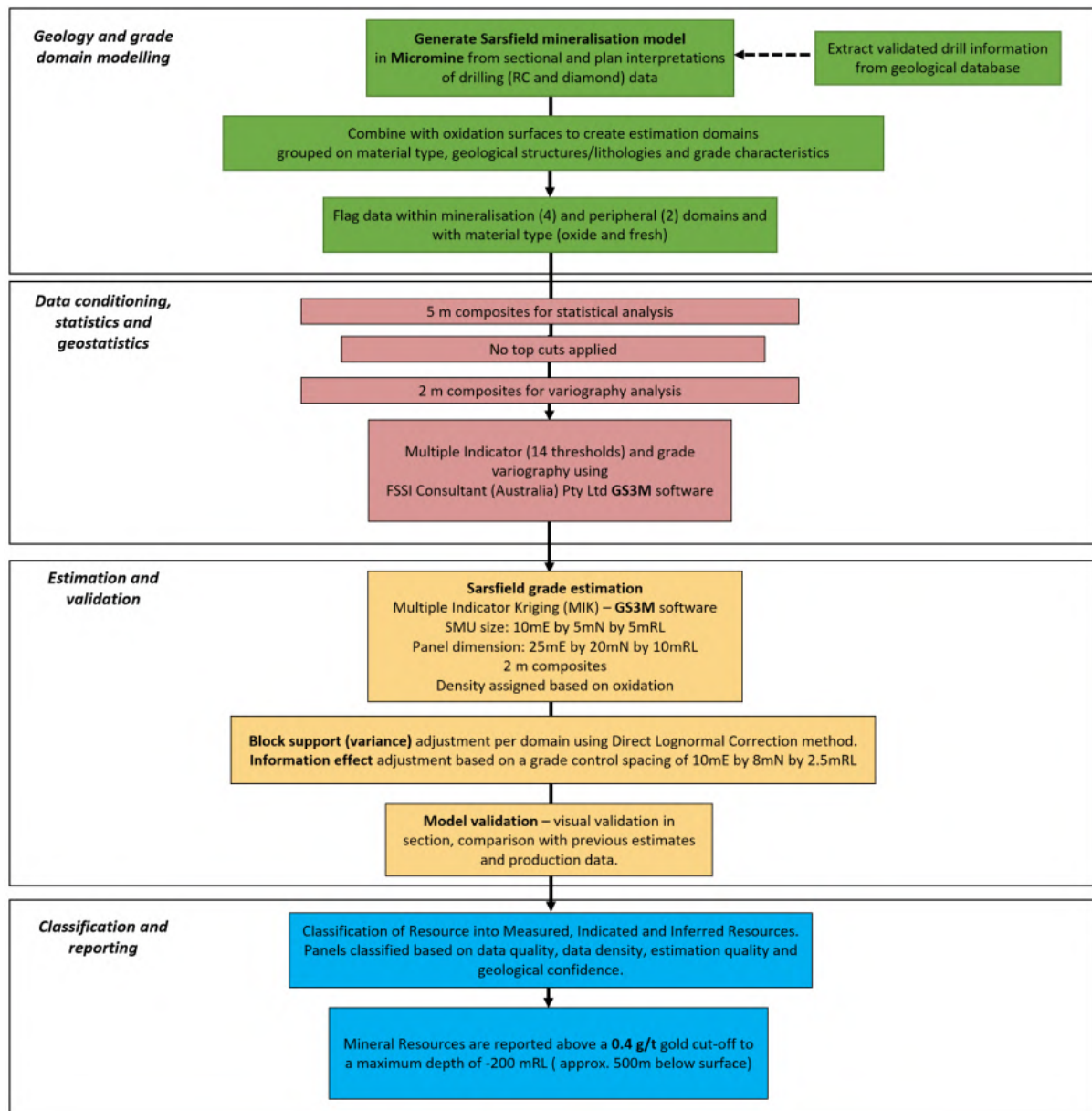
Resource classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (koz)
Measured	43.3	0.8	1,120
Indicated	38.5	0.7	880
<b>Measured and Indicated</b>	<b>81.8</b>	<b>0.8</b>	<b>2,000</b>
Inferred	22.1	0.7	520
<b>Total</b>	<b>103.8</b>	<b>0.8</b>	<b>2,520</b>

Note: Totals may not sum due to rounding. Reported above a cut-off of 0.4 g/t gold as well as above a maximum depth of -200 rL (approximately 500 m below surface). Resources are stated inclusive of Reserves.

### 13.2.3. SARSFIELD MINERAL RESOURCE WORKFLOW

A simplified workflow of the Sarsfield Mineral Resources process is presented in Figure 13.1.

**Figure 13.1 Mineral Resource workflow**



#### 13.2.4. GEOLOGICAL MODEL AND MINERALISATION DOMAINS

Mineralised domain wireframes developed at a nominal 0.1 g/t Au cut-off were used to flag resource composites and code domain proportions in the block model. The model was further divided into oxide and fresh rock domains using triangulated surfaces interpreted from the logging of the drill samples. The estimates are constrained by a topographical survey pickup representing the current as-mined land surface.

The domaining of the resource composites for gold modelling is based primarily on separating distinct interpretable mineralised areas from broader less distinct mineralised areas within the Sarsfield and Nolans deposits. Four mineralised domains have been identified by MPR as being able to be separated into distinct modelling domains; the Nolans, Keel, Bell and Buck Reef. Two additional “bucket domains” encompass all remaining resource composites in the Nolans and Sarsfield resource areas that lie peripheral to the interpretable mineralised domains. Figure 13.2

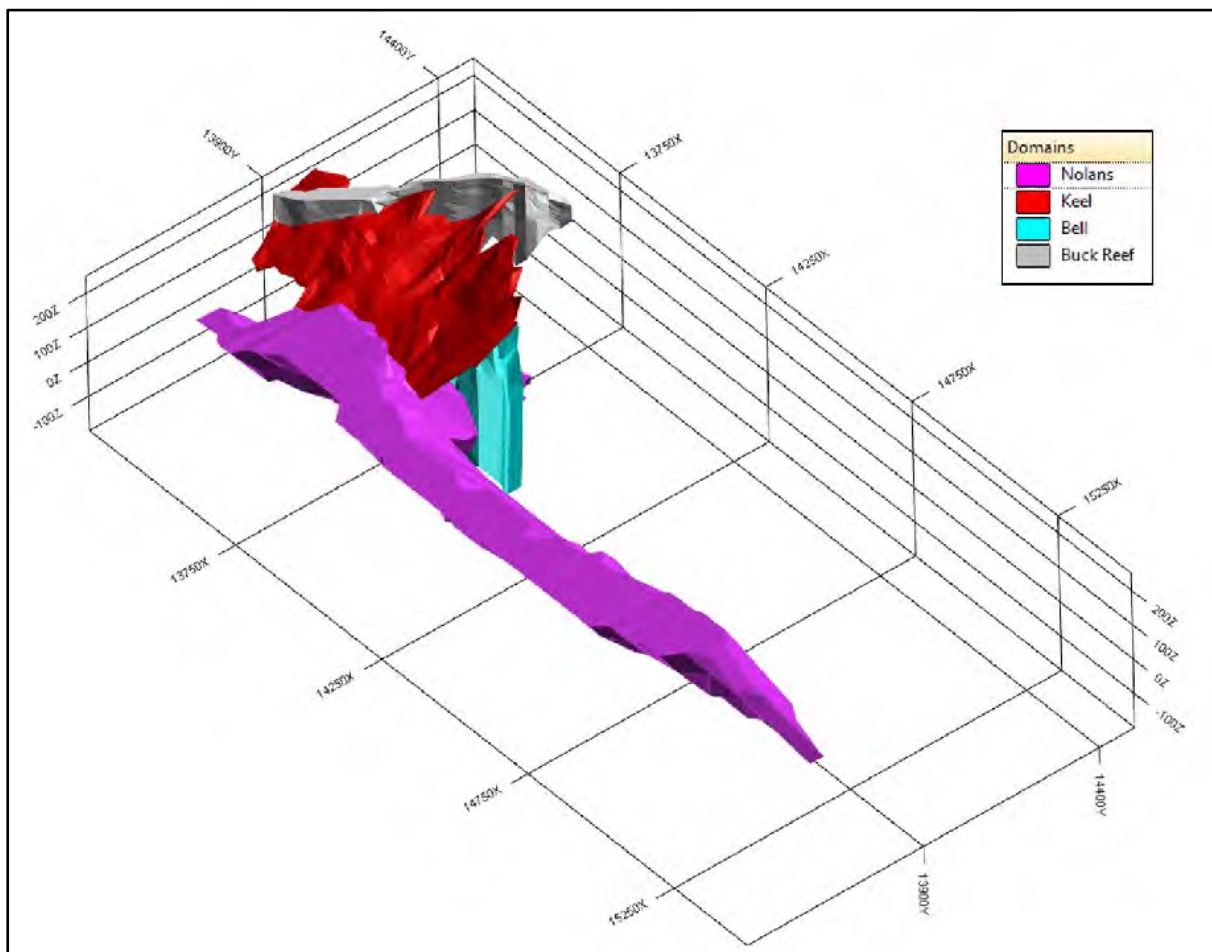
shows a 3D view of the wire-frame interpretations and these have been used as the basis for forming the geological framework used in the block model.

A block model framework was generated to cover the Sarsfield area with sufficient extent to allow for any pit optimisation to proceed to the natural surface without being constrained by the block model. MPR was provided with digital terrain models (DTMs) representing interpretations of the current as-mined land surface and the top of primary rock.

The interpreted top of primary surface for Sarsfield was provided by Resolute as triangulated surfaces in DXF format. The depth of oxidation indicated by the interpretations is not significant at Sarsfield and has mostly been mined, so is not significant to the current study. The provided surface does not extend into the Nolans resource area. Some recent drillholes in the Nolans area have been logged for the position of the top of primary and indicates this to be encountered at relatively high levels in the deposit paralleling the original land surface at a depth of about 25-30 m. MPR has extrapolated this logging to create a DTM to extend throughout the study area.

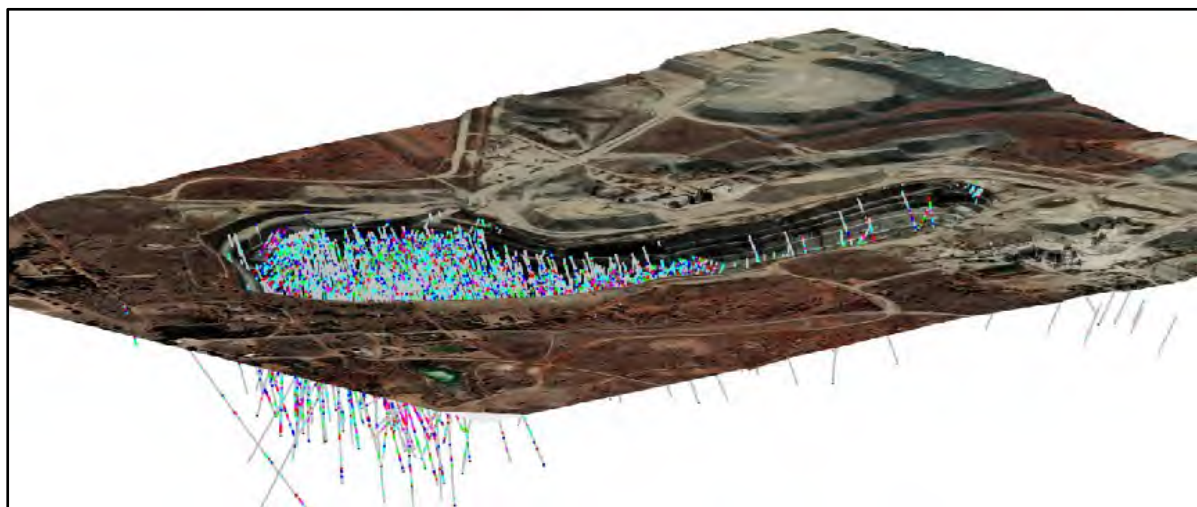
Figure 13.3 shows the DTM representing the current mined surface at Sarsfield (looking southeast), while Figure 13.4 shows a typical section through Sarsfield with the current mining surface, drilling and interpreted geological features.

**Figure 13.2 Sarsfield interpreted mineralisation domains (source: Resolute, 2018)**

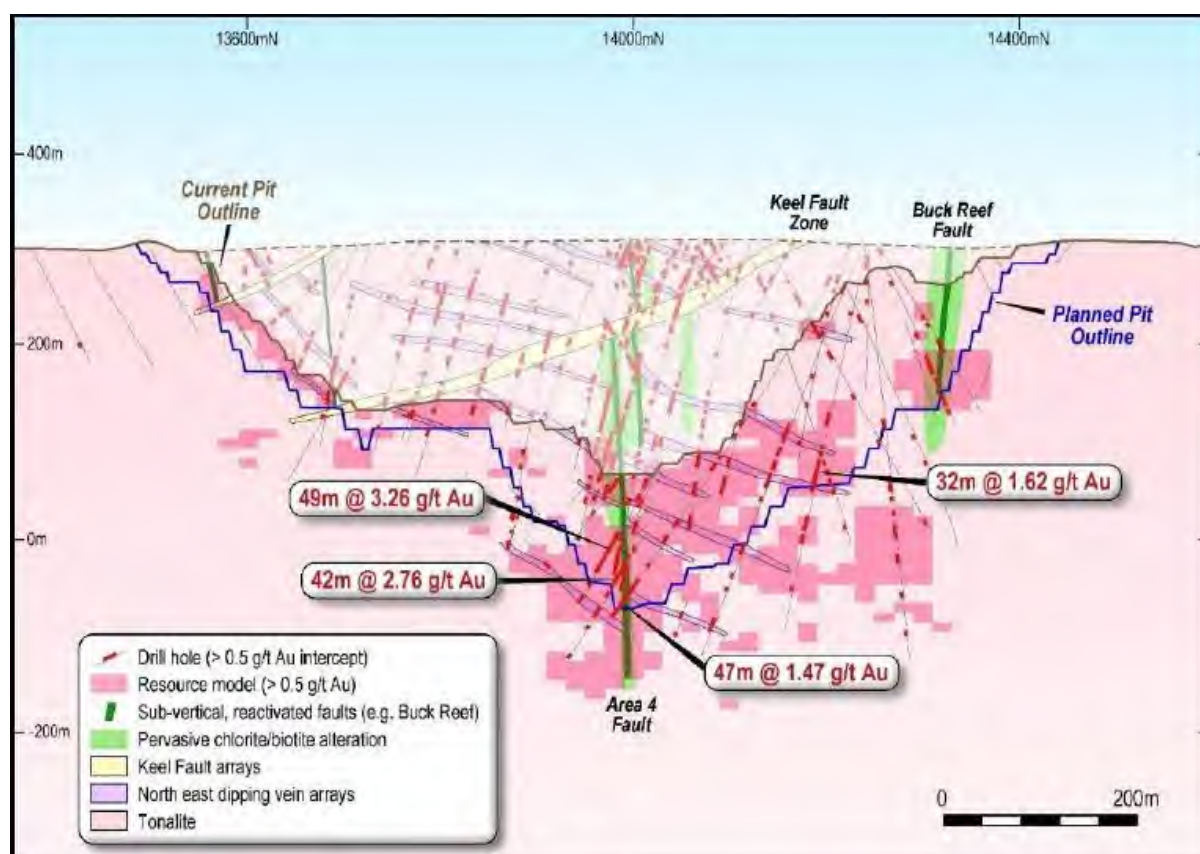




**Figure 13.3** Sarsfield as-mined topography DTM with drilling looking southeast (source: Resolute)



**Figure 13.4** Sarsfield long section looking west, showing drilling, lithology, structures and mineralisation (source: Resolute, 2018)



### 13.2.5. DATA CONDITIONING

The samples for the Sarsfield MRE have been generated from 1,146 drill holes and consist of 85,396 gold assays produced from the sampling of RC and diamond drill DD core. Unsourced or unassayed intervals were assigned zero gold grades (0.00) and below detection limit assays were assigned the detection limit by Resolute.

The raw drillhole data was composited into five-metre downhole intervals. Composites were coded by the mineralisation domain (lode) and the oxidation state using the interpreted DTMs as provided by Rolute or developed by MPR. Table 13.3 summarises the domain coding and number of composites in each domain.

**Table 13.3 Sarsfield composite numbers per domain and domain coding shown in brackets**

Lode domain (code)	Oxidation surface	
	Oxide	Fresh
Nolans Peripheral (1)	296	1,748
Nolans (2)	875	6,243
Bell (3)	-	2,257
Keel (4)	90	906
Buck Reef (5)	56	520
Sarsfield (6)	2,688	13,257
Total No. composites	28,936	

MPR reviewed univariate statistics for gold for all domains. Table 13.4 lists the summary statistics by lode for the fresh mineralisation only. All distributions are highly skewed as expected for a gold deposit. Coefficients of variation (CV) are moderate to high (ranging from 1.8 to 3.4), which indicate that there are a very small proportion of very high maximum grades that contribute heavily to the calculated domain mean grades.

**Table 13.4 Sarsfield summary univariate statistics by lode for fresh material**

Statistical measure	Lode domain					
	1	2	3	4	5	6
Count	1,748	6,243	2,257	906	520	13,257
Minimum	0.000	0.000	0.004	0.000	0.000	0.000
Maximum	1.64	136.76	22.42	44.62	23.50	39.17
Mean	0.045	0.831	0.788	1.255	1.656	0.398
Variance	0.011	8.191	2.744	6.802	8.527	1.465
CV	2.315	3.445	2.103	2.078	1.764	3.040

The QP accepts the compositing approach and length as acceptable for Mineral Resource estimation of Sarsfield using an MIK estimation method.

## TOP CUTS

No top cuts have been applied for the estimation of the Sarsfield MRE using MIK.

### 13.2.6. VARIOGRAPHY

Variograms were modelled for 12 estimation domains (six lode domains, split by oxidation state). Indicator variography was developed using 14 thresholds for each domain. Indicator kriging uses grade thresholds for cut-off definition such that each bin contains approximately equivalent portions of the total metal content.

Both indicator and gold variograms were modelled from data sets formed from 2 m composites flagged by the mineralised wireframes (Domain 2 to 6). Although grade continuity within the mineralised domains is not strong, the available data does generally show that strongest grade continuity is within planes oriented to local strike and dip to the gold mineralisation and which is consistent with trends shown in the raw data.

Examples of the indicator and gold variogram models used in the MIK model for the two largest domains at Sarsfield, domains two and six, are presented in Table 13.5 and Table 13.6 respectively. Variography was modelled using a nugget ( $C_0$ ) and a combination of two or three structures, which were standardised to unity. The 3D rotations are also presented and implemented in the order  $Z \rightarrow Y \rightarrow X$ .

**Table 13.5 Indicator and gold variogram models for Domain 2**

Domain 2		Structure 1					Structure 2					Structure 3					3D rotation		
Probability threshold	Nugget	Type	$C_1$	Ax	Ay	Az	Type	$C_1$	Ax	Ay	Az	Type	$C_1$	Ax	Ay	Az	Z	Y	X
0.10	0.37	exp	0.30	11	9	10	sph	0.07	14	9	26	sph	0.26	122	29	39	16	5	26
0.20	0.37	exp	0.25	18	9	9	sph	0.12	18	9	10	sph	0.26	199	45	51	16	5	26
0.30	0.41	exp	0.32	9	9	9	sph	0.06	54	10	18	sph	0.21	253	47	101	16	5	26
0.40	0.41	exp	0.26	10	10	9	sph	0.12	17	11	10	sph	0.21	279	40	78	16	5	26
0.50	0.41	exp	0.28	12	9	9	sph	0.10	24	9	30	sph	0.21	145	39	61	16	5	26
0.60	0.41	exp	0.33	9	9	9	sph	0.05	26	10	10	sph	0.21	159	34	66	16	5	26
0.70	0.43	exp	0.33	10	9	9	sph	0.05	23	29	27	sph	0.19	167	32	72	16	5	26
0.75	0.43	exp	0.36	9	9	9	sph	0.03	30	9	76	sph	0.18	206	37	79	16	5	26
0.80	0.43	exp	0.37	9	9	9	sph	0.02	26	9	93	sph	0.19	130	28	97	16	5	26
0.85	0.46	exp	0.35	10	9	9	sph	0.03	14	9	9	sph	0.16	123	27	74	16	5	26
0.90	0.51	exp	0.34	9	9	9	sph	0.02	29	9	9	sph	0.13	201	26	70	16	5	26
0.95	0.56	exp	0.32	29	9	9	sph	0.01	33	9	9	sph	0.11	198	14	107	16	5	26
0.97	0.60	exp	0.32	35	9	9	sph	0.01	39	9	9	sph	0.07	224	15	90	16	5	26
0.99	0.60	exp	0.13	40	9	9	sph	0.19	41	9	91	sph	0.08	173	16	124	16	5	26
GOLD	0.019	exp	0.02	30	10	23	sph	0.85	33	10	40	sph	0.11	46	24	46	16	5	26

**Table 13.6 Indicator and gold variogram models for Domain 6**

Domain 6		Structure 1					Structure 2					Structure 3					3D rotation		
Probability threshold	C0	Type	C <sub>1</sub>	Ax	Ay	Az	Type	C <sub>1</sub>	Ax	Ay	Az	Type	C <sub>1</sub>	Ax	Ay	Az	Z	Y	X
0.10	0.09	exp	0.71	9	9	9	sph	0.18	78	81	81	sph	0.02	207	2860	194	-81	63	29
0.20	0.09	exp	0.71	9	9	31	sph	0.18	78	167	79	sph	0.02	300	2986	204	-81	63	29
0.30	0.09	exp	0.71	9	9	22	sph	0.18	62	156	79	sph	0.02	194	2907	1336	-81	63	29
0.40	0.09	exp	0.71	9	9	14	sph	0.18	58	176	79	sph	0.02	205	2236	521	-81	63	29
0.50	0.09	exp	0.71	9	16	11	sph	0.18	52	256	73	sph	0.02	303	342	264	-81	63	29
0.60	0.10	exp	0.71	9	14	17	sph	0.18	47	191	86	sph	0.01	461	1304	94	-81	63	29
0.70	0.12	exp	0.71	9	9	9	sph	0.16	43	183	77	sph	0.01	191	1228	82	-81	63	29
0.75	0.12	exp	0.71	9	9	9	sph	0.16	41	133	76	sph	0.01	93	1115	79	-81	63	29
0.80	0.17	exp	0.71	9	9	10	sph	0.11	50	182	80	sph	0.01	116	1677	206	-81	63	29
0.85	0.27	exp	0.67	11	20	20	sph	0.01	25	374	109	sph	0.05	282	2178	145	-81	63	29
0.90	0.29	exp	0.65	10	18	21	sph	0.01	47	349	34	sph	0.05	55	576	67	-81	63	29
0.95	0.33	exp	0.61	9	9	9	sph	0.01	9	135	36	sph	0.05	26	309	37	-81	63	29
0.97	0.39	exp	0.57	9	15	24	sph	0.01	9	15	133	sph	0.03	27	18	273	-81	63	29
0.99	0.48	exp	0.46	9	9	9	sph	0.04	9	9	87	sph	0.03	48	10	110	-81	63	29
GOLD	0.29	exp	0.65	10	10	34	sph	0.01	48	309	35	sph	0.05	60	392	39	-81	63	29

The QP has reviewed the variogram models and endorses them as appropriate for MIK estimation at the Sarsfield deposit.

### 13.2.7. GRADE ESTIMATION

The MIK method was developed in the early 1980s with a view toward addressing some of the problems associated with estimation of resources in mineral deposits. These problems arise where sample grades show the property of extreme variation and consequently where estimates of grade show extreme sensitivity to a small number of very high grade outliers. These characteristics are typical of many lode gold deposits, where the coefficient of variation in samples normally exceeds 2. MIK is one of a number of methods that can be used to provide better estimates than the more traditional methods such as ordinary kriging and inverse distance weighting.

It is fundamental to the estimation of resources that the estimation error is inversely related to the size of the volume being estimated. To take the extreme case, the estimate of the average grade of a deposit generated from a weighted average grade of the entire sample data set is much more reliable than the estimate of the average grade of a small block of material within the deposit generated from a local neighbourhood of data.

Another fundamental notion relevant to the optimisation of resources to develop an open pit mine and schedule is that the optimisation algorithm does not require the resource be defined on extremely small blocks relative to data spacing. Small blocks cannot provide the basis for reliable estimates of recoverable resources.

The basic unit of an MIK block model is a panel that normally has the dimensions of the average drill hole spacing in the horizontal plane. The panel should be large enough to contain a reasonable number of blocks, or Selective Mining Units (SMUs; about 15). The SMU is the smallest volume of rock that can be mined separately as ore or waste and is usually defined by a minimum mining width



or by equipment dimensions. At Sarsfield, the dimensions of this block are assumed to be in the order of 10mE x 5mN x 5mRL.

The goal of MIK is to estimate the tonnage and grade of ore that would be recovered from each panel if the panel were mined using the SMU as the minimum selection criteria to distinguish between ore and waste. To achieve this goal, the following steps are performed:

1. Estimate the proportion of each domain within each panel. This estimation can be achieved by kriging of indicators of domain classifications of sample data points. In the Sarsfield model proportions of each domain in each panel were calculated by passing the panels through the mineralised envelope wireframes.
2. Estimate the histogram of grades of sample-sized units within each domain within each panel using MIK. MIK actually estimates the probability of the grade within each panel being less than a series of indicator threshold grades. These probabilities are usually interpreted as panel proportions.
3. For each domain, and for each panel that receives an estimated grade greater than 0.0 g/t Au, implement a block support correction (variance adjustment) on the estimated histogram of sample grades in order to achieve a histogram of grades for SMU-sized blocks. This step incorporates an explicit adjustment for the Information Effect; that is, the assumption that at the time of mining more information (grade control) will be available than at the time of resource definition.
4. Calculate the proportion of each panel estimated to exceed a set of selected cut-off grades, and the grades of those proportions.
5. Apply to each panel, or portion of a panel below surface, a bulk density to achieve estimates of recoverable tonnages and grades for each panel.

Apart from considerations of resource confidence classification, Step 5 completes the construction of the resource model. The estimates of recoverable resources for each panel may be combined to provide an estimate of global recoverable resources for the deposit.

## **BLOCK SIZES AND SEARCH DIMENSIONS**

The input parameters to MIK at Sarsfield include:

- Indicator variogram models describing the spatial continuity of indicator variables within each domain at each indicator threshold;
- Variograms describing the spatial continuity of gold grades within each domain; and
- The mean gold grades of each of the indicator classes within each domain.

The dimensions and panel sizes of the block model created for Sarsfield are presented in Table 13.7. The plan view panel dimensions of 25 metres east by 20 metres north were selected on the basis of sample spacing in the more closely drilled portions of the deposit. The kriging parameters applied are presented in Table 13.8 and were adjusted according to classification/data spacing.

**Table 13.7 Sarsfield block model panel extents**

Panel extents	East	North	Elevation
Panel origin (centroid)	13,012.5	13,200.0	-190
Panel dimensions (m)	25	20	10
No. of panels	100	70	56
Panel discretisation	5	5	2

**Table 13.8 Sarsfield kriging parameters**

Kriging parameters	Measured	Indicated	Inferred
Min no. of data	12	12	6
Max no. of data per octant	6	6	6
Min no. of octants with data	4	4	2
X (east) search radius (m)	40	60	60
Y (north) search radius (m)	30	45	45
Z (RL) search radius (m)	20	30	30

#### INDICATOR THRESHOLDS

Composited drill samples were flagged as lying within or outside the domain wireframes and in surface/oxide/transition or sulphide zones. Conditional statistics were calculated for each data subset at 14 probability thresholds, of 0.1, 0.2, 0.3, 0.4, 0.6, 0.7, 0.75 0.8, 0.85, 0.9, 0.95, 0.97 and 0.99. For the current estimates upper class average grades were derived from the mean of the data after trimming the rare high grades from each domain. Table 13.9 and Table 13.10 show the conditional statistics for the two domains with the best sample support, domain two and six.

**Table 13.9 Sarsfield Domain 2 conditional statistics**

Probability threshold	Oxide		Primary	
	Grade threshold	Class mean	Grade threshold	Class mean
0.1	0.034	0.016	0.024	0.013
0.2	0.076	0.054	0.060	0.041
0.3	0.130	0.101	0.114	0.087
0.4	0.186	0.158	0.192	0.151
0.5	0.268	0.223	0.300	0.242
0.6	0.373	0.318	0.466	0.377
0.7	0.554	0.460	0.698	0.575
0.75	0.700	0.618	0.870	0.781
0.8	0.822	0.764	1.128	0.991
0.85	1.122	0.959	1.498	1.308
0.9	1.470	1.280	2.060	1.764
0.95	2.224	1.803	3.146	2.511
0.97	2.758	2.378	4.240	3.645
0.99	3.804	3.346	7.462	5.396
Max.	7.010	4.994	24.500	11.701

**Table 13.10 Sarsfield Domain 6 conditional statistics**

Probability threshold	Oxide		Primary	
	Grade threshold	Class mean	Grade threshold	Class mean
0.1	0.020	0.010	0.010	0.009
0.2	0.046	0.032	0.022	0.016
0.3	0.082	0.064	0.042	0.032
0.4	0.128	0.104	0.068	0.054
0.5	0.204	0.164	0.106	0.086
0.6	0.302	0.250	0.168	0.136
0.7	0.442	0.369	0.268	0.214
0.75	0.540	0.491	0.342	0.304
0.8	0.660	0.595	0.449	0.393
0.85	0.836	0.732	0.604	0.522
0.9	1.136	0.970	0.880	0.729
0.95	1.780	1.389	1.546	1.156
0.97	2.314	2.009	2.288	1.865
0.99	4.310	3.090	4.416	3.102
Max.	17.344	6.550	19.340	6.929

#### **BLOCK SUPPORT (VARIANCE) ADJUSTMENT**

The block support adjustment is one of the most important properties of a recoverable resource model based on non-linear estimation methods like MIK. It is an essential part of the model and involves important assumptions about the nature of the block grade distribution within each panel of the model.

MIK provides a direct and reliable estimate of the histogram of grades of sample-sized units within each panel of the model provided the panel dimensions are of an appropriate size. However, ore is not selected on sample-sized units during mining; it is selected by shovels that have a minimum mining width and loaded into trucks that are despatched to either ore or waste. The flexibility of digging equipment and the size of the trucking equipment provide an indication of the size of the smallest block of rock that will be mined as ore or waste; the SMU. To estimate with some accuracy the resources in a deposit that will be recovered with a certain set of mining equipment, the histogram of grades of sample-sized units in a panel provided by MIK must be adjusted to account for the size of the mining block or SMU.

The variance adjustment ratios used in the estimation model at Sarsfield are shown in Table 13.11. These ratios have been applied using the Direct Lognormal Correction method (Isaaks and Srivastava, 1989). Selective mining (SMU) dimensions of 10 mE x 5 mN x 5 mRL and grade control sample spacing of 10 mE x 8 mN x 2.5 mRL have been assumed. The variance adjustments applied to the model represent large reductions of variance and in MPR's experience are typical of stockwork hosted gold mineralisation.

**Table 13.11 Sarsfield block variance adjustment factors**

Domain	Adjustment		Total adjustment factor
	Block to panel factor	Information effect	
1	0.496	0.200	0.099
2	0.496	0.200	0.099
3	0.143	0.300	0.043
4	0.096	0.200	0.019
5	0.212	0.350	0.074

### 13.2.8. MODEL VALIDATION

The model has been visually validated by cutting sections through the model and comparing the block estimated grades to the composite grades.

### 13.2.9. CLASSIFICATION

The 2017 Mineral Resource has been classified into Measured, Indicated and Inferred categories in accordance with the JORC Code (2012).

Panels in the resource model have been allocated a confidence category based on the number and location of samples used to estimate proportions and grade of each panel. The approach is based on the principle that larger numbers of samples, which are more evenly distributed throughout the search neighbourhood, will provide a more reliable estimate. The search parameters used to decide the classification of a panel resource in this study are:

- Minimum number of samples found in the search neighbourhood – for Measured and Indicated Resources, this parameter is set to twelve. For Inferred Resources, a minimum of six samples is required. This parameter ensures that the panel estimate is generated from a reasonable number of sample data.
- Minimum number of spatial octants informed – the space around the centre of a panel being estimated is divided into eight octants by the axial planes of the data search ellipsoid. This

parameter ensures that the samples informing an estimate are relatively evenly spread around the panel and do not all come from one drill hole. For Measured and Indicated Resources, at least four octants must contain at least one sample. For Inferred Resource panels, at least two octants must contain data.

- The distance to informing data – the search radii define how far the kriging programme may look in any direction to find samples to include in the estimation of resources in a panel. Panel dimensions and the sampling density in various directions usually influence the length of these radii. It is essential that the search radii be kept as short as possible while still achieving the degree of resolution required in the model. For the Measured Resources, the x, y and z search radii are set to 40 m, 30 m and 20 m respectively, and for the Indicated and Inferred Resources these search radii are expanded by 50%.

### 13.3. BUCK REEF WEST MINERAL RESOURCE ESTIMATE

#### 13.3.1. OVERVIEW

The Buck Reef West Mineral Resource model was updated in early 2018 to include drilling undertaken since the previous resource estimate completed in March 2017. The updated data set includes an additional 107 drillholes for a total length of 28,922.24 m. The model used a mix of solid wireframes to define lode style mineralisation, pairs of surface wireframes to define 'semi-constrained' mineralisation and unconstrained estimation to infill the background material. Site-based Geology staff created the interpretations that formed the core of the model. Geological logging was used to classify the background mineralisation into 'high' and 'low' grade populations, with the final grade being a weighted average of the two values.

#### 13.3.2. MINERAL RESOURCE TABULATION

The Mineral Resources for Buck Reef West, as at 31 December 2018, are presented in Table 13.12. Open Pit Resources have been reported above a cut-off of 0.4 g/t gold.

**Table 13.12 Buck Reef West Mineral Resources reported at 31 December 2018 @ 0.4g/t Au**

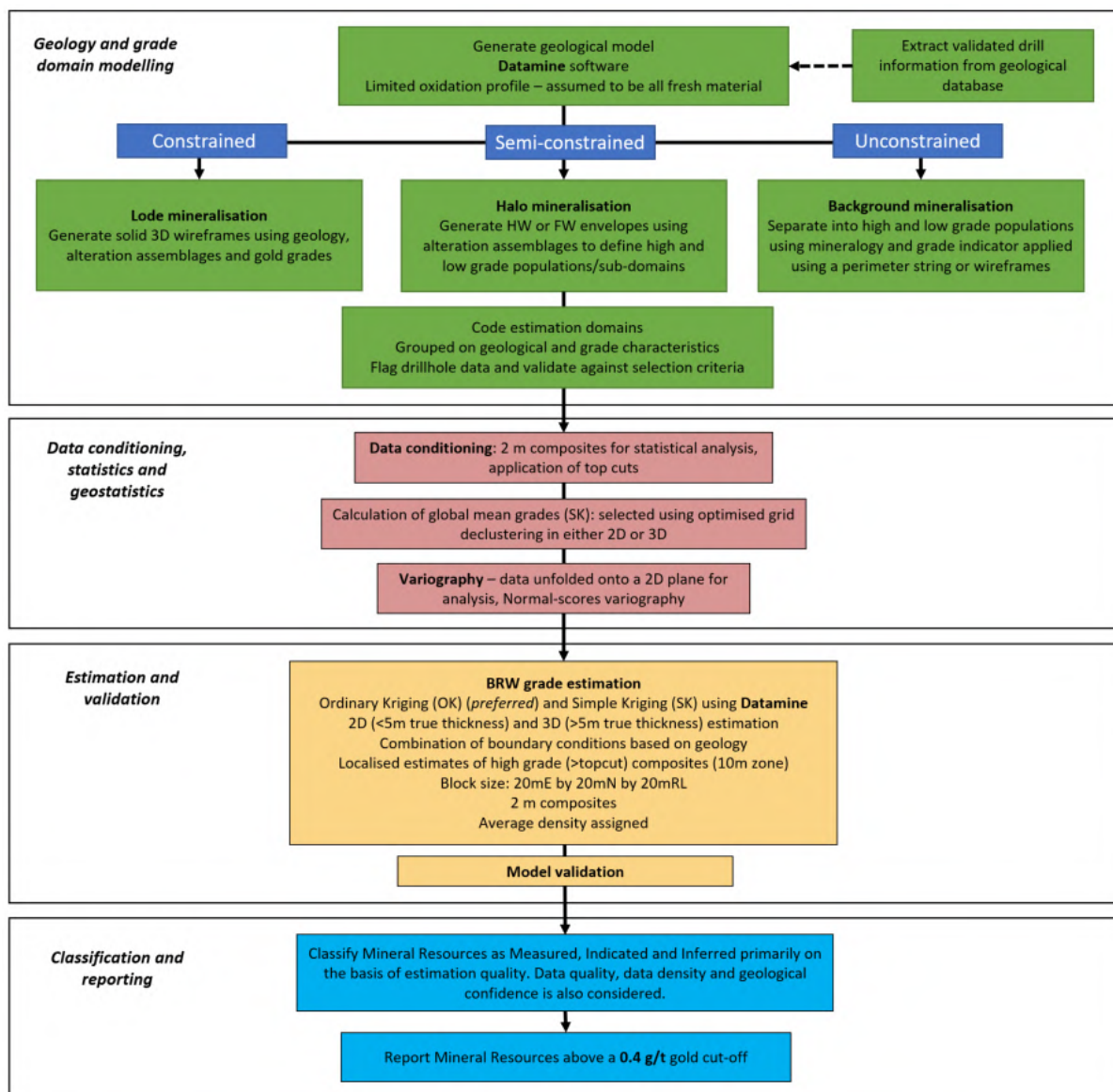
Resource classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (koz)
Measured	0.8	1.5	40
Indicated	36.6	1.0	1,220
<b>Measured plus Indicated</b>	<b>37.4</b>	<b>1.0</b>	<b>1,260</b>
Inferred	8.7	1.0	280
<b>Total</b>	<b>46.0</b>	<b>1.0</b>	<b>1,540</b>

Note: Totals may not sum due to rounding. Reported above a cut-off of 0.4 g/t gold.

#### 13.3.3. MINERAL RESOURCE WORKFLOW

A simplified workflow of the Mineral Resources process for BRW is presented in Figure 13.5.

Figure 13.5 Mineral Resource workflow - BRW



#### 13.3.4. GEOLOGICAL MODEL AND MINERALISATION DOMAINS

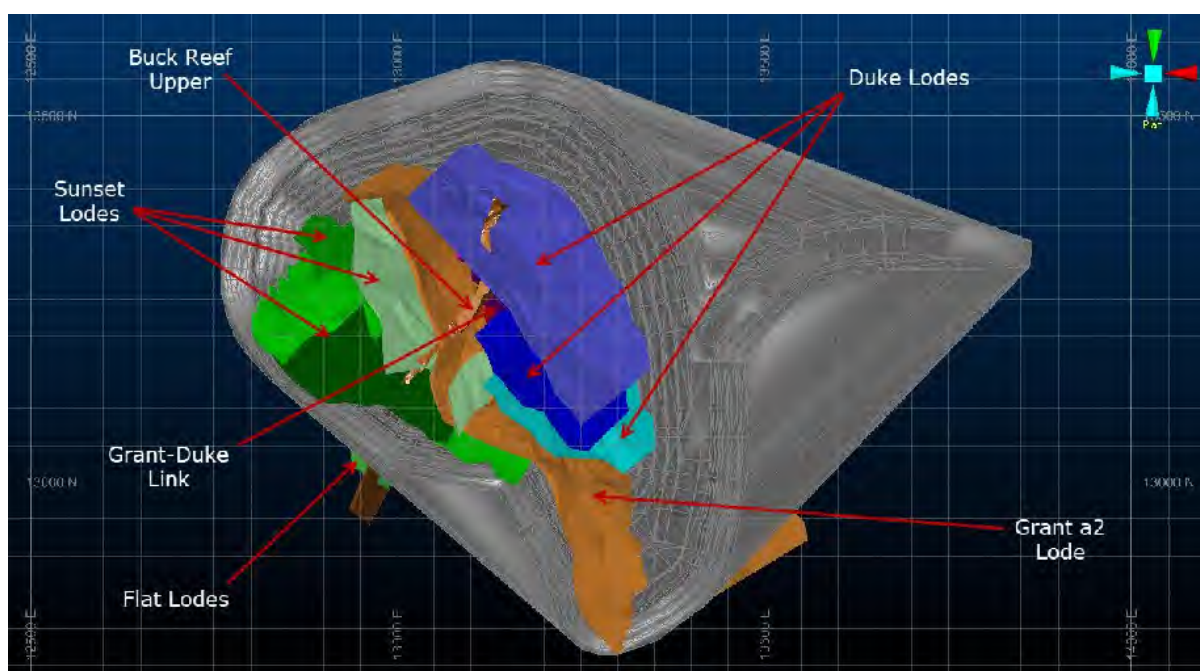
Mineralisation domains were modelled in three different ways for BRW. Models have been created as constrained (3D wireframes), semi-constrained (2D surfaces) and unconstrained.

The constrained mineralisation three-dimensional wireframes were created using sectional interpretation techniques in Datamine software. The oxide and transitional zones are not extensive at BRW, with the fresh material occurring at approximately five metres depth, and as a result no weathering surfaces were modelled for Resource estimation purposes. The wireframes interpreted by Ravenswood site geologists for the BRW constrained lodes are listed in Table 13.13 and are displayed in Figure 13.6 to Figure 13.8.

**Table 13.13 BRW MRE lode models**

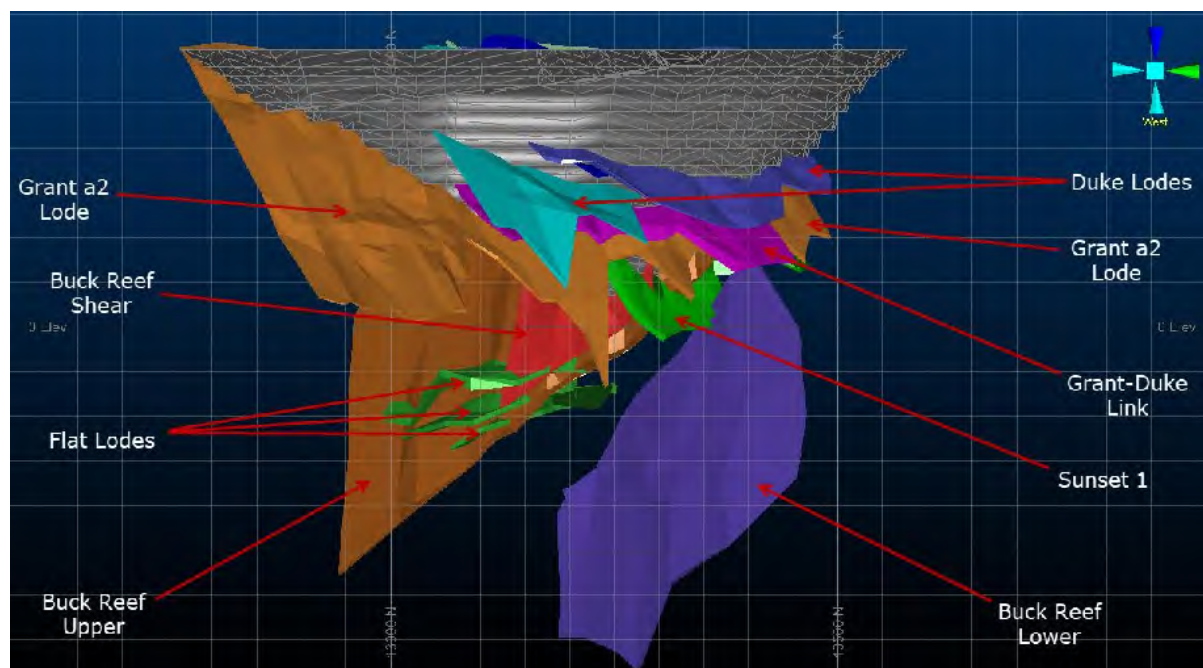
Lode / domain	Wireframe filename	SUPDOM	SUBDOM
buck reef west lower	brf_lower_2018_cut_tr.dm	brfw	brwl
buck reef west shear	brf_upper_2018_shear_cut_tr.dm	brfw	brws
buck reef west upper	brf_upper_2018_cut_tr.dm	brfw	brwu
duke lode 1	duke_201806_tr.dm	duke	dk01
duke lode 2	duke_2_062018_tr.dm	duke	dk02
duke lode 3	duke3_05062018_tr.dm	duke	dk03
flat lode 1	brw_flat_1_2018_tr.dm	flat	fl01
flat lode 2	brw_flat_2_2018_tr.dm	flat	fl02
flat lode 3	brw_flat_3_2018_tr.dm	flat	fl03
grant a2 lode	grant_a2_201806_tr.dm	gra2	gra2
sunset lode 1	sunset_062018_tr.dm	suns	sn01
sunset lode 2	sunset_2_062018_tr.dm	suns	sn02
sunset lode 3	sunset_3_062018_tr.dm	suns	sn03
grant duke link domain	grant_duke_link_05062018_tr.dm	gdlk	gdlk

**Figure 13.6 Buck Reef West constrained lode domains plan view**





**Figure 13.7 Buck Reef West constrained lode domains looking west**



**Figure 13.8 Buck Reef West constrained lode domains, section 13,250N looking north**

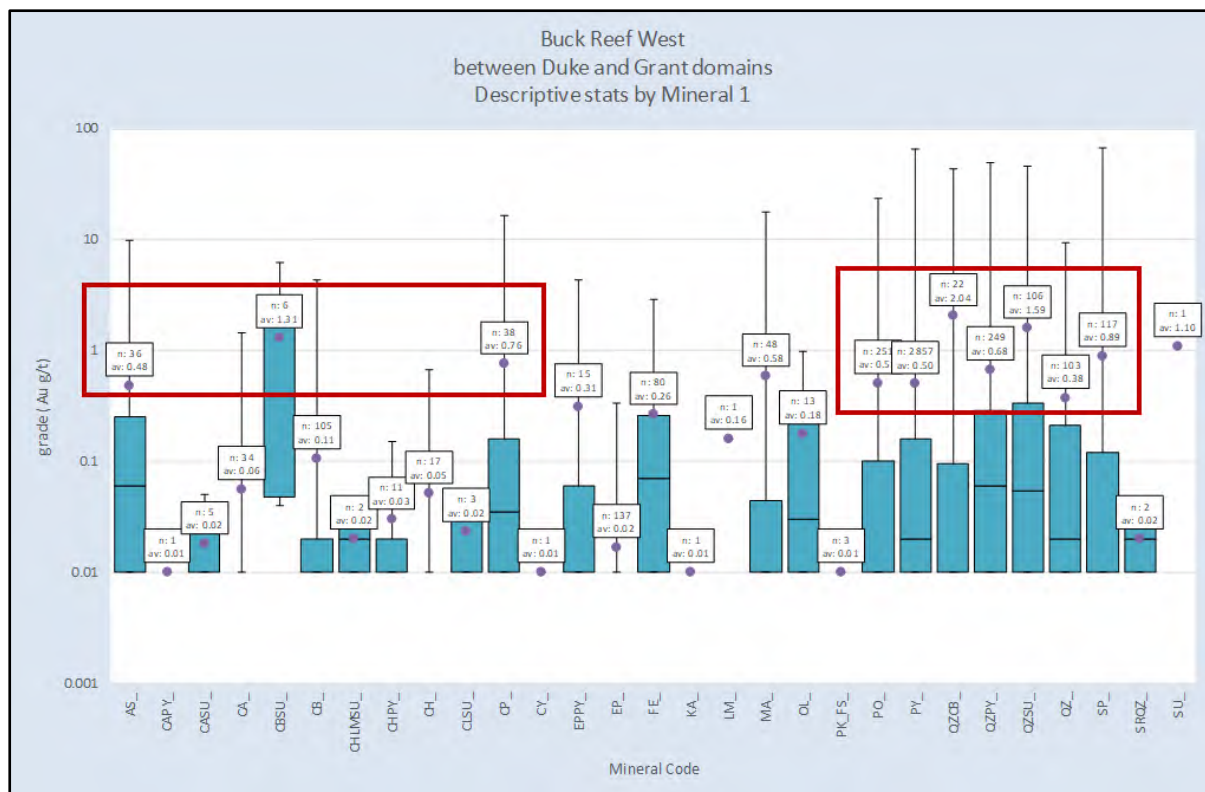


The semi-constrained mineralisation domains have been defined to capture mineralisation noted adjacent to, or between, the constrained lodes, but not contained within them. The semi-constrained lodes are interpreted as eight-metre-thick zones adjacent to the BRW Upper footwall (FW) and hangingwall (HW), between the Sunset and Grant A2 lodes and between the Duke and Grant A2 lodes. The adjacent FW or HW surface was translated by the eight metres to define the initial domain, which was further sub-divided on grade. These areas were typically constrained by two dimensional hangingwall or footwall surfaces created in Datamine.



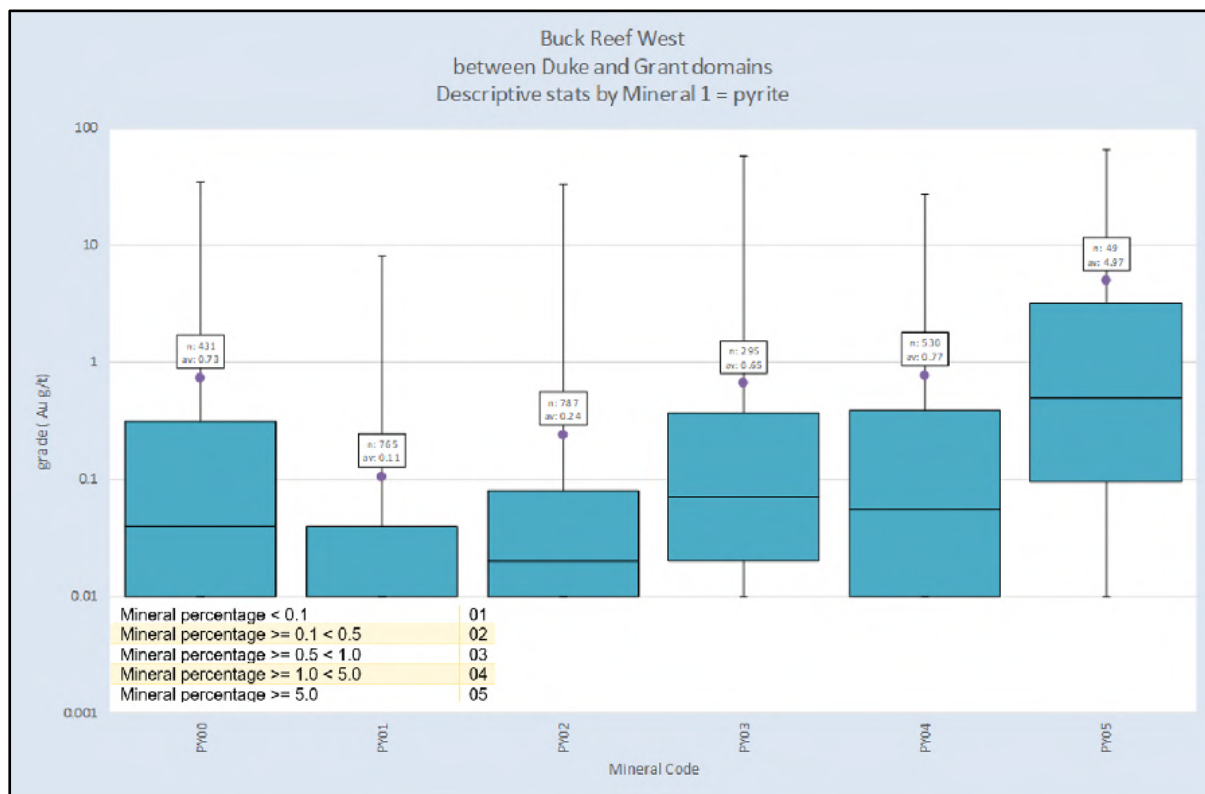
The semi-constrained lodes were noted to have two distinct grade populations; high-grade and a low-grade subset. The high-grade, semi-constrained population can be correlated to a mineralogical assemblage/association (Figure 13.9). The presence of arsenopyrite, chalcopyrite, pyrrhotite, pyrite, sphalerite or quartz is correlated to the high-grade, semi-constrained domain and was used as a filter to code the high-grade and low-grade domains. Figure 13.10 shows the gold grade association with logged pyrite content. Figure 13.9 lists the semi-constrained domains.

**Figure 13.9 BRW example of gold grade correlation with mineral assemblages (high-grade association indicated by the red polygons)(source: Resolute 2018a)**



Six unconstrained domains have been generated to capture background mineralisation not included with the constrained and semi-constrained domains. In a similar fashion to the semi-constrained domains the unconstrained domains were separated into high and low-grade data sets based on their mineralogy/mineral logging codes. Table 13.15 lists the unconstrained domains.

**Figure 13.10 BRW example of gold grade correlation with pyrite logged mineral content (source: Resolute 2018a)**



**Table 13.14 Buck Reef West semi-constrained mineralisation/estimation domains**

Description	SUPDOM	SUBDOM
BRW Upper FW low-grade	brfw	buaf
BRW Upper HW low-grade	brfw	buah
BRW Upper FW high-grade	brfw	buhf
BRW Upper HW high-grade	brfw	buhh
between Sunset and Grant high-grade	sugr	sghg
between Sunset and Grant low-grade	sugr	sglg
between Duke and Grant high-grade	dugr	dghg
between Duke and Grant low-grade	dugr	dglg

**Table 13.15 Buck Reef West unconstrained background estimation domains**

Description	SUPDOM	SUBDOM
BRW Upper FW low-grade	brfw	buaf
BRW Upper HW low-grade	brfw	buah
BRW Upper FW high-grade	brfw	buhf
BRW Upper HW high-grade	brfw	buhh
between Sunset and Grant high-grade	sugr	sghg
between Sunset and Grant low-grade	sugr	sglg

An additional variable was set in the unconstrained sample data set, indicating whether the sample was part of the high-grade or was part of the low-grade data sets. An indicator variable was set to 1

for the high-grade data and to 0 for the low-grade data. This variable was added to allow a weighted average of the high-grade and the low-grade estimates for each model cell to be calculated.

### 13.3.5. DATA CONDITIONING

The sample data for the BRW MRE have been generated from 683 drill holes and consist of 92,002 gold assays produced from the sampling of RC and DD core. All negative grade values were reset to 0.01 g/t gold before use. Unsourced intervals and holes drilled sub-parallel to mineralisation were also excluded from the dataset.

Drillhole intervals were flagged with domain codes using both wireframes and data selection filters, as described in Section 13.3.4. The coding was validated for each lode to ensure that the correct samples were selected. In some cases, additional samples not selected by the wireframe were manually added to the selected data set. This occurred as many of the solid wireframes overlap so the order the lodes were processed in was used to control which domain the samples were assigned to. In all cases the samples were assigned to the first domain that they fell within. The sample selection process for the lodes is detailed in Table 13.16.

**Table 13.16 Sample selection wireframes and coding, BRW**

Domain	Wireframe	SUPDOM	SUBDOM	Additional samples
Grant A2	grant_a2_201806_tr	gra2	gra2	3 added
Sunset lode 1	sunset_062018_tr	suns	sn01	14 removed 5 added
Duke lode 1	duke_201806_tr	duke	dk01	1 added
Duke lode 2	duke_2_062018_tr	duke	dk02	None
Duke lode 3	duke3_05062018_tr	duke	dk03	None
Sunset lode 2	sunset_2_062018.tr	suns	sn02	None
Sunset lode 3	sunset_3_062018.tr	suns	sn03	6 added
Grant Duke link structure	grant_duke_link_05062018.tr	gdlk	gdlk	None
BRW upper	brf_upper_2018_cut.tr	brwf	brwu	None
BRW lower	brf_lower_2018_cut.tr	brwf	brwl	None
BRW shear	brf_upper_2018_shear_cut.tr	brwf	brws	None
Flat lode 1	brw_flat_1_2018.tr	flat	fl01	None
Flat lode 2	brw_flat_2_2018.tr	flat	fl02	37 added
Flat lode 3	brw_flat_3_2018.tr	flat	fl03	53 added
BRW upper footwall	brf_upper_2018_cut.fwalt.8x.tr	brwf	buaf	45 added
BRW upper hanging wall	brf_upper_2018_cut.fwx.tr	brwf	buah	37 added
Between Sunset and Grant A2	brf_upper_2018_cut.hwalt.8x.tr	sugr	sglg	None
Between Duke and Grant A2	brf_upper_2018_cut.hwx.tr	dugr	dglg	None
Unconstrained South East	1804.brw.sugr.so.tr	unse	selg	None
Unconstrained South West	1804.brw.dugr.so.tr	unsw	swlg	None
Unconstrained North East	1804.brw.unse.so.tr	unne	nelg	None

The Buck Reef West Upper hangingwall and footwall domains were divided into high and low-grade sub-domains using perimeter strings. Sample data for these domains were initially selected using a

pair of surface wireframes and by default, were assigned to the low-grade sub-domain. A perimeter was then used to select samples from each domain to allocate to the high-grade sub-domain.

The samples for the semi-constrained and unconstrained domains were initially selected using solid wireframes. By default, the samples were assigned to the low-grade data sets. Samples were allocated to the appropriate high-grade data set based on the mineral logging of each sample. In each case the sample selection process was carefully checked to ensure that the correct samples had been assigned to each domain.

Descriptive statistics were prepared for the raw data for each domain and sub-domain and are presented for gold in Table 13.17.

**Table 13.17 Buck Reef West descriptive gold statistics by domain for raw data**

SUPDOM	SUBDOM	Samples	Minimum	Maximum	Mean	Variance	CV	Skew	Kurtosis
brfw	brwl	455	0.01	38.90	1.62	12.16	2.15	4.82	35.12
brfw	brws	98	0.01	81.90	3.47	107.71	2.99	5.49	34.14
brfw	brwu	3,497	0.01	108.00	2.28	18.14	1.87	7.96	120.48
brfw	buaf	503	0.01	4.69	0.09	0.13	4.01	9.60	106.36
brfw	buah	550	0.01	77.30	0.15	2.36	10.10	40.71	1,859.28
brfw	buhf	995	0.01	108.00	0.69	20.42	6.54	16.55	334.63
brfw	buhh	1,054	0.01	115.82	0.51	10.09	6.18	24.12	694.65
dugr	dghg	2,609	0.01	66.20	0.49	7.10	5.48	15.46	299.92
dugr	dglg	13,078	0.01	752.00	0.16	9.49	19.54	213.35	51,543.59
duke	dk01	637	0.01	132.00	1.23	18.18	3.45	17.19	472.68
duke	dk02	127	0.01	16.85	1.36	5.19	1.68	3.47	14.95
duke	dk03	226	0.01	44.10	2.02	26.19	2.54	5.01	30.36
flat	fl01	77	0.01	12.55	1.24	5.57	1.91	3.34	11.85
flat	fl02	126	0.01	24.50	1.13	6.52	2.26	6.58	54.04
flat	fl03	104	0.01	125.00	4.60	252.05	3.45	5.48	33.43
gdlk	gdlk	732	0.01	66.50	1.45	15.42	2.70	9.05	120.11
gra2	gra2	2,240	0.01	183.30	2.57	84.66	3.57	8.99	105.63
sugr	sghg	2,876	0.01	277.00	0.69	33.57	8.38	36.70	1,681.86
sugr	sglg	8,699	0.01	126.00	0.19	1.44	6.30	37.63	2,383.01
suns	sn01	1,954	0.01	113.00	1.39	21.53	3.33	12.08	219.04
suns	sn02	282	0.01	18.75	1.26	6.84	2.08	3.88	16.62
suns	sn03	483	0.01	364.00	3.18	389.73	6.22	16.82	301.90
unne	nehg	1,710	0.01	53.30	0.43	5.33	5.40	12.34	204.27
unne	nelg	8,185	0.01	54.00	0.13	0.79	7.08	27.15	1,141.20
unse	sehg	1,870	0.01	161.00	0.88	35.26	6.73	18.02	401.21
unse	selg	17,897	0.01	653.00	0.13	7.06	20.53	187.40	43,402.79
unsw	swhg	1,876	0.01	68.70	0.45	7.85	6.17	14.97	284.96
unsw	swlg	10,592	0.01	27.60	0.11	0.52	6.60	19.75	533.42

A 2 m composite length was selected. To minimise data loss (no residuals) the length of the composites was allowed to vary. The minimum composite length was set at 0.1 m and the maximum

composite length was set to 3 m. Descriptive statistics for the 2 m composites are summarised by domain in Table 13.18.

**Table 13.18 Buck Reef West descriptive gold statistics by domain for 2m composites**

SUPDOM	SUBDOM	Samples	Mean	Variance	CV
All	All	51,316	0.45	5.97	5.48
brfw	brwl	233	1.62	8.57	1.80
brfw	brws	57	3.47	82.64	2.62
brfw	brwu	2,205	2.28	11.58	1.49
brfw	buaf	259	0.09	0.06	2.86
brfw	buah	290	0.15	0.51	4.70
brfw	buhf	558	0.69	9.18	4.39
brfw	buhh	599	0.51	5.41	4.52
dugr	dghg	1,702	0.49	4.78	4.49
dugr	dglg	8,839	0.16	1.62	8.07
duke	dk01	400	1.23	8.35	2.34
duke	dk02	93	1.36	3.58	1.39
duke	dk03	155	2.02	15.39	1.95
flat	fl01	42	1.24	4.94	1.80
flat	fl02	66	1.13	3.28	1.60
flat	fl03	55	4.60	122.19	2.40
gdlk	gdlk	442	1.45	8.58	2.01
gra2	gra2	1,366	2.57	51.67	2.79
sugr	sghg	1,739	0.69	19.71	6.42
sugr	sglg	5,168	0.19	0.85	4.83
suns	sn01	1,179	1.39	13.07	2.60
suns	sn02	158	1.26	3.38	1.46
suns	sn03	290	3.18	142.75	3.76
unne	nehg	1,081	0.43	3.59	4.43
unne	nelg	5,429	0.13	0.44	5.29
unse	sehg	1,058	0.88	20.23	5.10
unse	selg	10,892	0.13	1.09	8.08
unsw	swhg	1,080	0.45	4.43	4.63
unsw	swlg	6,074	0.11	0.28	4.87

## TOP CUTS

An examination of the descriptive statistics for each domain shows that all the domains have individual grades significantly elevated relative to the mean of the domain. Top-cuts were developed for each domain with reference to grade distributions, the number of samples to be cut and the location of those samples within the data set. The impact of the top-cut on the average grade and variance of the values was noted for each domain. The impact of a range of top-cuts was examined for each domain. A summary of the top-cuts selected is presented in Table 13.19.

Table 13.19 Buck Reef West top cuts by domain

Domain/Lode	Top cut (Au g/t)	Total comps	Mean			Variance			Coefficient of Variation			Composites		
			Uncut	Cut	Cut/uncut	Uncut	Cut	Cut/Uncut	Uncut	Cut	Cut/uncut	Cut no.	Cut %	% metal
BRW Lower	10	233	1.62	1.51	93%	8.5	5.6	66%	1.80	1.57	87%	6	2.6%	93%
BRW Shear	8	57	3.46	1.87	54%	81.1	6.2	8%	2.60	1.33	51%	4	7.0%	53%
BRW Upper	20	2,205	2.28	2.22	97%	11.7	8.6	73%	1.50	1.32	88%	12	0.5%	97%
Duke Lode 1	10	400	1.31	1.14	87%	9.3	4.2	45%	2.34	1.81	77%	7	1.8%	88%
Duke Lode 2	5	93	1.34	1.17	88%	3.5	1.8	51%	1.40	1.14	81%	5	5.4%	87%
Duke Lode 3	15	155	1.99	1.87	94%	15.0	11.0	74%	1.94	1.77	91%	3	1.9%	94%
Grant A2	40	1,366	2.55	2.37	93%	50.9	29.4	58%	2.79	2.29	82%	9	0.7%	93%
Sunset Lode 1	25	1,179	1.41	1.34	95%	13.3	8.3	63%	2.59	2.15	82%	5	0.4%	95%
Sunset Lode 2	8	158	1.25	1.24	99%	3.4	3.1	93%	1.46	1.43	97%	2	1.3%	99%
Sunset Lode 3	15	290	3.01	2.07	69%	123.3	11.1	9%	3.69	1.61	44%	9	3.1%	66%
Grant Duke Link	15	442	1.45	1.37	95%	8.6	5.3	62%	2.02	1.68	83%	3	0.7%	95%
BRW Upper FW LG	4	259	0.09	0.09	100%	0.1	0.1	100%	2.87	2.87	100%	-	0.0%	100%
BRW Upper HW LG	2	290	0.15	0.12	78%	0.5	0.1	13%	4.69	2.18	46%	2	0.7%	78%
BRW Upper FW HG	5	558	0.71	0.44	62%	9.6	0.9	10%	4.37	2.21	51%	14	2.5%	63%
BRW Upper HW HG	10	599	0.74	0.48	65%	27.3	1.6	6%	7.04	2.59	37%	4	0.7%	86%
Sunset-Grant HG	20	1,739	0.70	0.59	84%	19.7	4.1	21%	6.32	3.44	54%	10	0.6%	83%
Sunset-Grant LG	10	5,168	0.21	0.19	91%	1.3	0.5	37%	5.49	3.67	67%	7	0.1%	94%
Duke-Grant HG	15	1,702	0.51	0.45	88%	5.6	2.2	39%	4.63	3.28	71%	6	0.4%	90%
Duke-Grant LG	10	8,839	0.16	0.14	89%	1.6	0.4	23%	7.97	4.26	54%	9	0.1%	89%
Unconstrained SE HG	20	1,058	0.90	0.73	81%	20.3	5.5	27%	5.00	3.23	65%	6	0.6%	80%
Unconstrained SE LG	10	10,892	0.13	0.12	91%	1.1	0.3	25%	8.09	4.49	55%	9	0.1%	91%
Unconstrained SW HG	15	1,080	0.49	0.43	87%	5.2	2.4	47%	4.59	3.62	79%	6	0.6%	89%
Unconstrained SW LG	5	6,074	0.11	0.10	93%	0.3	0.2	58%	4.85	3.95	81%	15	0.2%	93%
Unconstrained NE HG	15	1,081	0.45	0.41	91%	3.9	2.3	59%	4.41	3.70	84%	5	0.5%	92%
Unconstrained NE LG	5	5,429	0.13	0.11	90%	0.4	0.2	47%	5.27	4.03	76%	20	0.4%	90%

## GLOBAL MEAN VALUES

To enable grades to be estimated using simple kriging (SK) and to provide a default grade as required by the method, global mean grade values were developed for each domain.

To calculate the global means, the cut composites for each domain were declustered using a series of cell sizes. The Buck Reef West domains and the Lode domains were declustered in 2D, the unconstrained domains were declustered in 3D. Statistics were calculated for a range of cell sizes from 10m to 100m in steps of 10m. In all cases the cell size that gave the lowest declustered mean value while still providing a good representation of the average grade of the domain was selected. The selected global mean values were set in the un-estimated volume models.

The selected panel size and average grade for each domain is summarised in Table 13.20.

**Table 13.20 Buck Reef West global declustered statistics by sub-domain**

SUBDOM	Cell size	Field	Samples	Minimum	Maximum	Mean	Variance	CV	Skew	Kurtosis
brwl	000*050*050	AU_CUT	21	0.01	10.00	1.60	4.41	1.30	2.97	9.20
brws	000*050*050	AU_CUT	12	0.02	8.00	2.1	3.89	0.95	2.09	3.93
brwu	000*050*050	AU_CUT	50	0.01	6.47	1.85	1.73	0.71	1.11	1.82
buaf	000*050*050	AU_CUT	30	0.01	0.49	0.10	0.01	1.06	2.24	5.52
buaH	000*050*050	AU_CUT	31	0.01	0.48	0.12	0.01	0.98	1.57	1.81
buhf	000*050*050	AU_CUT	30	0.01	1.15	0.37	0.07	0.72	1.05	1.02
buhh	000*050*050	AU_CUT	27	0.01	1.31	0.38	0.08	0.76	1.11	1.76
dk01	040*040*000	AU_CUT	48	TR	5.43	1.10	1.43	1.08	1.73	2.67
dk02	070*070*000	AU_CUT	13	0.02	2.27	1.01	0.42	0.64	0.10	-0.92
dk03	030*030*000	AU_CUT	38	TR	12.48	2.29	9.41	1.34	2.19	4.18
gra2	080*080*000	AU_CUT	37	TR	6.11	1.92	2.52	0.83	0.92	-0.08
sn01	070*070*000	AU_CUT	33	0.05	2.72	1.34	0.46	0.50	0.14	-0.53
sn02	060*060*000	AU_CUT	11	0.10	2.07	1.02	0.27	0.51	0.31	-0.37
sn03	070*070*000	AU_CUT	17	0.14	7.91	1.95	3.30	0.93	2.04	4.04
gdlk	060*060*000	AU_CUT	20	0.26	3.00	1.42	0.65	0.57	0.46	-0.92
dghg	050*050*050	AU_CUT	232	0.01	7.70	0.43	0.51	1.66	5.50	46.25
dglg	050*050*050	AU_CUT	313	0.01	1.70	0.12	0.03	1.53	4.26	25.41
dugr	050*050*050	minInd	316	0.00	1.00	0.17	0.04	1.11	1.69	3.46
sghg	060*060*060	AU_CUT	117	0.01	11.49	0.67	2.20	2.21	5.14	30.04
sglg	060*060*060	AU_CUT	142	0.01	1.23	0.15	0.03	1.24	2.96	12.11
sugr	070*070*070	minInd	129	0.00	1.00	0.22	0.05	0.99	1.08	1.15
nehg	070*070*070	AU_CUT	90	0.01	4.80	0.38	0.53	1.94	3.76	16.40
nelg	070*070*070	AU_CUT	159	0.01	1.24	0.09	0.02	1.50	4.45	28.20
unne	070*070*070	minInd	161	0.00	1.00	0.12	0.03	1.46	2.49	8.62
sehg	070*070*070	AU_CUT	127	0.01	7.60	0.66	1.11	1.60	3.46	15.64
selg	070*070*070	AU_CUT	259	0.01	1.01	0.10	0.01	1.26	3.08	13.97
unse	070*070*070	minInd	259	0.00	0.87	0.09	0.02	1.71	2.85	10.00
swhg	080*080*080	AU_CUT	86	0.01	3.67	0.47	0.44	1.39	2.55	7.26
swlg	080*080*080	AU_CUT	136	0.01	0.49	0.09	0.01	1.06	2.20	5.26
unsw	080*080*080	minInd	139	0.00	1.00	0.16	0.06	1.49	1.96	3.41

### 13.3.1. VARIOGRAPHY

Down hole and directional variograms were modelled for each sub-domain. To improve the variogram models and simplify the modelling process before each variogram was calculated the sample data was unfolded onto a two-dimensional plane. The Buck Reef West domain variograms were calculated after unfolding into a North/South vertical plane. All other domains were modelled

after unfolding into a horizontal plane. All variograms were normalised before use. Table 13.21 summarises the variogram models.



Table 13.21 Buck Reef West variogram models by estimation domain (SUBDOM)

Sub-domain (SUBDOM)	Model rotations						Variance		Structure	Model	Unrotated ranges		
	Angle 1	Angle 2	Angle 3	Axis 1	Axis 2	Axis 3	Nugget	Spatial			X	Y	Z
BRW Lower	90	0	80	2	1	3	0.44	0.56	1	spherical	65	55	10
BRW Shear	90	0	30	2	1	3	0.34	0.66	1	spherical	100	70	5
BRW Upper	90	0	0	2	1	3	0.50	0.50	1	spherical	80	55	18
BRW Upper FW LG	90	0	10	2	1	3	0.65	0.35	1	spherical	55	105	8
BRW Upper HW LG	90	0	20	2	1	3	0.20	0.80	1	spherical	75	120	8
BRW Upper FW HG	90	0	80	2	1	3	0.80	0.20	1	spherical	30	65	8
BRW Upper HW HG	90	0	40	2	1	3	0.33	0.67	1	spherical	40	28	8
Duke Lode 1	10	0	0	3	2	1	0.45	0.37	1	spherical	42	55	5
								0.18	2	spherical	42	100	5
Duke Lode 2	20	0	0	3	2	1	0.44	0.56	1	spherical	205	150	5
Duke Lode 3	60	0	0	3	2	1	0.47	0.53	1	spherical	50	85	5
Grant A2	50	0	0	3	2	1	0.40	0.60	1	spherical	50	85	5
Sunset Lode 1	30	0	0	3	2	1	0.40	0.30	1	spherical	45	50	10
								0.30	2	spherical	80	50	10
Sunset Lode 2	40	0	0	3	2	1	0.45	0.15	1	spherical	54	60	5
								0.40	2	spherical	54	150	5
Sunset Lode 3	40	0	0	3	2	1	0.25	0.21	1	spherical	75	25	5
								0.54	2	spherical	75	115	5
Grant Duke Link	20	0	0	3	2	1	0.45	0.55	1	spherical	65	100	7
Duke-Grant HG	60	0	0	3	2	1	0.64	0.36	1	spherical	100	100	10
Duke-Grant LG	60	0	0	3	2	1	0.65	0.35	1	spherical	40	60	22
Duke-Grant Indicator	60	0	0	3	2	1	0.45	0.20	1	spherical	30	22	55
								0.35	2	spherical	140	100	55
Sunset-Grant HG	0	0	0	3	2	1	0.66	0.34	1	spherical	200	200	65
Sunset-Grant LG	80	0	0	3	2	1	0.69	0.31	1	spherical	55	100	50
Sunset-Grant Indicator	80	0	0	3	2	1	0.64	0.12	1	spherical	75	55	65
								0.24	2	spherical	175	55	65
Unconstrained NE HG	60	0	0	3	2	1	0.45	0.55	1	spherical	75	135	65
Unconstrained NE LG	80	0	0	3	2	1	0.50	0.13	1	spherical	30	30	43
								0.37	2	spherical	85	75	43
Unconstrained NE Indicator	30	0	0	3	2	1	0.40	0.25	1	spherical	50	30	15
								0.35	2	spherical	50	75	40
Unconstrained SE HG	70	0	0	3	2	1	0.45	0.55	1	spherical	95	100	85
Unconstrained SE LG	70	0	0	3	2	1	0.42	0.58	1	spherical	33	50	30
Unconstrained SE Indicator	70	0	0	3	2	1	0.25	0.75	1	spherical	65	50	65
Unconstrained SW HG	60	0	0	3	2	1	0.45	0.55	1	spherical	65	45	65
Unconstrained SW LG	30	0	0	3	2	1	0.40	0.60	1	spherical	40	95	25
Unconstrained SW Indicator	50	0	0	3	2	1	0.35	0.65	1	spherical	125	180	80

### 13.3.2. BLOCK MODEL

A parent cell size of 20 mE x 20 mN x 20 mRL was selected for the BRW domains. The origin and dimensions of the model prototype were defined to enclose all of the domain wireframes and allow for a small buffer zone. The dimensions of the model prototype are summarised in the Table 13.22.

**Table 13.22 Buck Reef West block model prototype definition**

	Model		Cell size		Number cells
	Origin	Extent	Parent	Sub cell	
Easting	12,700	13,600	20	2.5	45
Northing	12,700	13,600	20	2.5	45
Elevation	-400	340	20	2.5	37

Each domain wireframe was filled with cells to represent the domain volume. Sub-cells were used to ensure that an accurate representation of the model volume was obtained. A fill plane orientation was selected for each domain to ensure that the best fit for the wireframes was obtained. All sub-cell dimensions were restricted to multiples of 2.5 m.

Appropriate domain and sub-domain codes were assigned to the model cells. The cells created for each domain were visually compared with the individual domain wireframe to ensure that the wireframe had been correctly filled with cells. The total volume of each model was compared with the volume of the wireframe to detect any anomalies.

### 13.3.3. GRADE ESTIMATION

Grades were estimated into the model using both two-dimensional and three-dimensional estimation. A grid of points at five metre intervals was created across each domain wireframe. The true thickness of the wireframe was calculated at each point using the local dip and dip direction of the wireframe. The calculated true thickness values were averaged within 20 m x 20 m panels. The panels were broadly combined into areas where the average true thickness was less than five metre and areas where the average true thickness was greater than five metres. Two-dimensional estimation was used for the areas where the true thickness was less than five metres and three-dimensional estimation were used for the areas where the true thickness was greater than five metres.

Both Ordinary Kriging (OK) and Simple Kriging (SK) were used to estimate grades into the domains. The kriging neighbourhood was optimised for each of the estimation methods. OK was the preferred method and was selected in areas where a slope of regression greater than 60% was achieved.

As the definition of the high-grade sub-domains within the Buck Reef West Upper Footwall and Hangingwall domains was based on declustered grade values it was considered prudent to use soft boundaries during the grade estimation process. All the data within the BRW Upper Footwall domain was used to estimate grades into the high-grade sub-domain and into the low-grade sub-domain. All the data within the BRW Upper Hangingwall domain was used to estimate grades into the high-grade sub-domain and into the low-grade sub-domain. The top cut selected for each individual sub-domain was applied to the entire dataset before estimation.

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It was noted that the selected top cut used for some of the domains resulted in a significant reduction in the mean of the cut data when compared with the uncut data. Where the impact of the selected top cut was considered to be severe, an alternative strategy for addressing localised high grades was developed. The model cells within 10 m of each cut composite were selected and an uncut grade estimate used for these model cells.

Panel estimation was used for all domains using a panel size of 20 m along strike, 20 m down dip and 5 m across strike. The panels were orientated to match the average dip and dip direction of each domain. A discretisation level of 10 x 10 x 2 was used for all domains.

A search ellipse (Table 13.23) based on the ranges of the variogram model was used to select sample data to estimate grades into each cell. A series of three search passes was used in all estimates. In the first search a minimum number of six samples were required with the maximum number of samples ranging from 16 to 32 for each domain. The second pass was enlarged by a factor of 1.5 and the minimum number of samples reduced to 4. For the final pass the search ellipse was increased by a factor of 2 and the minimum number of samples reduced to 1.

Search ellipse orientations were visually compared to the estimation domain prior to the estimate to ensure appropriate orientations were employed. Octant declustering was used to minimise the impact of clustered data.

A series of statistical measures were calculated to test the quality of the kriged estimate, including kriging efficiency and slope of regression. The estimate was also checked for the presence of negative kriging weights, which can cause anomalous results. The Kriging neighbourhood was adjusted to maximise the Kriging Efficiency and Slope of Regression and to minimise the impact of negative weights for each domain.

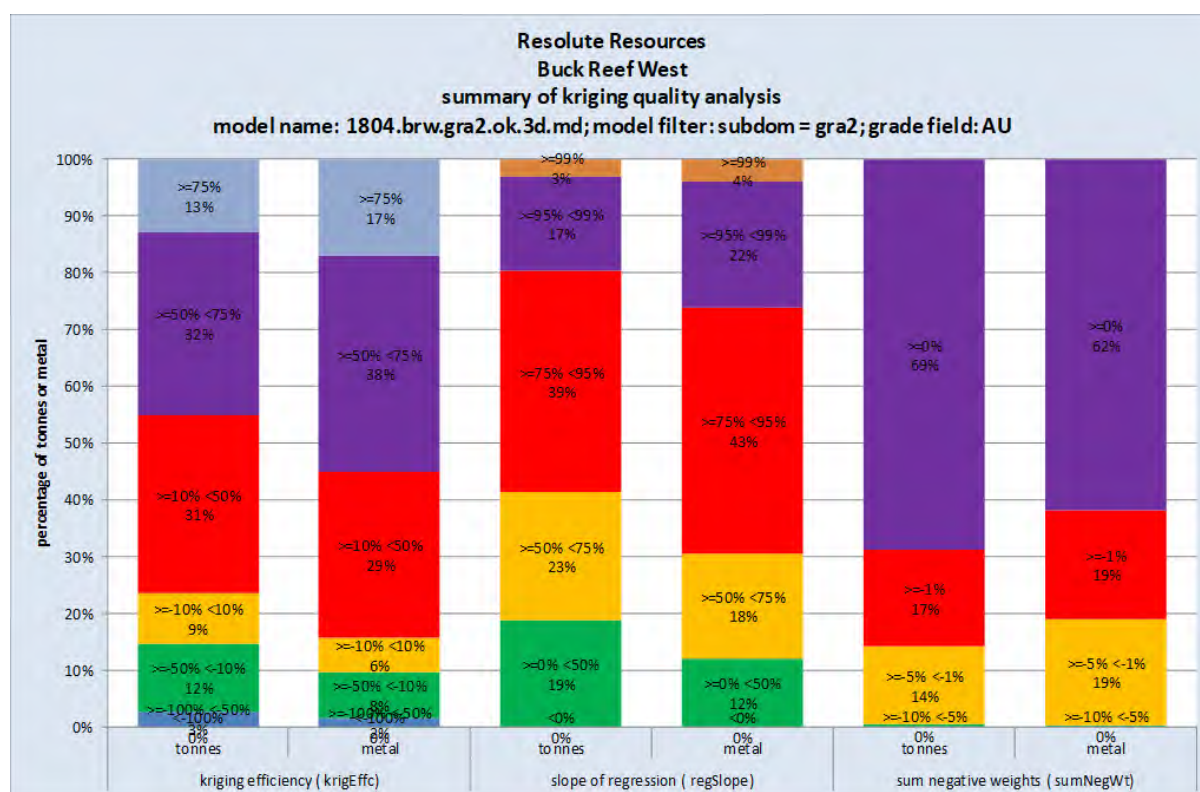
Table 13.23 Buck Reef West estimation search ellipses

Sub-Domain (SUBDOM)	Reference number	Search Method	Search Distance (unrotated)			Search Rotation					
			Axis 1	Axis 2	Axis 3	Angle 1	Axis 1	Angle 2	Axis 2	Angle 3	Axis 3
BRW Lower	15	Ellipsoid	50	50	10	90	2	-	1	80	3
BRW Shear	25	Ellipsoid	50	50	5	90	2	-	1	30	3
BRW Upper	35	Ellipsoid	50	50	18	90	2	-	1	-	3
Flat Lode 1	155	Ellipsoid	50	50	10	-	2	-	1	40	3
Flat Lode 2	165	Ellipsoid	50	35	5	-	2	-	1	40	3
Flat Lode 3	175	Ellipsoid	50	50	10	-	2	-	1	10	3
BRW Upper FW LG	75	Ellipsoid	55	105	8	90	2	-	1	10	3
BRW Upper HW LG	85	Ellipsoid	50	50	8	90	2	-	1	20	3
BRW Upper FW HG	95	Ellipsoid	30	50	8	90	2	-	1	80	3
BRW Upper HW HG	145	Ellipsoid	40	28	8	90	2	-	1	40	3
Duke Lode 1	40	Ellipsoid	42	75	5	10	3	-	2	-	1
Duke Lode 2	50	Ellipsoid	75	75	5	20	3	-	2	-	1
Duke Lode 3	60	Ellipsoid	50	75	5	60	3	-	2	-	1
Grant A2	100	Ellipsoid	50	75	5	50	3	-	2	-	1
Sunset Lode 1	110	Ellipsoid	75	50	10	30	3	-	2	-	1
Sunset Lode 2	120	Ellipsoid	54	75	5	40	3	-	2	-	1
Sunset Lode 3	130	Ellipsoid	75	75	5	40	3	-	2	-	1
Grant Duke Link	140	Ellipsoid	65	75	7	20	3	-	2	-	1
Duke-Grant HG	180	Ellipsoid	75	75	10	60	3	-	2	-	1
Duke-Grant LG	190	Ellipsoid	40	60	22	60	3	-	2	-	1
Duke-Grant Indicator	200	Ellipsoid	75	75	55	60	3	-	2	-	1
Sunset-Grant HG	150	Ellipsoid	50	50	50	-	3	-	2	-	1
Sunset-Grant LG	160	Ellipsoid	50	50	50	80	3	-	2	-	1
Sunset-Grant Indicator	170	Ellipsoid	50	50	50	80	3	-	2	-	1
Unconstrained NE HG	270	Ellipsoid	75	75	65	60	3	-	2	-	1
Unconstrained NE LG	280	Ellipsoid	75	75	43	80	3	-	2	-	1
Unconstrained NE Indicator	290	Ellipsoid	50	75	40	30	3	-	2	-	1
Unconstrained SE HG	210	Ellipsoid	75	75	75	70	3	-	2	-	1
Unconstrained SE LG	220	Ellipsoid	33	50	30	70	3	-	2	-	1
Unconstrained SE Indicator	230	Ellipsoid	65	50	65	70	3	-	2	-	1
Unconstrained SW HG	240	Ellipsoid	50	45	50	60	3	-	2	-	1
Unconstrained SW LG	250	Ellipsoid	40	50	25	30	3	-	2	-	1
Unconstrained SW Indicator	260	Ellipsoid	50	50	50	50	3	-	2	-	1

### 13.3.4. MODEL VALIDATION

Reports were prepared for each domain detailing the estimation quality parameters during the estimation run. The reports were used to optimise the kriging neighbourhood and were retained as a record of the optimisation process. Example reports for the selected kriging neighbourhood used to estimate grades into Grant A2 domain are presented in Figure 13.11.

**Figure 13.11 Buck Reef West (Grant A2 domain) kriging quality analysis (OK) (source: Resolute 2018a)**



For each of the domains the area of the model estimated in 2D was combined with the portion estimated in 3D to create a single model estimated using ordinary kriging and a single model estimated using simple kriging. The slope of regression was used to select model cells from the ordinary kriged model. Perimeters were created for each domain enclosing the area where the slope of regression was generally greater than 60%. The model cells from the ordinary kriged model that fell within the perimeter were selected and combined with the simple kriged model cells from outside the perimeter. Standard plots were prepared for each domain detailing the type of estimate used, the plot for Grant A2 is presented as an example in Figure 13.12.

The model has been visually validated by cutting sections through the model and comparing the block estimated grades to the composite grades. Swath plots were also prepared for the final model created for each domain, comparing the estimated grades in the model with the declustered sample data. Swath plots were prepared on a north/south and an east/west axis, as well as by elevation. The swath plots for gold for the Grant A2 are presented in Figure 13.13 to Figure 13.15 as an example of the validation.

Figure 13.12 Buck Reef West estimation methodology applied to Grant A2 domain (source: Resolute 2018a)

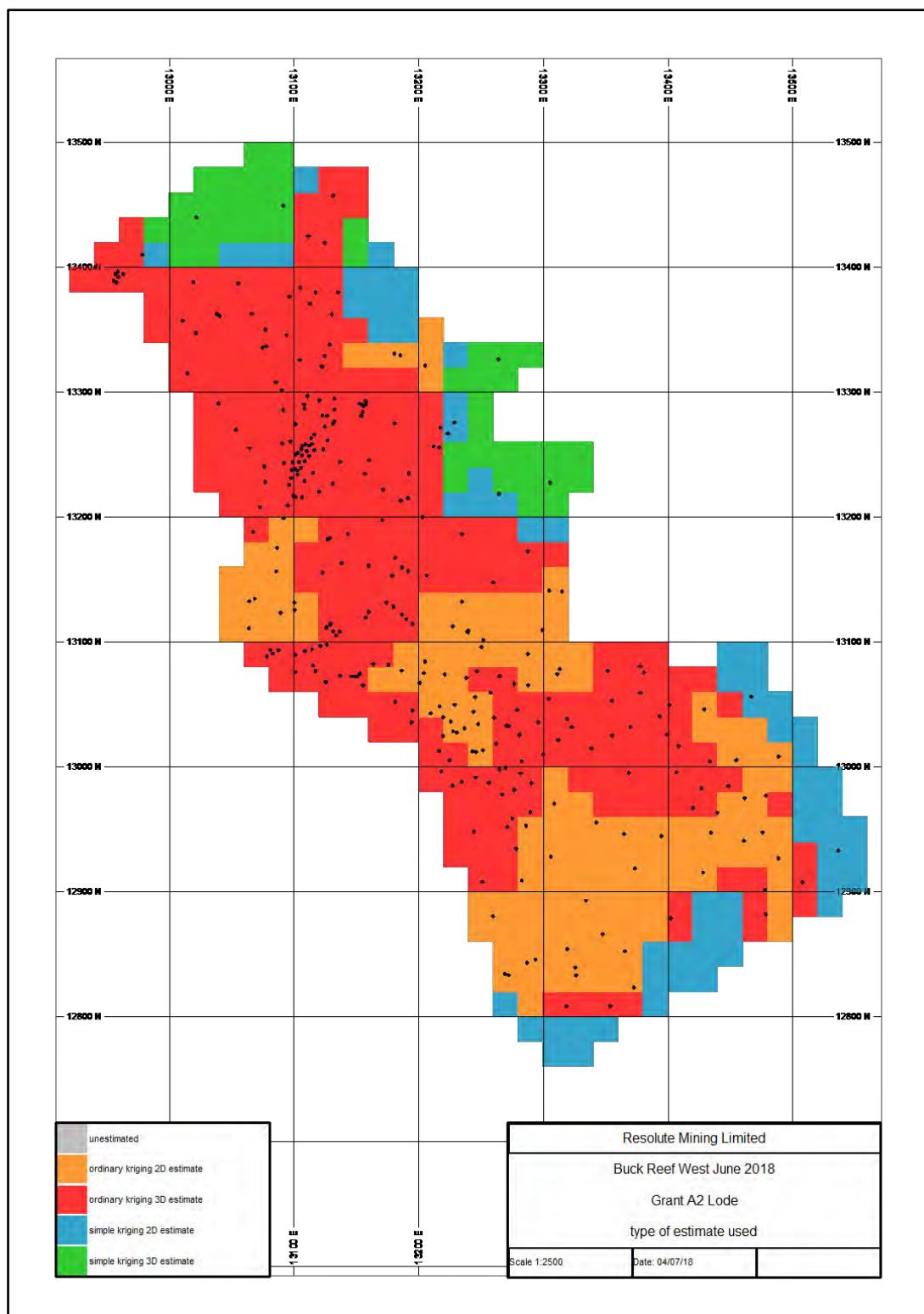




Figure 13.13 Buck Reef West E-W swath validation analysis (source: Resolute 2018a)

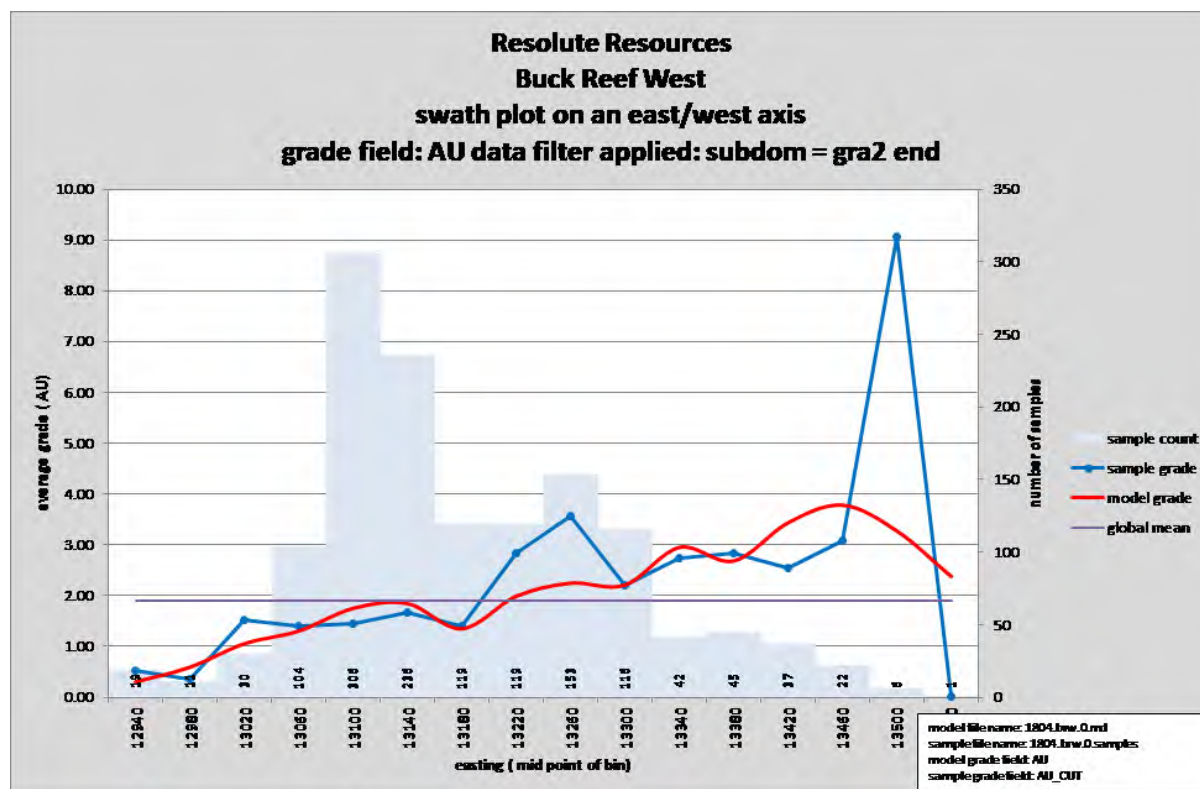


Figure 13.14 Buck Reef West N-S swath validation analysis (source: Resolute 2018a)

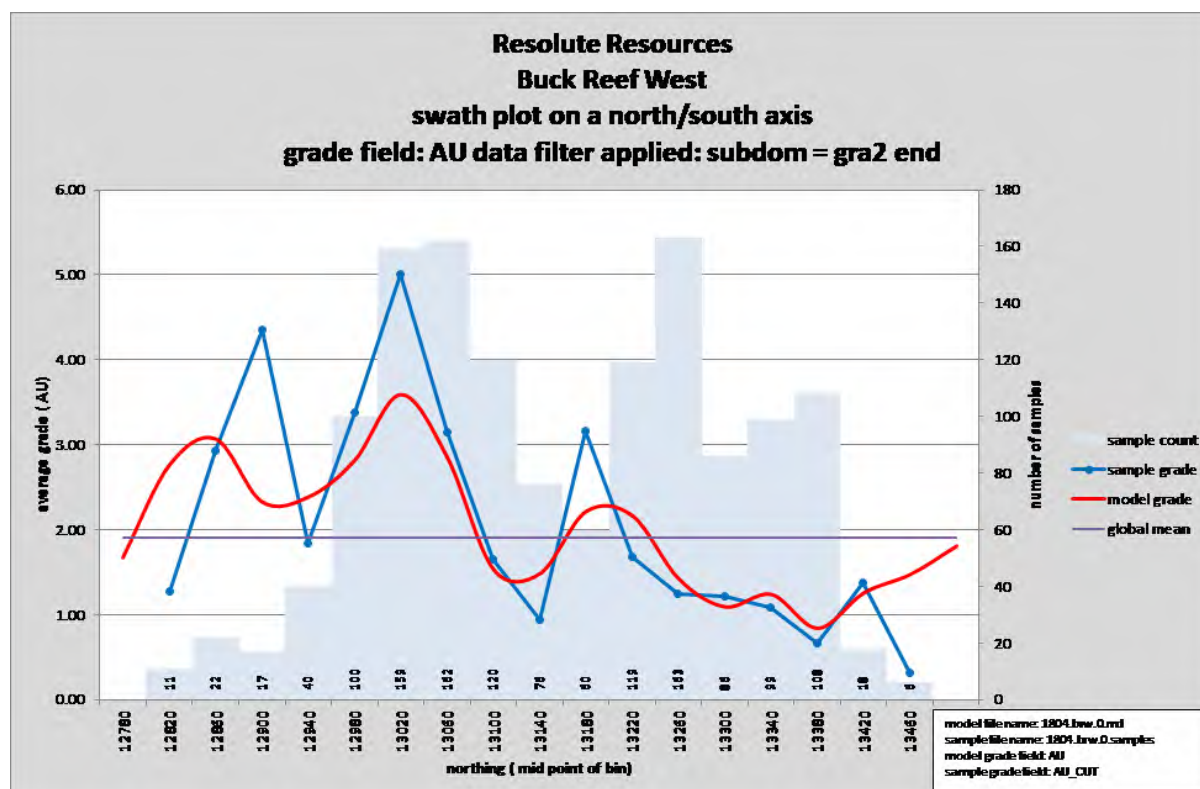
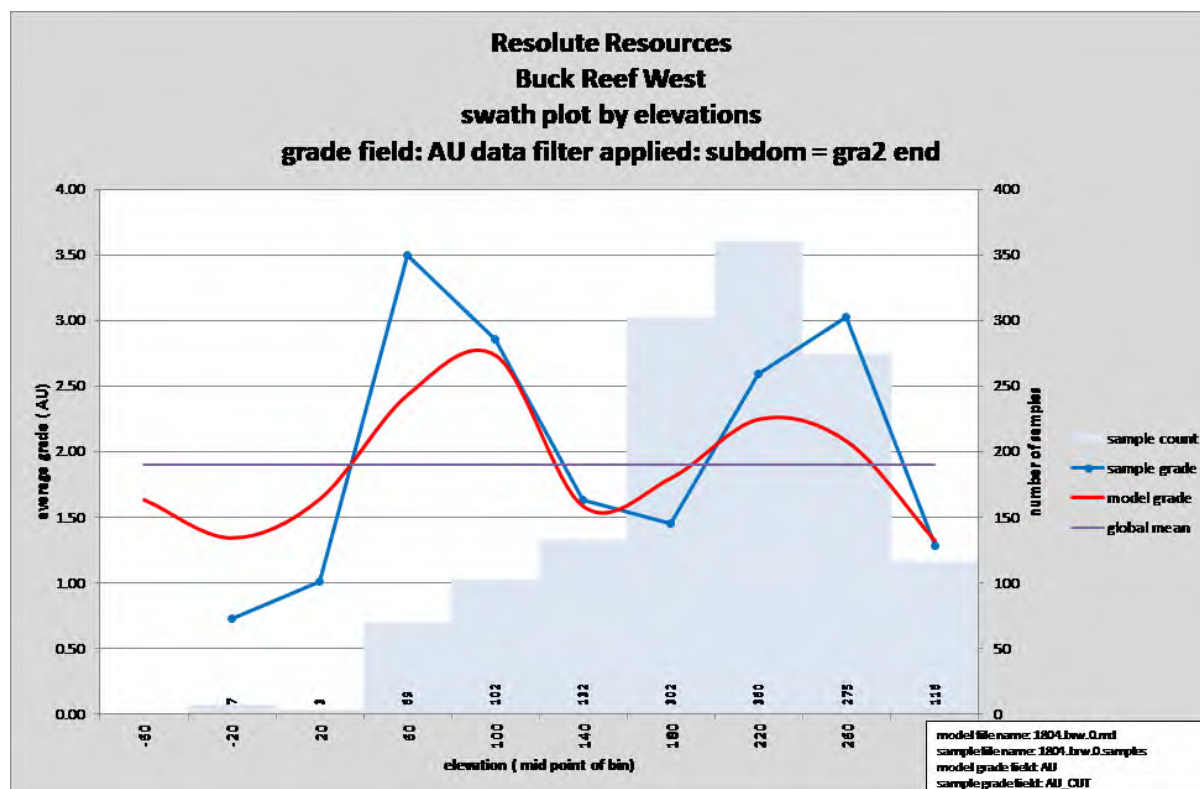


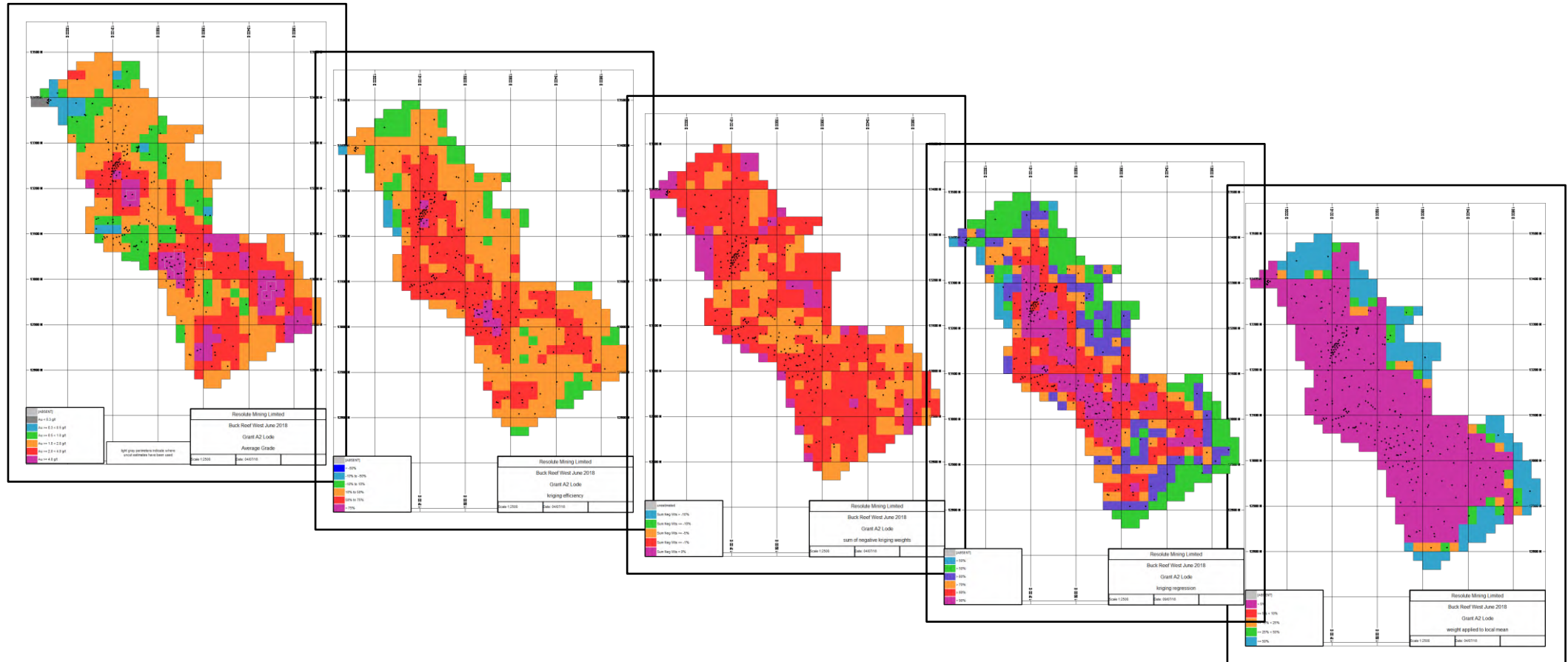
Figure 13.15 Buck Reef West elevation swath validation analysis (source: Resolute 2018a)



A series of plots was prepared for each domain to allow the results of the kriging runs to be compared to the distribution of the sample data. A selection of the validation plots for the Grant A2 domain are presented in Figure 13.16.



**Figure 13.16 Buck Reef West Grant A2 domain validation plots - estimated grade (Au g/t), kriging efficiency, slope of regression, sum of negative weights and domain weight applied to global mean (source: Resolute 2018a)**



### 13.3.5. CLASSIFICATION

The 2018 Mineral Resource has been classified into Measured, Indicated and Inferred categories in accordance with the JORC Code (2012).

The resource model was classified with reference to the density of the sampling used to inform the model and for consistency with previous resource models.

For the lode domains the slope of regression from kriging was the main parameter used to classify the model. For each domain a perimeter was created enclosing areas where the slope of regression was generally greater than 60%. Model cells falling within this perimeter were classified as indicated. Where the slope of regression was generally greater than 95% the model cells were classified as Measured.

Before the unconstrained domains between Duke and Grant and between Sunset and Grant were classified, the sub-cells were combined into parent cells and the slope of regression value averaged. Where the average slope of regression of the parent cell was greater than 30% the cell was classified as Inferred, where the average slope of regression was greater than 60% the cell was classified as Indicated.

The remaining unconstrained model domains were classified according to the slope of regression of the individual model cells. Model cells with a slope of regression greater than 30% were classified as Inferred, model cells with a slope of regression greater than 60% were classified as Indicated.

Unconstrained model cells with a slope of regression less than 30% were not classified.

### 13.4. DENSITY

A substantial population of rock density (SG) measurements for the Buck Reef West and Sarsfield deposits was collected by BPB Slimline Services in two campaigns during 1995 and 1996. Gamma-gamma density logging was collected from 14 drillholes, with samples taken at 10 cm intervals over a combined total length of 2,900 metres. Table 13.24 details the univariate statistics for fresh rock density data at Sarsfield.

**Table 13.25 Bulk density statistics for fresh material**

	Count	Minimum	Maximum	Mean	Median	Std. dev.
Bulk Density	2,551	2.365	3.002	2.781	2.780	0.050

A total of 2,551 measurements were made of fresh rock with a mean value of 2.781 for fresh rock. The bulk densities applied for Mineral Resource estimation were 2.40 t m<sup>-3</sup> for oxide and 2.78 t m<sup>-3</sup> for primary at both deposits. The bulk densities used in the MRE are consistent with previous estimates. The CP endorses the bulk densities applied and the methods of determination.

## **14. ORE RESERVE ESTIMATES**

### **14.1. INTRODUCTION**

Ore Reserves at Ravenswood comprise Sarsfield, Nolans East and Buck Reef West open pit Ore Reserves, the remnant Mt Wright underground Ore Reserves and associated surface stockpiles. The Ravenswood Ore Reserves are a subset of the Ravenswood Mineral Resources and include both Measured and Indicated Mineral Resources. Inferred Mineral Resources have not been used in the estimation of the 2018 Ore Reserves.

The Ore Reserves have been prepared under the direction of a Competent Persons using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

### **14.2. ORE RESERVE METHODOLOGY**

The Ravenswood Ore Reserves were completed as part of the updated 2018 Ravenswood Expansion Project (REP) Feasibility Study.

Ore Reserves at Sarsfield are based upon the 2015 Mineral Resource. The Resource Model used block sizes of 25 mE x 20 mN x 10 mRL. The optimisation, design, and initial schedule was completed in 2016 by Resolute staff. This incorporated both Buck Reef West (BRW) and Sarsfield; however, only the Sarsfield component has been included in the 2018 Ore Reserve as the BRW component has since been updated. The Sarsfield pit design was incorporated into the Life of Mine Schedule by Proactive Mining Solutions (PMS) in 2017, and later incorporated into the updated REP mining schedule by Resolute staff.

The Buck Reef West Ore Resource was updated in June 2018. The resource block model was re-blocked into 5m by 5 m by 5m selective mining units (SMUs) for optimisation and planning. Initial economic pit designs were completed using Geovia Whittle software. The BRW final pit design and scheduling was then optimised by Proactive Mining Solutions (PMS) using Geovia Surpac software.

Cost inputs for the BRW Ore Reserves were developed from first principles using previous Life of Mine (LOM) financial models and are based upon an owner-operator mining model. Costs used to develop the Sarsfield Ore Reserve were based on mining and processing rates using 2016 costs. These inputs remain valid for the current study. Physical limits also used to constrain the process include required noise bund construction, a 200 m stand off from the nearest neighbour and an approved encroachment limit on the town cemetery.

A full discussion of the modifying factors and assumptions used to generate the Ore Reserve is presented below.

### **14.3. ORE RESERVE ASSUMPTIONS**

A full list of parameters used in the Ravenswood Ore Reserve for each deposit is presented in Table 14.1.

**Table 14.1 Parameters used to generate the Ravenswood Ore Reserve (Source: Resolute)**

Parameter	Unit	Value
<b><i>Buck Reef West</i></b>		
Pre-production capital	AUD M	6.3
Processing cost	AUD/t milled	13.88
General and administration	AUD/t milled	3.62
Mining base cost		
<i>Ore</i>	AUD/t mined	3.76
<i>Waste</i>	AUD/t mined	3.53
Mining cost adjustment factor	AUD/t mined/10 m bench	0.03
Gold price	AUD/oz	1,600
Royalty	% per ounce	5
Metallurgical Recovery	%	91.50
<b><i>Sarsfield</i></b>		
Pre-production capital	AUD M	0
Processing cost		
<i>Beneficiated</i>	AUD/t milled	9.52
<i>Non-beneficiated</i>	AUD/t milled	11.83
General and administration	AUD/t milled	2.87
Mining base cost		
<i>Ore</i>	AUD/t mined	3.54
<i>Waste</i>	AUD/t mined	3.26
Mining cost adjustment factor		
<i>Ore</i>	AUD/t mined/10m bench	0.0457
<i>Waste</i>	AUD/t mined/10m bench	0.045
Gold price	AUD\$/oz	1,575
Royalty	% per ounce	5
Metallurgical Recovery		
Beneficiated	%	83.72
Non-beneficiated	%	91.00

#### 14.3.1. COMMODITY PRICES

A gold price of AUD1,600 was used to prepare the BRW Ore Reserve. The Sarsfield Ore Reserve was generated in 2016 using an AUD1,575 gold price. Current financial modelling shows that although this is AUD25 less than the current guidance, it has negligible impact on the base case financials.

#### 14.3.2. MINING DILUTION

##### BUCK REEF WEST

The Resource Model used for optimisation and planning was blocked into 5m x 5m x 5m selective mining units (SMUs) to account for the limited selective mining ability of the large open pit mining fleet. The smearing of the high-grade veins over a larger lower grade block estimate accounts for dilution and no further dilution factors have been applied to the estimate.

## SARSFIELD

The Resource Model used block sizes of 25 mE x 20 mN x 10 mRL. The previous operating history of the Sarsfield pit demonstrated that reliable segregation of ore and waste zones was largely unsuccessful due to the dispersion of gold within the mineralised zones. Economic and predictable recovery of the orebody could only be achieved as a large scale, low-grade operation. As such, the average grade of the relatively large block sizes was used for the optimisation and subsequent design and scheduling. No further dilution factors have been applied to the estimate.

### 14.3.3. GEOTECHNICAL PROVISIONS

#### BUCK REEF WEST

Overall slope angles were derived from Dempers and Seymour (2016) based on four geotechnical domains (Figure 14.1 and Table 14.2).

**Figure 14.1** Buck Reef West geotechnical domains (source: Dempers and Seymour, 2016)



These geotechnical recommendations were combined with the following operating parameters to produce the final design:

- Ramp gradient of 1:10;
- Pit mined in 10 m benches;
- Ramp width of 26 m for double lane and 18 m for single lane;
- Minimum mining width of 30 m.

The final BRW Pit design extends from the existing surface (~300 RL) down 265 m to 35 mRL. The pit was broken into four stages for scheduling.

**Table 14.2 Buck Reef West geotechnical parameters (source: Dempers and Seymour, 2016)**

Domain	Crest elevation	Toe elevation	Batter height (m)	Berm width (m)	Batter angle (°)	Material type	IRA (°)
North	Surface	280	10	5	50	Oxide	41
	280	260	20	10	60	Transitional	56
	260	40	20	10	80	Fresh	56
East	Surface	280	10	5	50	Oxide	41
	280	260	10	7	60	Transitional	50
	260	40	10	7	80	Fresh	50
South	Surface	280	10	5	50	Oxide	41
	280	260	20	6	60	Transitional	64
	260	40	20	6	80	Fresh	64
West	Surface	280	10	5	50	Oxide	41
	280	260	20	10	60	Transitional	56
	260	40	20	10	80	Fresh	56

## SARSFIELD

Pit slope parameters based on recommendations by Golder (2006) were used to inform the Sarsfield Pit design. A single, universal batter angle of 80° (fresh) was selected, based on the minimum quoted in the Golder study. Three geotechnical-based Whittle slope zones were generated (Table 14.3). A slightly shallower batter angle (70°) was applied to the thin oxide layer at the pit crest and this was incorporated into the calculation of overall slope angle.

**Table 14.3 Sarsfield pit design Whittle inputs (source: Resolute)**

Zone	Domain	Number of ramps		Overall wall angle
		Dual	Single	
1	Western pit wall	3	1	52
2	Southern Pit wall	2	1	55
3	At depth	1	2	55

These geotechnical recommendations were combined with the following operating parameters to produce the final design:

- Ramp gradient of 1:10;
- Pit mined in 10 m benches;
- Ramp width of 30 m for double lane and 18 m for single;
- Minimum mining width of 30 m.

The final Sarsfield Pit design extends from the existing surface (~ 300 RL) down 380 m to -80 RL. The pit was left as a single stage for the updated scheduling process as the minimum mining widths make stages within the cutback impractical.

#### 14.3.4. METALLURGICAL RECOVERY

The Ore Reserves were estimated using ore processing recovery factors as outlined in Section 13.

##### BUCK REEF WEST

Gold recovery at BRW is estimated at 91.5%. No beneficiation is assumed at BRW.

##### SARSFIELD

Processing recovery of 83.7% for beneficiated material (0.3-0.8 g/t) and 91% for non-beneficiated material (>0.8 g/t) has been assumed. The beneficiation factors applied to material between 0.3 and 0.8 g/t gold were 70% mass retention and 92% gold retention. Processing costs have been calculated separately for beneficiated and non-beneficiated ore.

#### 14.3.5. COST ESTIMATES

The operating costs estimates used in the Ravenswood Ore Reserves have been derived from a combination of the operating experience and, where applicable, first principle estimations, benchmarks and consultant estimates. An owner-operator mining model has been assumed for the Life of Mine (LOM) with a milling capacity of 5.0 Mtpa after an assumed expansion at the Nolans process plant. The key operating costs are presented in Table 14.4 and are described below. It has been assumed that real operating costs are reduced across all areas by 1.5% per annum to reflect continuous improvement initiatives and general technological efficiencies over time. This assumption has been applied to the financial model.

**Table 14.4 Key operating costs (source: Resolute, 2018)**

Operating costs	Unit	FY19	FY20	FY21	FY22	FY23	LOM average
Mining costs (Open pit)	AUD/t mined	-	2.87	2.57	3.02	3.41	3.36
Processing costs	AUD/t milled	18.79	17.45	13.76	13.43	13.27	13.74
General and administration costs	AUD M	14.7	16.9	16.3	16.2	16	15.1

#### 14.3.6. CUT-OFF GRADES

##### BUCK REEF WEST

A mining cut-off grade of 0.4 g/t gold has been determined including the total ore cost, with the incremental mining cost associated with ore mining.

##### SARSFIELD

A mining cut-off grade of 0.3 g/t gold has been determined for Sarsfield. This incorporates lower grade material which is proposed to be subject to the beneficiation process.

#### 14.3.7. ENVIRONMENTAL APPROVALS AND PERMITS

An Environmental Authority (EA) has been issued for the mining of both the BRW and Sarsfield pits. There are some outstanding permitting requirements, such as extending the Mining Lease boundaries and Development Applications for construction works off the lease area; however, none of these are considered significant risks that could materially affect the development of the Ore Reserves. Expansion of the TSF requires approval from the Queensland Department of Environment



and Science (DES). While discussions with the DES have been encouraging, formal approval is not expected until mid-2019. Similarly, it is intended that a portion of the Life of Mine tailings will be deposited in the completed BRW pit. This will also require DES approval, which has not yet been granted.

#### 14.3.8. ROYALTIES

Royalties (currently 5%) are payable to the Queensland Government on all gold produced. Payment of royalties for minerals mined under the authority of a mining lease transfers the ownership from the Crown to the holder of the Mining Lease. There are no other royalties payable for production from the Project.

#### 14.3.9. ECONOMIC TEST

The economics of the REP Feasibility Study was analysed using a discounted cash flow (DCF) of 5% per annum real pre-tax using a gold price of USD 1,275/oz. The base case project is value accretive with the peak funding position reached within the first two years from production.

### 14.4. RAVENSWOOD ORE RESERVE

Resolute has declared the Ore Reserves for Ravenswood as at 31 December 2018. These are presented in Table 14.5. The Ore Reserve has been quoted using a variety of cut offs and gold prices (see note).

**Table 14.5 Ravenswood Ore Reserve, 31 December 2018**

Ore Reserves	Proved			Probable			Total		
	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)	Tonnes (kt)	Grade (g/t Au)	Cont. metal (koz)
Sarsfield	31,530	0.7	720	18,250	0.7	360	19,780	0.7	1,080
Nolans East	0	0.0	0	0	0	0	0	0.0	0
Buck Reef West	970	1.3	40	18,590	1.0	600	19,570	1.0	640
Stockpiles (O/C)	360	0.6	10	10	1.6	0	370	0.6	10
<b>Total (O/C)</b>	<b>32,860</b>	<b>0.7</b>	<b>760</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,720</b>	<b>0.8</b>	<b>1,720</b>
Mt Wright	160	2.2	10	0	0.0	0	160	2.2	10
Stockpiles (UG)	0	0.0	0	0	0.0	0	0	0.0	0
<b>Total (UG)</b>	<b>160</b>	<b>2.2</b>	<b>10</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>160</b>	<b>2.2</b>	<b>10</b>
<b>Ravenswood Total</b>	<b>33,030</b>	<b>0.7</b>	<b>780</b>	<b>36,850</b>	<b>0.8</b>	<b>960</b>	<b>69,880</b>	<b>0.8</b>	<b>1,730</b>

Note:

1. Totals may not sum due to rounding.
2. Sarsfield has been reported above a cut-off of 0.3 g/t Au, Nolans Reef and Buck Reef West are reported above a cut-off of 0.4 g/t Au. Mt Wright is reported above a cut-off of 2.3 g/t Au.
3. Sarsfield assumed a gold price of A\$1,575/oz and Buck Reef West A\$1,600/oz



## 15. MINING METHODS

### 15.1. BACKGROUND

If the potential Ravenswood Expansion Project is implemented, Buck Reef West and Sarsfield will both be mined using conventional open pit mining techniques utilising an excavator and trucking fleet to extract material. Mineralised material will be transported to the ROM for processing at the Nolans process plant, waste material trucked to the waste rock dump and lower grade material will be stockpiled and later reclaimed if the Project economics change. However, the potential Ravenswood Expansion Project is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

Both deposits have been subject to numerous design and scheduling iterations over the past six years. Additional drilling in the past 12-18 months has been completed in the BRW area, resulting in an updated geological interpretation and Mineral Resources, as well as updated geotechnical interpretations.

There has been no additional drilling or interpretation of Sarsfield since the last design was completed in March 2016. While the optimisation and design remain valid; the pit void has since received additional tailings and water.

The current Life of Mine Plan (LOMP) for Ravenswood includes the existing Sarsfield schedule, merged with the updated BRW schedule and design. The LOMP is based on a milling rate of 5 Mtpa and mining rates suitable for operating two 250 t class excavators. Ounces delivered to the mill range between 12 koz and 17 koz per month.

### 15.2. BUCK REEF WEST

#### 15.2.1. PIT DESIGN

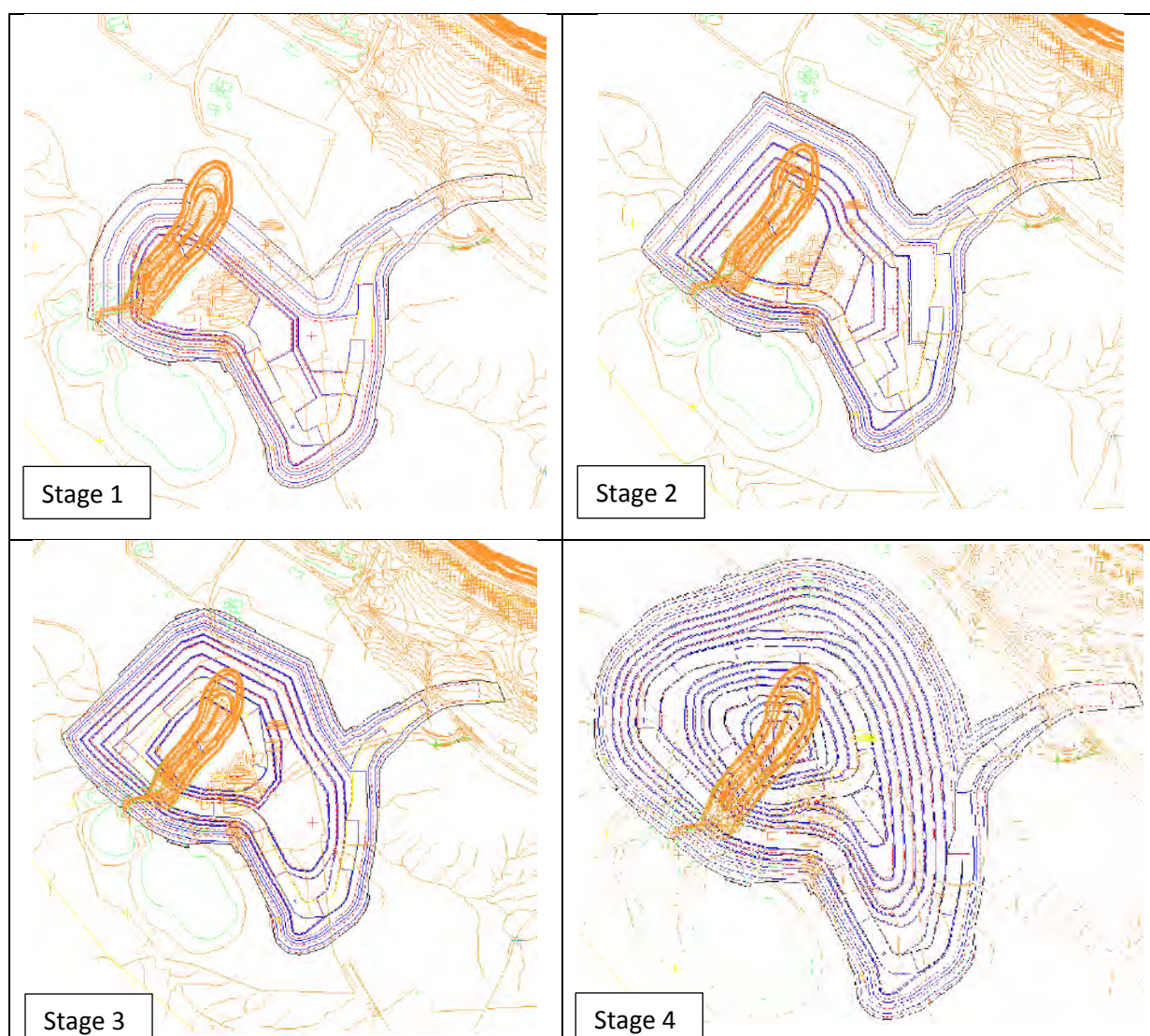
The BRW pit shell has been generated using the 2018 Mineral Resource, optimised within Whittle software (PMS, 2018). Inputs to the final design include the following:

- Slope angles were derived from a geotechnical report by Dempers and Seymour. Four geotechnical zones were defined, each with different batter heights, batter angles and berm widths;
- Ramp gradients were set to 1:10. Ramps were designed at 26 m wide for dual lane access and 18 m for single lane. These are suitable for Cat 785 or equivalent rear dump trucks;
- 10 m bench heights are to be used;
- A minimum mining width of 30 m will be applied;
- All Inferred Mineral Resources within the pit design have been classified as waste.

The final design, shown in Figure 15.1, extends from the existing surface (300 mRL) down 265 m, to 35 mRL. The pit was broken into four stages for scheduling purposes to improve the Project cash flow.

- Stage 1 progresses to the 210 RL as the pit floor. The design finalises the access ramp position and provides access benches off the ramp for subsequent stages. Berms have been left on the north and west walls to protect expansion in these directions.
- Stage 2 commences cutting back the north and west wall and progresses to 180 mRL. The south wall is final. The minimum mining width is maintained, and access benches are left in place from the ramp. Berms have been left on the north and west walls to protect expansion in these directions.
- Stage 3 continues cutting back the north and west wall and progresses to 140 mRL. The south wall is final. The minimum mining width is maintained, and access benches are left in place from the ramp. Berms have been left on the north and west walls to protect expansion in these directions.
- Stage 4 completes the pit to design limits.

**Figure 15.1** Plan view of BRW pit design stages (1 to 4) with current topography and infrastructure  
(source: PMS)



## 15.3. SARSFIELD

### 15.3.1. PIT DESIGN

The Sarsfield pit shell was optimised in 2016 in Whittle software using the 2013 Mineral Resource. Inputs to the final design include:

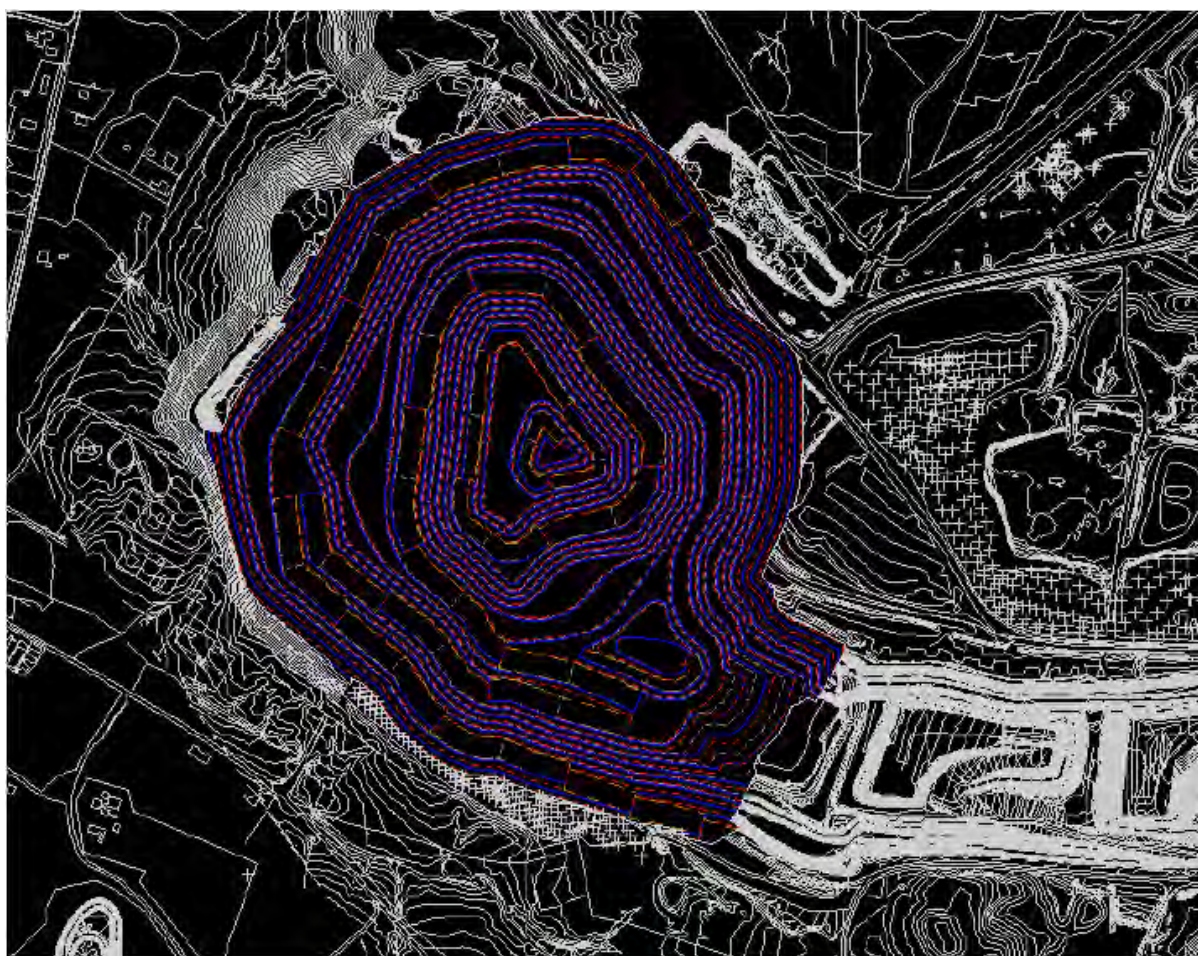
- Slope angles which were derived from recommendations by Golder (2006).
- The ramp gradient has been set to 1:10. Dual lane ramp access will be 30 m wide and 18 m wide for single lane access.
- Mining will occur in 10 m benches, with 20 m between berms on all slopes.
- The minimum mining width will be 30 m.
- Material defined as Inferred Mineral Resources has been classified as waste.

The final design shown in Figure 15.2 extends from the existing surface (~300 mRL) down 380 m to -80 mRL. Two ramp accesses are available; a 30 m wide dual-lane ramp access, with entry points on both the northeast (current) and southeast corner (adjacent to the edge of Nolans). The second ramp access in the southeast has been included to shorten ore haulage distances and has the added benefit of providing dual access options down to 225 mRL. From 225 mRL the ramp narrows to 25 m wide and then is single lane width ranging between 18 m to 15 m from -15 mRL.

The pit was left as a single stage for the updated scheduling process as the minimum mining widths make stages within the cutback impractical.



**Figure 15.2** Sarsfield pit design with current topography (source: Resolute, 2018)



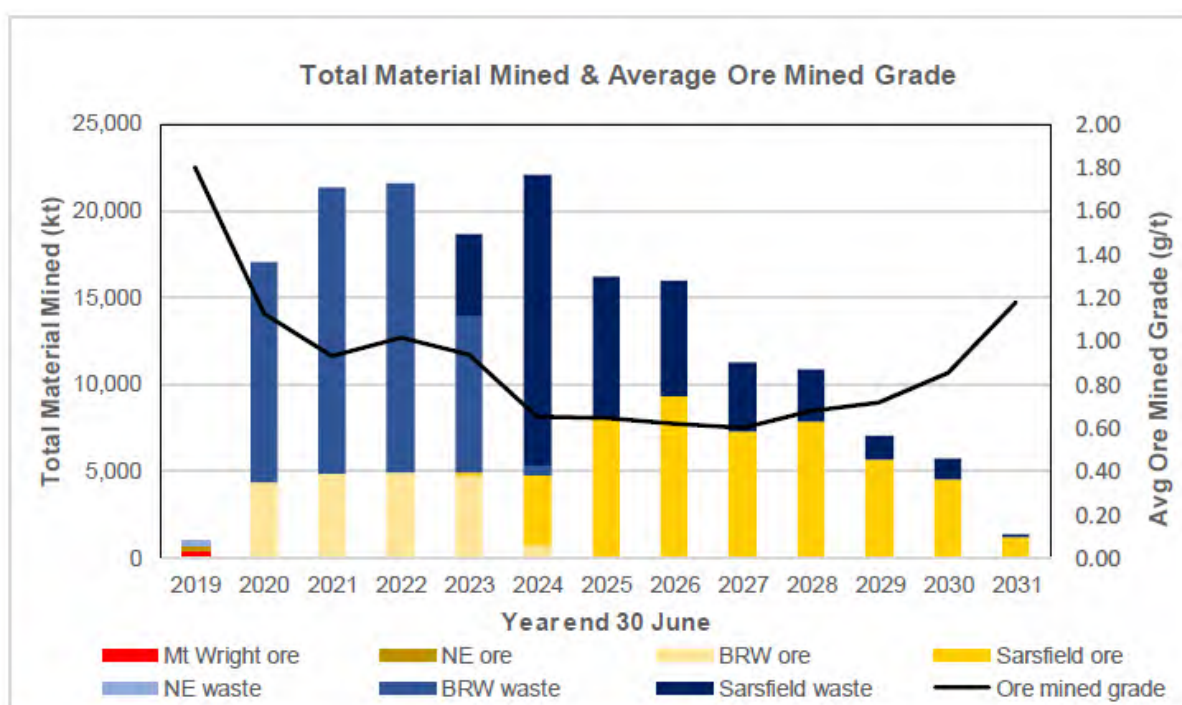
#### **15.4. PRODUCTION SCHEDULE**

Scheduling of both pits was completed using MineSched software, with the key criteria being the delivery of a nominal 5 Mtpa to the ROM. Mill feed from Sarsfield will be post-beneficiated ore with beneficiation mass recovery factors applied to the 0.3 -0.8 g/t material in the schedule. The resulting operation is expected to produce 108 koz to 150 koz of gold per annum for 11 years from the date of the completion of the ramp up, at an average all-in sustaining cost (ASIC) of AUD1,063/oz. The proposed production schedule (Figure 15.3) includes:

- Completion of the Mt Wright Underground Mine. Mine life has significantly exceeded its original forecast closure date and will cease operations during the final quarter of 2019.
- Stockpiled ore from Nolans East, along with historic low-grade Sarsfield stockpiles, will provide mill feed thereafter.
- If Stage 1 of the REP (REP1) is implemented, the processing plant is to be upgraded to 5.0Mtpa (currently 2.8Mtpa) within 12 months of REP1 commencing and mining and processing of the Buck Reef West open pit would be expected to occur within a similar timeframe.
- If the REP is implemented, mining and processing of ore from the Sarsfield open pit would take place as part of Stage 2 of the REP (REP2).

It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

**Figure 15.3 Ravenswood life of mine production profile (source: Resolute, 2018)**



Inputs have been based around an owner mining fleet of two Hitachi EX2600 excavators in back-hoe configuration supplying a fleet of Cat 785 (140 t capacity) rear dump trucks. Maximum excavator productivity has been assumed to achieve 31,700 bcm per day, based on Original Equipment Manufacturer (OEM) specifications, with reductions applied for availability, utilisation and loading geometry. Truck hours have been calculated using assumed speeds of 7 km/hr up ramps, 25 km/hr down ramps, and 15 km/hr across benches. Maximum speeds of 40 km/hr have been assumed for haul roads. Truck availability (85%) and utilisation (80%) factors were also incorporated.

The production drilling fleet requirements are based on:

- 0.099 drill metres per ore BCM;
- 0.072 drill metres per waste BCM;
- final wall pre-split metres averaged over the LOM;
- a re-drill allowance of 5% for lost holes; and

- 25 m/hr penetration rate (as per recent operating results).

Calendars have been generated that allow for one 24-hour period to be lost to mine production due to weather each week between 1 December and 31 March for the wet season. Losses for mill availability and mill re-lines have also been included. The productivity rates were also reduced in the early stages of production to provide a ramp up period on dayshift only. Waste from this period will be used to build the noise bund separating the pit from the adjacent community. It was assumed that the pit would operate 24 hours per day (less allowances for availability and utilisation) after the initial three months from start-up.

Ancillary fleet requirements were estimated based on operating hours of the production excavators. The fleet includes three Cat D10 dozers, grader, water cart, service truck and vibrating roller.

## 16. RECOVERY METHODS

### 16.1. EXISTING

The current Nolans processing plant has capacity to treat about 2.6 Mtpa of gold bearing ore through a three-stage crushing plant. The existing crushing plant uses a single stage jaw crusher, secondary and tertiary cone crushers to reduce the particle size of run-of-mine (ROM) ore to a size suitable for grinding, nominally 18 mm. The crushed ore is mixed with water to produce a slurry in the primary ball mill to reduce the particle size even further. The ground slurry is pumped to cyclone classification which produces a coarse underflow fraction and a fine overflow fraction. The underflow gravitates via a gravity concentrator to a secondary ball mill for further size reduction, then back to the cyclones. The particle size in the fine overflow, at nominally P80 180 µm, is pumped to a conventional carbon-in-leach (CIL) circuit for gold extraction by cyanide and recovery by activated carbon.

Coarse gold collected by the gravity concentrator is leached in strong cyanide before the gold-loaded solution is pumped into the gold room's electrowinning circuit. Gold-loaded carbon from the CIL is eluted daily to produce a solution which is suitable for direct electrowinning. Metallic gold is formed at the cathode during electrowinning, after which gold from the cathodes is removed periodically and smelted to produce gold doré bars.

### 16.2. POTENTIAL PLANT EXPANSION

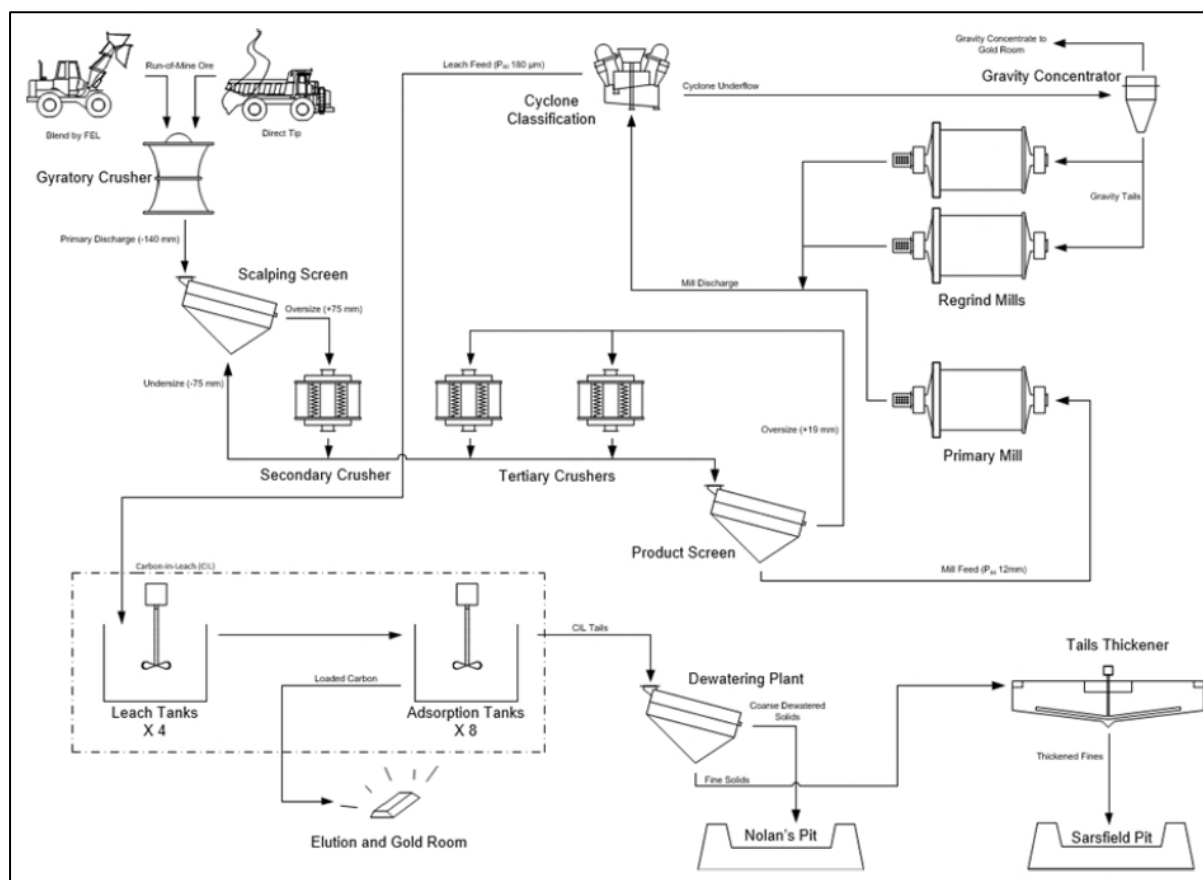
GR Engineering Services (GRES) was engaged to develop capital and operating cost estimates for an expanded Nolans processing plant to 8 Mtpa ore through the crushing circuit and 5 Mtpa through the milling circuit (GRES, 2018). The plant expansion study was predicated on the following:

- A new crushing circuit capable of achieving 8 Mtpa throughput, including the future ability to reject barren oversize ore at nominally 3 Mtpa for those ores that can be beneficiated by simple crushing and screening. The BRW ore cannot be beneficiated in this way, so crushing throughput will target 5 Mtpa;
- Refurbishing and recommissioning the third regrind mill to increase grinding capacity to 5 Mtpa
- Providing additional leaching capacity to retain the same leaching time using two new leach tanks; and
- Installing larger CIL inter-stage carbon screens in the adsorption circuit to cater for the higher flow.

If implemented, the new crushing plant will replace the existing plant, and features a primary gyratory crusher followed by secondary and tertiary cone crushers in closed circuit with screens to produce a consistent particle size distribution for grinding. The plant caters for the very hard nature of the BRW ore as determined by metallurgical testwork, and includes the ability to retrofit a future beneficiation circuit to reject barren waste from ores where the gold grade can be upgraded into the fine fraction through simple screening. The simplified process flow is depicted in Figure 16.1.



Figure 16.1 Simplified process flowsheet (source: Resolute, 2018)



ROM or stockpiled ore is blended and fed by front end loader or direct tipped from haul trucks to the new gyratory crusher. The choice of feed method depends on gold grade and prevailing operational requirements. A gyratory-type crusher has been selected based on its ability to handle very hard ore at 8 Mtpa. The secondary crusher and tertiary crushers have the same specification, and are larger than the existing cone crushers to cater for the BRW ore hardness at the design throughput. This means that the existing crushers are unable to be re-used in the new expanded circuit.

Primary crushed ore is conveyed to a scalping screen which directs the +75 mm ore to the secondary crusher, while the -75 mm ore is conveyed to the product screen. Secondary crushed ore is combined with the scalping screen undersize. The product screen directs the +19 mm ore to the parallel tertiary crushers while the -19 mm ore is conveyed to a crushed ore stockpile. The tertiary crushed ore is returned to the product screen for particle size reclassification. In the future beneficiation circuit, the product screen will be modified to produce three products; an oversize fraction which is largely devoid of gold, a middling fraction which will report to the tertiary crushers for further size reduction and an undersize fraction which will be conveyed to the crushed ore stockpile. The oversize fraction will be conveyed and transported to a waste stockpile. The design accommodates the future addition of the screen and reject conveyor for the oversize fraction.

The grinding circuit is designed to treat about 500 tph of BRW ore to produce a ground product with a target size of P80 180 µm. The grinding circuit will use all of the existing milling equipment, including the second regrind mill which will be refurbished, modified and recommissioned. The



grinding circuit consists of a primary ball mill and two parallel regrind ball mills, in closed circuit with a cyclone cluster. The existing 3,250 kW primary ball mill (Mill #1) will be retained as a primary mill, although it will be modified to an overflow type. The existing 3,250 kW regrind mill (Mill #2) and the refurbished 4,000 kW regrind ball mill (Mill #3) will be utilised as secondary ball mills, with Mill #3 being converted to a grate discharge type and having the facility to accept primary feed. The milling circuit is limited to approximately 5 Mtpa with the current amount of installed power.

To maintain the leaching residence time in the CIL, two new agitated leach tanks will be added to the circuit, giving a combined residence time of 12.4 hours based on volumetric flow. In addition, two inter-stage Kemix style pump screens will be fitted to each existing adsorption tank to cater for the higher slurry flow through the adsorption circuit. The existing gravity gold recovery equipment will be incorporated into the modified mill circuit, with a portion of the cyclone underflow split to this gravity recovery circuit. The existing elution, electrowinning and reagent circuits remain unchanged.

Existing utilities have been assessed by GRES to have adequate capacity for the proposed upgrade. Electrical power for the new crushing circuit will be supplied indirectly from the existing Sarsfield 66/6.6 kV substation, via the existing 6.6 kV ring main unit. A new 6.6 kV switchboard will be installed in a new substation adjacent to the secondary/tertiary crusher building.

The potential plant expansion is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

## 17. PROJECT INFRASTRUCTURE

Ravenswood is an established operating site with all the typical supporting infrastructure for a mining operation. Several key infrastructure projects and upgrades will be required to accommodate the Ravenswood Expansion Project. They are discussed below, as is the existing project infrastructure.

The potential plant expansion is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests Resolute. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

### 17.1. SITE ACCESS

Road access to the region is excellent. Major sealed roads pass through the southern and western parts of the region and link the operations with Townsville and Charters Towers using the Flinders Highway. A bus service operates twice a day between site and Charters Towers.

The existing haulage roads between Sarsfield and Nolans were constructed for mine haul trucks and are currently used by the haulage contractor for cartage between the Mt Wright and Nolans East operations.

Expansion of the pit operations (Buck Reef West) will require the relocation of the current council road to allow for the new pit and overburden dumps to be constructed. The new footprint of the pit expansion also requires approximately 1.4 km of the council road to be realigned (Figure 17.1). The pit expansion will also involve the interaction of haulage trucks with local traffic on the council road. Several options were investigated to manage this interaction, including an intersection and an overpass. The intersection at grade option was selected. The council road will be moved to the east towards one of the mine's current pits. Mine access for light vehicles and deliveries will be by a new intersection to the south of the haul road intersection. This allows for separation of all other vehicles from the haul road vehicles. The road realignment is estimated to cost AUD4.2 M.

**Figure 17.1** Proposed road realignment (source: Resolute, 2018)



## **17.2. BUILDINGS AND SITE INFRASTRUCTURE**

### **17.2.1. MINING OFFICES**

The existing office facilities are remnants of the original complex and consist of three transportable structures and a steel framed covered walkway. The complex houses three offices, ablutions and meal room facilities. It is proposed to utilise the current complex, following some refurbishment. Additional office facilities will be required for both the mining contractor and mine staff and include offices, meeting rooms, additional ablutions and meal rooms. The additional buildings will be installed close to the existing facility to take advantage of power, water and sewage services.

### **17.2.2. SITE ACCOMMODATION**

Serviced camp style accommodation is available to all employees in Ravenswood township, with some employees residing permanently in Ravenswood.

The Ravenswood Mine Village is planned to undergo an expansion to house the larger mine workforce. Older rooms will be removed and replaced with modernised ensuite rooms to house approximately 120 extra personnel. Verandahs will be fitted to all of the units and allowance has been made for connection to power, water, sewage and communication facilities. Paths, lighting and landscaping will match or exceed the standard of the existing facilities. Fitout of the rooms will match current industry standards in terms of bedding, clothing furniture, desks and ensuite facilities.

Additional improvements will also be required, including extension of the current mess hall facilities and additional kitchen equipment to supply the increased camp capacity.

### **17.2.3. MINE WORKSHOP FACILITIES**

Current workshop facilities are scheduled for expansion to service and maintain the larger mining equipment and fleet numbers. This will include five undercover bays suitable for the largest machinery onsite, as well as a vehicle inspection pit, an overhead crane and rails in the floor for the movement of tracked vehicles in and out of the workshop. The drill workshop will be rebuilt, utilising the existing pad to minimise land disturbance. Both an undercover and outdoor warehouse area will be constructed near the workshop. Construction and operation of these facilities will be controlled by the mining contractor.

### **17.2.4. MATERIALS STORAGE**

Explosive storage facilities will be re-established using the previous building footprints. This includes fully secure offices, a maintenance facility, product storage and mixing components. Explosive magazines will be installed by the supplier onsite at a location to be determined. Costs of this facility have been included in the mining contract.

Lubricant and fuel storage facilities will be replaced with self-bunded modular storages. This will remove the need for additional bunding. The tanks come fully equipped with dispensing equipment, lighting and fire-fighting equipment, and can be supplied with a computer-based management system to provide additional security on unmanaged refuelling operations. Power and fire water supply to the new location will be included as part of the main processing plant modifications. The system will be designed in such a way as to be readily expandable by way of adding additional self-bunded tanks. The location of the new fuel and lubricant storages will be finalised once the selected mining contractor is known and their required infrastructure has been placed.

## **17.3. WATER SUPPLY**

### **17.3.1. WATER SOURCES**

Water is supplied to the mine from the nearby Burdekin River, approximately 18 km southwest of the Project. The water supply system consists of approximately 20 km of buried pipeline with a number of strategically located surge tanks and variable speed pipeline pumps to provide surge protection.

Two storage dams have been built to provide the site with a theoretical 100% reliability of supply of 9.2 megalitres per day for expected flow patterns in the river. The first dam is located adjacent to the river and has a capacity of about 1,046 megalitres. The second dam is adjacent to the mine site and has a capacity of approximately 1,380 megalitres. The design pumping capacity is 14 megalitres per day.

Raw water is pumped from the storage dams directly to the processing plant, Mt Wright underground and the water treatment plant. The existing water treatment plant is operated by Carpentaria Gold on behalf of the Charters Towers Regional Council (CTRC) and supplies water to the Ravenswood township as well as the Buck Reef West and Sarsfield sites. Should the planned Sarsfield pit expansion be implemented, plans will need made to move the plant. The plant will also be upsized to accommodate additional requirements of construction and ongoing operations. The

upgraded plant will be a containerised unit capable of producing 0.5 ML/day of potable water, which will meet Australian drinking water standards.

#### **17.3.2. SARSFIELD PIT WATER MANAGEMENT**

There is approximately 4.3 Mm<sup>3</sup> of water in the Sarsfield pit that will require removal, treatment and disposal before development and mining of Sarsfield can take place. A reverse osmosis (RO) based pilot plant has been in place for the past 18 months treating Sarsfield pit inflow water. The approved discharge point for the treated water is into Suhrs Creek (downstream of the dam) which flows into Elphinstone Creek.

A similar RO-based system is proposed for dewatering Sarsfield pit. Based on pricing estimates provided by the Suez group, the Ravenswood Feasibility Study has estimated the cost of dewatering Sarsfield pit is approximately AUD8.2M.

#### **17.4. POWER SUPPLY**

The Project is supplied by two mains power feeds. The main power line feeding the processing plant and the Mt Wright mine are run along the west and north sides of the Sarsfield pit (Figure 17.2). The potential expansion of the Sarsfield pit requires the relocation of these lines at an estimated cost of AUD5M. In order to undertake this, the following works will be completed:

- The Ergon Energy 66 kV connection to the operation will be terminated adjacent to the Sandy Creek Road (Mt. Wright) substation.
- The substation will be extended to include a 66 kV incoming circuit breaker and meters for tariff determination, two outgoing circuits for the existing Nolans/Sarsfield plant and the Mt Wright feeder. This will provide a single point for Ergon metering.
- A new 66/33 kV transformer will replace the existing 11/33 kV step-up transformer, thus obviating the need to relocate the 11 kV line and also relieving the 66/6.6 kV transformer at the Sarsfield substation of the Mt. Wright load.
- The 11 kV overhead line which currently feed the Sandy Creek switchyard will be shortened and used to supply the pumping arrangement for dredging and dewatering of the Sarsfield pit.

Resolute is currently in discussions with Ergon Energy regarding ownership and control of the power lines and associated infrastructure. Discussions are ongoing and are expected to be concluded by mid-2019.

**Figure 17.2** Current powerline locations and proposed pit outline (source: Resolute, 2018)



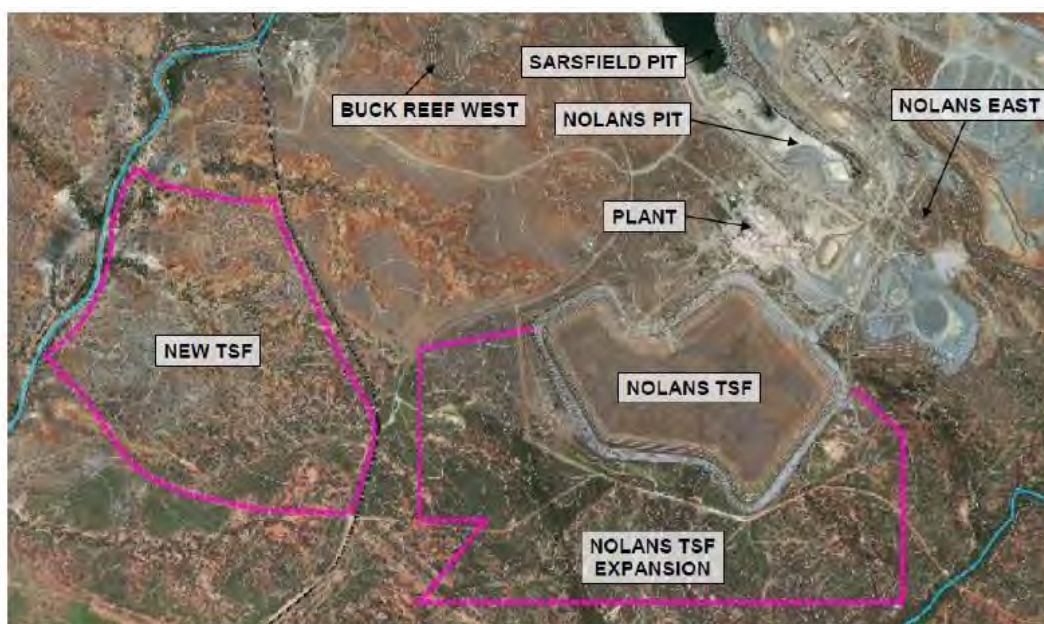
## 17.5. TAILINGS MANAGEMENT

Previously, as part of the 2016 REP Feasibility Study, a dry stacked Tailings Storage Facility (DSTSF), comprising a combined waste landform with filtered tailings, was proposed. However, in order to reduce the operating and capital costs associated with tailings disposal, alternatives were sought. In early 2018, SRK Consulting was commissioned to provide an option study to provide adequate storage for 49 Mt of tailings for the REP Life of Mine (SRK, 2018).

Various options were considered, all based upon conventional TSFs instead of the initial dry stacked option. Option 1 was a raise and expansion to the south of the existing Nolans TSF (NTSF), the second the expansion of the NTSF only and the third option was a new TSF located 2 km to the west of the current NTSF (Figure 17.3). All designs were constrained by local waterways and existing road infrastructure and each project staged to optimise construction and storage requirements.

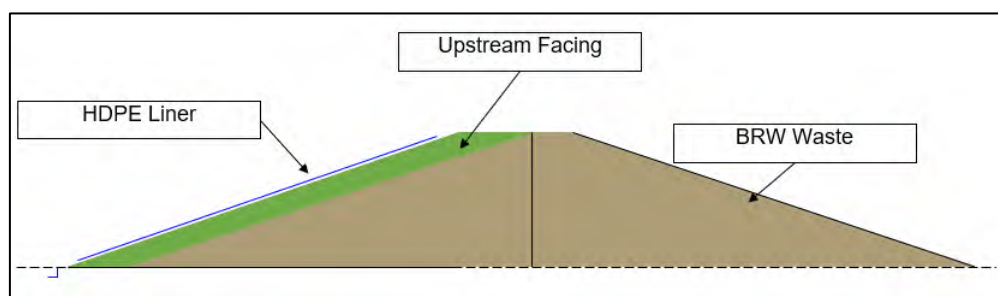


**Figure 17.3** General locality of the TSF options and surroundings (source: SRK, 2018)



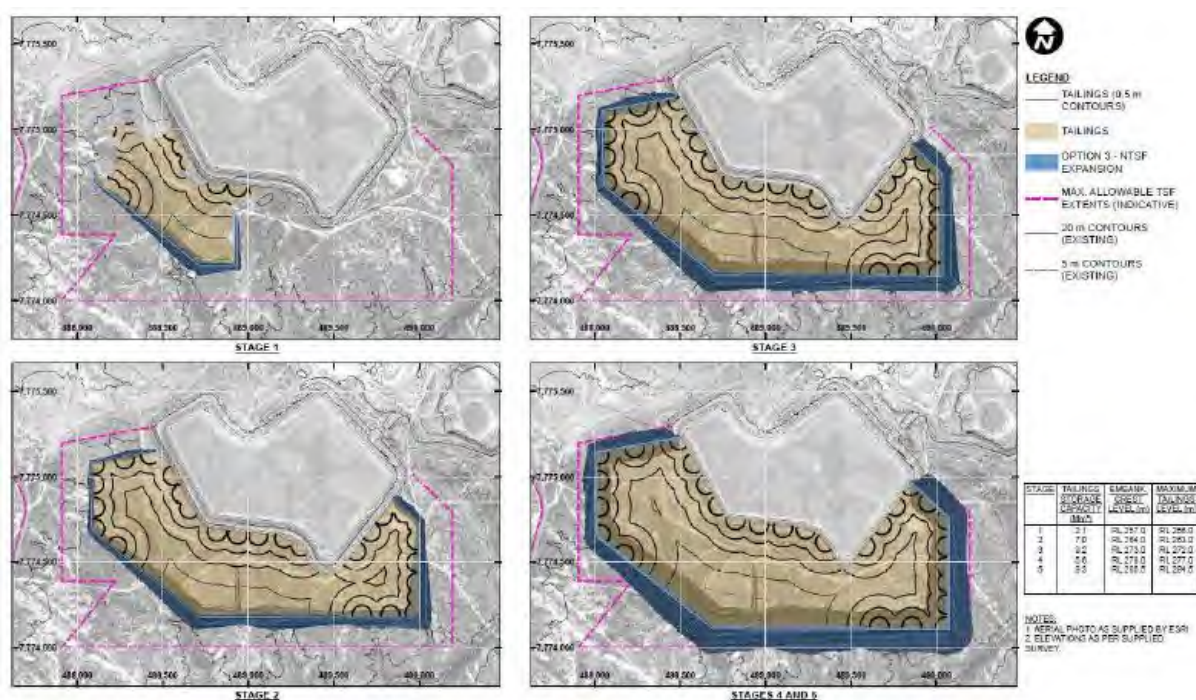
Waste rock from the Buck Reef West mining operations will form the bulk of the fill of the embankments. The Queensland DES has expressed a view that the further placement of tailings on the existing TSF footprint would be considered acceptable were the construction to incorporate a synthetic liner. As such, use of the existing NTSF as part of the LOM tailings storage strategy has been considered. The assumed TSF embankment geometry is presented in Figure 17.4.

**Figure 17.4** Proposed TSF embankment geometry (source; SRK, 2018)



The SRK options study (SRK, 2018) produced preliminary staged designs and costings for each option. The expansion to the existing NTSF, where the existing NTSF surface was not disturbed or incorporated into the LOM tailings storage (Figure 17.5), provides the lowest capital expenditure amongst the three options (Table 17.1). This option also has the lowest capital requirement for the initial stage. Stage 1 has been sized to provide tailings storage life until sufficient BRW waste rock is available for the construction of the Stage 2 embankment.

**Figure 17.5 Preferred tailings storage option – NTSF expansion only (source: SRK, 2018)**



**Table 17.1 Tailings storage facility options study – SRK capital cost estimates (source: SRK, 2018)**

TSF option	Capital cost (AUD M)
New TSF (2 km to the east, constructed in 3 stages)	101
NTSF raise and expansion to the south (construction in 5 stages)	78
NTSF expansion (construction in 5 stages - <i>preferred</i> )	67

Although the SRK design caters for 49.0 Mt of tailings capacity (based on the previous LOM plan), due to the nature of the study, designs and costings are considered appropriate for the current LOM Plan where 52.2 Mt of new tailings will be required. Currently the LOM tailings management strategy is:

- 69.6 Mt of total process tailings to be managed
  - 53.1 Mt of new processed tailings generated over the LOM
  - 16.5 Mt of existing tailings currently stored in the Sarsfield pit.
- Of the 69.6 Mt of total process tailings,
  - 2.4 Mt will be dry stacked using the existing dewatering facility until the NTSF is ready (expected to be January 2020)
  - 52.2 Mt will be placed into the NTSF
  - 15.0 Mt will go into the BRW pit upon completion of mining (expected September 2023).

The SRK costings assume new pumps and pipelines for plant tailings, reclaimed tailings (Sarsfield pit) and decant water, totalling approximately AUD16M. Resolute has assumed that the majority of existing pumps and pipelines will be salvageable and that capital for the reclaimed tailings pumps and pipelines has already been costed in the Sarsfield tailings re-deposition estimated cost. As such, capital estimates have been estimated at only AUD53M in the Ravenswood FS.



#### **17.5.1. SARSFIELD TAILINGS RE-DEPOSITION**

It is currently estimated that a total of 16.5 Mt (dry) tailings are currently stored in the Sarsfield pit as of July 2018, based on a May 2018 bathymetric survey (Resolute, 2018). It is projected that an additional 1.3 Mt will be added before the NTSF is ready for tailings deposition. In addition, it is estimated that the Sarsfield Pit also contains approximately 4.3 Mm<sup>3</sup> of water.

Preliminary investigations have been conducted into the economic removal and re-deposition of the Sarsfield tailings into the NTSF. The concept proposed involves removal of the pit water down to a level that allows removal of the tailings by hydro-mining and suction pumps mounted on pontoons. It is proposed that Sarsfield tailings re-deposition will commence in FY2021, when it is assumed the water level in the Sarsfield pit is at a suitable level. Based on preliminary costing references, re-deposition of the Sarsfield tailings is estimated at AUD34.3 M. Further evaluation is required.

## **18. GOLD REFINING**

At Ravenswood, gold is smelted on site as doré bars. The doré bars are securely transported to a gold refinery in Australia where refining is completed under routine commercial terms.

The refined gold and, where applicable, silver ounces are credited to Carpentaria Gold's unallocated metals accounts held with the Perth Mint in Australia.

## 19. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

### 19.1. BACKGROUND

The Ravenswood Gold Mine is located within the historic gold mining town of Ravenswood. 150 years of mining and grazing history of Ravenswood has left a legacy of disturbance and environmental impacts throughout the area. The current Ravenswood operations occupies 607 hectares of disturbed land, with the environmental authority (EA) permitting a total disturbance of over 874 hectares would be required to accommodate the potential Ravenswood Expansion Project.

Numerous environmental studies have been undertaken over the life of the Ravenswood Operations, with the most recent being thorough assessments of the potential environmental impacts of the potential Ravenswood Expansion Project (comprising Buck Reef West and Sarsfield), which led to receipt of environmental approvals of the projects from the Queensland Government.

The key environmental focus items for the Ravenswood Operations are air quality, noise and vibration, surface water and groundwater quality, terrestrial ecology, waste rock and tailings management and historical heritage.

### 19.2. ENVIRONMENTAL STUDIES

#### 19.2.1. ENVIRONMENTAL MANAGEMENT

Ravenswood has an existing Environmental Management Plan (EMP); this will require updating once all approvals are finalised (Resolute, 2018). The EMP outlines environmental values identified for the area, potential impacts of the operation on those values and the management strategies and mitigation measures that will be put in place to manage those impacts. It covers all atmospheric, aquatic, terrestrial, acoustic, cultural and socioeconomic values.

The studies undertaken to assess the impacts of the potential Ravenswood Expansion Project identified the key environmental matters. A summary of the key items identified, and the proposed mitigation and management measures are as follows:

1. Air quality – Potential for fugitive emissions of particulate matter to impact nearby sensitive receptors.
  - To be mitigated through the use of dust suppression on haul roads and appropriate blasting procedures.
  - Compliance limits and monitoring requirements are listed in the EA.
2. Noise – Potential for plant operations to cause noise nuisance to nearby sensitive receptors.
  - To be mitigated through construction of noise bund, procurement of mobile plant with noise reduction technology and management of high-noise operations around sensitive periods (e.g. night time and adverse weather conditions).
  - Trigger levels, compliance limits and monitoring requirements listed in EA.
3. Vibration – Potential for blasting to cause nuisance or damage to nearby sensitive receptors.
  - To be mitigated through application of appropriate blasting methods and procedures.

- Compliance limits and monitoring requirements are listed in EA.
- 4. Surface water and groundwater – Potential impacts on receiving environments due to water quality.
  - Due to the complexity of the water system in Ravenswood and historic influences on such, a *Notice to conduct or commission an environmental evaluation* was issued by the DES in December 2016, requiring a sitewide investigation into groundwater and surface water quality and proposal of relevant compliance conditions by 6 January 2019. The outcomes of this process will identify potential mine impacts and appropriate compliance and monitoring conditions in the future.
- 5. Terrestrial ecology – Potential impacts exist on three species of national environmental significance (*Macroderma gigas* (Ghost Bat), *Poephila cincta cincta* (Black-throated Finch (southern sub-species)) and *Geophaps scripta scripta* (Squatter Pigeon (southern sub-species))).
  - Although mapping identified the potential for these species to be present in the area, no individuals nor evidence of their presence was identified during multiple surveys, therefore it was determined unlikely that the project will have a significant impact on these species; subsequently, no mitigation measures are required.
- 6. Waste rock and tailings disposal – Potential for impacts to surface water, groundwater, aquatic ecology.
  - To be mitigated through the construction of appropriately designed and approved structures and the implementation of a Mineralised Waste Management Plan informed by extensive geochemical characterisation work and containing a thorough monitoring programme.
  - Conditions to manage regulated structures and implementation of a Mineralised Waste Management Plan is a formalised requirement of the EA.
- 7. Historical heritage – Impacts to areas of known or potential historical heritage significance.
  - Impacts to heritage areas will be managed and mitigated through Heritage Agreements and Exemption Certificates approved by DES, including some relocation and reinforcement of structures, as well as preparation and implementation of relocation, interpretation and education plans, legal requirements and permitting.

#### 19.2.2. PERMITS AND APPROVALS

Ravenswood is currently permitted via an Environmental Authority issued by the Queensland DES, various mining leases and exploration permits and a license to extract water, all from the Department of Natural Resources, Mines and Energy (DNRME).

Current mining operations at Ravenswood are governed by Environmental Authority EPML00979013 issued by the DES. The last amendment of the Environmental Authority took effect on 22 March 2018. The company also holds a Plan of Operations that is effective from 12 April 2018 to 30 June 2019.

#### SARSFIELD

All relevant permits for mining of the Sarsfield open pit have been granted.

An Environmental Impact Assessment (EIA) has been completed for Sarsfield. This resulted in an Environmental Impact Statement (EIS) and subsequent Supplementary Environmental Impact Statement (SEIS) also being produced and submitted. An amendment to the EA was submitted and approved by the DES on 3 March 2017.

### **BUCK REEF WEST**

The current Environmental Authority permits BRW, pending finalisation of some conditions relating to water quality (Resolute, 2018). An EIS was not required for the BRW EA amendment.

There are some areas associated with BRW which are not subject to a current Mining Lease or are a Mining Lease that does not have surface mining rights (Figure 19.1). This includes two areas along the northeastern pit boundary - one of which requires relocation of the Ravenswood State School and an agreement from the Queensland State Government to include the land in a Mining Lease. Mining Lease Applications have been lodged for all additional Mining Leases and surface rights required. Compensation agreements have been secured with all but two of the required landholders; those outstanding are the Department of Education (with whom a compensation agreement is currently being finalised) and the DNRME (with whom compensation agreements are under negotiation). The Mining Leases are expected to be granted by the end of 2019.

## **19.3. COMMUNITY**

Mining in Ravenswood dates back to 1868. Once a bustling rural community, the town is currently home to approximately 200 people. Most of the current residents in the township comprise of:

- Elderly retired people;
- Local graziers;
- Employees of the mine (and their families); and
- Local business operators (such as the pubs and shops) and their families.

Mining at Buck Reef West will pose a number of community challenges, both due to the proximity of the pit to the community and the number of heritage-listed places that may be impacted. There is likely to remain one gap in the Mining Leases for BRW where there is a Restricted Area (as defined by the Mineral Resources Act) for which CG is not able to acquire authorisation from the landowners in order to apply for the mining leases. This area is earmarked for the location of a noise bund to mitigate noise impacts on the community. A strategy has been developed to conduct this activity under a Development Approval rather than a Mining Lease, for which the local Charters Towers Regional Council is amenable.

### **19.3.1. SCHOOL RELOCATION**

The existing Ravenswood State School is located inside the proposed Buck Reef West pit shell design (Figure 19.2). The school currently has 24 students enrolled in it - ranging from Preparatory to Year 6. Alternate pit shell designs for the BRW aimed at maintaining the school in its existing location have been considered, but have been found to be uneconomic. The only viable solution for Resolute to develop and mine BRW is to relocate the school.

Discussions involving the major stakeholders have been underway since late 2015. The project involved the construction of a new, similarly-sized school, incorporating the relocation and

renovation of two state-heritage listed buildings. A Heritage Agreement executed in August 2017 and approved by both the DES and the Department of Education has sanctioned the project. It is estimated that the project will cost AUD8.6M to execute. The tender process has been completed with the preferred tenderer selected in June 2018.





**Figure 19.2** Ravenswood State School location within the BRW pit shell



### 19.3.2. SMOKE STACK HERITAGE CONSERVATION

There are seven brick chimney stacks from historic mining activities that remain standing in Ravenswood. Most are made of very similar bricks, but there is a diverse representation of different forms and styles of chimney construction. The chimneys are contained within the Queensland State heritage-listed Ravenswood Mining Landscape and Chinese Settlement Area (RMLCSA) and give a glimpse into mining operations of the past. Many more chimneys once stood in the area; however, these have been subject to demolition or degradation over time. The survival of the remaining chimneys is predominantly due to their massive masonry construction, but principal threats, such as lack of maintenance, ground vibration, and lightning, remain.

As a part of the Conservation Management Plan (Niche Environment and Heritage, 2017) as set out in the Heritage Agreement for the RMLCSA it is necessary to carry out strengthening of the three chimneys that will remain standing outside of the Buck Reef West Pit footprint, relocate other large artefacts from the planned area of impact and conduct additional conservation works. These works will take approximately 6 months to complete and will need to be completed prior to any mining activities occurring at BRW. A budget of AUD1.1M has been provided to carry out this work.

## 19.4. MINE CLOSURE PLAN

The current rehabilitation strategy is designed to align with the current Environmental Authority (EA), Closure Plan and Post Mine Land Use Plan, as well as the relevant legislation and guidelines. Rehabilitation will commence within a six-month period after suspension of mining activities.

The site has been categorised into domains reflecting different rehabilitation requirements, methods and costs based on the risks associated with the operational activities that have occurred on the site and the remaining landform characteristics. These include:



- **Infrastructure:** includes areas containing built facilities, such as processing plant, workshops, crushing plant, office buildings and accommodation. The general rehabilitation strategy for these areas includes removal of infrastructure, remediation/removal of contaminated earth, reprofiling of the footprint, application of topsoil (if required) and revegetating.
- **Tailings:** encompasses all recent and planned tailings storage facilities. Rehabilitation of the TSF is more technical and includes surface capping with a low-permeability layer covered by subsequent layers of waste rock and soil.
- **Overburden and waste:** encompasses all recent waste rock dumps (WRD) as well as areas whose footprint is predominantly waste rock (ROM Pads and stockpile footprints). WRD areas will be capped with waste rock and soil. Slopes will be shaped to promote gentle water-shedding to minimise erosion. Some areas may not require capping and will only need reprofiling to suit the natural landscape.
- **Water management:** encompasses sediment dams, water storage ponds and water drains.
- **Pits:** Includes all open pits. The pits are approved to remain as open voids in closure, therefore the predominant rehabilitation strategy is for the area to be safe and access prevented. This is generally accomplished by establishing an earthen or rock abandonment bund around the pit crest, along with exclusion fencing the entire perimeter of the pit.
- **Underground mines:** includes the existing structures associated with the Mt Wright and historic BRW underground operations, including portals and shafts that currently remain open. Rehabilitation includes limiting access to underground via fencing, backfilling and bunding, and ripping and revegetation of disturbed surface areas.
- **Historic Mining:** a number of historical disturbance areas are within the current lease. As these areas coincide with other domains, the rehabilitation of these areas will be as prescribed by the modern disturbance domain.
- **Other:** Features not categorised as above will generally be rehabilitated by minor earthworks and revegetation. The golf course will be retained.

The full cost of rehabilitation has been estimated at AUD48.3M and includes the Nolans, Sarsfield, BRW, Mt Wright and Sandy Creek sites. This incorporates the monitoring and management of the rehabilitation program for a total of 10 years post-closure. A summary of the mine closure costs is presented in Table 19.1.

**Table 19.1 Rehabilitation costings by domain**

Domain	Cost estimate (AUD M)
Infrastructure	13
Tailings	11.5
Overburden and waste	8.9
Water management	0.1
Pits	1.2
Underground mines	0.7
Other	0.3
Monitoring and management	12.7
<b>Total</b>	<b>48.3</b>

## 20. CAPITAL AND OPERATING COSTS

### 20.1. BACKGROUND

The potential Ravenswood Expansion Project (REP), which is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute, has been developed into stages, with costings better refined and quantified to a higher level of accuracy for the first stage (development and mining of BRW and the plant expansion) than subsequent stages (development and mining of Sarsfield). It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

### 20.2. CAPITAL COSTS

Capital cost estimates were derived from a combination of first principle estimations, market-based enquiries/quotes and consultant estimates. Included in the capital cost estimates are:

- Purchasing the initial load, haul, ancillary and drilling fleet to commence operations;
- Additional fleet trucks purchased throughout the life of mine as additional trucking capacity is required for longer hauls;
- Nolans process plant expansion to 5 Mtpa (GRES, 2018);
- Road realignment;
- Powerline relocation;
- Tailings storage facility;
- Sarsfield pit water removal;
- Sarsfield pit tailings re-deposition;
- Ravenswood School relocation; and
- Mine closure and rehabilitation.

A summary of the capital cost estimates developed for Ravenswood is presented in Table 20.1. Associated uncertainties are also presented.

**Table 20.1 Key capital costs and uncertainties (source: Resolute, 2018)**

Capital cost	Estimated cost (AUD M)	Level of accuracy
Mining equipment (excavators/trucks/drills)	57.6	Market-based enquiry
Ancillary pit equipment	25.2	Market-based enquiry
Process plant expansion	70	±15-20 %
Road realignment	4.2	±25 %
Powerline relocation	5	±35 %
Nolans tailings storage facility	52.7	±50 %
Sarsfield pit water removal	8.2	Market-based enquiry
Sarsfield pit tailings re-deposition	34.3	±50 %
School relocation	8.6	±5%
Other	42	Various

<b>Total LOM Capital expenditure</b>	<b>307.8</b>	
Closure/rehabilitation	48.3	±35 %

The capital cost estimate for the potential process plant expansion is based upon an Engineering, Procurement and Construction (EPC) execution model for the new crushing plant and upgrades to the existing plant. The estimate includes all the costs associated with design, procurement, construction and commissioning all the facilities required to establish plant expansion. The capital cost is approximately AUD70M, with an estimate accuracy of ±15 to 20%.

## 20.3. OPERATING COSTS

The mining operating costs estimates have been derived from a combination of the current operating experience at Ravenswood and, where applicable, first principle estimations, benchmarks and consultant estimates. Processing operating cost estimates have been derived from a combination of operating experience and existing cost-based (e.g. consumables, electricity and labour) and GR Engineering (GRES, 2018) estimates (built from first principles for the new crusher and ancillary equipment). Operating cost estimates are presented in Table 20.2.

**Table 20.2 Operating cost estimates (source: Resolute, 2018)**

Operating costs	Unit	FY19	FY20	FY21	FY22	FY23	LOM average
Mining costs (Open pit)	AUD/t mined	-	2.87	2.57	3.02	3.41	3.36
Processing costs	AUD/t milled	18.79	17.45	13.76	13.43	13.27	13.74
General and administration costs	AUD M	14.7	16.9	16.3	16.2	16	15.1

Open pit mining at Ravenswood is assumed to be owner-operator for the LOM, supplying the Nolans processing plant a nominal 5 Mtpa. The resulting operation is expected to produce 108 koz to 150 koz of gold per annum for a period of 11 years from ramp up. It has also been assumed that real operating costs are reduced across all areas by 1.5% p.a. to reflect continuous improvement initiatives and general technological efficiencies over time.

Key assumptions are summarised below:

### MINING

- Blasting costs include an additional supervision component due to the proximity of the blasting operations to the Ravenswood community.
- Equipment life cycle cost analysis information was supplied from the relevant OEMs for all fleet requirements. These costs were applied to the fleet based on the estimated operating hours.
- The personnel requirements for the open pit fleet were based on the equipment requirements, with additional personnel included for leave coverage. Where the OEM did not specify maintenance personnel requirements, these were estimated using operating hour factors as per the Cost Estimation Handbook (AusIMM, 2012).
- Supervision requirements were estimated based on providing adequate supervision for all mining and mobile maintenance operations.
- Technical Services requirements were based on previous experience, with additional resources included for void identification and management.

## **PROCESSING**

- Processing costs are based on the assumed expansion of the current Nolans process plant to 5 Mtpa (milling capacity), which Resolute will only implement if Board approval is granted, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the wider Ravenswood Expansion Project is in the best interests of Resolute.
- Operating costs are based on a combination of operating experience and existing costs (consumable, electricity and labour) and GR Engineering estimates.

## **GENERAL AND ADMINISTRATION**

- General and Administration (G&A) capital expenditure assumed over the LOM is based on past operating experience. a 10% improvement on current budget costs is assumed.

## 21. ECONOMIC ANALYSIS

Ravenswood has been a consistent performer and a part of Resolute's business for more than a decade. The Mt Wright Underground Mine continues to produce low grade, less economic ore. Production will cease at Mt Wright during Q4 2019.

For the financial year ending 30 June 2018, a total of 89,975 ounces at an AISC of AUD1,394/oz was produced at Ravenswood. During this time mining, continued at Mt Wright with plant feed supplemented by open pit mining at Nolans East, and by processing available low grade stockpiles. Overall, production levels were similar to FY17 despite a reduced contribution from Mt Wright. Careful management of the Mt Wright Underground Mine has resulted in substantial overdraw from current production levels, which will see the mine cease operations during Q4 2019.

The processing plant is currently configured for processing 2.8 Mtpa of ore using three-stage crushing, SAG and ball milling and carbon-in-pulp processing, with a gravity circuit for recovery of free gold. During FY2018, the processing plant treated 2.45 Mt at an average head grade of 1.19 g/t Au. Processing was largely maintained due to strong recoveries (>94%) which were achieved despite lower average head grades and a significant increase in throughput.

An update of study work on the potential Ravenswood Expansion Project has resulted in an optimised mining and processing schedule, a revised processing and tailings management strategy, and the incorporation of new technologies to improve efficiency. The potential Ravenswood Expansion Project is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute, the Nolans processing plant will be expanded to a milling capacity of 5.0 Mtpa. If implemented, Resolute would expect to produce a total of 1,579 koz over a 14 year mine life at an All-In-Sustaining cost of AUD1,063/oz (Resolute, 2018). It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

The Ravenswood Expansion Project business case analysis was completed using an incremental investment evaluation approach, i.e. the incremental value generated from investing in the Project ('With case') was compared to the outcome had Resolute not invested in the Project ('Without case'). Note that the sale value of the Project is not ascribed to either scenario.

For each scenario, a base case schedule was assumed. For the Without case, this included the completion of the Mt Wright underground mine, processing of all remaining stockpiles and carrying out all mine closure activities. Alternatively, the With case includes developing and mining of the BRW and Sarsfield orebodies, expansion of the processing plant and tailings storage facilities and all associated capital and operating expenditures.

Current financial analysis demonstrates that the With base case is value accretive. The Project generates a positive NPV and acceptable IRR. This is favourable compared to the Without case.

## **22. ADJACENT PROPERTIES**

Properties adjacent to Ravenswood have no material impact on the Mineral Resources or Ore Reserves and are not considered relevant.

## 23. CONCLUSION

The Ravenswood operation has been a strong performer for Resolute for over ten years, with production being dominated by mining operations at the Mt Wright underground mine, which currently produces low grade, less economic ore and will cease during Q4 2019. Production is then scheduled to continue from stockpiled ore. Production from Mt Wright is declining but the potential Ravenswood Expansion Project, which is dependent on Board approval, which is in turn dependent on outstanding permits being received, funding alternatives being evaluated and agreed and the Board determining that proceeding with the Ravenswood Expansion Project is in the best interests of Resolute, is to transition to a high-tonnage, low-grade and low-cost open pit operation centred around an extension to the existing Sarsfield open pit and a greatly expanded pit operation at Buck Reef West. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the pursuit of the potential Ravenswood Expansion Project during the December 2019 Quarter and will only continue to process Mt Wright Ore and stockpiled ore in the meantime.

The current configuration of the Nolans processing plant is 2.8 Mtpa ore with three-stage crushing, SAG, ball mill and CIP process, together with a gravity circuit. Ravenswood currently produces low grade, less economic ore through its operations at Mt Wright, which will cease during Q4 2019. The Ravenswood Expansion Project will, if implemented, see the plant expanded to a milling capacity of 5 Mtpa, together with a larger capacity crushing circuit which can be used to beneficiate lower grade ore through crushing and screening ahead of the milling and CIP circuits.

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## 25. GLOSSARY OF TERMS

Abbreviations	Explanation
%	percentage
°C	Degrees Celsius
µm	one millionth of a metre
°	degrees
AAS	Atomic Absorption Spectrometry
AC	Aircore drilling
Ag	Silver
AIG	Australian Institute of Geoscientists
ALS	Australian laboratory services
As	arsenic
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
Au	Gold
AUD	Australian Dollars
AusIMM	Australian Institute of Mining and Metallurgy
Bi	Bismuth
BSc	Bachelors of Science
BRWP	Buck reef west pit
CEng	Chartered Engineer
CGO	Cowal Gold Operation
CP	Chartered Professional of the AusIMM
CRM	Certified Reference Material
Cu	copper
CV	Coefficient of variation
DD	Diamond drilling
DIDO	Drive in drive out
DNRME	Department of Natural Resources, Mines and Energy
DSTSF	Dry Stacked Tailings Storage Facility
EA	Environment Authority
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EM	electromagnetic
EPC	Exploration Permit for Coal

Abbreviations	Explanation
EPM	Exploration Permit for Minerals
FAIG	Fellow of the Australian Institute of Geoscientists
FAusIMM	Fellow of the Australian Institute of Mining and Metallurgy
FIMMM	Fellow of the Institute of Materials, Mining and Metallurgy
FY	Financial Year
g	Grams
g/cm <sup>3</sup>	grams per cubic centimetre
g/t	grams per tonne
Ga	Billion years
Grad Dip	Graduate Diploma
Ha	Hectare
HG	High grade
hr	Hour
ID	Inverse Distance
IMMM	Institute of Materials, Mining and Metallurgy
IOCG	iron oxide, copper, gold (deposits)
IRG	intrusion-related gold
JV	joint venture
km	kilometre
km <sup>2</sup>	square kilometre
kt	kilotons
ktpa	kilotons per annum
kV	Kilovolt
LOM	Life of Mine
LOMP	Life of Mine Plan
m	metre
M	million
m/km	Metres per kilometre, gradient measurement
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metres
Ma	million years

Abbreviations	Explanation
MAIG	Member of the Australian Institute of Geoscientists
mASL	Metres above sea level
MAusIMM	Member of the Australian Institute of Mining and Metallurgy
MDL	Mineral Development Licence
mE	meters Eastings
MIMMM	Member of the Institute of Materials, Mining and Metallurgy
ML	Mining Lease
Mlpa	Million litres per annum
mm	millimetres
mm/hr	millimetres per hour
mN	meters Northings
Mo	molybdenum
MOU	Memorandum of understanding
Moz	Million ounces
MPa	Megapascals, a unit of rock strength
MR Act	Mineral Resources Act
mRL	meters Reduced Level
MSc	Masters of Science
Mt	million tonnes
Mtpa	million tonnes per annum
MW	Megawatt, one million watts
MW	Mega watt or Molecular weight
Ni	nickel
NSR	Net smelter return
NSW	New South Wales
OK	ordinary kriging
oz	troy ounce (31.1g)
Pb	lead
PoW	programme of work
QAQC	quality assurance, quality control
QLD	Queensland
RAB	Rotary Air Blast drilling
RC	Reverse Circulation drilling

Abbreviations	Explanation
RL	Reduced Level
RQD	Rock Quality Designation
SEIS	Supplementary Environmental Impact Statement
SMUs	Selective Mining Units
t	metric tonnes
t/m <sup>3</sup>	tonnes per metre cubed
tph	Tonnes per hour
TSF	Tailings storage facility
TSX	Toronto Securities Exchange
TSX-V	Toronto Venture Exchange
UG	Underground
USD	United States Dollars
Zn	zinc

Term	Explanation
3D geological model	Computerised representation of the geology, incorporating stratigraphy, structural features and other important geological features
aboriginal	Indigenous/native people to mainland Australia or the island of Tasmania.
acre	a unit of land area equal to 4,840 square yards (0.405 hectare).
actinolite	A metamorphic ferromagnesian mineral.
adsorption	Adsorption is a process that occurs when a gas or liquid solute accumulates on the surface of a solid or a liquid (adsorbent), forming a molecular or atomic film (adsorbate).
aircore drilling	A method that uses blades to bore a hole into unconsolidated ground. The rods are hollow and contain an inner tube which sits inside the hollow outer rod barrel. The drill cuttings are removed by injection of compressed air into the hole and brought back to the surface up the inner tube.
albite	An alkali feldspar mineral. It is the sodium end member of the plagioclase solid solution series.
algorithm	An algorithm is a procedure or formula for solving a problem
aliquot	a portion of a larger whole, especially a sample taken for chemical analysis or other treatment.
alteration	A change in mineralogical composition of a rock through reactions with hydrothermal fluids, temperature or pressure changes.
amphibole	any of a class of rock-forming silicate or aluminosilicate minerals typically occurring as fibrous or columnar crystals.
anomaly	something that deviates from what is standard, normal or expected.
aqueous	of or containing water
aquifer	A rock layer or stratum which preferentially channels water or other deleterious fluids
arsenopyrite	Most common arsenic mineral and principal ore of arsenic.
artefact	an object made by a human being, typically one of cultural or historical interest
assay	The process of determining the content of a mineral or metal through a range of physical or chemical techniques.
azimuth (bearing)	the horizontal angle or direction of a compass bearing
backfill	Broken and/or cemented waste rock or processing residue pumped underground and used to fill relatively small voids (stopes), allowing rocks next to the filled stope to be mined by blasting.
barite	a mineral consisting of barium sulphate, typically occurring as colourless prismatic crystals or thin white flakes
barium	Barium is a chemical element with symbol Ba and atomic number 56, and is a soft, silvery alkaline earth metal.
basalt	A fine grained extrusive igneous rock that is typically low in silica, is dark in colour and consists mostly of plagioclase feldspar and pyroxene.
basin	Large low-lying area, often below sea level, in which sediments collect
basin (sedimentary)	Refers to any geographical feature exhibiting subsidence (downward shift) and consequent infilling by sedimentation.
basin inversion	A phase of movement where rocks in a basin shape are lifted by tectonic forces to remove the basin.
bearing	see azimuth
bedrock	Undisturbed, lithified rock that lies beneath surface layers of soil or other material
beneficiation	In the mining industry or extractive metallurgy, beneficiation is any process that improves (benefits) the economic value of the ore by removing the gangue minerals, which results in a higher-grade product (concentrate) and a waste stream (tailings)
biotite	Also referred to as 'dark mica'. A common sheet silicate within the mica group, with the approximate chemical formula $K(Mg, Fe)3AlSi3O_{10}(F, OH)_2$ .

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Term	Explanation
bismuthinite	Bismuthinite is a mineral consisting of bismuth sulphide (Bi <sub>2</sub> S <sub>3</sub> ). It is an important ore for bismuth. The crystals are steel-grey to off-white with a metallic lustre.
blank	Samples whose grade is (practically) zero.
breccia	Fractured or broken rocks, cemented or formed into a solid layer.
brecciated	Converted into or resembling a breccia.
brecciated siltstone	A siltstone containing small fragments of breccia.
brecciation	Converted into or resembling a breccia.
brine	A salt- and metal-rich mineralising aqueous solution.
calcareous	A term to describe sedimentary rocks with a high proportion of calcium carbonate, usually in the form of sea shell and coral fragments.
calcite	a white or colourless mineral consisting of calcium carbonate. It is a major constituent of sedimentary rocks such as limestone
Cambrian	noting or pertaining to a period of the Palaeozoic Era, occurring from 570 million to 500 million years ago, when algae and marine invertebrates were the predominant form of life
carbonate	A class of sedimentary rocks composed primarily of carbonate minerals. The two major types are limestone and dolomite.
carbonate rock	A sedimentary rock generally formed in shallow marine conditions which is characterised by the presence of varying amounts of calcium carbonate or magnesium carbonate. Coral reefs and/or marine creatures may contribute to the constituents in the rock.
Carboniferous	A geological period comprising rocks aged between 345 and 280 million years before the present day.
cathode	the negatively charged electrode by which electrons enter an electrical device
chalcocite	a black or grey lustrous metallic mineral that consists of a sulphide of copper and is an important copper ore
chalcopyrite	A copper ore (CuFeS <sub>2</sub> ).
chalk	a white soft earthy limestone (calcium carbonate) formed from the skeletal remains of sea creatures
chlorite	A group of mostly green minerals of varying composition often found as alteration products of ferromagnesian minerals.
chloritic schist	A metamorphic rock, chiefly notable for the preponderance of chlorite.
clastic	A rock composed of fragments or particles of various sizes.
clay	Clay is a finely-grained natural rock or soil material that combines one or more clay minerals with possible traces of quartz (SiO <sub>2</sub> ), metal oxides (Al <sub>2</sub> O <sub>3</sub> , MgO etc.) and organic matter.
commodity	a raw material, or primary agricultural product that can be bought and sold, such as gold or coffee.
composite	A sample comprised of a number of smaller samples.
conformable	(of strata in contact) deposited in a continuous sequence, and having the same direction of stratification
craton	An old stable portion of the earth's crust, generally of Archaean age
cyanidation	A metallurgical technique for extracting gold by converting the gold to a water-soluble complex. It is the most commonly used process for gold extraction. One common process for the recovery of the solubilised gold from the solution is carbon in leach.
database	A collection of information that is organized so that it can be easily accessed, managed and updated
Datamine	a software package used to create 3D geological models
Datashed	A geological database software package.
declustering	a mathematical process used to counteract effects of clustered data.

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Term	Explanation
deformation	Term used to describe the alteration which changes the character and/or configuration of rocks caused by stress. Stresses on rocks can stem from various sources, such as changes in temperature or moisture, shifts in the Earth's plates, sediment build up or even gravity.
density	Density describes how compact or how concentrated something is, or put another way density is the ratio between mass and volume or mass per unit volume.
density log	Graphical representation of rock density down a borehole as measured by a geophysical probe.
deposit	Earth material of any type, either consolidated or unconsolidated, that has accumulated by some natural process or agent. The term applies to material left by water, wind, ice, volcanoes and other agents.
deposition	The layering, placing, or throwing down of any material, specifically the constructive process of accumulation into beds, veins, or irregular masses of any kind of loose rock by any natural agent.
Devonian	A geologic period after the Silurian and before the Carboniferous periods, representing rocks aged between 400 and 345 million years before present.
diorite	a speckled, coarse-grained igneous rock consisting essentially of plagioclase, feldspar, and hornblende or other mafic minerals
dip	Geological measurement – the angle at which bedding or a structure is inclined from the horizontal.
dolostone	A sedimentary rock dominated by the presence of dolomite (magnesium carbonate)
domain	A homogenous zone within a mineral deposit consisting of a single grade population, orientation of mineralisation and geological texture.
drill log	A detailed record of the geological formations penetrated by a borehole. The log may be based either on visual inspection of samples brought to the surface or on physical measurements made by instruments lowered into the hole.
drillhole	A hole drilled in the ground used for exploratory purposes.
drillhole data	Data collected from the drilling, sampling and assaying of drillholes.
duplicates	A set of two samples taken at the same time and in the same way.
dyke (intrusive)	A vertical or near vertical igneous intrusive rock that cuts across the bedding or foliation of the country rock.
economic	justified in terms of profitability
economic	justified in terms of profitability.
electromagnetic (EM) geophysical surveys	Survey over an area involving the measurement of alternating magnetic fields associated with currents artificially or naturally maintained in the ground.
electrowinning	Electrowinning, also called electroextraction, is the electrodeposition of metals from their ores that have been put in solution via a process commonly referred to as leaching
Electrum	Electrum is a naturally occurring alloy of gold and silver, with trace amounts of copper and other metals
element	an element is a substance that cannot be broken down into simpler components by any other non-nuclear chemical reaction. An element is uniquely determined by the number of protons in the nuclei of its atoms.
epidote	a lustrous yellow-green crystalline mineral, common in metamorphic rocks
estimate	is to calculate a value of a variable that is as representative as possible to the 'true' unknown value.
facies	A facies is a body of rock with specified characteristics which can be any observable attribute such as overall appearance, composition, or condition of formation and the changes that may occur in those attributes over a geographic area.
fault	A planar fracture or discontinuity in a volume of rock, across which there has been significant displacement as a result of rock-mass movement
fault breccia	Rock type which is produced by movement along a fault.
feldspar	An important group of rock-forming minerals which make approximately 60% of the Earth's crust. Feldspars crystallize from magma in both intrusive and extrusive rocks.
felsic igneous rocks	Silicate minerals, magmas, and rocks which are enriched in the lighter elements such as silica, oxygen, aluminium, sodium, and potassium.

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Term	Explanation
fluorescence	Fluorescence is the emission of light by a substance that has absorbed light or other electromagnetic radiation. It is a form of luminescence.
fluoride	a salt of hydrofluoric acid consisting of two elements, one of which is fluorine, as sodium fluoride, NaF
fluorite	A mineral, calcium fluoride.
fold (folded)	A flexure in rocks.
footwall	The underlying side of a fault, orebody or mine workings.
formation	The fundamental unit of lithostratigraphy. A formation consists of a certain amount of rock strata that have a comparable lithology, facies or other similar properties
fracture	A break in a rock due to mechanical failure by stress.
fusion	the process or result of joining two or more things together to form a single entity
gabbro	A dense, mafic intrusive rock comprising of pyroxene, plagioclase feldspar, and often olivine
gabbro-anorthosite	An intrusive igneous rock, characterised by predominance of potassium feldspar.
gabbronorite	A mafic intrusive rock.
galena	Lead sulphide, the main ore of lead.
gamma log	A graphical representation of natural gamma radiation down a borehole as measured by a geophysical probe.
Gamma-ray Spectrometer	A tool/instrument for assessing the distribution of the intensity of gamma radiation compared to the energy of each individual photon.
gangue	The non-economic portion of a mineralised rock.
geologist	a geologist is a person who studies the history of the earth through rocks and rock formations.
geology	Geology is a science which is concerned with the solid Earth, the rocks of which it is composed, and the processes by which they change over time.
geotechnical	A generic term for work carried out using the mechanical properties of rocks.
geotechnical analysis	Analysis of the factors affecting the stability of a rock mass.
geotechnical core logging data	Data collected on the geotechnical properties of rock mass by examining diamond drill core.
geotechnical strength testing	Analysis of the factors affecting the stability of a rock mass.
geothermal	The heating of rocks or groundwater from natural sources deep in the earth.
gold	a yellow malleable ductile element that occurs chiefly free or in a few minerals. It is a precious metal, which is used in jewellery, and to guarantee the value of currencies.
gold characterisation study	A study designed to determine the nature (size, shape and deportment) of gold particles in a given rock type, leading to, among other outcomes, an assessment of a minimum sample size for accurate determination of gold content.
grade cap (top cut)	Restriction of the influence of very high grades, designed to avoid over smoothing of these grades into too large an area.
grade control	The process of collecting geological, sample and assay information for the delineation of mineable ore boundaries; the minimization of dilution and ore loss, and the reconciliation of the predicted grade and tonnage to the grade and tonnage mined and milled.
granite	A coarse grained intrusive felsic igneous rock.
granite-gneiss	Metamorphosed igneous rocks or their equivalent.
granitic intrusion	Granite rock which has been emplaced into the earth's crust.
granodiorite	An intrusive igneous rock similar to granite but containing a certain type of feldspar. It contains abundant mica and hornblende, giving it a darker appearance than true granite.
gravel	Rock that is between 2 to 63 mm in its longest dimension
gravity	the force that attracts a body towards the centre of the earth, or towards any other physical body
gravity recovery	Metallurgical process utilising gravity to recover gold



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Term	Explanation
gravity survey	A geophysical exploration technique which maps the gravitational signature of rocks, either from a ground or an aerial survey tool.
hangingwall	The overlying side of a fault, orebody or mine workings.
hectare	a metric unit of square measure
horizon	a horizon refers to either a bedding surface where there is marked change in the lithology within a sequence of sedimentary or volcanic rocks, or a distinctive layer or thin bed with a characteristic lithology or fossil content within a sequence
hornblende	A series of minerals of the group of chain silicates. It is a common constituent of many igneous and metamorphic rocks such as gabbro, basalt, but also granite. The general formula can be given as $(Ca, Na)_2-3(Mg, Fe, Al)_5(Al, Si)_8O_{22}(OH, F)_2$ .
hydrothermal	Relating to fluids which contain minerals of interest and water, generally at elevated temperatures.
igneous	Rock is formed through the cooling and solidification of magma or lava.
Indicated Mineral Resource	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.
Induced polarisation (IP) geophysical survey	Survey over an area involving the application of an electric or magnetic field and measurement of the decay of voltage in the earth when the field is switched off.
Inferred Mineral Resource	An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drillholes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.
intercept	Mineralised intersection in a borehole.
intrusion	The action or process of forcing a body of igneous rock between or through existing formations, without reaching the surface
intrusive rock	Intrusive rock, also called plutonic rock is an igneous rock formed when magma is forced into older rocks at depths within the Earth's crust, which then slowly solidifies. It may later be exposed at the surface by erosion. Examples include granite, gabbro, diorite and dunite.
isotropic	The same in all directions.
JORC Code	The JORC Code is an Australian reporting code which is applicable for companies listed on the Australian Securities Exchange. It provides minimum standards for public reporting to ensure that investors and their advisers have all the information they would reasonably require for forming a reliable opinion on the results and estimates being reported. The current version is dated 2012.
kriging	Is a family of geostatistical estimation methods which use a distance weighting technique which is based upon the relative spatial continuity of the samples.
kriging efficiency	Kriging efficiency is a measure of the effectiveness of the kriged estimate to reproduce the local block grade accurately.
Kriging Neighbourhood Analysis	A KNA provides a quantitative method of testing different estimation parameters (e.g. block size) and, by assessing their impact on the quality of the resultant estimate, select the optimal value for each parameter.
kurtosis	the sharpness of the peak of a frequency-distribution curve
landform	a natural feature of the earth's surface
leach or leaching	the action of a chemical on a mineral or substance where the substance becomes soluble is removed from the host material.
leachwell	proprietary analytical method utilising a cyanide leach method. Typically used where there is evidence of free gold.
lithology	The study and description of rocks, including their mineral composition and texture.
lithostratigraphic	An area of the Earth's crust defined by a particular geological age and a dominant rock type, such as carbonate or volcanic rocks.

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Term	Explanation
lode	Ore zone.
logging	The practice of recording detailed geological information from drilled core or samples
magma	hot molten or semi-fluid rock below which originates from within the earth's crust from which igneous rock is formed on cooling. When magma cools and solidifies beneath the Earth's surface, it forms what are known as intrusive rocks. When it reaches the Earth's surface, it flows out as lava and forms extrusive (or volcanic) rocks.
magnetic anomaly (high / low)	Magnetic signatures different from the background, made up of a high and a low (dipole) compared to the average field.
magnetic geophysical survey	Survey over an area involving measurements of magnetic intensity of rocks in response to the earth's magnetic field. Different rock compositions show varying degrees of magnetic intensity, which can be used to infer changes in geology.
magnetic susceptibility	The ratio of the strength to which a substance has been magnetised to the strength of the magnetic field causing the magnetisation.
magnetite	Magnetite is a mineral and one of the main iron ores, with the chemical formula $\text{Fe}_3\text{O}_4$ . It is an iron oxide, and is ferrimagnetic; it is attracted to a magnet and can be magnetized to become a permanent magnet itself.
marcasite	a common mineral, iron disulphide, $\text{FeS}_2$ , chemically similar to pyrite but crystallizing in the orthorhombic system
matrix	The fine-grained materials that surround larger grains in a rock
matrix-supported	A sedimentary rock of which a defined majority is the fine-grained matrix as opposed to the clasts, clasts constitute less than 15% of its volume.
Measured Mineral Resource	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.
mesozone	An intermediate zone of the lithosphere characterised by metamorphic rock.
metallurgy	Study of the physical properties of metals as affected by composition, mechanical working and heat treatment.
meteorology	the branch of science concerned with the processes and the phenomena of the atmosphere, especially as a means of forecasting the weather
mica	One of a family of platy minerals.
mica schist	A group of medium-grade metamorphic rock, chiefly notable for the preponderance of lamellar minerals such as micas, chlorite, talc, hornblende, graphite, and others.
micrite	A semi-opaque crystalline rock comprised of calcite (calcium carbonate).
micron	A micron is an abbreviated term for "micrometre", or a millionth of a metre (1/1,000,000 metres).
mineralisation (mineralised)	The process by which a mineral or minerals are introduced into a rock, resulting in a valuable deposit.
mineralisation solid	See wireframe.
Mining	See Open Pit Mining or Underground Mining.
mining lease/licence	A right to operate a mine.
molybdenite	Molybdenite is a mineral of molybdenum disulphide, $\text{MoS}_2$ . Similar in appearance and feel to graphite
multivariate	involving two or more variable quantities
nugget	Naturally occurring, visible piece of native gold, either in situ or as a gold particle
nugget effect	A variability component reflecting the short-scale differences in grade for a set of assays.
octant	one eighth of a full circle
opaque	not able to be seen through; not transparent
open pit mining	Open-pit, open-cast or open cut mining is a surface mining technique of extracting rock or minerals from the earth by their removal from a pit or borrow.

Competent Persons Report on the Ravenswood Gold Mine,  
Queensland, Australia

Term	Explanation
Ordovician	A geological period after the Cambrian and before the Silurian periods, representing rocks between 500 and 440 million years ago.
ore	Mineralised material which is economically mineable at the time of extraction and processing.
Ore Reserve	'An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.' (JORC, 2004)
ore sorting	A generic term for one of a number of techniques for separating rocks based upon one or a combination of physical, chemical or electrical properties, e.g. density, brightness, conductance.
ore zone /ore body	Zone of mineralised material.
orebody	Usually refers to the deposit as a whole.
organism	an individual animal, plant, or single-celled life form.
orogeny/orogenic	The process of mountain building, and may be studied as a tectonic structural event, as a geographical event and a chronological event, in that orogenic events cause distinctive structural phenomena and related tectonic activity, affect certain regions of rocks and crust and happen within a time frame.
osmosis	a process by which molecules of a solvent tend to pass through a semipermeable membrane from a less concentrated solution into a more concentrated one.
outcrop	A visible exposure of bedrock or ancient superficial deposits on the surface of the Earth
oxide	a binary compound of oxygen with another element or group
paleo	a word meaning older or ancient, especially relating to the geological past.
paleosurface	a paleosurface is a surface created by a significant period of erosion.
Perchloric acid	A rock- and mineral-dissolving acid with the formula HClO <sub>4</sub>
percussion drilling/ drill hole	Drill technique which works by repeatedly raising and dropping a large hammer bit into a well, each time removing a layer of sediment
permeability (see permeable)	the state or quality of being permeable
Permian	A period of geological time from 290 million years to 248 million years before present.
pervasive	present or noticeable in every part of a thing or place
petrology/ petrographic	The study of the composition and textural relationships of rocks, utilising the fields of mineralogy, petrography and optical mineralogy to describe and understand the origin of rocks
Phanerozoic	A general term for geologic time younger than the Archaean era.
phyllitic alteration	a hydrothermal alteration zone in a permeable rock that has been affected by circulation of hydrothermal fluids. E.g. It is commonly seen in copper porphyry ore deposits in calc-alkaline rocks
plagioclase	a form of feldspar consisting of aluminosilicates of sodium and/or calcium, common in igneous rocks and typically white in colour.
porphyry	Porphyry is a textural term for an igneous rock consisting of large-grained crystals such as feldspar or quartz dispersed in a fine-grained silicate rich, generally aphanitic matrix or groundmass. The larger crystals are called phenocrysts.
potable	safe to drink; drinkable
potassium	the chemical element of atomic number 19, a soft silvery-white reactive metal of the alkali-metal group.
procedure	see Standard Operating Procedure (SOP)
propylitic alteration	Propylitic alteration is the chemical alteration of a rock, caused by iron and magnesium bearing hydrothermal fluids, altering biotite or amphibole within the rock groundmass. It typically results in epidote–chlorite–albite alteration and veining or fracture filling with the mineral assemblage along with pyrite.

## Competent Persons Report on the Ravenswood Gold Mine, Queensland, Australia

Term	Explanation
prospect	search for mineral deposits, especially by drilling and excavation.
Prospecting Licence	Authorization granted by a government to an individual permitting the person to prospect for minerals.
Pulp	Pulverised rock sample, generally with a size of 100 micron or finer.
pyrite	Iron disulphide, (FeS <sub>2</sub> ).
pyroxene	The pyroxenes are a group of important rock-forming inosilicate minerals found in many igneous and metamorphic rocks
pyrrhotite	An iron sulphide mineral (FeS)
QAQC	Quality Assurance/Quality Control – a set of tests to ensure precision, accuracy and lack of bias of grade and bulk density measurements.
QQ plot	in statistics, a Q–Q (quantile-quantile) plot is a probability plot, which is a graphical method for comparing two probability distributions by plotting their quantiles against each other.
quartz	Crystalline silica (SiO <sub>2</sub> ).
quartz reef/ vein	A "reef" is another term for a vein of some mineral or ore, and has nothing to do with biological reefs such as coral reefs. A quartz reef is a therefore another term for a quartz vein.
quartzite	Metamorphosed sandstone.
reef	A carbonate rock comprised of ancient corals or other massive limestone, including the shells of micro-organisms.
regression	Marine regression is a geological process occurring when areas of submerged seafloor are exposed above the sea level
rehabilitate	Land rehabilitation is the process of returning the land in a given area to some degree of its former state, after some process (industry, natural disasters, etc.) has resulted in its damage.
remediation	the action of remedying something, in particular of reversing or stopping environmental damage.
roadhouse	A roadhouse is a commercial establishment typically built on or near a major road or highway that services passing travellers. The word's meaning varies slightly by country, in Australia a roadhouse is a filling station (service station) on a major intercity route.
royalty	Compensation or a fee paid for a licence or privilege for the use of a natural resource (e.g. mining lease) or intellectual property (e.g. brand, copyright, process).
Scatting	Mill rejects (oversize rocks) that need to be treated in an alternate way
sediment	Loose, unconsolidated deposit of debris that accumulates on the Earth's surface.
sedimentary	Rock forming process where material is derived from pre-existing rocks by weathering and erosion.
sedimentary facies	A condition or set of conditions in which a specific sedimentary rock was deposited; a generic name for a type of rock.
seismic survey	A geophysical exploration technique based on tracking the movement of shock waves from exploration or impact through the earth. It is used to highlight faults or areas of different density.
selvage	a zone of altered rock, at the edge of a rock mass.
sericite alteration	a fine-grained fibrous variety of muscovite, found chiefly in schist.
shaft	a vertical or near-vertical tunnel used to access the ore or minerals of interest.
shear	Type of fault.
shear zone	A shear zone is a tabular to sheet like, planar or curvilinear zone composed of rocks that are more highly strained than the rocks adjacent to the zone. Typically, this is a type of fault, and may form zones of much more intense foliation, deformation, and folding. En echelon veins or fractures may be observed within shear zones.
silica	Most commonly quartz (SiO <sub>2</sub> ).
Silurian	A division of the Palaeozoic era extending from 440 to 410 Ma.
sludge sample	Sample of mud and rock chips from a rotary drill hole. The term is typically used in underground mining for samples collected by the longhole drill rig.

## Competent Persons Report on the Ravenswood Gold Mine, Queensland, Australia

Term	Explanation
smearing	Smearing occurs when poor sample preparation and analysis procedures in the laboratory lead to the contamination of low-grade sample with higher grade material resulting in a result that is unrepresentative of the 'true' value.
smelter	an installation or factory for smelting a metal from its ore
socioeconomic	relating to or concerned with the interaction of social and economic factors.
solvent	a fluid or substance that is able to dissolve other substances
spectrometry	an instrumental method for identifying the chemical constitution of a substance by means of the separation of gaseous ions according to their differing mass and charge. — called also mass spectroscopy.
sphalerite	A mineral comprised of zinc and sulphur with iron – zinc sulphide, the main economic ore of zinc.
splitter	is a static and fractional sub-sampling device that can be used for dividing a lot of dry particulate material into two half-lots. See also cone splitter, riffle splitter
stakeholder	a person with an interest or concern in something, especially a business
standard	See certified reference material.
standard deviation	in statistics the standard deviation is a measure that is used to quantify the amount of variation or dispersion of a set of data values.
Standard Operating Procedure	Document outlining the step-by-step instructions to control the methodology of complex, routine operations
stockwork	A network of structurally controlled or randomly orientated veins.
stope	Stoping is the process of extracting bulk tonnes of the desired ore or other mineral from an underground mine, leaving behind an open space known as a stope.
stope backfill	Material (commonly tailings or a mixture of tailings and cement) backfilling open spaces (mined areas) of an underground mine.
strata	plural form of stratum, or Multiple beds or layers of rock.
stratabound (stratiform)	Rocks or mineralisation which sits within and conformable with sedimentary layered rocks.
stratigraphy	The study of stratified rocks, their timing, characteristics and correlations in different locations.
stratum	a layer or a series of layers of rock in the ground.
strike	Geological measurement – the direction of bearing of bedding or structure in the horizontal plane.
strike-slip faulting	Tectonic process that leads to the formation of zones of lateral displacement within the lithosphere.
structure	Geologic structures are usually the result of the powerful tectonic forces that occur within the earth. These forces fold and break rocks, form deep faults, and build mountains.
sulphate	A sulphate is a salt of sulphuric acid, containing the anion $\text{SO}_4^{2-}$ or the divalent group $-\text{OSO}_2\text{O}-$
sulphide	Economic minerals comprising a metal (such as lead, iron, zinc) and sulphur.
supergene	A mineral deposit or enrichment formed near the surface.
Surpac	a software package used to create 3D geological models
survey	examine and record the area and features of (an area of land) so as to construct a map, plan, or description
swath plot	an important validation tool for providing a comparison between sample points and estimated values to identify any bias. A swath plot is a one-dimensional graph in a specific direction of interest.
tail/tailings	The residue from a mineral processing plant, generally pulverised waste rock.
tailings storage facility	A tailings storage facility is a structure built for the purposes of storing the waste residue (ground up rock, sand and silt) and water from the milling process.
tasmanite	Tasmanite is a sedimentary rock type almost entirely consisting of the prasinophyte alga Tasmanites. It is commonly associated with high-latitude, nutrient-rich, marginal marine settings found in Tasmania
tenement	A generic term for an exploration or mining licence or lease.
tenure	the conditions under which land or buildings are held or occupied.

Competent Persons Report on the Ravenswood Gold Mine,  
Queensland, Australia

Term	Explanation
terrain	A rock or group of rocks or an area in which they crop out.
terrane	a fault-bounded area or region with a distinctive stratigraphy, structure, and geological history.
terrestrial	on or relating to the earth
testwork	A generic term for a wide range of metallurgical tests applied to rock samples designed to predict the performance of a processing plant.
tetrahedrite	a grey mineral consisting of a sulphide of antimony, iron, and copper, typically occurring as tetrahedral crystals
texture	The texture of a rock is the size, shape, and arrangement of the grains (for sedimentary rocks) or crystals (for igneous and metamorphic rocks).
tonalite	Igneous intrusive rock of felsic composition consisting of quartz, feldspar and minor hornblende and biotite.
topography	Topography is the study and description of the physical features of an area, for example its hills, valleys, or rivers, or the representation of these features on maps
topsoil	the top layer of soil
tramming	Transport of broken rock underground, by rail or in trucks or loaders.
transitional	The partially oxidised zone between oxidized and fresh material.
triangulate	the process of creating a continuous surface or solid in three-dimensional visualizations that are created by the rendering of triangular facets.
Triassic	A period of geological time from 248 million years to 206 million years before present.
troy ounce	A troy ounce is a unit of measure used for weighing precious metals that dates back to the Middle Ages. Originally used in Troyes, France, one troy ounce is equal to 31.21 grams
ultrabasic	relating to or denoting igneous rocks having a silica content less than 45 per cent by weight.
underground mining	Underground hard rock mining refers to various underground mining techniques used to excavate precious minerals and gems such as gold, silver, nickel, and diamonds.
univariate	involving one variate or variable quantity
variable	an element, feature, or factor that is liable to vary or change.
variogram	A graphical representation of how the variance between points in space changes over increasing distances in different direction within a given domain.
variography	Definition of the three-dimensional grade continuity of drillhole samples by estimating and modelling the relationship between grade similarity and distance in every direction and at every sample spacing.
vein	A tabular or sheet like body of one or more minerals deposited in openings of fissures, joints, or faults.
veinlet	A small or secondary vein.
volcanic	An igneous rock of volcanic origin.
volcaniclastic	Relating to or denoting a clastic rock which contains volcanic material
volcanics	Sequence of strata formed from an erupting volcano.
volcanism	volcanism is the phenomenon of eruption of molten rock onto the surface of the Earth or a solid-surface planet or moon, where lava, pyroclastics and volcanic gases erupt through a break in the surface called a vent
waste	Material which is not mineralised or mineralised material which is not economically mineable.
waste dump	a large mound or hill of mining waste at the surface of a mine
weathering	The process by which rocks are broken down and decomposed by the action of wind, rain, changes in temperature, plants and bacteria.
wedge	A branch off a diamond drillhole providing a second orebody intersection from the main hole.
wireframe	A surface or 3D volume formed by linking points together to form triangles. Wireframes are used in the construction of block models.
xenolith	a piece of rock within an igneous mass which is not derived from the original magma but has been introduced from elsewhere, especially the surrounding country rock.

Term	Explanation
XRF	An elemental assaying technique or equipment which relies on the properties of fluorescence of imposed X-rays.





## **Resolute Mining Limited**

### **Competent Persons Report for the Bibiani Gold Mine, Ghana**



**Prepared for Resolute Mining Limited**

**Dated: 17 June 2019**

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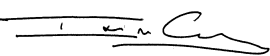
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		Date:	17 June 2019
<p><b>Important Information:</b></p> <p>This Report is provided in accordance with the scope of work provided by Optiro Pty Ltd (“Optiro”) to Resolute Mining Limited and the terms of Optiro’s Consulting Services Agreement (“the Agreement”). Optiro has consented to the use and publication of this Report by Resolute Mining Limited for the purposes set out in Optiro’s scope of work, in accordance with the Agreement and as set out in this Report. Resolute Mining Limited may reproduce copies of this entire Report in accordance with its responsibilities under JORC Code (2012) only for those purposes but may not and must not allow any other person to publish, copy or reproduce this Report in whole or in part without Optiro’s prior written consent. Optiro consents to the inclusion of this Report in the Prospectus and to references to any part of this Report in the Prospectus.</p>			

## Competent Persons Report on the Bibiani Gold Mine, Ghana

The following Competent Persons Report (CPR) has been prepared for Resolute Mining Limited (Resolute). It describes one of Resolute's existing non-operating mines which is on care and maintenance – the Bibiani Gold Mine. The Bibiani Mine is located in the western region of Ghana, approximately 80 km south west of the Ashanti capital, Kumasi.

The Bibiani Gold Mine is a potential growth opportunity for Resolute. Resolute is yet to evaluate its funding alternatives for the Bibiani Gold Mine and the Board has not made a decision in respect of a re-start. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

For the purposes of Prospectus Rule 5.5.3R(2)(f), Optiro is responsible for this Competent Persons Report as part of the Prospectus to be published by Resolute in connection with its application for admission to the Official List, Standard Segment and to trading on the London Stock Exchange's Main Market for listed securities and declares that it has taken all reasonable care to ensure that the information contained within this report is, to the best of its knowledge, in accordance with the facts and contains no information likely to affect its import. This declaration is included in the Prospectus in accordance with item 1.2 of Annex 2 of the Prospectus Regulation. Optiro has given and has not withdrawn its written consent to the issue of the Prospectus with the inclusion of its name and references to it in the form and context in which they appear within it.

Prepared for

Resolute Mining Limited

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**Date of report: 17 June 2019**

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## 1. SUMMARY

### 1.1. PROJECT DESCRIPTION

This CPR refers to the Bibiani Gold Mine (Bibiani or the Project), owned by Mensin Gold Bibiani Limited, a subsidiary of Resolute Mining Limited (90%) and the Government of Ghana (10%). The Project is located 80 km southwest of Kumasi and 253 km northwest of the Ghanaian capital, Accra.

The Project has a long history of gold mining with commercial production starting in the early 1900s, which continued on and off up to 2012. Bibiani and satellite pits is estimated to have produced over 5 Moz of gold during this period.

The Project was placed into care and maintenance in 2013, during which Mensin Gold Bibiani Ltd took control of the Bibiani assets. The Bibiani Gold Mine is a potential growth opportunity for Resolute. Resolute is yet to evaluate its funding alternatives for the Bibiani Gold Mine and the Board has not made a decision in respect of a re-start. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

### 1.2. GEOLOGY AND MINERALISATION

The gold deposits at Bibiani are structurally-controlled mesothermal lode-type deposits. The mineralisation is associated with quartz veins and quartz stockworks which are hosted within a sequence of Lower Birimian fine to medium grained turbiditic sandstones. The sedimentary turbidite sequence is tightly folded, with west-dipping axial planes and localised development of steep west-northwest dipping shear zones which have acted as conduits for the initial gold mineralisation.

### 1.3. MINERAL RESOURCES

The most recent Mineral Resources for Bibiani have been declared by Resolute effective at 31 December 2018 and are presented in Table 1.1. These Mineral Resources represent material to be mined from underground and have been reported above a cut-off grade of 2.0 g/t gold. The resources have been prepared by a Competent Person (Optiro, 2017) using accepted industry practices and have been classified and reported in accordance with the JORC Code (JORC, 2012).

**Table 1.1 Bibiani Mineral Resource estimate at 31 December 2018**

Resource classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (koz)
Indicated	13.26	3.5	1,490
Inferred	8.44	3.7	1,010
<b>Total</b>	<b>21.69</b>	<b>3.6</b>	<b>2,500</b>

Note: Totals may not sum due to rounding. Reported above a cut-off of 2.0 g/t gold. Mineral Resources are stated inclusive of Ore Reserves.

The resource block model was created using Surpac software, with a block size of 5 mE, by 20mN by 20 mRL being selected following the application of Kriging Neighbourhood Analysis techniques. The gold estimation used Ordinary Kriging (OK). The Bibiani Mineral Resource has been classified into Indicated and Inferred categories in accordance with the JORC Code (JORC, 2012).

## 1.4. ORE RESERVES

The Ore Reserves at Bibiani are as at 31 December 2018 and comprise an estimate carried out in 2018 as part of the updated Bibiani Pre-Feasibility Study into the recommencement of mining. These Ore Reserves are based upon the current Mineral Resource estimate. The reserves are based upon a gold price of USD1,200 and have been quoted above a cut-off grade of 2.2 g/t gold.

The Ore Reserves have been prepared under the direction of Competent Persons using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

**Table 1.2 Bibiani Ore Reserves as at 31 December 2018**

Reserve classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (koz)
Proved	-	-	-
Probable	6.40	3.3	660
<b>Total</b>	<b>6.40</b>	<b>3.3</b>	<b>660</b>

## 1.5. ENVIRONMENT

The proposed underground project at Bibiani is not expected to disturb any new areas, with the underground access to the mine being from existing open pit excavations. Existing offices, stores, workshops and buildings will be utilised, with any new buildings being built on the existing site. It is intended that waste rock be used underground and void fill or tipped into existing open pits. Haul ways and roads, and the designs for the TSF are the same as those previously approved in former Environmental Permits.

On 19 June 2018, the Environmental Permit for re-initiation of underground gold mining and processing at the Bibiani Project was approved by the EPA under pursuance of Sections 2 (i) and 12 (1) of the Environmental Protection Agency Act, 1994 (Act 490) and Part 1 of the Environmental Assessment Regulation 1999 (LI 1652).

## 1.6. CAPITAL AND OPERATING COSTS

### 1.6.1. CAPITAL COSTS

Resolute is yet to evaluate its funding alternatives for the potential re-start of the Bibiani Gold Mine and as such, the Board is yet to make a decision with respect to this potential re-start. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter. Should an investment decision be made by the Board, the proposed Project capital spend is USD 115M over the life of the Project, with a large portion being required to be spent within the first four years to purchase mining equipment and reconfigure the processing plant. Contained in this is the approximate start-up capital of USD 75M.

All the figures reported are accurate to  $\pm 20\%$ .

### 1.6.2. OPERATING COSTS

Project operating cost estimates accompanying the Life of Mine Plan (LOMP) are based on quantities derived from the LOM schedule and the unit rates calculated using a cost model for materials, parts

and consumables using 2018 price estimates. The LOM average all-in-sustaining cost of USD 764/oz sold.

## **1.7. CONCLUSIONS**

The Project has a long history of production through several owners since the 1900s, with a total historical production around 5 Moz of gold. After the failure of the previous owner of the mine, Noble Mineral Resources Limited (Noble) in 2013, Resolute initially acquired a 20% stake in the local holding company and increased this to a controlling stake by early 2014. Since this time, Resolute's strategy has been to plan for a restart of the operations. This has been furthered by a number of studies, culminating in the 2018 Feasibility Study update, which showed that a relatively mechanised underground operation with ore hauled from two declines could generate a positive post-tax NPV over an 11-year mine life, generating almost 1 Moz of gold at a forecast all-in sustaining cost of USD764/oz. The Project returns are most sensitive to the gold price and metallurgical recovery. The overall forecast life-of-mine capital costs are relatively low at USD115M, reflecting that the mine and process plant are in place, but require refurbishment and further development.

Resolute's strategy at the Bibiani Gold Mine is to generate an operational readiness programme and to complete the process of seeking all approvals from the Government of Ghana. Once these two objectives have been realised, it is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

## 2. INTRODUCTION

### 2.1. SCOPE OF THE REPORT

This Competent Persons Report (CPR or the report) was prepared for Resolute Mining Limited (Resolute), a company currently listed on the Australian Securities Exchange (ASX). The purpose of this CPR is to support Resolute's application to the Financial Conduct Authority (FCA) for all of its issued Ordinary Shares to be admitted to the standard listing segment of the Official List of the FCA and to the London Stock Exchange plc (LSE) for trading of the shares on the main market of the LSE. corporate transaction by Resolute by providing a description of work to date and current resources and reserves at Resolute's Bibiani Gold Operation (Bibiani or the Operation) located in south central Ghana.

This Report has been written to comply with the reporting requirements of the JORC Code (2012) and has an effective date of 31 December 2018. So far as Optiro is aware, having made reasonable enquiries, no material change in the asset reserves and resources has occurred from 31 December 2018 to the date of this CPR which would require any amendment to this CPR.

This CPR has been prepared, to the extent required and in accordance with:

1. the Prospectus Rules published by the FCA and governed by the UKLA (Prospectus Rules);
2. the Prospectus Directive (2003/71/EC); and
3. sections 131 to 133 and Appendices I and II of the document titled "ESMA update of the CESR recommendations: the consistent implementation of Commission Regulation (EC) No. 809/2004 implementing the Prospectus Directive" and dated 20 March 2013.

### 2.2. CONSENT AND AUTHORISATION OF COMPETENT PERSONS

The principal author of this CPR is Ian Glacken (*FAusIMM (CP)*, *FAIG*, *MIMMM*, *CEng*). The contributions of each of the authors to this CPR are detailed in Table 2.1.

**Table 2.2 Bibiani Gold Operation Competent Persons Report – authors and contribution**

Name	Position	Qualifications and memberships	JORC Code 2012 contribution	Years of experience
Ian Glacken	Director, Optiro Pty Ltd	<i>MSc, FAusIMM (CP), FAIG, MIMMM, CEng</i>	Principal author	35 Years
Kahan Cervoj	Principal Consultant, Optiro Pty Ltd	<i>BAppSc, GCert, MAusIMM, MAIG (CP)</i>	Competent Person, Mineral Resources	24 Years
David Lee	Principal Mining Engineer, AMC Consultants Pty Ltd	<i>FAusIMM (CP)</i>	Competent Person, Ore Reserves	25 Years

The Competent Persons, Kahan Cervoj (Mineral Resources) and David Lee (Ore Reserves), take full responsibility for the relevant areas of this CPR.

Kahan Cervoj is professionally qualified and a Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation and reporting of

Mineral Resources for gold deposits of this type. Kahan Cervoj consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

David Lee is professionally qualified and is a Fellow and Member in good standing and is subject to the enforceable rules of conduct of the Australasian Institute of Mining and Metallurgy and has more than five years relevant experience in the estimation, assessment, evaluation, economic extraction and reporting of Ore Reserves for deposits of this type. David Lee consents to and authorises the inclusion of all or part of this CPR in the Prospectus.

The Competent Persons consent to the inclusion of this CPR in the Prospectus and to references to any part of this CPR in the Prospectus. The Author and the Competent Persons consider that the information used to prepare this report, its conclusions and recommendations are valid and appropriate, considering the nature of the project and the purpose for which the report is prepared.

The effective date of this report is 31 December 2018.

### **2.3. MATERIAL CHANGE STATEMENT**

The Competent Persons confirm that there have been no material change in the resources and reserves at Bibiani since the effective date of this report (31 December 2018) and the date of this report.

### **2.4. PRINCIPAL SOURCES OF INFORMATION**

Information used in compiling this report was derived from reports and data provided from various authors and Resolute. This report draws upon previous Mineral Resource and Ore Reserve estimates carried out by Resolute and its consultants.

Optiro has made all reasonable enquiries to establish the completeness and authenticity of the information provided.

### **2.5. SITE VISIT**

The Mineral Resource Competent Person, Kahan Cervoj, has not visited site. The Ore Reserve Competent Person, David Lee, has visited Bibiani, with the most recent visit being during September 2017.

### **2.6. INDEPENDENCE**

Optiro is an independent consulting and advisory organisation which provides a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The principal office of Optiro is at 16 Ord Street, West Perth, Western Australia, and Optiro's staff work on a variety of projects in a range of commodities worldwide.

Each of the Competent Persons are independent of Resolute, its directors, senior management and its other advisers; have no economic or beneficial interest (present or contingent) in Resolute or in any of the mineral assets being evaluated and are not remunerated by way of a fee that is linked to the admission or value of Resolute.

### 3. PROPERTY DESCRIPTION AND LOCATION

#### 3.1. PROJECT LOCATION AND OWNERSHIP

Ghana is a west African country, situated approximately 600 km north of the equator on the Gulf of Guinea. It is bordered by Togo to the east, Burkina Faso to the north, and by Cote d'Ivoire to the west. Ghana has an area of approximately 239,000 km<sup>2</sup> and an estimated population of 25.9 million people.

The Project (Figure 3.1) is in the Western province of Ghana, Africa. Bibiani is located at approximately 6° 27' latitude north and 2° 17' longitude west.

**Figure 3.1** Resolute Project location map (Source: Resolute, 2018)



Resolute (Bibiani) Limited has a 90% interest in Bibiani, through its subsidiary company Mensin Gold Bibiani Limited (MGBL) and in the Exploitation Permit on which it is based. Resolute (Bibiani) Limited is a 100% owned subsidiary of Resolute Mining Limited, the parent company, which is incorporated in Australia. The Ghana Government holds a free-carried 10% interest in MGBL.

#### 3.2. PROJECT TENEMENTS

The Bibiani mine tenement lies approximately 80 km southwest of the Ashanti capital, Kumasi and 253 km northwest of the Ghanaian capital, Accra.

The property consists of the mining lease LVB/WR.615/97, which has an area of approximately 4,900 Ha. The lease was first issued to Ashanti Goldfields (Bibiani) Limited in 1997 by the then Minister of Mines and Energy. The lease is valid for a period of 30 years, commencing on 19 May 1997 and expiring on 18 May 2027. Exploration and exploitation is allowed for gold only.

##### 3.2.1. MINING TENURE IN GHANA

A Mining Lease gives the holding company the exclusive right to work, develop and produce gold in the lease area. It also gives the company a first option to work minerals other than gold discovered in the lease area. However, failing satisfactory arrangements between the government and the

company, the government reserves the right to grant licenses to third parties to prospect for or enter into agreements for the production of minerals other than gold within the lease area.

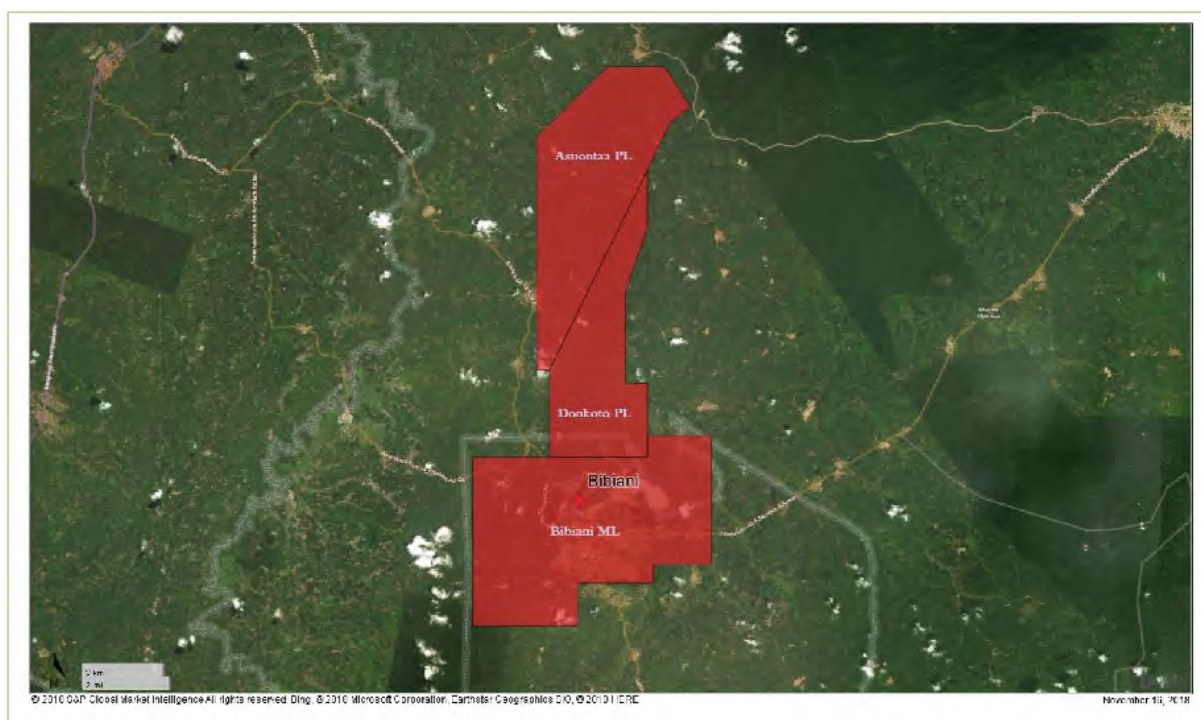
The Mining Lease owner is obliged to operate in a manner consistent with good commercial mining practice as stated in the conditions for the issuance of its Environmental Permit, in accordance with Environmental Assessment Regulations, LI 1652 of 1999 and Ghana's Mining and Environmental Guidelines (1994). Furthermore, the holding company shall pay the government of Ghana a royalty as prescribed on a quarterly basis. The registered holder for all tenure is Resolute (Bibiani) Limited.

Mensin Gold Bibiani Limited currently hold two prospecting leases to the north of the Bibiani Mining lease (Asuontaa and Donkoto), details of these leases are in Table 3.1. Both prospecting leases have expired; however, renewal of these licences has been lodged. The current Bibiani concession plan is presented in Figure 3.2.

**Table 3.1 Mensin Gold Bibiani Limited tenure details**

Tenement number	Permit name	Holder	Interest	Grant date	Expiry date	Area (km <sup>2</sup> )	Notes
LVB/WR.615/97	Bibiani	Mensin Gold Bibiani Limited	90%	18 May 1997	18 May 2027	49.82	
LVB WR/162	Asuontaa	Mensin Gold Bibiani Limited	100%	18 Jan 2013	Renewal Pending	21.44	Renewal lodged
LVB WR/615/92	Donkoto	Mensin Gold Bibiani Limited	100%	18 Jan 2013	Renewal Pending	17.48	Renewal lodged
					<b>Total</b>	88.74	

**Figure 3.2 Bibiani concession plan (source S&P Global Market Intelligence)**





### **3.3. LEGISLATION AND PERMITTING**

#### **3.3.1. STATE LANDS ACT (1963)**

Section 6(1) provides that any person whose property is affected by a public project is entitled to compensation and provides mechanisms through which people not satisfied with compensation may seek redress from the Government. Dissatisfied compensation claimants may seek redress by first notifying the minister, who refers the case to a tribunal consisting of three persons appointed by the President.

Notwithstanding existence of these legal safeguards, and according to the World Bank, the records indicate that in the past the Ghanaian Government has defaulted in most cases and has failed to pay full compensation or help with the relocation of displaced persons.

#### **3.3.2. MINERALS AND MINING ACT 703**

The legislative framework for mining in Ghana is stated in this Act along with the provisions of the constitution of 1992. The act sets out statutory requirements for ownership of minerals and government rights of pre-emption, administration, mineral rights and other licences, the mining lease, surrender, suspension, and cancellation of mineral rights and surface rights. Pre-emption in this case is defined as the right by the Government to purchase the minerals before they are sold to other parties. The Minerals Commission (MINCOM) is mandated by the constitution to regulate and manage the exploitation of mineral resources and formulate policies in relation to minerals.

### **3.4. PERMITS AND AGREEMENTS**

While mining and environmental permits and approval were held by Noble Gold Bibiani Limited (NGBL) (a previous owner of the Project, see Section 5.2.6) they excluded underground mining and, in some cases, permits have expired or were cancelled when the operation was placed on care and maintenance or ownership changed.

Prior to the Project commencing production, an Environmental Operating Permit will be required from the Environmental Protection Agency (EPA) and a Mine Operating Permit from MINCOM. Possession of the Environmental Operating Permit is a pre-condition of all subsequent permits.

To receive the Environmental Operating Permit the applicant is required to complete an Environmental Impact Study (EIS) ahead of a new Permit and Schedule. An Environmental Impact Assessment (EIA) has been undertaken by Resolute, and a draft EIS has been completed and accepted by the EPA. The EPA has invoiced the permit fee and is in the process of completing the permit schedule of conditions. The permitting process has involved the following steps:

- Define the scope of the EIA;
- Consult with government and community stakeholders;
- Establish the environmental baseline for the project area;
- Identify, predict and evaluate the development, operation and closure of the proposed project for any significant environmental or social impacts, and determine any mitigation requirements;
- Prepare a provisional environmental management plan;

- Detail the extent of monitoring required during the life of the project and decommissioning / rehabilitation plan on mine closure;
- Complete and draft the EIS for review and acceptance by the EPA;
- Meet the requirements of the Ghana EPA for the issuance of Environmental Operating Permit for Mensin Gold Bibiani Limited to commence mining in Ghana.

Gaining the Mining Operating Permit will require:

- Updating the Main Operating Plan in line with regulation 8 of L.I. 2182;
- Preparation and approval of a comprehensive Emergency Response Plan;
- Preparation and approval of a Tailings Storage Facility Management Plan; and
- Review and approval by MINCOM.

### **3.5. ROYALTIES**

The royalty payment made to the Government is 6% of the revenue gained from the sale of gold.

## 4. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 4.1. ACCESSIBILITY

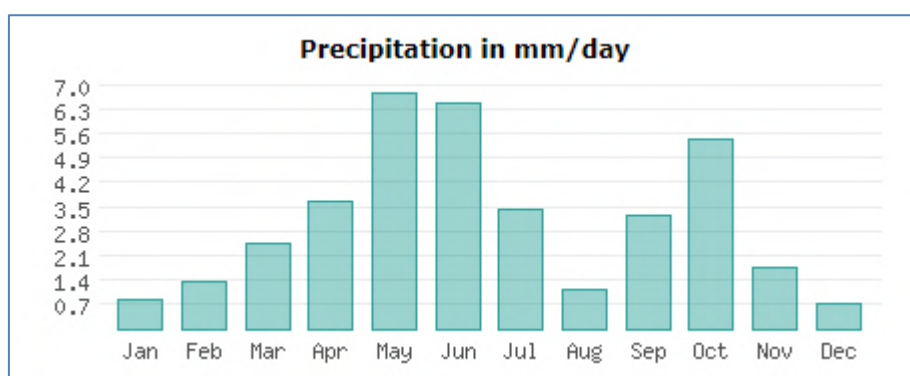
The main access to the mine is from the east, along the Kumasi-Bibiani – Sefwi Bekwai Highway. The Kumasi airport can be accessed from Accra by a 45-minute flight using various national airlines. Access to the Bibiani mine gate from the Kumasi Highway is excellent.

The mine is also serviced by two well equipped coastal ports, Tema which lies just to the east of the capital Accra, and Takoradi which lies 180 km to the south of Bibiani.

### 4.2. CLIMATE, PHYSIOGRAPHY AND VEGETATION

The Western Region of Ghana has an average daily temperature of 31°C, with average humidity above 80%. There are typically two seasons in Ghana; the dry and wet seasons. The wet season extends from May to October. Annual rainfall is depicted for the Western Region of Ghana in Figure 4.1.

**Figure 4.1** Average monthly rainfall (Source: [worlddata.info/Africa/ghana/climate-western](http://worlddata.info/Africa/ghana/climate-western))

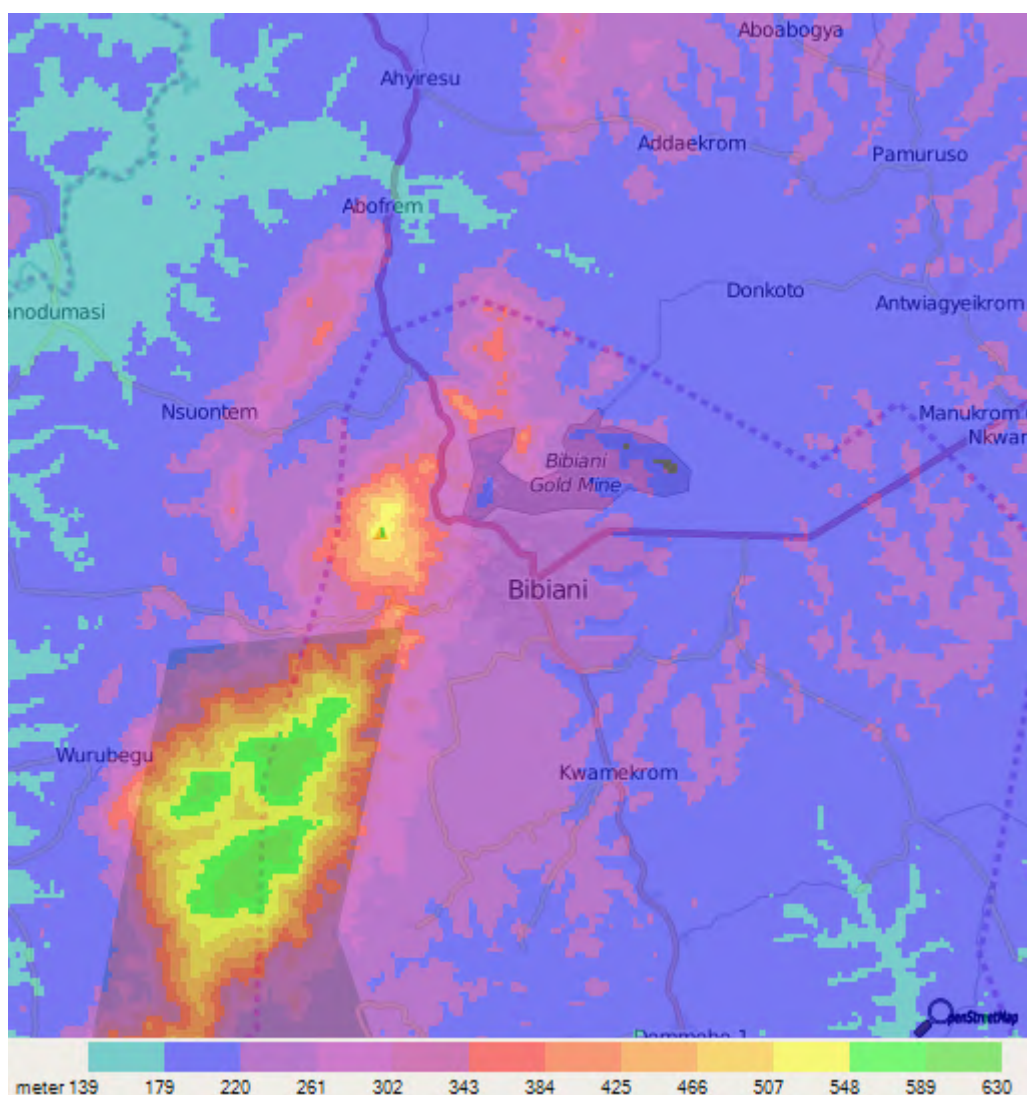


#### 4.2.1. VEGETATION AND PHYSIOGRAPHY

The physiographic and topographic characteristics are exemplified by the Bibiani range, which trends southwest to northeast from Axim to Sunyani, a distance of about 200 km. Rugged terrain is characteristic of the range, with high peaks hovering above 600 m.

Figure 4.2 is a 230-metre elevation map of Bibiani taken from floodmap.net website. The map has been generated using elevation data from NASA's 90 m resolution SRTM data.

The Bibiani mine site is located on the eastern flank of the Bibiani range, to the north of the Bibiani township. There are both high and low land areas within the project area. The high lands are located to the southwest of the project area, with topography reaching above 500 m elevation. The peaks trend to the north-northeast, following the main structural trend in the area. The lower topography of the project is located to the east. The landscape comprises gentle undulating rolling topography formed by weathering processes.

**Figure 4.2** 230 metre elevation map of Bibiani, Ghana. (source: floodmap.net)

The mining concession is located in five sub-catchments in the Tano River Basin of the southwestern basin system of Ghana. These sub-catchments are the Amponsah, Mpokwampa, Mensin, Kyirayaa, and Pamunu. The five rivers of these catchments flow in a westerly direction into the Tano river; these rivers are seasonal, sometimes drying up in the dry season between December and March.

The Tano river valley is about 3 km wide, and comprises the present river channel, a flood plain and a valley slope. The areas beyond the valley feature rolling hills which rise to 40 m above the river. The Pamunu river is perennial with many dendritic tributaries and meanders through the flood plain varying in width from a few metres to 50 m.

#### 4.3. LOCAL RESOURCES AND INFRASTRUCTURE

The project is situated adjacent to the township of Bibiani, which has an approximate population of 21,500 people. The Bibiani mine receives electrical power from the national grid; however, the mine also owns and maintains several generators to supplement grid power when required. There are two fresh water dams on the property.

The mine and township have good infrastructure services necessary for reopening the mine. These include offices, residential areas, workshops, laboratories, mine roads, explosives magazines, fuel storage tanks and a medical clinic managed by a qualified doctor.

#### **4.3.1. BIBIANI COMMUNITY SUPPORT**

Since acquiring Bibiani, Resolute's Ghanaian subsidiary Mensin Gold Bibiani (MGBL) has established the Resolute Foundation Advisory Panel, whose aim is to focus on four community development pillars:

- Water and sanitation;
- Community health;
- Education; and
- Income generation.

Local representatives and MGBL staff have worked together to develop and implement projects around these development goals. In doing so, strong links are being built between the Bibiani community and the project to enable a lasting beneficial legacy.

## 5. HISTORY

### 5.1. OVERVIEW

There has been a long history of gold mining at Bibiani. Commercial gold production commenced in the early 1900s, with the local townsite growing adjacent to the mining operation over many years of intermittent mining history. Early mining was conducted by underground methods, which have since been supplemented by open pit mining of both oxide from smaller satellite pits and fresh rock material from the more significant Main Pit, which has extended over the old underground mine.

### 5.2. PROJECT HISTORY

#### 5.2.1. EARLY HISTORY

The Bibiani mineralisation was first prospected and worked in the 1800s on an extensive scale prior to the granting of the first concession in 1891. Official exploitation of the Bibiani deposit began in 1902 and ran to 1913, with the mining of surface sediments and oxidised ore at shallow levels. Approximately 70,000 oz of gold was recovered during this period.

Mining activities recommenced in 1927 as an underground mine, developed and operated by foreign investors until it was nationalised in 1958.

#### 5.2.2. STATE GOLD MINING CORPORATION

After the deposit was nationalised, the mine was operated by the State Gold Mining Corporation (SGMC). The economic reserves at this time were within the scope of the already existing mine infrastructure. The old workings were also re-worked to recover pillars and remnant low grade material (probably +6 g/t) that was below the economic pay limit applied to the deposit prior to nationalisation.

The mine closed in 1973 following the depletion of economic reserves. It is estimated that during the 46 years of production the Bibiani deposit yielded approximately 2 Moz of gold.

#### 5.2.3. GHANA LIBYA MINING CORPORATION AND INTERNATIONAL GOLD RESOURCES

In the late 1980s and early 1990s Ghana Libya Mining Corporation (GLAMCO) and International Gold Resources (IGR) acquired various rights to the Bibiani mine and respectively embarked on separate tailings reclamation and surface exploration programmes.

The surface exploration programme yielded a positive feasibility study for the development of an open pit resource around the historic underground Bibiani mine.

#### 5.2.4. ASHANTI GOLDFIELDS

##### OPERATIONS

Ashanti Goldfields (AGA) purchased Bibiani from IGR in the mid-1990s for USD130M, financed an additional USD85M to capitalise the operation, and redeveloped the mine as an open pit operation with a modern processing plant. AGA began mining at Bibiani in 1997 and continued until 2003.

During this time, the Bibiani main pit was extended down to RL75 m, a depth of approximately 200 m below surface.

Mining production was brought to a halt in November of 2003, when there was a failure of the western pit slope. At the time of the wall failure there was still approximately 100,000 oz in broken ore remaining in the pit. Initially, an open pit cut back design was put in place by AGA to recover 67,000 oz of the buried ore, with the remaining 33,000 oz considered to be permanently lost by AGA. However, recovery of the ore required a considerable cut back on both pit walls, as well as the capital cost to procure new mining equipment. This, coupled with continued signs of deterioration of the east and west slopes including loss of the main ramp into the pit, led to this plan being abandoned.

After the cessation of open pit mining operations in the Bibiani Main Pit, AGA continued to feed the plant by exploiting a series of small, low grade satellite pits, as well as depleting the remaining ROM and low-grade ore stockpiles and the treatment of the old GLAMCO tailings resources.

During its period of operation AGA produced approximately 1.8 Moz of gold from the main and satellite pits.

## **EXPLORATION**

Around 2001, AGA initiated an exploration and development programme to investigate the potential to recommence underground mining operations. The potential for further resource along the orebody strike length down to 12 level (RL-120M) was a trigger for this work.

A surface drilling programme was conducted with results establishing the presence of gold mineralisation below the existing open pit. A trackless decline was developed in 2004 and 2005 to provide access to the underground workings for further resource estimation and exploration work. Based on the outcomes of the pre-feasibility study to exploit the underground mine at a production rate of around 100,000t per month, the company commenced a mechanised ramp development project to provide access to the underground mine and allow access for further exploration and future mine production.

AGA released a Mineral Resource covering the Bibiani Main Pit orebody which included 1.6Mt at 3.9g/t containing 200,000oz of gold directly beneath the base of the open pit to the 9 Level (RL-40M). In 2006, following a strategic review and prioritisation of its worldwide operations, AGA put the Project up for sale. At this point the Project had produced a total of approximately 4Moz of gold over its operational life.

### **5.2.5. CENTRAL AFRICAN GOLD**

The Project was purchased from AGA by Central African Gold (CAG), which continued with exploration to develop the underground potential of the mine. Due to financial problems at the end of 2008 the operation had deteriorated to the extent that CAG was unable to continue; the local subsidiary company, CAGGL, and its assets were handed over to principal financiers Investec Bank of South Africa, to whom CAG owed a significant debt. Investec subsequently put the mine on care and maintenance while it investigated its options with regards to operation or sale.

#### **5.2.6. NOBLE MINERAL RESOURCES/NOBLE MINING GHANA**

In late 2009, Noble Mineral Resources Limited (Noble) signed a 'Sale of Shares' agreement to acquire CAGGL from Investec, subject to a number of conditions. In 2010 Noble commissioned SEMS Exploration Services Ltd (SEMS) to compile a detailed report on the Project, which included a technical review of the geology and a targeting exercise. SEMS developed a district-scale 2D structural interpretation from the aeromagnetic data for target generation.

Major Shears with north-northeast and northeast intersections were identified as structurally favourable for Bibiani-style deposits. This information was overlain on the distribution of anomalous gold in soil samples, and a series of targets were identified, which included many of the existing prospects.

Noble Mining Ghana Limited (NGML) commenced mining satellite open pits to the northeast of the Main Pit in 2010. In 2012 work commenced on expanding the processing plant to a capacity of 3Mtpa. While significant construction work was carried out on the processing plant, it remained incomplete and further work is required on parts of the processing circuit and the primary crushing circuit before it will be deemed to be fully operational. Following a period of declining gold price, Noble ran into financial difficulties, and as a result, suspended operations at Bibiani in May 2013.

#### **5.2.7. MENSIN GOLD BIBIANI**

Resolute Mining Limited (Resolute) acquired a 20% stake in Noble during November 2012 backed by an AUD85M financing package. After the suspension of mining operations in 2013, Resolute was able to take over control of the Bibiani assets through a scheme of arrangement with creditors. This process was completed in early 2014. Resolute immediately embarked on a re-assessment of the underground potential and commenced an extensive resource drilling programme consisting of both surface and underground drilling.

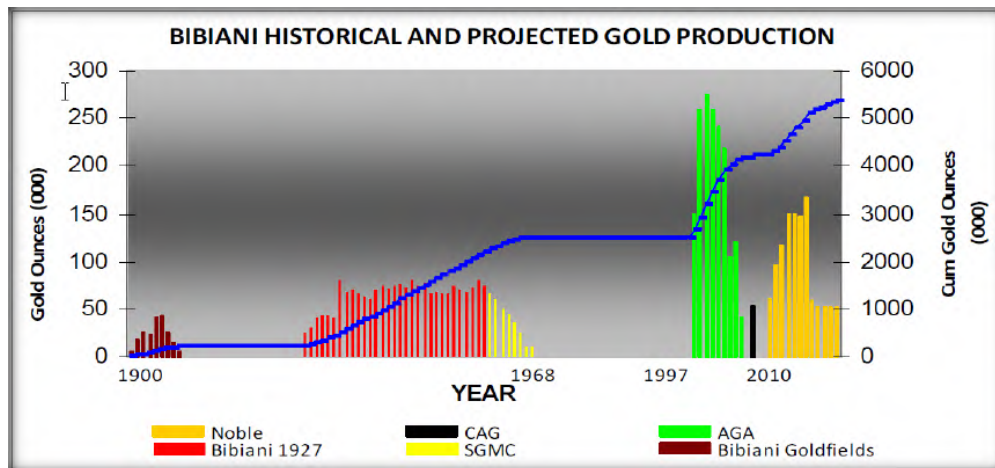
In December 2013, pursuant to Section 52 of the Ghanaian Minerals and Mining Act 2006, Act 703, Resolute served notice to the Minister of Lands and Natural Resources of its intention to become a controller of NGBL (Noble Gold Bibiani Limited), the holder of the Bibiani Mining Lease. In June 2014, the Minister granted Resolute's request for approval of Material Change in Ownership of the company and changed the company name to Mensin Gold Bibiani Limited (MGBL).

### **5.3. TOTAL HISTORICAL PRODUCTION**

Up to 2012, the total gold production from the Bibiani mine and satellite pits was estimated at over 5 Moz of gold. Figure 5.1 shows the historical gold production at Bibiani by the various operators over the years.



**Figure 5.1** Historical gold production at the Bibiani Gold Mine (source: Resolute 2016)



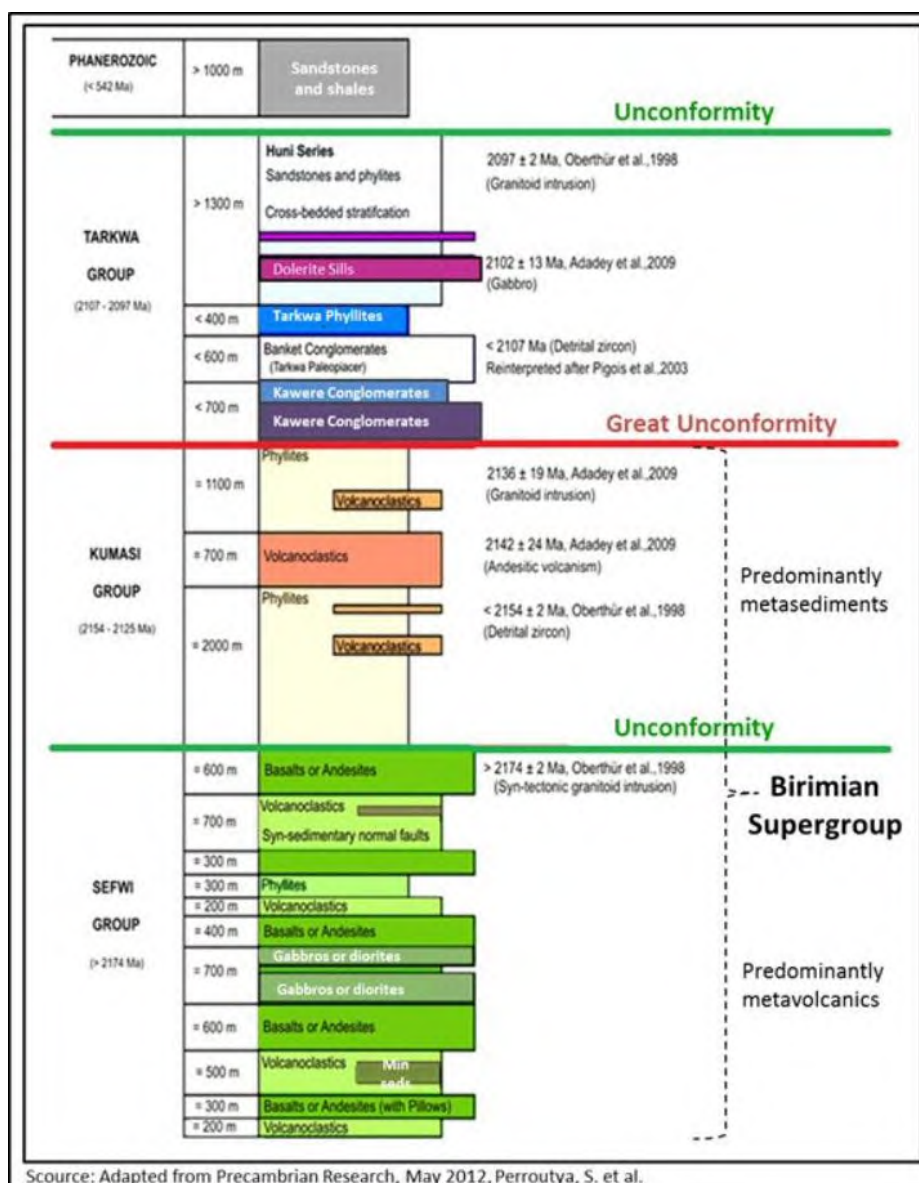
## 6. GEOLOGICAL SETTING AND MINERALISATION

### 6.1. REGIONAL GEOLOGICAL SETTING

On a regional scale, the Project is located on the eastern margin of the West African Precambrian Shield, which is a cratonised complex of Archaean basement. The main components are Proterozoic greenstone belts, granitoids and post-orogenic sediments that extend through Ghana, Burkina Faso, Mali, Guinea and the Ivory Coast.

The Upper Birimian Formation is dominantly volcanic in origin, although the sequence starts with conglomerates, grits, quartzites and tuffaceous wackes. The dominant components of the Upper Birimian are basaltic and andesitic lavas, tuffs and tuffaceous sediments with subordinate rhyolite, quartz-feldspar porphyry and felsite. The Birimian Formation rocks are unconformably overlain by the Tarkwaian, which is composed of dominant coarse-grained sediments (Figure 6.1).

**Figure 6.1 Generalised stratigraphy of southwest Ghana (source: Precambrian Research, 2012)**

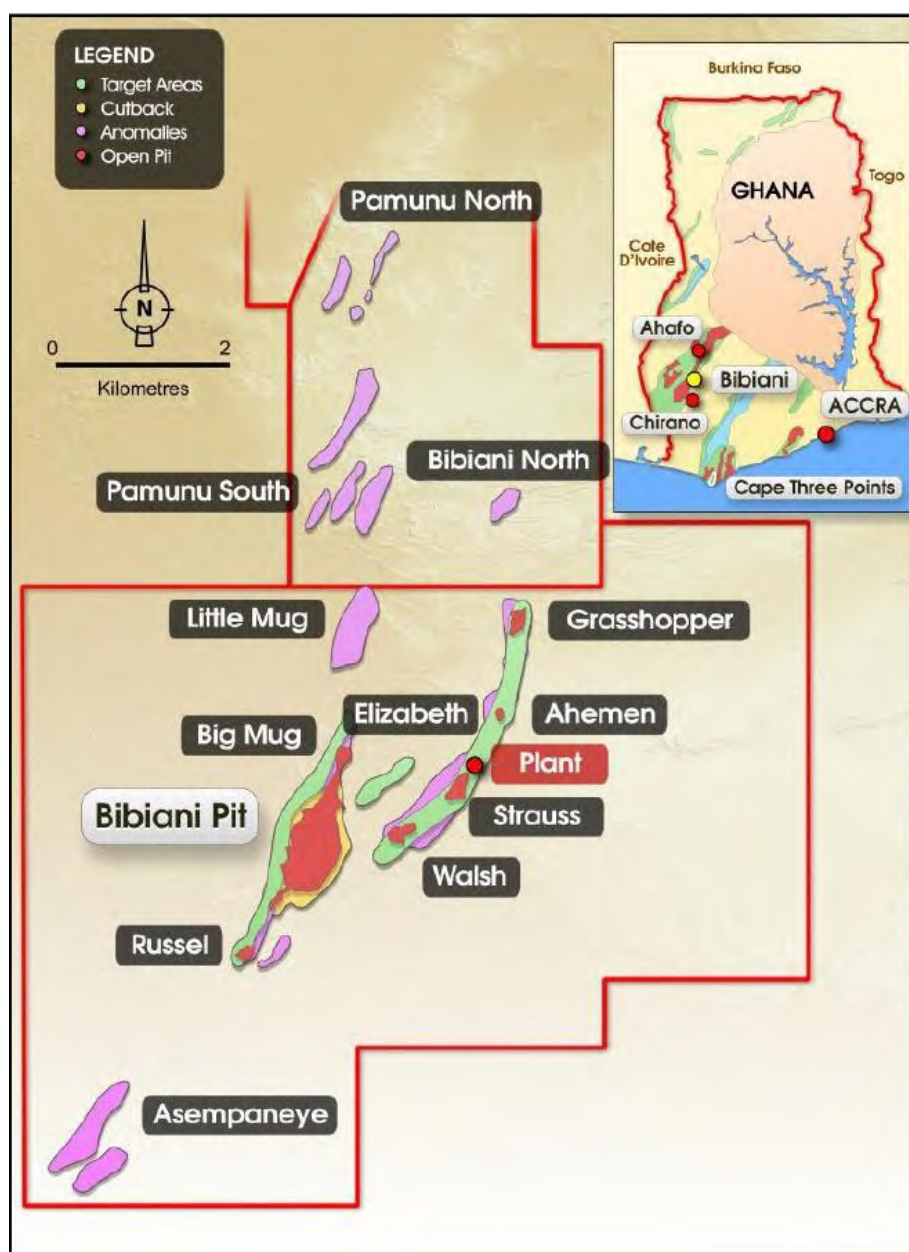


Primary gold mineralisation in the region is predominantly associated with northeast-southwest trending Proterozoic greenstone belts separated by basins, which together form part of the West African Craton. This craton is believed to have remained geologically stable for the last 1.7 billion years. The greenstone belts represent Proterozoic island arc volcanism which has been mildly metamorphosed to lower greenschist facies.

The Birimian geology throughout West Africa contains several significant gold deposits, including Obuasi, Tarkwa and Konongo. The Bibiani deposit is located in the Sefwi-Bibiani belt which is host to over 30 million ounces of gold. Bibiani is the second largest gold occurrence in the region after Newmont's Ahafo deposit.

The Tarkwaian Group, which is not well represented within the Bibiani tenements, is considered to have been deposited as a shallow deltaic sediment sequence within a graben setting and is at least partly coeval with the Birimian Formation.

**Figure 6.2 Regional geological setting of the Bibiani Gold Project (source: Resolute Feasibility Study 2016)**



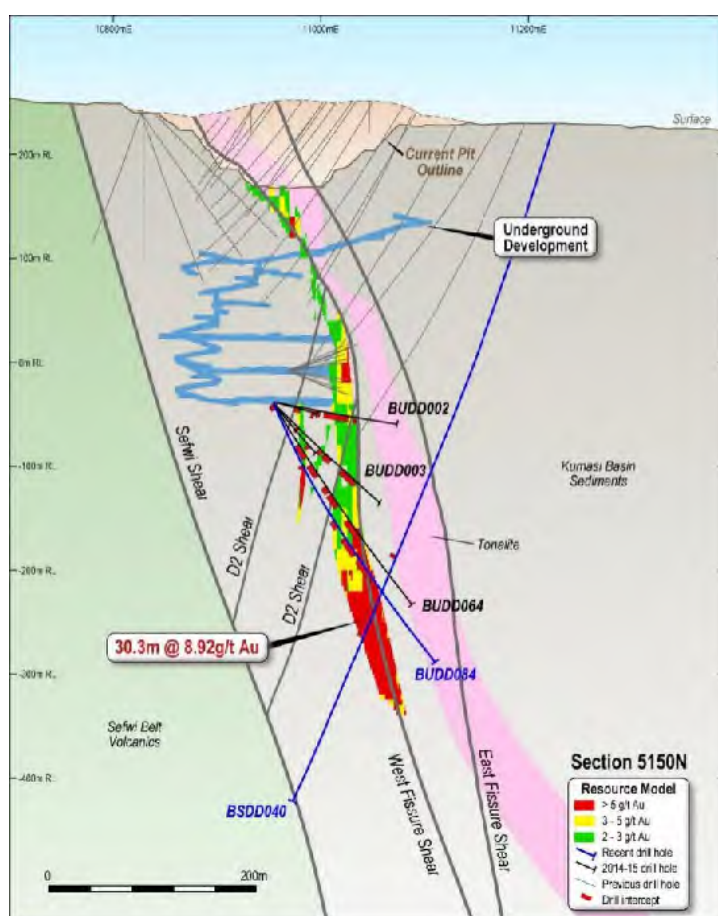
## 6.2. LOCAL GEOLOGY

The Bibiani deposit is hosted within a thick sequence of fine-grained graded turbidites with localised thin interbeds of fine to medium-grained turbiditic sandstones. The sedimentary sequence is tightly folded, with west-dipping axial planes and localised development of steep west-northwest dipping shear zones which have acted as conduits for initial gold mineralisation.

The Bibiani orebody geometry is structurally controlled by a steep, north to northeast trending shear corridor 200 m to 400 m wide, within Lower Birimian sediments and close to the eastern contact of the Upper Birimian. The shear zone includes quartz infill as massive veins (up to 20 m) and quartz stockworks. In the widest parts of the orebody, two and locally three individual quartz reefs or lodes can be identified. Two highly graphitic fault zones, historically referred to as pug seams or fissures, are associated with the major shear zone on the footwall and hangingwall.

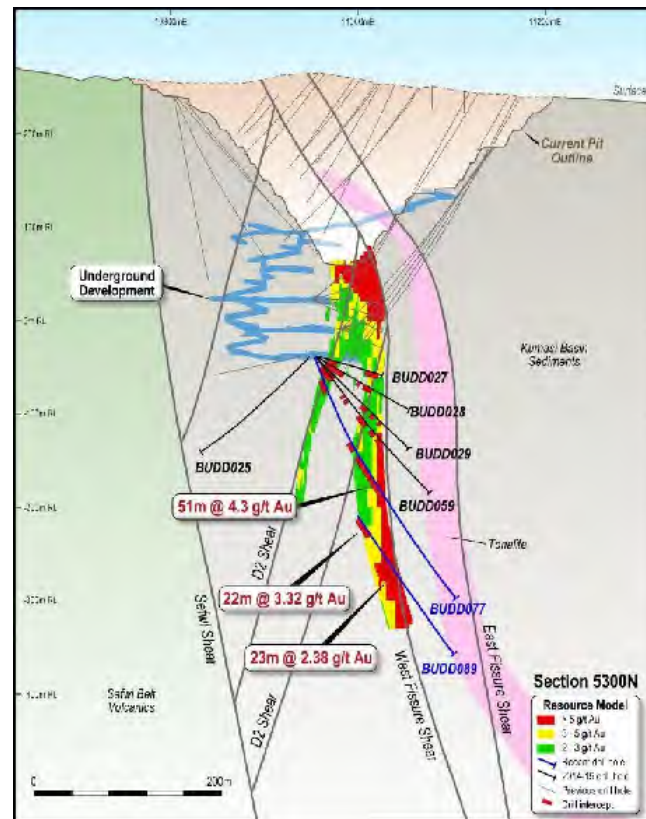
Three cross sections (looking north) through Bibiani are presented in Figure 6.3 to Figure 6.5. These figures illustrate the structural geology as well as the geometry of the lodes in the deposit. Also displayed in the figures is drilling results reported from the recent 2017 exploration programme.

**Figure 6.3 Cross section at 5150N (looking north) illustrating the structure and geometry of the Bibiani orebody (source: Resolute)**

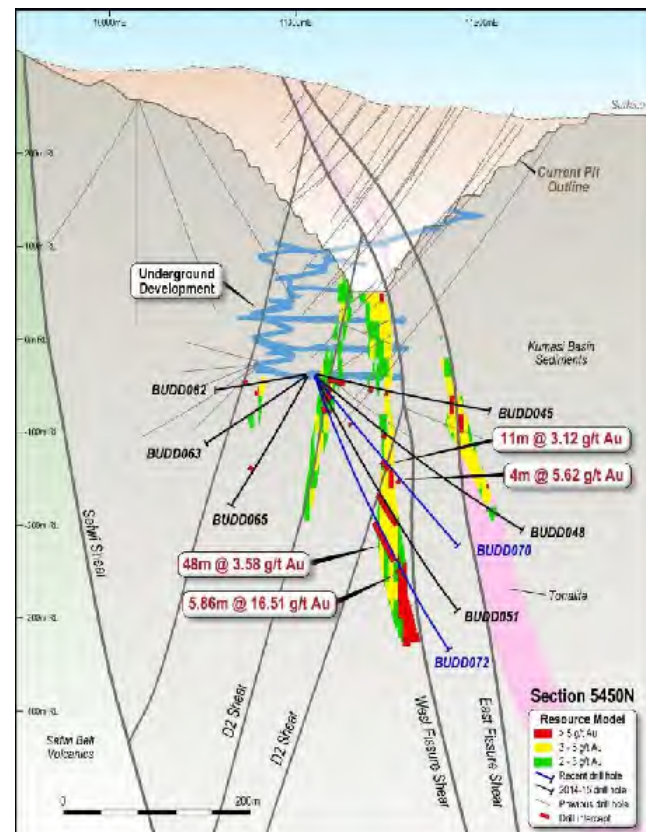




**Figure 6.4** Cross section at 5300N, looking north (Source: 2017 Mineral Resource Estimate)



**Figure 6.5** Cross section at 5450N, looking north (Source: 2017 Mineral Resource Estimate)



The Bibiani Main Zone orebody within the open pit and the underground zone is mineralised over a strike length of approximately 2 km. At the centre of the mine the orebody strikes 030° to 035° which changes to around 020° at the northern end of the mine. In general, the orebody dips east at 60° to 80°, crossing the regional structural fabric at acute angles.

Although mineralisation is essentially continuous, several main structures have been identified. The Central Lode hosts the most significant portion of the mineralisation. Other zones include the West and East lodes.

Traditionally the orebody has been divided into a northern and southern part based on the location of the central shaft, which lies on section line 5400 N (mine grid). The southern ore zone is around 180 m long and consists of a composite vein of quartz and mineralised country rock dipping about 60° to 70° to the east. The northern orebody consists of the continuation of the West Lode and of the East and Central lodes, which are less distinct toward the south. The latter reef lodes consist of more massive laminated smoky quartz with phyllite partings. Milky white quartz is also present but is generally barren.

The northern ore zone has been mapped at 20 to 40 m in width near the surface and widens substantially at depth. At around 100 m to 120 m relative level (mRL; the underground 4 and 5 Levels) the horizontal widths exceed 100 m. The mineralisation dips near vertical at surface, but the eastern boundary flattens moderately at depth to less than 65° around 150 mRL. The lodes merge approximately 400 m to 500 m north of the central shaft. Further to the north the orebody narrows and continues as one, near-vertical reef 15 m to 25 m in width.

The total strike length of the Bibiani mineralised trend is around 4,000 m, of which only 1,800 m has been exploited by historic mining operations. The mineralisation remains open at depth.

### **6.3. MINERALISATION**

Most of the gold mineralisation at Bibiani is associated with quartz veins and quartz stockworks (Figure 6.6 and Figure 6.7). Both vein types are associated with pyrite ± arsenopyrite. There is a positive relationship between the presence of gold and the presence of arsenopyrite. The maximum arsenopyrite content has been observed to be around 2% to 3%. Microscopic examination confirms that much of the gold occurs along edges or cracks within the sulphide grains as shown in Figure 6.8. The size of gold grains is typically less than 50 microns, generally observed to be between 1 to 10 microns in size.

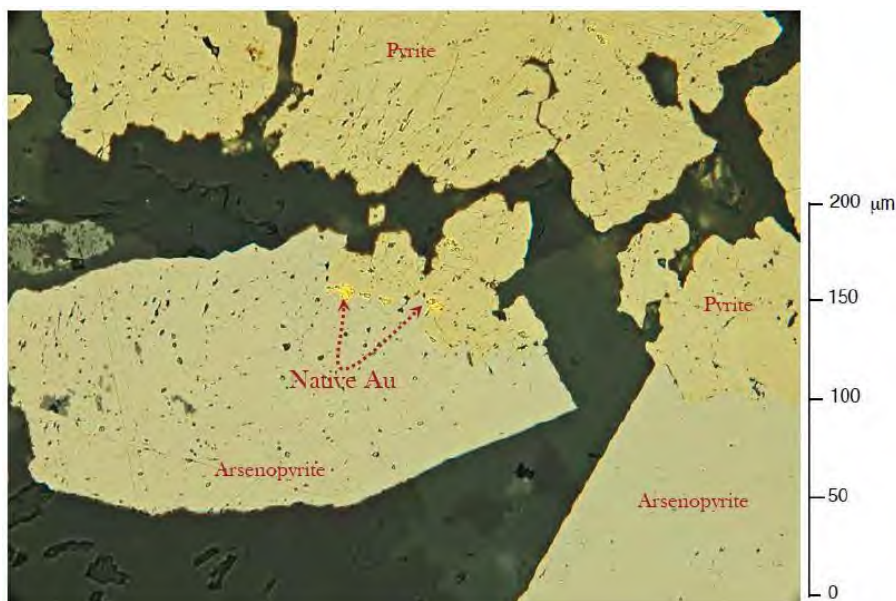
**Figure 6.6** Example of sheared quartz veins formed in a high strain zone



**Figure 6.7** Examples of large quartz veins with minimal sulphides



**Figure 6.8** Photomicrograph showing native gold (bright yellow - centre) along the grain contacts of pyrite (cream - top) and arsenopyrite (off white – bottom) (source: Resolute)



Visible gold can be seen in some mineralised quartz veins. It was noted from historical process plant records that around 15% of the total gold reports to the coarse size fraction, with the Knelson concentrator collecting up to 35% of the total gold recovered in the plant.

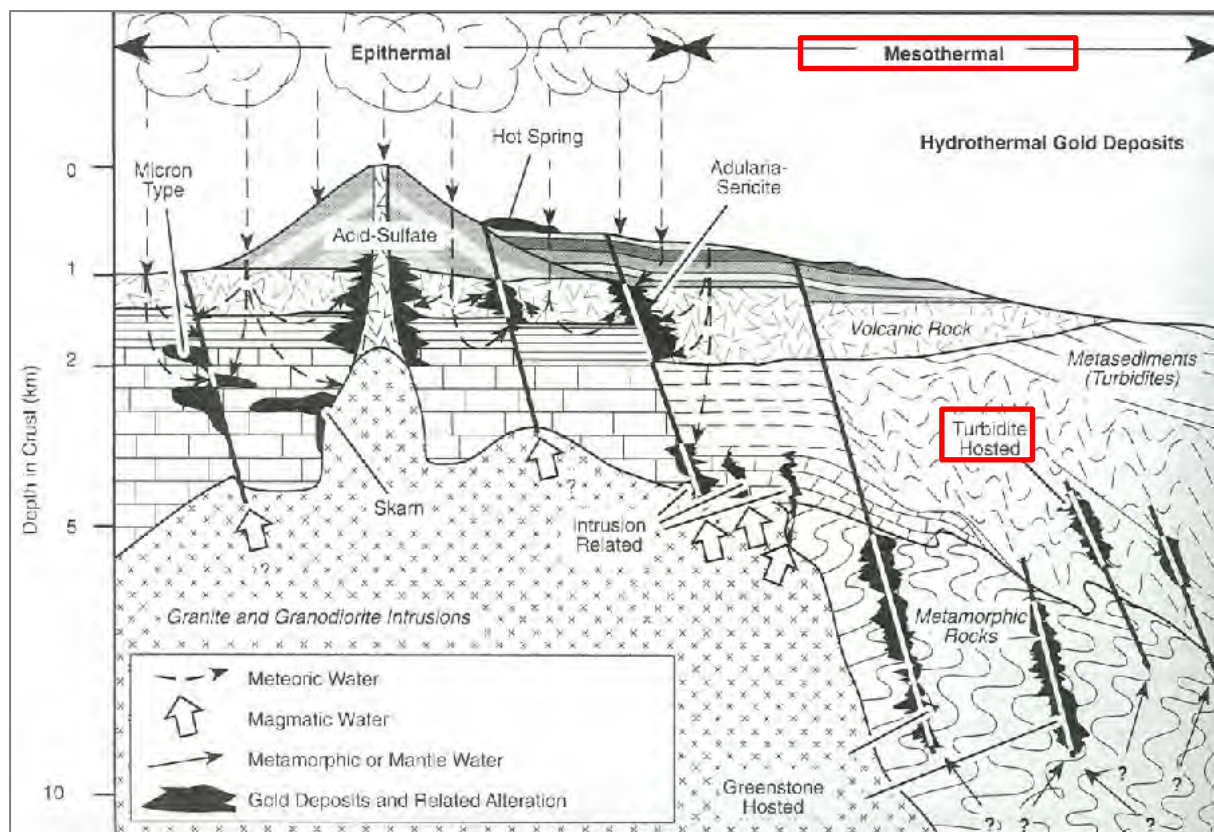
Wall rocks adjacent to the quartz veining demonstrate fine-grained disseminated iron-carbonate and sericite alteration with associated sulphide mineralisation. These alteration haloes can also contain gold values up to 2 g/t.



## 7. DEPOSIT TYPE

The gold deposits at Bibiani are structurally-controlled mesothermal lode-type deposits which are similar to the lode deposits in the Konongo-Axim belt hosting the significant Obuasi deposit. The mineralisation is associated with quartz veins and quartz stockworks which are hosted within a thick sequence of fine-grained graded turbidites with localised thin interbeds of fine to medium-grained turbiditic sandstones. Figure 7.1 illustrates the generic hydrothermal environments in which the styles of mineralisation seen at Bibiani occur.

**Figure 7.1 Schematic illustration of geologic environments in which hydrothermal gold deposits form.**  
(Source: serc.carleton.edu)



The orebody geometry is structurally controlled by a steep, north to northeast trending shear corridor which is 200 m to 400 m wide, and which sits within Lower Birimian sediments close to the eastern contact of the Upper Birimian. Two highly graphitic fault zones are associated with the major shear zones on the footwall and hangingwall of the deposit.

## 8. EXPLORATION

The first mining concession at Bibiani was granted in 1891; however, the orebody was prospected and worked on an extensive scale prior to this date. Between 1900 and 1973, the principal focus for exploration was the Bibiani main orebodies. Exploration work carried out was mainly via underground development and diamond drilling, which was subsequently followed up by channel sampling of crosscuts and reef drives. In parallel with the underground exploration, the surface of the lease was subjected to systematic prospecting, mapping and a number of limited exploration programmes were undertaken over identified targets. The main prospects evaluated, principally by trenching and a small number of diamond drillholes, were:

- South Hill;
- Pale Ale;
- Big Mug;
- The Ahiman;
- Strauss; and
- Walsh Reefs.

These prospects are illustrated in Figure 8.1, which was sourced from the Bibiani Potential Ore Sources report completed by SEMS Exploration (SEMS, 2011).

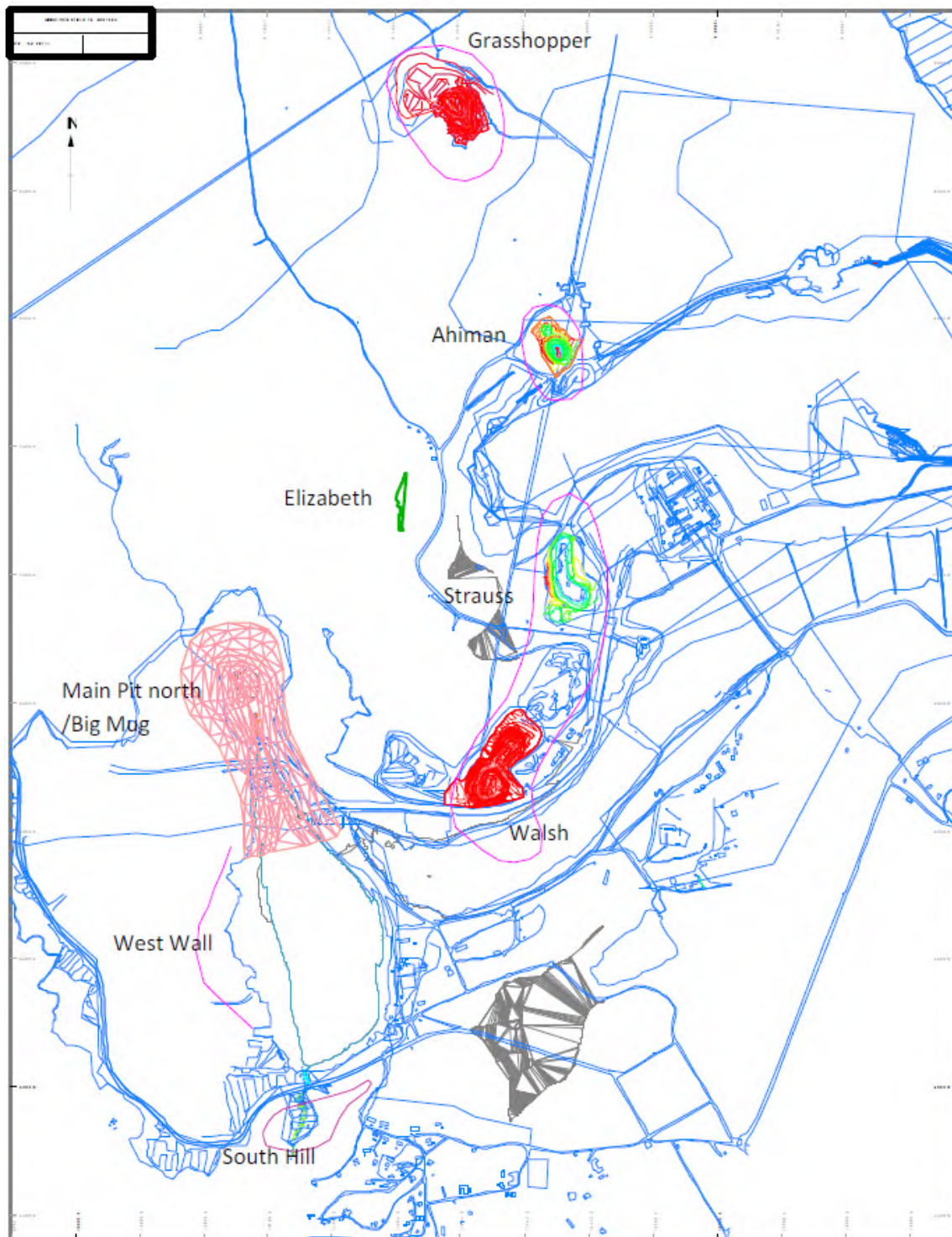
After 46 years of production, in 1973 the Bibiani underground mine was shut down due to depletion of the Ore Reserves. Despite the significant amounts of work completed by a number of parties including the owners (State Gold Mining Corporation), no potentially economic orebodies in either size or grade were discovered to prevent the closure of the mine.

Years later, in the late 1980s and early 1990s, GLAMCO and IGR acquired various rights to the Bibiani mine and respectively embarked on separate tailings reclamation and surface exploration programmes. A number of geological reviews were conducted, which used modern exploration practices, including aerial and ground geophysics. The field work conducted by geologists at the time included soil geochemistry, coupled with RC and Diamond drilling. The primary focus of the exploration programmes was the main Bibiani orebodies, which resulted in a positive Feasibility Study for the development of an open pit resource around the historic underground Bibiani mine.

The mine was purchased by Ashanti Goldfields which re-opened the mine in 1997 and produced close to 2 million ounces of gold. The mine was closed in 2003 following the failure of the western wall of the main pit. Around 2001, AGA initiated an exploration and development programme to investigate the potential to recommence underground mining operations. The potential for further resource along the orebody strike length down to the 12 level (RL-120m) was a trigger for this work.

A surface drilling programme was conducted; the results established the presence of gold mineralisation below the existing open pit. A trackless decline was developed in 2004 and 2005 to provide access to the underground workings for further resource estimation and exploration work.

**Figure 8.1 Plan of the main prospects at Bibiani from 2011 (Source: Potential Ore Sources Report by SEMS Exploration 2011)**



Following the sale of the project to CAGR and thence to Noble (Section 6), in 2010 Noble commissioned SEMS to compile a detailed report on the project that included a technical review of the geology and a targeting exercise. SEMS developed a district-scale 2D structural interpretation from aeromagnetic data for target generation. Intersections of “Major Shears” with “NNE-NE intersections” were overlain on the distribution of anomalous gold in soil samples to produce a series of targets, which included many of the existing prospects.

## 9. DRILLING

### 9.1. HISTORICAL DRILLING

Prior to 2012, a total of 1,464 exploration drillholes were completed by previous owners. These include both diamond (DD) and reverse circulation (RC) drillholes, as well as RC collared holes with diamond tails (RCD) and underground channel samples. Details of the drilling and sampling campaigns are summarised in Table 9.1.

**Table 9.1 Bibiani Resource drill campaigns (Source: Resolute Bibiani Analytical QC Report May 2016)**

Company	Years	Hole type	Holes	Metres drilled	Metres sampled
Anglo Ashanti	1993 to 2005	DD	140	29,183	18,544
		RC	185	18,387	17,380
		RCD	174	53,750	22,804
Central African Gold	2007 to 2008	DD	2	217	69
		RC	10	1,440	1,440
		RCD	24	8,360	5,661
		UG Diamond	230	16,858	14,220
		UG Channel	265	3,027	2,921
Noble	2010 to 2012	DD	29	4,378	2,955
		RC	299	34,753	33,700
Mensin Gold Bibiani	2014 to 2015	DD	93	21,110	19,267
		RC	13	5,174	5,016
Mensin Gold Bibiani	2016 to 2017	DD	55	22,884	22,712
<b>Total</b>			1,519	219,521	166,689

### 9.2. RESOLUTE EXPLORATION AND DRILLING ACTIVITIES

During 2014 and 2015, Resolute carried out a data validation and verification process to increase confidence in the historical data collected between 1993 and 2012. This process involved cross-checking co-ordinates, surveys, samples, void intervals and assays against the original data sources, including old MS Access databases, MS Excel files, reports, and original laboratory assay certificates, both in hardcopy and digital format.

Upon the purchase of the Bibiani assets, Resolute immediately embarked on a re-assessment of the underground potential and commenced an extensive resource drilling programme consisting of both surface and underground drilling. This was broken up into two phases:

- Phase 1: Resolute completed 26,284 m of RC and diamond drilling at Bibiani, with the aim of enhancing the estimated Mineral Resource (announced 15 August 2014).
- Phase 2: Further exploration drilling at Bibiani commenced in December 2016 and was completed in June 2017, with 22,884 m of diamond drilling undertaken from both surface and underground positions. The primary focus of the programme was to convert existing Inferred Resources to Indicated Resources and to explore for new unmined mineralised lodes.

Significant results from the Phase 2 drilling included the following:

- BSDD040 30 m @ 8.9 g/t Au from 498.7 m
- BSDD060 26 m @ 5.0 g/t Au from 347 m
- BSDD068 15 m @ 8.5 g/t Au from 488 m



- BUDD072      48 m @ 3.6 g/t Au from 171 m; and 6 m @ 16.5 g/t Au from 227.14 m
- BUDD077      51 m @ 4.3 g/t Au from 117 m
- BUDD087      29 m @ 9.0 g/t Au from 279 m

The procedures used to collate the data from these drill campaigns is described below.

#### **9.2.1. DOWNHOLE SURVEYING**

At Bibiani, downhole surveying methods have varied between the various project owners and the different drilling programmes. The database that was received from the previous owners included some historic holes with limited downhole survey data. Where possible, paper records were used to verify the downhole survey information. In some cases, underground holes could be located and resurveyed using modern surveying equipment. Where historic data could not be adequately verified or conflicted with recent drilling, the records were removed from the database.

The downhole surveys from the recent Phase 1 and Phase 2 Resolute drilling campaigns were collected using a Reflex EZTrac electronic magnetic survey tool. Surveys are obtained every 30 metres during drilling (single shot mode) and every 6 metres at the completion of drilling (multi-shot mode). Survey data is checked and verified using the Reflex SProcess software, with survey readings outside of expected magnetic and gravity values flagged and excluded. A time-dependent declination has been applied to the magnetic readings to determine UTM azimuth.

Coordinates and azimuths are reported in UTM WGS84 Zone 30 North.

#### **9.2.2. CORE PROCESSING AND LOGGING**

MGBL established a core logging area close to the drilling site for the preparation and logging of all drilling conducted during the 2013 to 2017 campaigns. The previous owners used a designated core yard for the storage of all historic core and for logging and sampling operations.

##### **CORE MARK-UP**

After drilling, the core is cleaned to remove any grease, oil, mud or debris. Once clean, work on the core mark-up commences with core orientation. The core is then inscribed with downhole metre marks according to measurements between the drill core blocks. An orientation line is added to the top of the core to assist with any sampling operations.

Core loss is the amount of core missing between two core blocks which should be recorded by the driller on the core block. Confirmation of the core loss is undertaken by measuring the core length and documenting any differences.

Each core tray was marked with identification details, including the drillhole number and tray number on the front panel and again on the top rim of the front panel. It will also have “start” and an arrow indicating the downhole direction at the front of the top rim of the left-hand side of the core tray. Because this information can be lost over time the hole ID, tray number and depths (from – to) are engraved onto the tray while in the core shed.

## CORE ORIENTATION

The majority of core orientation in the drilling conducted by MGBL uses the Reflex ACT III tool, or its equivalent. The orientation tool attaches to the back end of the drilling core tube and remains down the hole during drilling of each core length. Once activated the tool is constantly recording. At the end of the core run, the tube is retrieved as normal back on the surface. When the tube is opened the handpiece is reconnected to the orientation tool and the BOH line marked onto the core run. After marking, the core is transferred to core tray.



The MGBL procedures also require the driller to make a reference mark on the core block confirming the success or failure of the orientation measurement designated as 'ORI OK' or 'ORI FAIL'.

In the core shed, lengths of core are re-assembled using V-rails with the aim being to get as many orientation marks aligned as possible working down the hole (Figure 9.1). The orientation was matched on the rack to ensure the "best fit" alignment before transcribing the bottom of hole line onto the drill core.

## LOGGING

All of the drillholes completed during the Phase 1 and 2 campaigns for Bibiani have been logged by the Mensin Gold geology team. Logging is the practice of recording detailed geological information from drilled core or samples. The type of information recorded includes, but is not limited to:

- Lithology;
- Colour;
- Grain size;
- Alteration;
- Mineralisation;
- Vein type and percentage; and
- Weathering.

The logging process on diamond holes is completed on the full core prior to any cutting or sampling, and the RC holes were either logged at the drill rig during drilling or from chip trays at a later stage.

Logging data from diamond core and RC chips was captured digitally using LogChief logging software and then validated. The validated data was then imported into the digital drillhole database, which is a relational SQL2012 digital database supported by DataShed data management software.

All diamond core drilled and sampled by Mensin Gold includes readings of sample bulk density. In total 37,123 determinations were derived from drill core by measuring the weight in air and weight in water. For the in situ mineralisation a density value of 2.75 t/m<sup>3</sup> was assigned. Density readings were found to vary between 2.30 and 3.00 g/cm<sup>3</sup>.

For selected diamond drilling intervals geotechnical logging and structure orientation data has been measured and logged. Geotechnical logging is conducted to assess the rock mass with regard to strength and rock stability. This information is used during mine planning and mine design for pit slope stability and blasting patterns. Routine geotechnical logs include the following observations:

- Core recovery;
- RQD (rock quality designation);
- Defect type and number;
- Fracture frequency; and
- Strength.

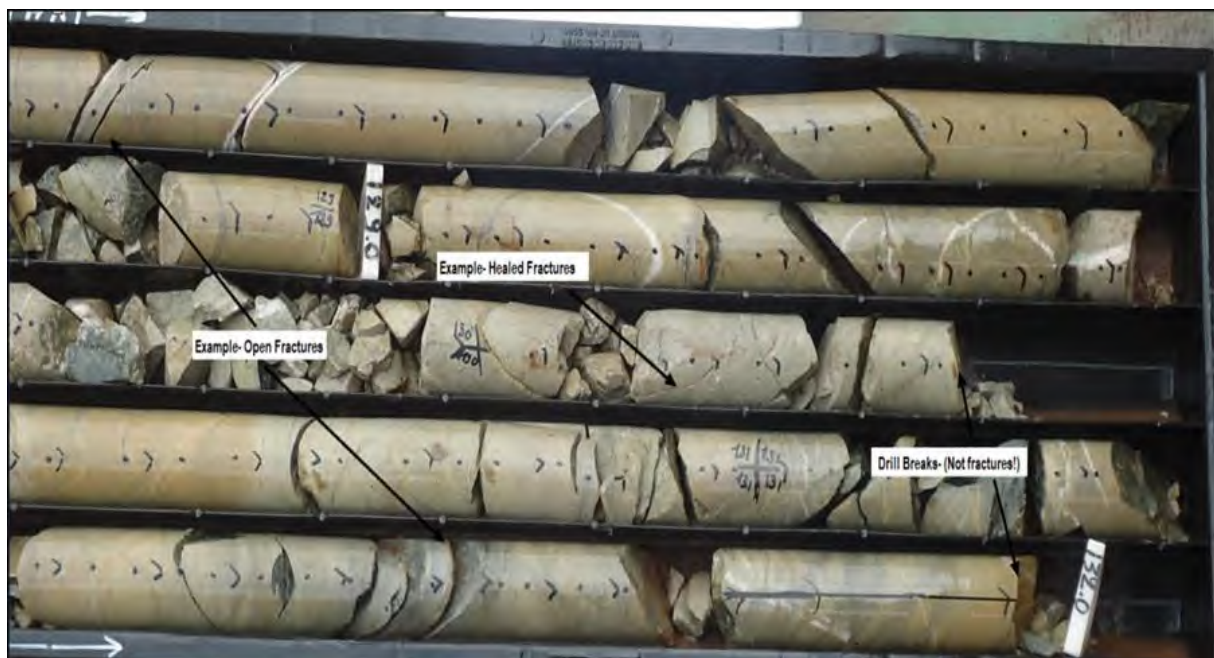
Diamond core interval recovery has been estimated by measuring from core block to core block using a tape measure. Drilling in the Bibiani project area intersected areas of historic mining with interpreted stopes and voids identified as separate intervals.

The rock quality designation (RQD) provides a numeric value to quantify the mechanical quality of rock material by measuring the length of sticks of drill core recovered from the rock mass. Good quality rock with few fractures will have a high RQD, while poor quality or strongly fractured rock will have a low RQD value (Figure 9.2). It should be noted that drilling or core handling induced breaks are not included in the fracture frequency measurement or RQD.

**Figure 9.1** Diamond core illustrating the metre mark up, orientation line and down hole arrows



**Figure 9.2** Example of diamond core with various degrees of fracturing, and the impact it has on the quality of the orientation mark-up



To provide a permanent visual record, all drill core was photographed both dry and wet. Two core trays are photographed at the same time within one frame, with an identifier included in the image which shows the drillhole number. Each tray is given a permanent aluminium tag placed at the



beginning of the tray with drillhole number, tray number and depths at the start/end of the tray clearly written or engraved on it.

## **10. SAMPLE PREPARATION, ANALYSES AND SECURITY**

### **10.1. SAMPLE DISPATCH**

#### **10.1.1. HISTORICAL DATA**

Sample data pertinent to the Mineral Resource is from drilling conducted over a broad history with numerous project owners. In 2012, Coffey Mining completed an assessment of sampling procedures during an external audit for the previous owners, Noble Mineral Resources Limited. The Coffey report concluded that the procedures of the former owners prior to 2008 were not verifiable; however, the data collected by Noble Mineral Resources Limited between 2008 and 2012 was deemed to be of an appropriate industry standard.

#### **10.1.2. MGBL PROCEDURES**

For resource drilling conducted between 2014 and 2017 by MGBL, the samples dispatched for assay were collated in a dispatch report created within DataShed software. The dispatch report included all the drill sample identification records including quality control samples, details of the analysis laboratory and the required analysis profile. Completing the dispatch form with DataShed software provided a confirmed link with sample intervals (from and to depths) and logging data already loaded within the database by the logging geologist. The Sample Dispatch form is an extension in DataShed designed for capturing all dispatch data required for submission of samples to the laboratory.

All samples for dispatch were collected into groups and sealed in bags for shipment. The number of packages for shipment was also recorded as part of the dispatch report. The laboratory was provided with an email and electronic listing of the dispatched samples.

The transport carrier was arranged by the destination laboratory and was used exclusively for the transport of project samples. Relevant information regarding the transport company was included in the dispatch report. The procedure for the arrival of the transport vehicle at the project site included the driver's name, registration of the vehicle, and the completion of a site entry permit specific to each dispatch. The vehicle was escorted through the project site and Mensin Gold personnel conducted the loading and unloading of sample packages.

All aspects of the sampling and dispatch process were supervised and tracked by Mensin Gold personnel. When the samples were received by the destination laboratory, a list of received sample numbers was compiled, and any differences to the dispatch report were noted and investigated.

### **10.2. SAMPLE PREPARATION**

The RC drill samples were riffle split (dry) at the rig to obtain a sample of 2 – 4 kg suitable for laboratory submission, and then dispatched as per the procedure described in Section 11.1.2.

After the diamond core was logged and photographed, the core was cut in half prior to sampling. One half of the core was retained for future reference and the other half was sampled. The sample intervals were set at one metre, and this ensured that each sample weighed between 2 and 4 kilograms. The one metre nominal interval lengths were adjusted around voids, to ensure samples were at least 0.5 m in length.

All the resource samples were analysed for gold at Intertek Tarkwa, which is an independent laboratory. The method used for analysis was the industry standard, 25 g fire assay technique with Atomic Absorption Spectrometry (AAS) analysis to finish. The sample preparation consisted of the following steps:

- The samples were dried in an oven;
- Samples were crushed to 10 mm;
- Samples were split;
- The split sample was pulverised to generate a pulp with 85% passing 75 microns.

For diamond core, coarse duplicates were split by the laboratory after crushing at a rate of 1 in 20 samples. Reverse circulation field duplicates were collected by MGBL personnel prior to dispatch at a rate of 1 in 20 primary samples.

### **10.3. ANALYSIS**

Coffey's 2012 review of the analysis procedures concluded that the data was found to be of industry standard for the Noble Mineral Resources Limited data (2011-2012); however, data that pre-dated Noble from 1994 to 2008 was not verifiable.

After MGBL took ownership of the Bibiani project in 2014, a data validation and verification process was initiated for available stored historical drillholes. All MGBL samples have been assayed for gold by 25g fire assay with an AAS instrument finish. The analytical method is appropriate for the style of mineralisation and constitutes a total gold extraction.

### **10.4. SECURITY**

For all MGBL drilling programmes sample security was maintained by Mensin Gold personnel during all stages of on-site preparation and dispatch.

All samples for dispatch were sealed in bags and the number of packages included in the shipment were recorded as part of the dispatch report. The laboratory was provided with an email and electronic listing of the dispatch advice. The company used for transporting the samples from site to the laboratory was used exclusively, and relevant information regarding the transport company was included in each dispatch report.

All aspects of the sampling and dispatch process were supervised and tracked by MGBL personnel. The procedure for the arrival of a transport vehicle at the Bibiani project site included greeting the vehicle at the site entrance where the driver's name, registration of the vehicle, and the completion of a site entry permit was completed. The vehicle was then escorted through the project site and MGBL personnel conducted the loading and unloading of sample packages.

## **11. DATA VERIFICATION**

### **11.1. DATA MANAGEMENT**

#### **11.1.1. HISTORICAL DRILLHOLE DATA**

Historical drilling and sampling included in the Bibiani resource estimate was completed by AngloGold Ashanti Limited (1993-2005), Central African Gold (2007-2008) and Noble Mineral Resources (2010-2012). Samples were analysed at SGS Tarkwa, SGS Bibiani, ALS Kumasi Ghana, Intertek and Performance Laboratories Ghana. Historical drillhole data represents 70% of the samples and assays used in the estimation of the current Mineral Resource.

When Resolute took ownership of the Bibiani gold project, it inherited a Datashed SQL database which contained the drilling and sampling data for the project, as well as the historical files both in digital and hardcopy format.

#### **11.1.2. RESOLUTE DRILLHOLE DATA MANAGEMENT**

All data and interpretative inputs to Mineral Resource estimates are checked and verified in accordance with a range of Resolute standard operating procedures (SOP). Core is marked up, and photographed with geology, bulk density and geotechnical information being recorded digitally using LogChief logging software. All logging and assay data is stored in a Datashed SQL database, to which login and access permissions are limited to control access and to maintain integrity of the resource data. Data access is generally limited to the geologists and database administrators.

The Datashed SQL database has several inbuilt data validation checks that run when data is imported. Any discrepancies in the data return an error and must be corrected before the database will accept the new information into the system.

### **11.2. VERIFICATION**

#### **11.2.1. HISTORICAL DRILL DATA**

Resolute initiated a data validation and verification process in 2014 and 2015 to increase confidence in the historical data collected from 1993 to 2012. This process involved cross-checking co-ordinates, surveys, samples, void intervals and assays against the original data sources, including old MS Access databases, MS Excel files, reports, and original laboratory assay certificates, both in hardcopy and digital format.

The validation of the assay data was achieved through recompiling the historical assay data from the original data sources to obtain analytical techniques, job numbers and dates, repeat assays, screen fire assay fractions and laboratory repeats, standards and blanks, as well as resampling and assaying the historical diamond core. The outcome of the assay verification process was that 38% of the assays from the historical drillholes included in the resource estimate were either sampled by or validated by Resolute.

#### **DIAMOND CORE RESAMPLING RESULTS**

Resolute resampled 4 historical holes (8LN10W05, 8LN8W03, 8LN8W04 and MPD26) which were originally drilled by CAG during 2007 and 2008. Resampling was completed to verify the original SGS

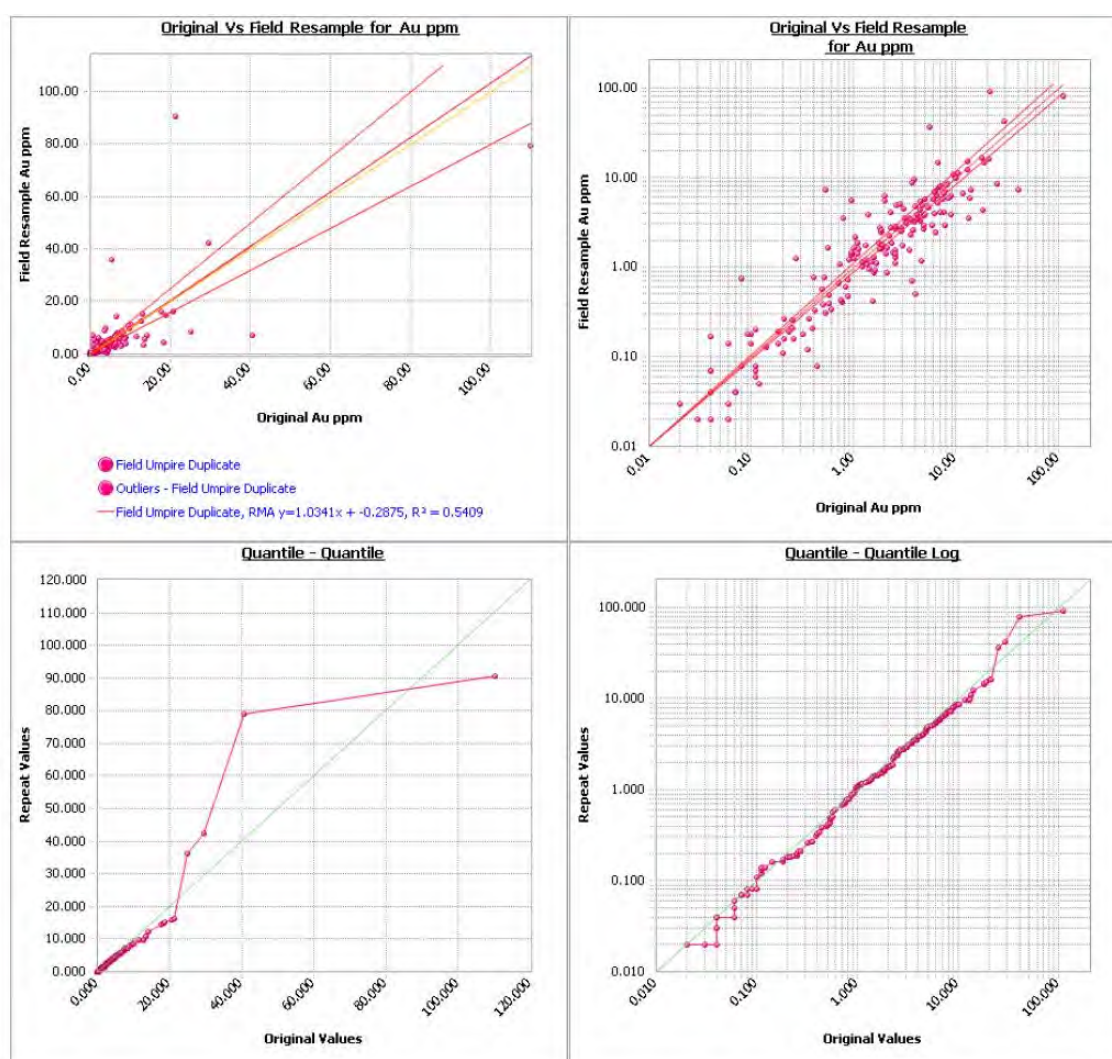
Bibiani fire assay values. All samples had an average interval length of 1 m and were remnant core samples. Samples were submitted to Intertek Tarkwa for analysis by FA25/AAS, and included in each dispatch were coarse duplicates, certified reference materials (CRMs) and blank samples.

A comparison between the original samples (Au1) and resamples (Au2), for sample pairs >0.01 ppm, is summarised in Table 11.1. Figure 11.1 illustrates the duplicate pairs as scatter and QQ plots. The pairs exhibit correlation that is consistent with core duplicates. The QP considers that the study has demonstrated the veracity of the original SGS Bibiani assays.

**Table 11.1 Field resample summary (source: Rock Solid Data Consultancy Pty Ltd, 2016)**

Range Au	No of samples	Mean Au1	Mean Au2	SD Au1	SD Au2	CV Au1	CV Au2	Mean HRD
Pairs >0.01 ppm	201	3.91	3.42	9.18	7.32	2.35	2.14	16.78

**Figure 11.1 Field resample scatter plot and Q-Q plot (source: Rock Solid Data Consultancy Pty Ltd, 2016)**



### 11.2.2. RESOLUTE QAQC PROCEDURES AND RESULTS

MGBL completed two drilling campaigns. Phase 1 saw 106 resource drillholes completed for 26,284 metres of drilling in 2014- 2015, and Phase 2 added a further 55 drillholes for 22,844 metres in June

2017. Both programmes were undertaken from a combination of surface and underground positions.

A combined total of 46,995 diamond core samples and 953 RC samples were collected between the two drill programmes. The average sample interval was 1 m. Samples were analysed at Intertek Tarkwa for gold using a 25 g fire assay charge, with AAS instrument finish.

The Resolute Quality Control (QC) protocol is designed to assess the accuracy and precision of the assay results reported by Intertek Tarkwa. QC samples were included with the main batch when submitted to the laboratory. The rates at which they were inserted into the main sample stream are detailed below:

- Coarse duplicate samples – 1 every 20 samples, duplicate samples, to test the ability of the lab to repeat the same assay result i.e. the precision of the assays.
- Blank samples – 1 every 20 samples; blanks test for any smearing of grade or cross-contamination from one sample to another through the sample preparation and/or analysis process.
- Certified Reference Material (CRM) – 1 every 20 samples; these samples have a certified gold value which is unknown to the laboratory. This QAQC type tests for the accuracy of the results returned.

As part of the quality control procedures a total of 495 coarse rejects and 1,388 pulps were re-submitted to Intertek for gold analysis. A further 316 pulps were sent to SGS Tarkwa for gold analysis.

A total of 611 gold batches were received from Intertek Tarkwa between 2014 and 2017, and SGS Tarkwa received 9 quality control batches. QC samples were included in all 611 batches and the QAQC samples represent 19% of the total Resolute samples analysed. The total number of drillholes, metres drilled, and metres sampled is summarised in Table 11.2.

**Table 11.2 Summary table for the Resolute Phase 1 and 2 drilling campaigns**

Campaign	Hole type	Holes	Metres drilled	Metres sampled
Phase 1	Diamond	93	21,110	19,267
	RC-Diamond tail	13	5,174	5,016
Phase 2	Diamond	55	22,884	22,712
<b>Total</b>		161	49,168	46,995

The performance of the CRMs, blanks, and duplicates have all been evaluated. The QP believes that the overall assessment of the quality control data is positive and provides confidence in the veracity of the gold assays used in the resource estimate.

#### **CERTIFIED REFERENCE MATERIAL (CRM) ANALYSIS**

CRMs were included in the Resolute drilling samples at regular intervals and represent 3 percent of samples analysed. Up to 13 different CRMs were used in the Resolute drilling campaigns; these were sourced from Rocklabs Limited in Auckland, New Zealand.

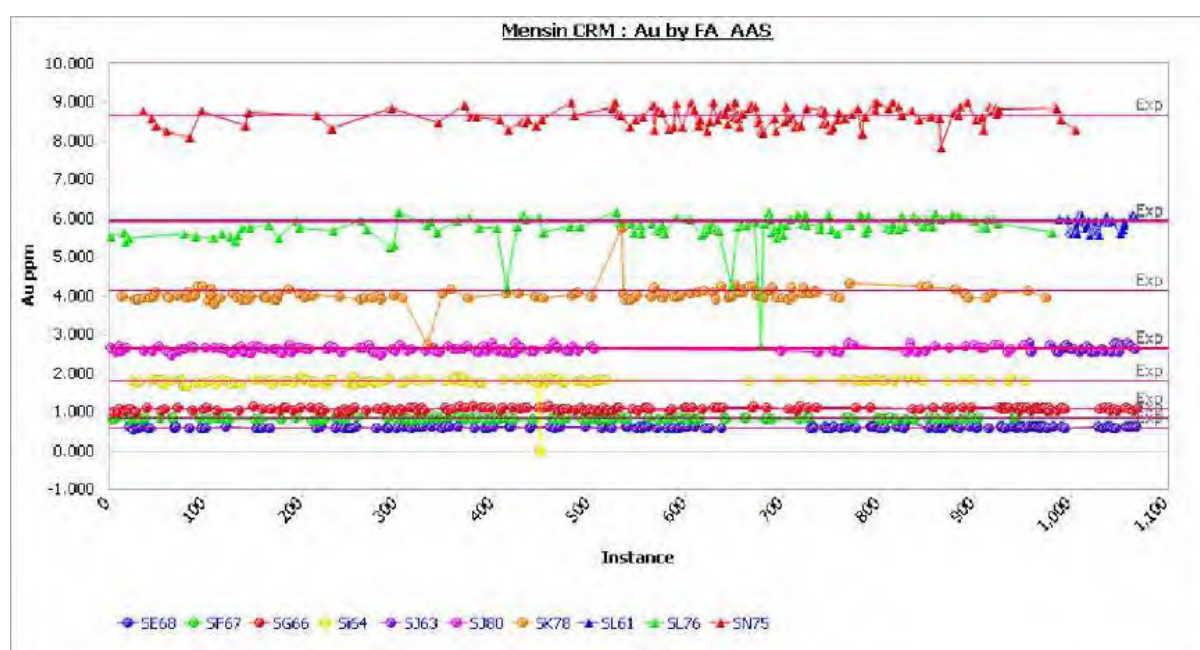


The CRMs, with expected gold values ranging from 0.599 ppm to 8.671 ppm, were used during the programme and were included in each dispatch to the laboratory. The CRMs provide a good indication of the overall accuracy and precision of each batch of analytical results.

CRM performance was monitored throughout the drilling programmes by charting the analytical results over time compared with the control limits. The overall performance of the CRMs is illustrated in Figure 11.2 below. The summary table (Table 11.3) shows the Rocklabs certified value versus the calculated mean, standard deviation and bias for the data.

A total of 1,921 CRMs were analysed; of these 96% reported within 3 standard deviations from the certified expected value. Intertek Tarkwa reported 32 significant outliers, 28 of which can be attributed to standard mix-ups either during dispatch or laboratory preparation processes.

**Figure 11.2** Resolute CRM performance chart (source: Resolute Bibiani Resource QC Report 2016)



**Table 11.3** Bibiani CRM performance summary (source: Resolute)

Standard ID	Method	Expected Au ppm	Expected SD	No. of samples	Mean Au ppm	SD	CV	Mean bias%
SE68*	FA_AAS	0.6	0.013	65	0.62	0.04	0.06	3.94%
SE86	FA_AAS	0.6	0.015	74	0.6	0.02	0.03	1.41%
SF67*	FA_AAS	0.83	0.021	46	0.85	0.04	0.05	1.72%
SF85*	FA_AAS	0.85	0.018	56	0.84	0.04	0.05	-1.03%
SG66*	FA_AAS	1.09	0.032	64	1.09	0.05	0.04	0.53%
SG84*	FA_AAS	1.03	0.025	48	1.04	0.04	0.04	1.45%
Si81*	FA_AAS	1.79	0.03	134	1.8	0.06	0.03	0.56%
SJ63*	FA_AAS	2.63	0.055	12	2.63	0.07	0.03	-0.01%
SJ80*	FA_AAS	2.66	0.057	95	2.68	0.07	0.03	1.01%
SK78	FA_AAS	4.13	0.138	78	4.12	0.17	0.04	-0.37%
SL61*	FA_AAS	5.93	0.177	5	6.01	0.13	0.02	1.37%
SL76*	FA_AAS	5.96	0.192	69	6.01	0.19	0.03	0.76%
SN75	FA_AAS	8.67	0.199	78	8.67	0.29	0.03	-0.01%
* Outliers excluded from statistics								

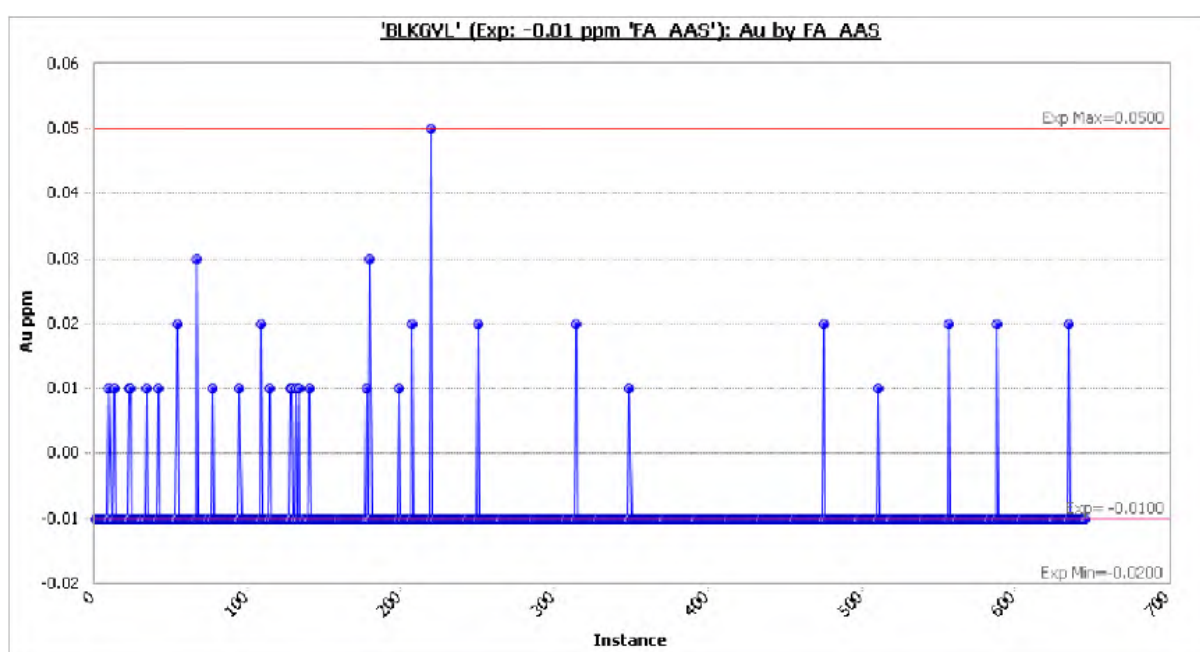
## BLANK MATERIAL

Resolute submitted barren coarse material during the two phases of drilling, to test for inter-sample contamination. The gravel used for this purpose was from a single source supply, but it was not certified.

The blanks were inserted at regular intervals and represent approximately 2% of the samples dispatched. The lower limit of acceptance was derived from the lower limit of detection (0.01 ppm) of the laboratory analytical equipment. The upper limits of acceptance of 0.05 ppm and 0.04 ppm were applied to the blanks in the Phase 1 and Phase 2 drilling respectively.

The performance of the blanks is illustrated in Figure 11.3 and Figure 11.4.

**Figure 11.3 Blank performance for Phase 1 drilling (source: Resolute Bibiani Resource QC Report 2016)**



**Figure 11.4 Blank performance for the Phase 2 drilling (source: Resolute Bibiani Resource QC Report 2018)**

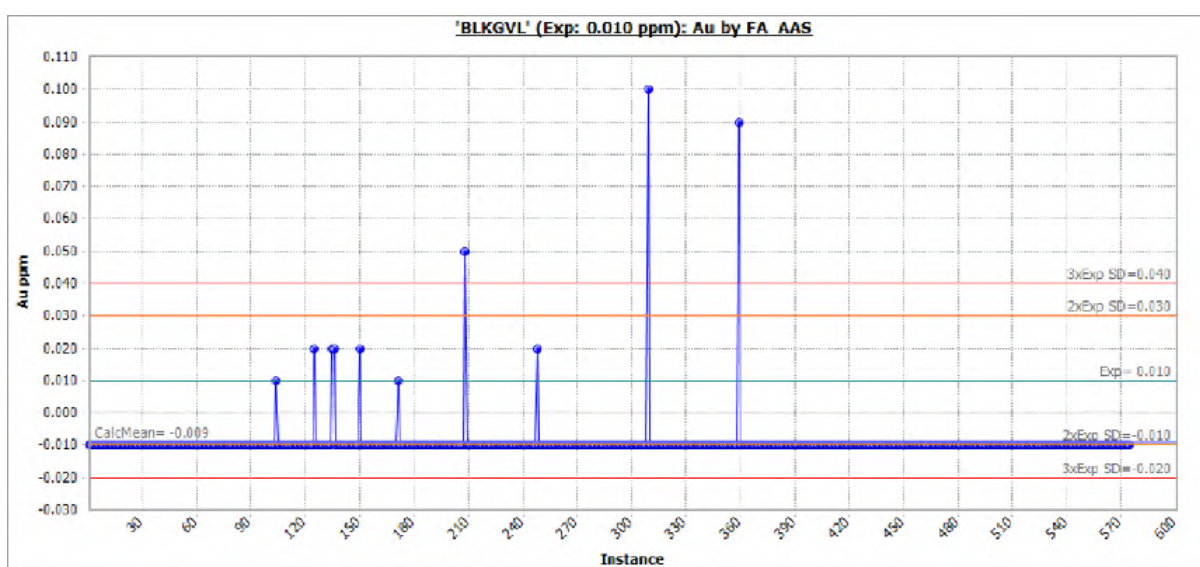




Table 11.4 summarises the performance of the blank gold results, including the expected value, calculated mean, standard deviation, and the percentage of samples that reported gold results below the upper limit of acceptance.

**Table 11.4 Bibiani blanks performance summary (source: Resolute)**

Drilling campaign	Standard	No. of samples	Expected Au ppm	Mean Au ppm	Min Au ppm	Max Au ppm	SD	CV	% < Upper limit
Phase 1	BLKGVL	648	-0.01	-0.01	-0.01	0.48	0.02	-	99.00%
Phase 2	BLKGVL	503	0.01	-0.01			0.01	0	99.00%

Of the 1,151 results reported for the blanks, only 5 exceeded the expected maximum limit; these results are reported in Table 11.5.

**Table 11.5 Bibiani blank outliers (source: Resolute)**

Standard	Lab	Batch no.	Sample ID	Exp	Au ppm
BLKGVL	ITK_TK	1884/1400874	B107770	<0.05	0.48
BLKGVL	ITK_TK	1884/1550030	B117530	<0.05	0.35
BLKGVL	ITK_TK	1884/1750539	B142030	<0.04	0.05
BLKGVL	ITK_TK	1884/1750961	B149770	<0.04	0.1
BLKGVL	ITK_TK	1884/1751238	B150330	<0.04	0.09

## COARSE DUPLICATES

During Resolute's resource drilling programs, every 1 in 20 diamond core samples was designated as a routine coarse reject duplicate. This indicates to the laboratory that these samples are to be split after the crushing stage during sample preparation and analysed by the same method in the same batch as the original parent sample.

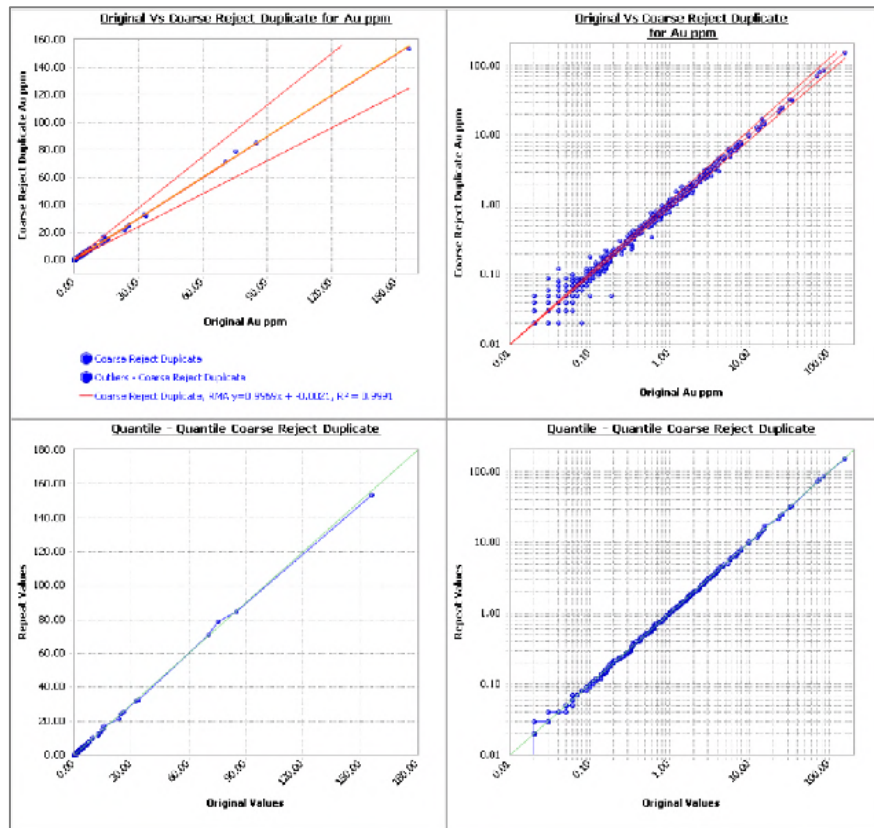
A comparison between the original assays (Au1) and the coarse duplicates (Au2), for sample pairs >0.01 ppm, is summarised in Table 11.6. A total of 1,787 sample pairs reported above 0.01 ppm. The coarse duplicate assay results exhibit good correlation with the original assays, with no indication of bias.

**Table 11.6 Bibiani coarse duplicate summary (source: Resolute)**

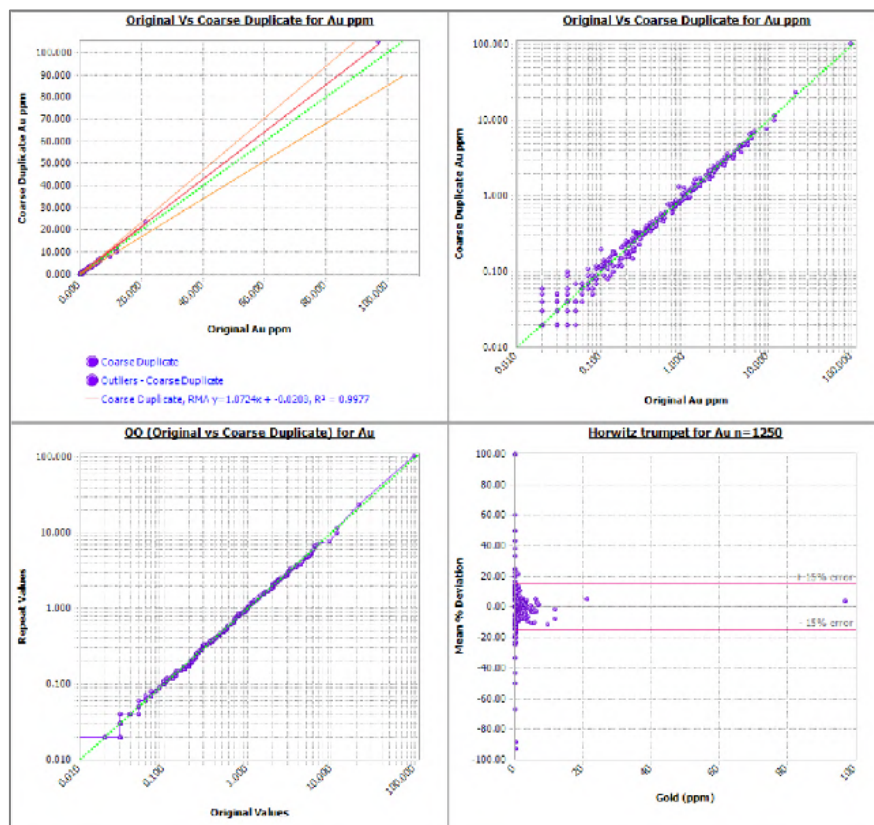
Drilling campaign	No. of samples	Mean Au1	Mean Au2	SD Au1	SD Au2	CV Au1	CV Au2	sRPHD (mean)	HRD (mean)
Phase 1	537	2.11	2.1	9.35	9.32	4.43	4.44		0.1
Phase 2	1250	0.32	0.32	2.95	3.16	9.31	9.9	0.04	

The duplicate pairs are illustrated in Figure 11.5 for the phase 1 drilling and Figure 11.6 for the phase 2 drilling.

**Figure 11.5 Coarse reject duplicate scatter plot and QQ plot for the Phase 1 drilling (Source: Resolute Bibiani Resource QC Report 2016)**



**Figure 11.6 Coarse duplicate scatter plot, Horwitz Trumpet and QQ plot for the Phase 2 drilling (Source: Resolute Bibiani Resource QC Report 2018)**



## FIELD DUPLICATES

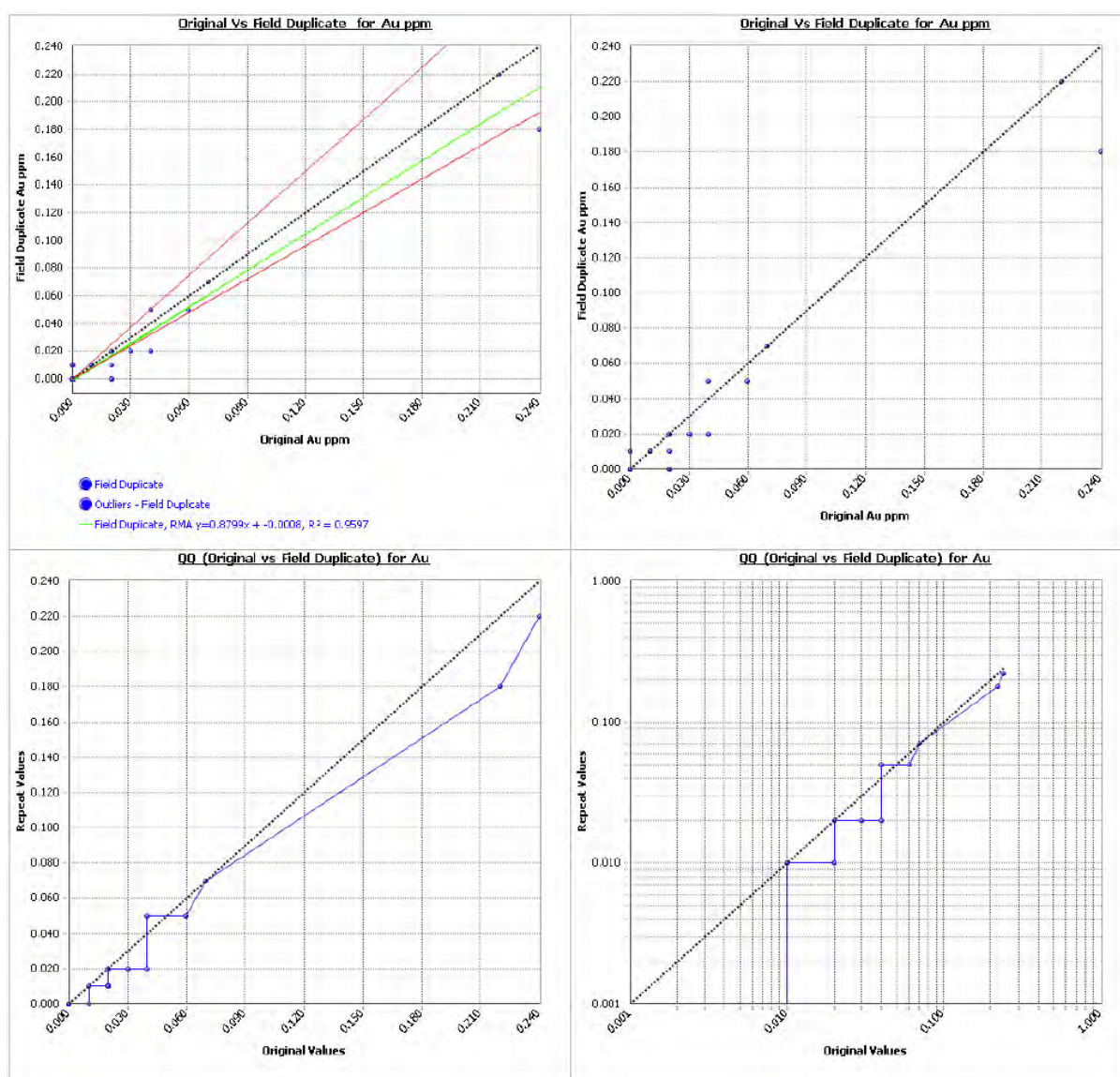
Resolute collected 52 routine RC field duplicates during the Phase 1 drilling campaign in 2014-2015. Duplicates were collected at the same time as the original sample and were analysed at Intertek Tarkwa by the same analytical method and reported in the same batch as the original parent sample.

A comparison between the original assays (Au1) and the field duplicates (Au2), for sample pairs >0.01 ppm, is summarised in Table 11.7 below. The QP considers that the QAQC reflects reliable accuracy and precision.

**Table 11.7** Field duplicate summary for sample pairs above 0.01 ppm Au (source: Resolute)

Drilling campaign	No. of samples	Mean Au1	Mean Au2	SD Au1	SD Au2	CV Au1	CV Au2	HRD (mean)
Phase 1	11	0.07	0.06	0.08	0.07	1.13	1.15	8.99

**Figure 11.7** Field duplicate scatter plot and QQ plot for the Phase 1 drilling (Source: Resolute Bibiani Resource QC Report 2016)



## 12. MINERAL PROCESSING AND METALLURGICAL TESTING

### 12.1. ORE CHARACTERISATION

Fresh rock ores at Bibiani have, on average, a low-sulphide sulphur value around 0.6% and a component of refractory gold occluded within the sulphide minerals (mainly pyrite) that requires grinding to approximately  $P_{80}$  25  $\mu\text{m}$  to enable high cyanide leach extraction. Coarse gold exists, and gravity gold recovery has proven to be significant, albeit variable in both testwork on future ore samples and in historic operating data.

Unconfirmed mild preg-robbing components are indicated in some sample tests. This may be related to organic carbon, which is present in low levels in most samples, and/or graphitic material which is noted in geological records within the Western footwall shear zones. Organic carbon tends to upgrade in the flotation concentrate.

The fresh rock is of moderate rock competency (resistant to coarse rock breakage) with a high Bond ball milling work index. Primary grinds in the range of  $P_{80}$  106 to 150  $\mu\text{m}$  enable similar flotation performance in terms of achieving high-sulphide sulphur and gold recovery to concentrate. Gold recovery appears to be more sensitive to the concentrate regrind size ( $P_{80}$  106 to  $P_{80}$  25  $\mu\text{m}$ ) relative to the primary grind size ( $P_{80}$  75 to 150  $\mu\text{m}$ ) or the flotation mass recovery.

### 12.2. METALLURGICAL TESTWORK AND GOLD RECOVERY

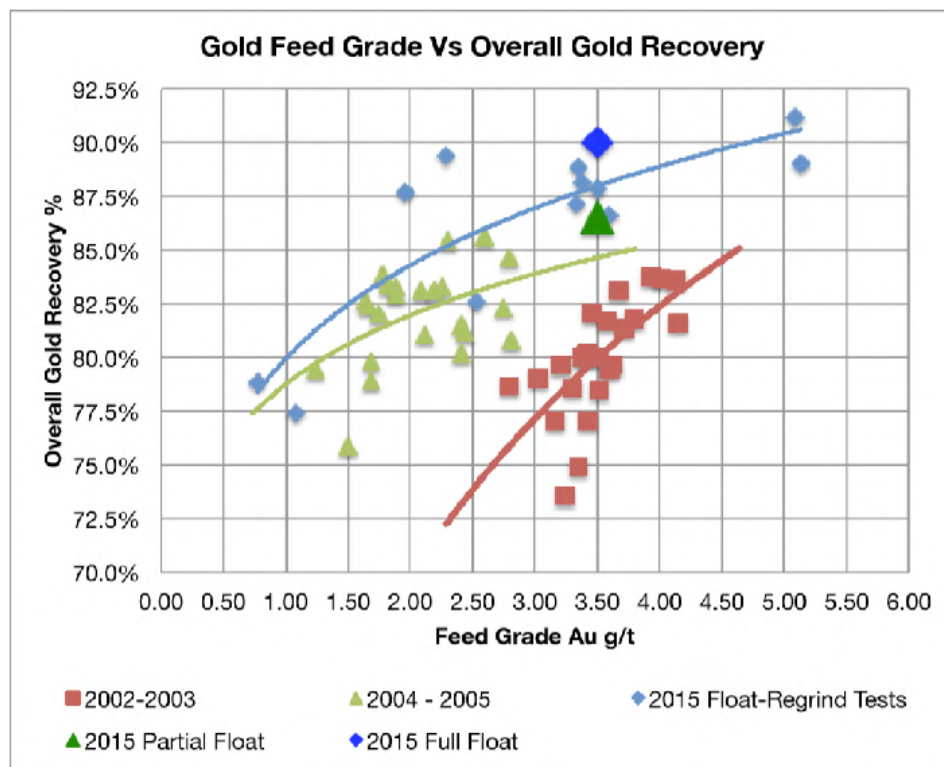
A reasonable body of metallurgical testing has been completed on mineralised samples from the Bibiani project since 2001. The programmes aimed to determine the effectiveness of traditional unit processes such as gravity concentration, flotation, fine grinding and intense leaching on samples of flotation concentrate and flotation tails as the open cut ore sources became increasingly transitional in nature.

In 2015, a metallurgical testwork programme consisting of two phases was commissioned by Resolute and completed at the ALS metallurgy laboratory in Western Australia. The first phase considered three composite samples and was completed between March 2015 and May 2015. These samples were residues from underground drillholes and were selected to provide a comparison between northern and southern mineralisation zones. The second phase considered a further 14 composite samples commencing in May 2015, also at ALS. This phase of metallurgical testwork focused on the variability of the deposit to aid the flowsheet development for plant re-commissioning.

The combined results from the two phases compares the variability and amenability of the ore to conventional processing and resulted in the development of an alternative flowsheet to previous extraction at Bibiani. The basis of the alternative flowsheet was the use of flotation to concentrate the majority of the gold and sulphides to allow targeted fine grinding of the valuable minerals for CIL treatment, separately from the flotation tailings. Results of the 2015 float-regrind testwork demonstrated a higher order gold recovery at the feed grades tested. The testwork flowsheet incorporating full flotation recovers almost all sulphide minerals for regrinding and resulted in approximately 90% overall gold recovery, significantly improved from historical averages of between 75% and 85% (Figure 12.1).



Figure 12.1 Gold feed grade versus overall gold recovery



No deleterious elements have been identified from the testwork or historical processing.

## 13. MINERAL RESOURCE ESTIMATES

### 13.1. OVERVIEW

Resolute reported an updated Mineral Resource estimate for Bibiani of 21.7 Mt at 3.59 g/t gold for 2,504 koz gold on 18 October 2017 (Optiro, 2017). The Bibiani Mineral Resources comprises solely the underground resource, which has been classified as Indicated and Inferred only. No Measured Mineral Resources have been defined for Bibiani. The Bibiani Mineral Resources have been prepared under the direction of Competent Persons under the JORC Code (2012) using accepted industry practices and have been classified and reported in accordance with the JORC Code.

### 13.2. MINERAL RESOURCE TABULATION

The Mineral Resource for Bibiani, as at 18 October 2017 and re-declared as at 31 December 2018, is presented in Table 13.1. The Mineral Resource has been reported above a 2.0 g/t gold cut-off and has been depleted for both historical open pit and underground development as at 31 August 2017. Currently there are no ongoing mining operations at Bibiani, with production stopping in 2013. The Bibiani Mineral Resources have been classified as Indicated and Inferred Resources, as defined by the JORC Code (2012). Totals may not sum due to rounding.

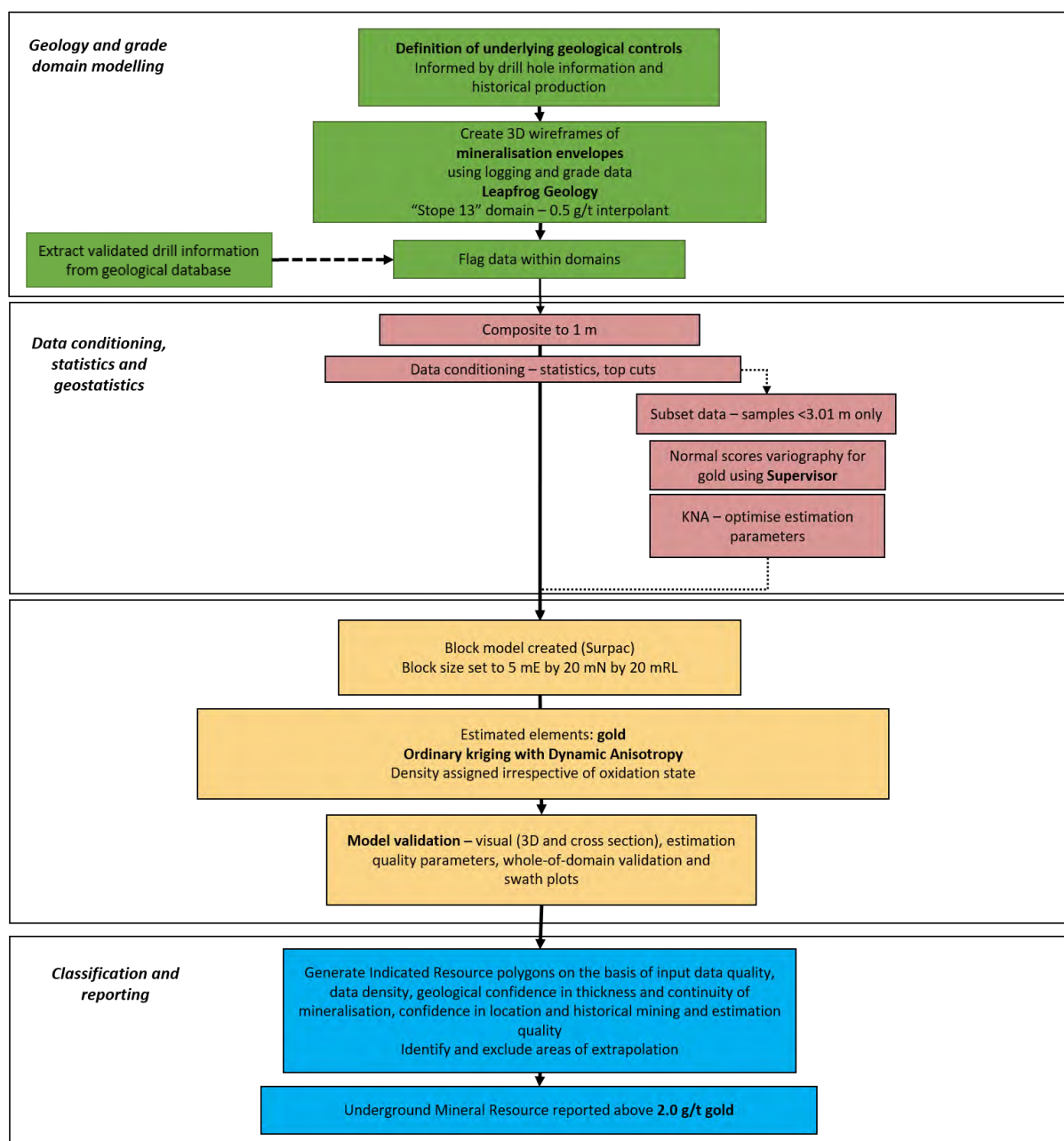
**Table 13.1 Bibiani project Mineral Resources reported at 31 December 2018**

Resource classification	Tonnes (Mt)	Gold grade (g/t)	Contained gold (koz)
Indicated	13.26	3.5	1,490
Inferred	8.44	3.7	1,010
<b>Total</b>	<b>21.69</b>	<b>3.6</b>	<b>2,500</b>

Note: Totals may not sum due to rounding. Reported above a cut-off of 2.0 g/t gold. Mineral Resources are inclusive of Ore Reserves.

### 13.3. MINERAL RESOURCE WORKFLOW

A simplified workflow of the current Mineral Resource process is presented in Figure 13.1.

**Figure 13.1 Mineral Resource workflow**

### 13.4. GEOLOGICAL MODEL AND MINERALISATION DOMAINS

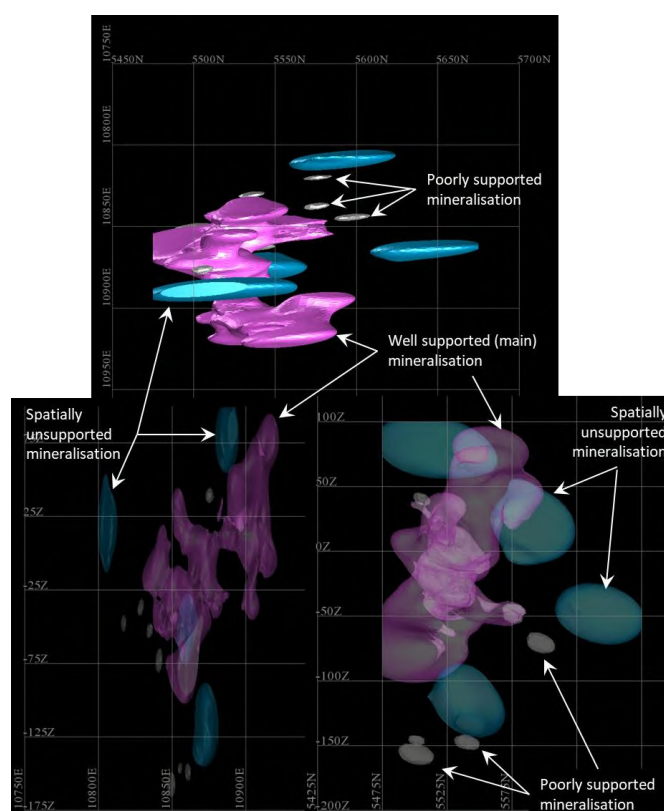
The geological understanding of the Bibiani deposit is well defined and has been informed by geological observations from both the historical open pit and underground mining operations, as well as drill data and underground channel sampling. The Bibiani deposit is hosted within a thick sequence of fine-grained graded turbidites, interspersed with thin, localised, fine- to medium-grained turbiditic sandstones. The geometry of the mineralisation is structurally controlled, and is hosted in a steep, north to northeast trending shear corridor ranging in width of 200 m to 400 m. In general, mineralisation lodes dip east at between 60° to 80°, cross-cutting the regional shear structure at low angles. In the widest parts of the orebody, two (and locally up to three) individual quartz reefs or lodes have been identified.

Three-dimensional mineralisation interpretations were generated using Leapfrog Geology software by MGBL geologists using the available diamond and RC drilling as well as underground channel sampling. Interpretations were geology based, guided by the presence of a logged structure, with or without quartz veining, and combined with gold grade. A total of eleven mineralised domains were created using this method (Table 13.2). One domain, 'Stope 13' was created using a 0.5 g/t gold interpolant in Leapfrog Geology. This process generated multiple wireframes (Figure 13.2); however, only wireframes considered to be well supported (pink), informed by multiple drillholes and samples, were used in the Mineral Resource. Both plan and oblique views of the domains modelled at Bibiani are presented in Figure 13.3 and Figure 13.4 respectively.

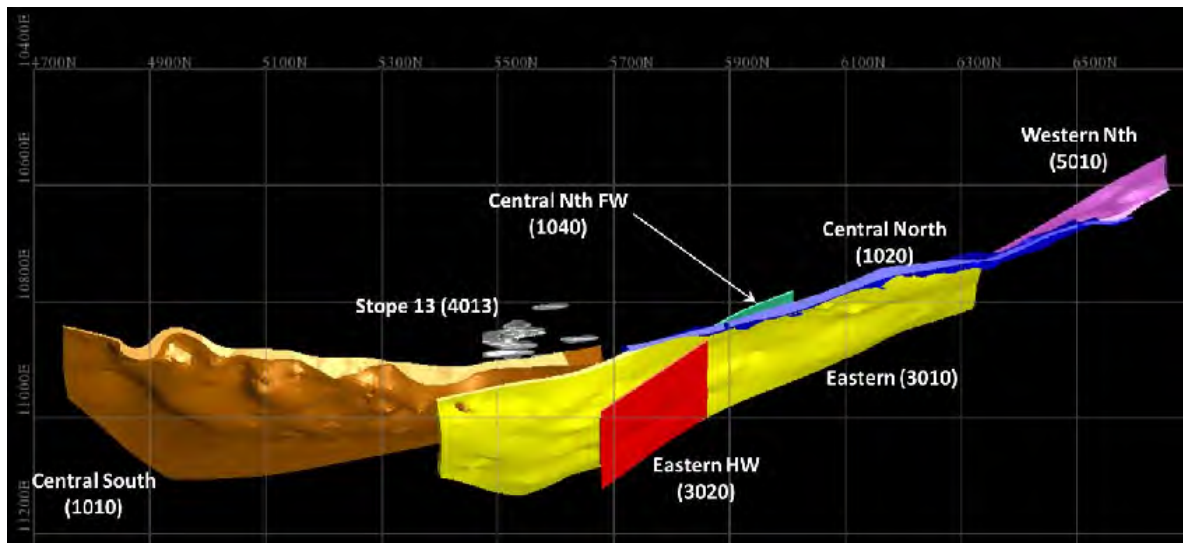
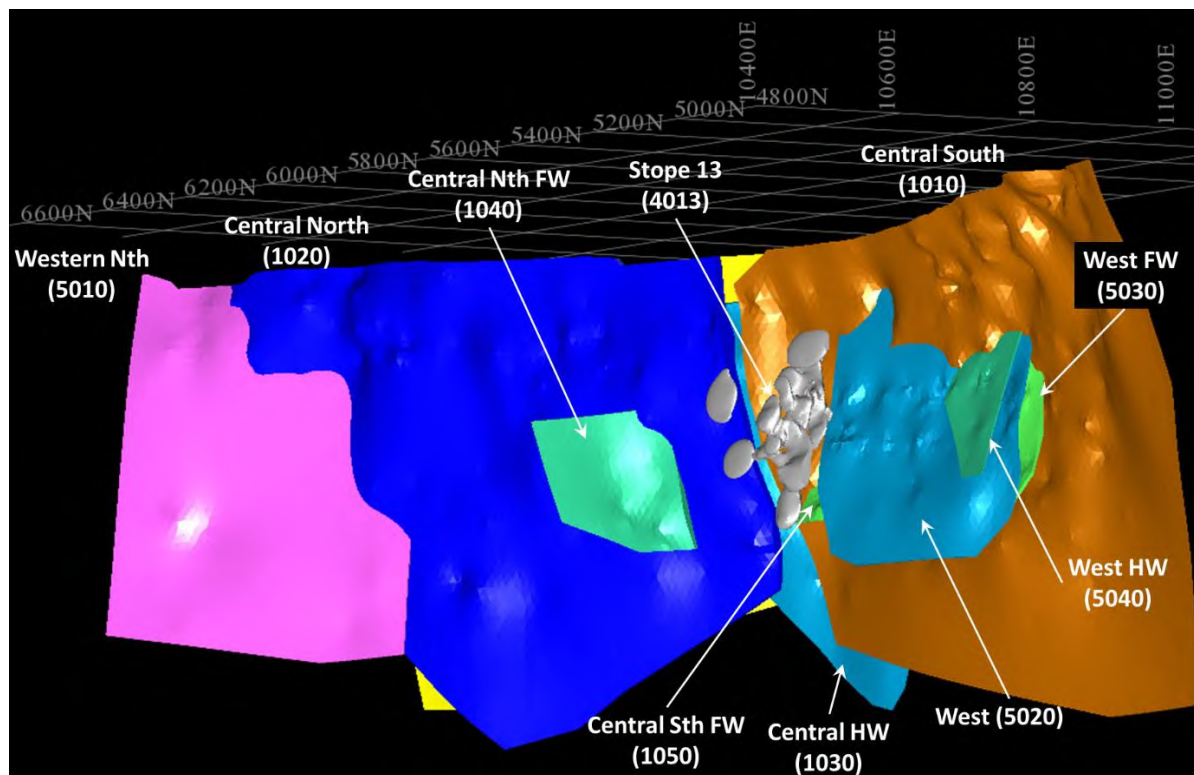
**Table 13.2 Mineralisation domains**

Zone code	Description
1010	Central lode - south
1020	Central lode - north
1030	Central lode - hangingwall
1040	Central lode - north, footwall
1050	Central lode - south, footwall
3010	Eastern lode
3020	Eastern lode - hangingwall
4013	Stope 13
5010	West lode - north
5020	West lode
5030	West lode - footwall
5040	West lode - hangingwall

**Figure 13.2 Stope 13 wireframes categorised by supporting information (source: Optiro, 2017)**





**Figure 13.3** Plan view of Bibiani mineralisation domains (source: Optiro, 2017)**Figure 13.4** Oblique view of Bibiani mineralisation domains looking northeast (source: Optiro, 2017)

### 13.5. DATA CONDITIONING

Data for the Mineral Resource is comprised of diamond and RC drilling, as well as a proportion of underground channel sampling from either face, wall or back exposures. Using Surpac software, the data was flagged inside the three-dimensional wireframes and coded by domain. A composite length of 1 m was selected as appropriate; however, prior to compositing, it was noted that many samples had sample lengths exceeding 1.5 m, including approximately 16 % (by length) of samples which exceeded 3.0 m. After investigation by MGBL geologists, these samples were determined to be predominantly underground channel samples or intercepts from mineralised fill material from

within mined voids and were included. Compositing of these larger samples to 1 m has the potential to bias the statistical and variography analysis and, as such, samples greater than 3.01 m were excluded from this analysis.

All samples were composited to 1 m using a best-fit approach using a minimum composite length of 0.30 m. Comparisons between the raw and composited sample lengths and grade (metal) were used to validate the compositing process. Naïve composite statistics for all samples and the subset used for variography are presented in Table 13.3. Overall, the coefficients of variation (CV) for each domain are considered relatively low for shear-hosted gold mineralisation (Optiro, 2017), with all domains having large positive coefficients of skewness.

**Table 13.3 Composite statistics (source: Optiro, 2017)**

Domain	1010	1020	1030	1040	1050	3010	3020	4013	5010	5020	5030	5040
<b>1 m composites (all)</b>												
<b>Samples</b>	7,739	3,497	1,210	94	197	2,156	136	953	593	1,805	787	280
<b>Minimum</b>	0.001	0.001	0.001	0.06	0.009	0.001	0.005	0.01	0.005	0.001	0.005	0.005
<b>Maximum</b>	154.8	155.9	123.9	25.1	13.6	190	164.8	54.5	52.2	44.7	21.8	14.9
<b>Mean</b>	<b>3.26</b>	<b>2.75</b>	<b>4.01</b>	<b>2.89</b>	<b>1.27</b>	<b>2.48</b>	<b>2.35</b>	<b>3.78</b>	<b>1.86</b>	<b>2.39</b>	<b>1.74</b>	<b>1.61</b>
<b>Standard deviation</b>	5.87	6.87	10.65	3.77	1.72	8.96	14.24	5.69	4.65	2.9	2.36	1.99
<b>CV</b>	1.8	2.5	2.7	1.3	1.4	3.6	6	1.5	2.5	1.2	1.4	1.2
<b>Variance</b>	34.42	47.25	113.45	14.18	2.96	80.27	202.69	32.42	21.57	8.41	5.57	3.98
<b>1 m composites (variography subset)</b>												
<b>Samples</b>	7,414	3,128	1,144	94	197	2,028	128	950	541	1,766	776	280
<b>Minimum</b>	0.001	0.001	0.001	0.06	0.009	0.001	0.005	0.01	0.005	0.001	0.005	0.005
<b>Maximum</b>	154.85	155.89	123.87	25.05	13.59	190	164.75	54.5	52.21	44.71	21.8	14.94
<b>Mean</b>	<b>3.23</b>	<b>2.89</b>	<b>4.18</b>	<b>2.89</b>	<b>1.27</b>	<b>2.56</b>	<b>2.5</b>	<b>3.79</b>	<b>1.93</b>	<b>2.4</b>	<b>1.76</b>	<b>1.61</b>
<b>Standard deviation</b>	5.8	7.11	11.02	3.77	1.72	9.18	14.67	5.7	4.82	2.91	2.37	1.99
<b>CV</b>	1.8	2.5	2.6	1.3	1.4	3.6	5.9	1.5	2.5	1.2	1.3	1.2
<b>Variance</b>	33.64	50.6	121.49	14.18	2.96	84.31	215.11	32.48	23.27	8.49	5.61	3.98

Top-cut analysis was completed using a combination of approaches, including examination of the grade distributions (histograms and probability plots), domain statistics and population disintegration. Although many of the statistical measures of outlier grade distribution were not extreme, all domains contained some outlier values when compared with the overall domain population. As such, top-cutting (or capping) of these identified outliers was completed to minimise the local impact of these samples on the estimate. The top-cuts selected, and the impact on the domain statistics for all composites and the variography subsets, are presented in Table 13.4.

**Table 13.4 Domain top-cuts**

Domain	No. composites	Top-cut			Mean			Coefficient of variation		
		Value	# cut	Percentile	Uncut	Cut	% diff.	Uncut	Cut	% diff.
1 m composites (all)										
1010	7,739	60	16	99.8%	3.26	3.21	-2.0%	1.8	1.59	-12%
1020	3,497	30	40	98.8%	2.75	2.49	-10.0%	2.5	1.77	-29%
1030	1,210	48	16	98.6%	4.01	3.57	-11.0%	2.66	2.1	-21%
1040	94	12	2	97.9%	2.89	2.69	-7.0%	1.3	1.06	-18%

Domain	No. composites	Top-cut			Mean			Coefficient of variation		
		Value	# cut	Percentile	Uncut	Cut	% diff.	Uncut	Cut	% diff.
1050	197	8	2	99.0%	1.27	1.23	-3.0%	1.36	1.23	-10%
3010	2,156	22	29	98.6%	2.48	1.94	-22.0%	3.61	1.97	-45%
3020	136	10	3	98.4%	2.35	1.13	-52.0%	6.05	1.79	-70%
4013	953	42	4	99.6%	3.78	3.74	-1.0%	1.51	1.45	-4%
5010	593	20	9	98.5%	1.86	1.67	-10.0%	2.5	2.01	-20%
5020	1,805	30	1	99.9%	2.39	2.38	-0.3%	1.21	1.18	-3%
5030	787	12	4	99.5%	1.74	1.71	-2.0%	1.36	1.28	-5%
5040	280	9	3	99.1%	1.61	1.57	-3.0%	1.24	1.12	-10%
Variography subset										
1010	7,414	60	14	99.8%	3.23	3.18	-2.0%	1.8	1.57	-12%
1020	3,128	30	37	98.8%	2.89	2.6	-10.0%	2.46	1.71	-30%
1030	1,144	48	17	98.5%	4.18	3.7	-12.0%	2.64	2.07	-22%
1040	94	12	2	97.9%	2.89	2.69	-7.0%	1.3	1.06	-18%
1050	197	8	2	99.0%	1.27	1.23	-3.0%	1.36	1.23	-10%
3010	2,028	22	30	98.5%	2.56	1.98	-23.0%	3.59	1.92	-47%
3020	128	10	3	98.3%	2.5	1.2	-52.0%	5.87	1.73	-71%
4013	950	42	4	99.6%	3.79	3.76	-0.9%	1.5	1.45	-3%
5010	541	20	9	98.4%	1.93	1.73	-11.0%	2.49	2	-19%
5020	1,766	30	1	99.9%	2.4	2.39	-0.3%	1.21	1.18	-3%
5030	776	12	4	99.5%	1.76	1.73	-2.0%	1.34	1.27	-5%
5040	280	9	3	99.1%	1.61	1.57	-3.0%	1.24	1.12	-10%

### 13.6. VARIOGRAPHY

Variography for the mineralised domains was completed in Supervisor v8.7 using normal score transformed data, with the variogram model back-transformed prior to use. For domains with insufficient samples (1040, 1050 and 3020) variogram orientations were borrowed from similarly orientated domains, and the variogram model applied from the zone which best matched the statistical parameters. For domain 4013 (Stope 13), created using the 0.5 g/t interpolant in Leapfrog, the directions of maximum continuity in both the horizontal and across strike variograms were oblique to the modelled geometries. As such, both directions were realigned to fit the overall geology of the mineralised package.

Although there is an overall arcuate geometry to the more strike extensive domains, the rate of change did not justify the use of an unfolding approach and the variography was prepared in Euclidean space (Optiro, 2017). The downhole variogram was used to define the nugget component of the modelled variogram and the spatial variograms were modelled using spherical structures. All back-transformed variogram models are presented in Table 13.5.

**Table 13.5 Domain variogram models (back-transformed) (source: Optiro, 2017)**

Zone	Directions	C <sub>0</sub>	Structure 1		Structure 2		Structure 3	
			C <sub>1</sub>	A <sub>1</sub>	C <sub>2</sub>	A <sub>2</sub>	C <sub>3</sub>	A <sub>3</sub>
1010	-10°/350°	0.13	0.61	17	0.2	188.5	0.05	329.5
	-80°/170°			5.5		112		256
	00°/260			4.5		33		33.5

Zone	Directions	C <sub>0</sub>	Structure 1		Structure 2		Structure 3	
<b>1020</b>	-10°/168°	0.08	0.65	19.5	0.21	92	0.06	560
	76°/215°			11.5		93.5		102.5
	-10°/260°			26		26.5		26.5
<b>1030</b>	-76°/040°	0.09	0.53	15.2	0.27	16.4	0.11	128.5
	-10°/173°			46.3		46.4		46.5
	-10°/265°			3.5		11		11.1
<b>1040</b> (directions 1020, model 5030)	-10°/168°	0.05	0.46	23.4	0.31	60.3	0.18	209.3
	76°/215°			8.3		85.6		85.7
	-10°/260°			2.5		22.2		22.3
<b>1050</b> (directions and model 5040)	-46°/348°	0.11	0.3	8	0.39	8.5	0.19	51.5
	-37°/206°			7.8		21.6		35.5
	20°/280°			1		8.5		8.5
<b>3010</b>	00°/340°	0.13	0.57	68.2	0.16	99.9	0.14	139.6
	-70°/070°			9.4		68.4		68.5
	-20°/250°			4.7		30.5		30.6
<b>3020</b> (directions 1020, model 5030)	-10°/168°	0.05	0.46	23.4	0.31	60.3	0.18	209.3
	76°/215°			8.3		85.6		85.7
	-10°/260°			2.5		22.2		22.3
<b>4013</b>	-80°/270°	0.35	0.27	5.7	0.27	9.7	0.11	36.7
	00°/180°			5.5		15.5		27.7
	10°/270°			2.8		11.3		21.4
<b>5010</b>	-40°/340°	0.06	0.71	43.1	0.23	198.6		
	-50°/160°			51.2		54.5		
	00°/250°			9.9		10		
<b>5020</b>	-49°/192°	0.18	0.6	15.8	0.22	33.1		
	39°/172°			8.1		19		
	10°/270°			3.5		9.2		
<b>5030</b>	-29°/166°	0.05	0.46	23.4	0.31	60.3	0.18	209.3
	59°/143°			8.3		85.6		85.7
	10°/250°			2.5		22.2		22.3
<b>5040</b>	-46°/348°	0.11	0.3	8	0.39	8.5	0.19	51.5
	-37°/206°			7.8		21.6		35.5
	20°/280°			1		8.5		8.5

### 13.7. BULK DENSITY

A database containing 39,862 density determinations exists for the Bibiani deposit. Approximately 1% of the density data (2,509) was excluded during the validation process, which identified issues including erroneous hole locations, duplicates, sampling issues or suspect readings. A total of 37,123 data points were categorised into material type, with no statistical differences observed. As such, a density value of 2.75 t/m<sup>3</sup> was assigned to in situ mineralisation, irrespective of oxidation/weathering. This remains unchanged from previous estimates.

Procedures detailing the collection of the bulk density information are unavailable, and it is noted that some determinations were whole runs along a drillhole while others were 'spot' density readings, measured at a fixed distance downhole or at identified features in the core. Past production at Bibiani and reconciliation has confirmed that the assigned density value is appropriate.

### 13.8. BLOCK MODELLING

A block model was created in Surpac utilising the block model parameters presented in Table 13.6. The block model is not rotated and was created using the local mine grid. Comparison between the

domain wireframes and block model volumes confirms that these parameters appropriately capture the mineralisation.

**Table 13.6 Bibiani block model parameters**

	<b>Northing (mN)</b>	<b>Easting (mE)</b>	<b>Elevation (mRL)</b>
<b>Minimum coordinates</b>	4,500	10,400	-500
<b>Maximum coordinates</b>	7,000	11,400	420
<b>Parent block size (m)</b>	20.0	5.0	20.0
<b>Minimum block size (m)</b>	5.0	0.625	5.0

Kriging Neighbourhood Analysis (KNA) was undertaken using Supervisor v8.7 to ensure the optimal block size and estimation parameters (minimum and maximum numbers of informing samples, search radius and discretisation) were selected. Domain 1010, the Central South domain which had the greatest gold accumulation (volume x mean grade), was selected to test the optimal block size. Using the domain variography and several block locations, comparative metrics (kriging efficiency, slope of regression and number of negative weights) were analysed. In summary, a block size of 5 mE by 20 mN by 20 mRL was selected, with testing on other significant domains supporting its suitability.

The number of informing samples were then tested for the selected block size and consistently a minimum of 8 samples was required. No significant improvement in the estimation metrics was observed for any of the zones once there were at least 36 samples, and so these limits were selected as the minimum and maximum number of informing samples for estimation.

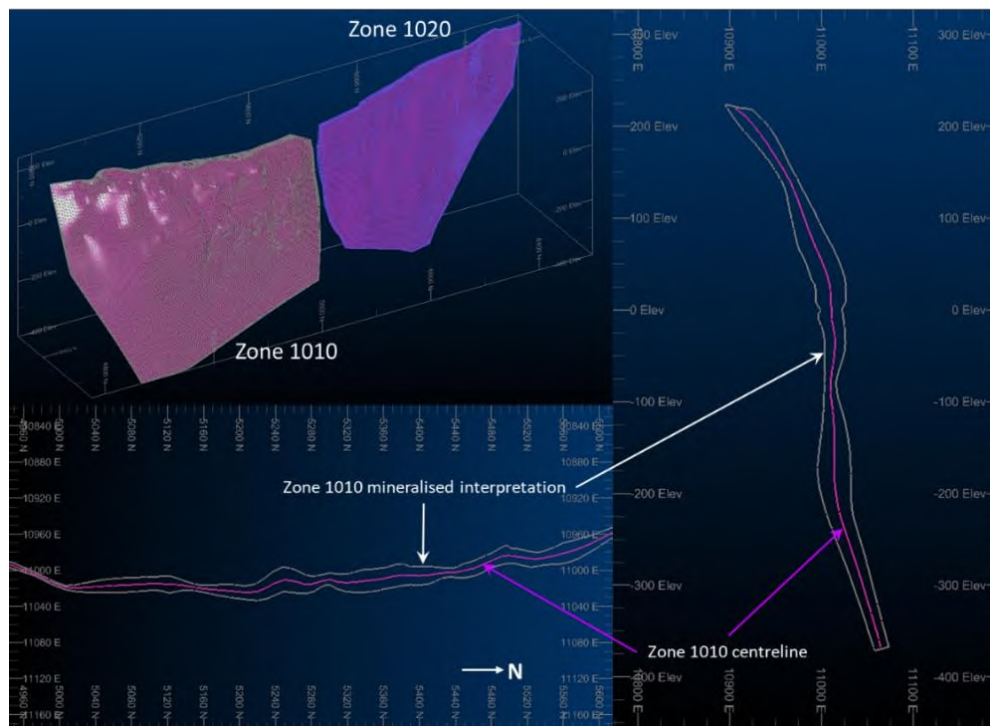
### 13.9. GRADE ESTIMATION

The block model was exported into Datamine Studio RM for estimation of gold using Ordinary Kriging (OK). Both the cut and uncut gold grades have been estimated to assist mine planning in an assessment the associated grade risk. No other elements have been estimated. Due to the arcuate overall geometry of the mineralisation, dynamic anisotropy (DA) was adopted for grade estimation. DA uses local orientation information to transform the search and variogram ellipses for estimation for each block, optimising the estimation for domains with varying geometry like that at Bibiani. Centreline wireframes were prepared (Figure 13.5) and used to estimate the true dip and true dip direction (Figure 13.6) for each domain.

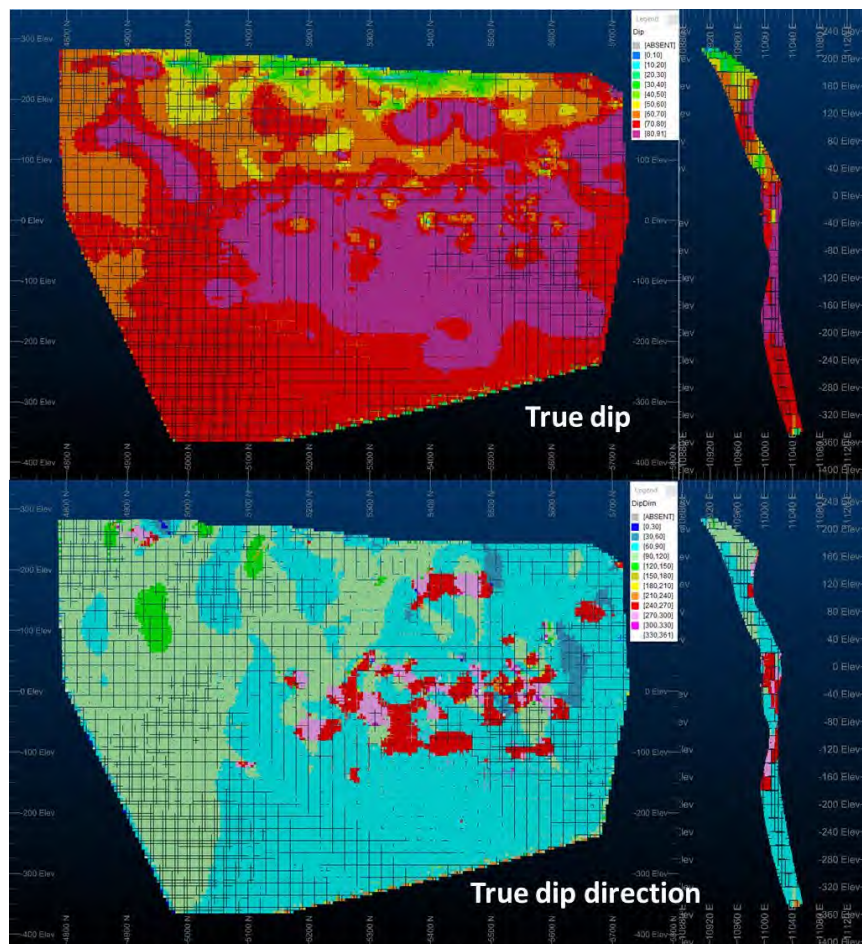
Search parameters are presented in Table 13.7. A maximum of 4 samples per drillhole was used to ensure that at least two drillholes were informing each block estimate. A total of three search passes were used; if blocks remained un-estimated after the final pass blocks were assigned the grade of the nearest informed block. Of the total model, 82% (by volume) was estimated in the first pass, 7% in the second pass, 10% in the third pass and 2% had grades assigned.



**Figure 13.5** Dynamic anisotropy centreline examples (upper left oblique view, lower left plan view and right cross-section view) (source: Optiro, 2017)



**Figure 13.6** Domain 1010 long-section and cross-section views showing true dip (upper) and true dip direction (lower) (source: Optiro, 2017)



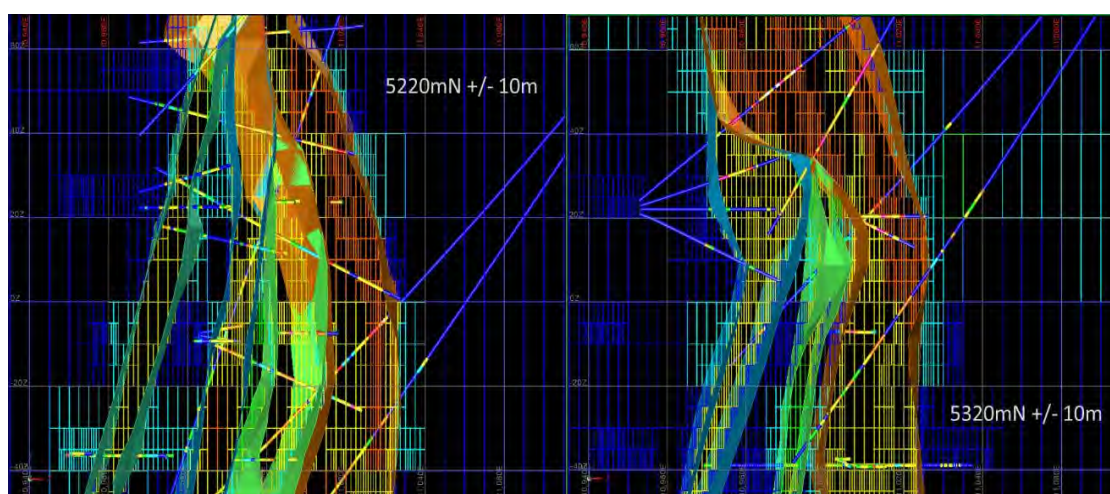
**Table 13.7 Search parameters**

Zone	Pass 1	Pass 2	Pass 3
	8 to 36 samples	8 to 36 samples	8 to 24 samples
1010	175 m by 85 m by 20 m	218.75 m by 106.25 m by 25 m	437.5 m by 212.5 m by 50 m
1020	175 m by 85 m by 20 m	218.75 m by 106.25 m by 25 m	437.5 m by 212.5 m by 50 m
1030	150 m by 50 m by 15 m	187.5 m by 62.5 m by 18.75 m	375 m by 125 m by 37.5 m
1040	150 m by 50 m by 15 m	187.5 m by 62.5 m by 18.75 m	375 m by 125 m by 37.5 m
1050	75 m by 50 m by 10 m	93.75 m by 62.5 m by 12.5 m	187.5 m by 125 m by 25 m
3010	150 m by 50 m by 15 m	187.5 m by 62.5 m by 18.75 m	375 m by 125 m by 37.5 m
3020	150 m by 50 m by 15 m	187.5 m by 62.5 m by 18.75 m	375 m by 125 m by 37.5 m
4013	75 m by 50 m by 10 m	93.75 m by 62.5 m by 12.5 m	187.5 m by 125 m by 25 m
5010	75 m by 50 m by 10 m	93.75 m by 62.5 m by 12.5 m	187.5 m by 125 m by 25 m
5020	75 m by 50 m by 10 m	93.75 m by 62.5 m by 12.5 m	187.5 m by 125 m by 25 m
5030	175 m by 85 m by 20 m	218.75 m by 106.25 m by 25 m	437.5 m by 212.5 m by 50 m
5040	75 m by 50 m by 10 m	93.75 m by 62.5 m by 12.5 m	187.5 m by 125 m by 25 m

### 13.10.MODEL VALIDATION

Initial validation consisted of a visual comparison of the input samples and the estimated block grade in cross section (Figure 13.7). Global domain comparisons between the top-cut composites and the block model estimates were also completed (Table 13.8). Composites were also declustered, using both cell and polygonal declustering for this comparison. Swath or profile plots were generated for each domain along easting, northing and elevation dimensions. An example from domain 1010 is presented in Figure 13.8.

No reconciliation between historical production and the 2017 Mineral Resource has been completed to date.

**Figure 13.7 Comparison between composites and block grades in cross section (source: Optiro, 2017)**

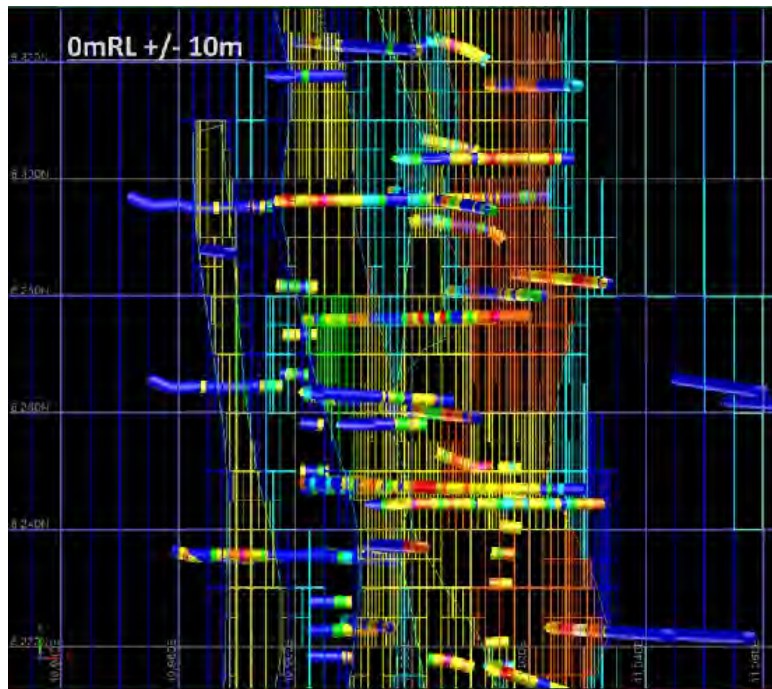
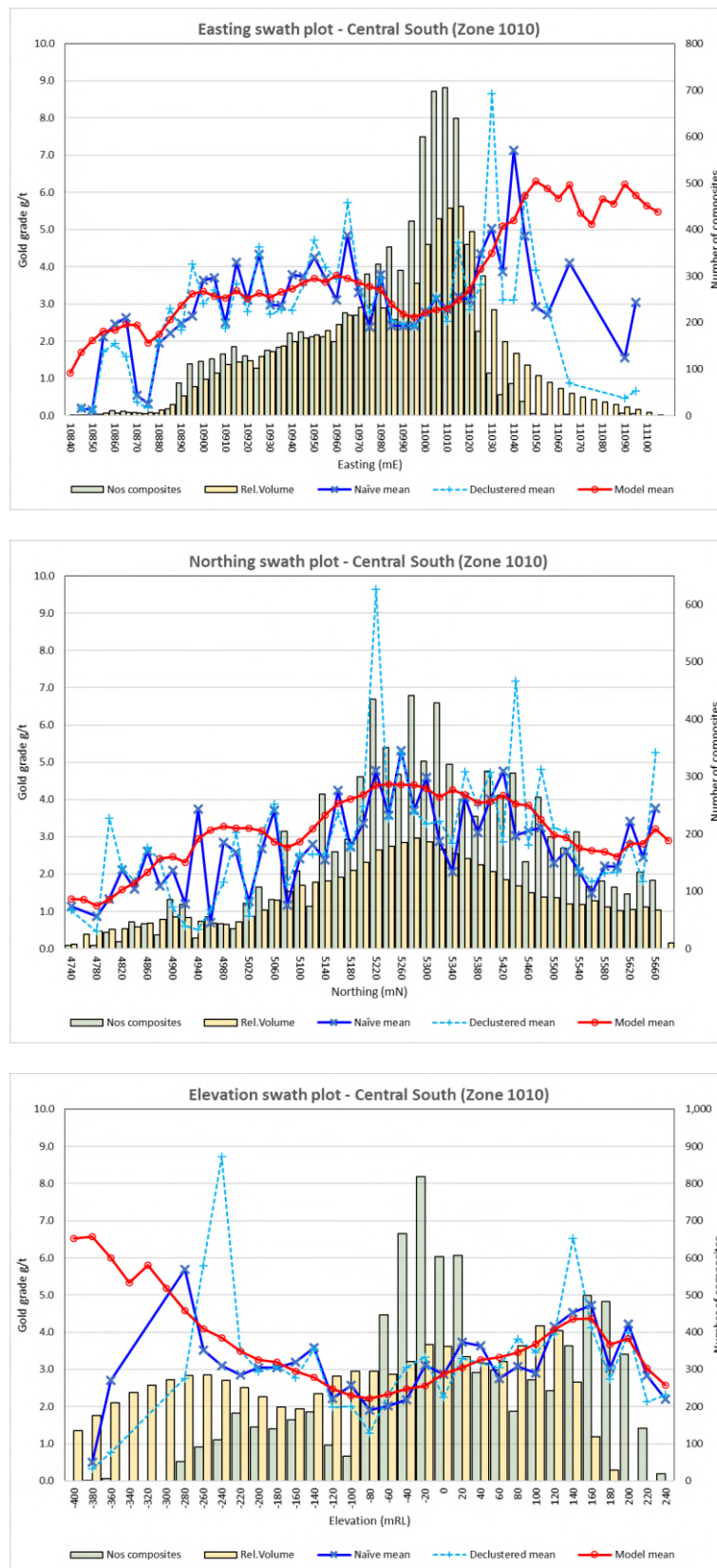


Table 13.8 Global composite and block estimate comparisons (source: Optiro, 2017)

Zone	Estimate	Input data						
		No. samples	Top-cut (g/t)	% diff.	Cell declustered mean (g/t)	% diff.	Polygonal declustered mean (g/t)	% diff.
1010	3.55	7,739	3.21	10%	3.34	6%	3.53	1%
1020	2.57	3,497	2.49	3%	2.58	0%	2.52	2%
1030	3.73	1,210	3.57	4%	4.11	-9%	3.34	12%
1040	2.39	94	2.69	-11%	2.56	-6%	2.85	-16%
1050	1.31	197	1.23	7%	1.2	10%	1.26	4%
3010	1.92	2,156	1.94	-1%	2.03	-5%	2.05	-6%
3020	1.55	136	1.13	37%	1.21	28%	1.6	-3%
4013	2.88	953	3.74	-23%	2.86	1%	3.09	-7%
5010	1.62	593	1.67	-3%	1.6	2%	1.37	18%
5020	2.36	1,805	2.38	-1%	2.41	-2%	2.41	-2%
5030	1.58	787	1.71	-8%	1.64	-4%	1.58	0%
5040	1.52	280	1.57	-3%	1.33	14%	1.45	5%



**Figure 13.8 Swath plots for domain 1010; easting (top), northing (middle) and elevation (bottom) (source: Optiro, 2017)**



### 13.11.DEPLETION

The 2017 Mineral Resource has been depleted for both the open pit and underground workings to 31 August 2017.

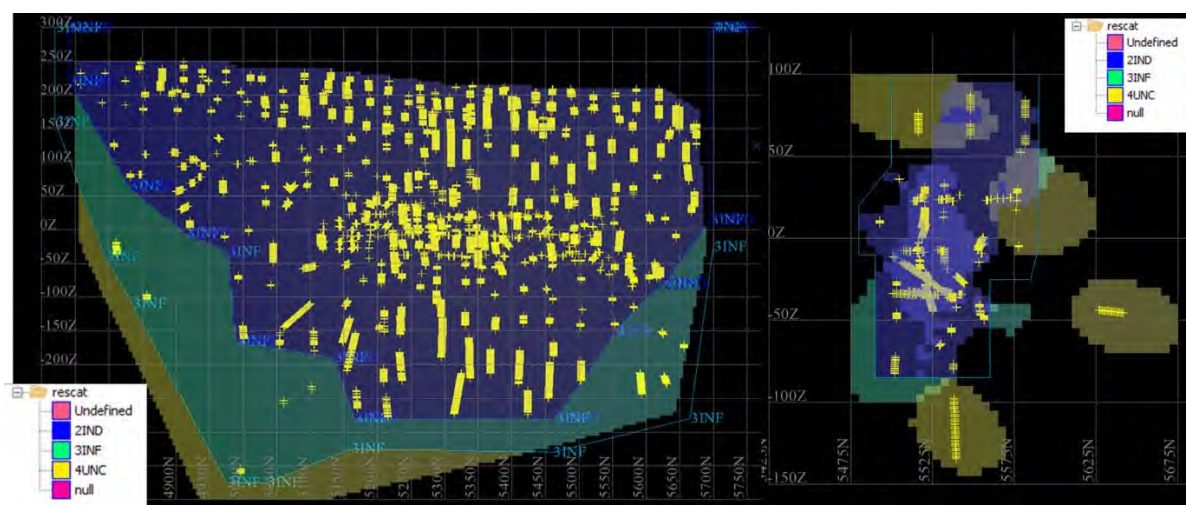
### 13.12.CLASSIFICATION

The 2017 Bibiani Mineral Resource has been classified into Indicated and Inferred categories in accordance with the JORC Code (2012).

Indicated Mineral Resources have been defined within a contiguous zone where the approximate drillhole density is less than a nominal 30 m to 50 m spacing, in conjunction with a kriging efficiency greater than 30%. Down dip the informing drillholes intersect the mineralisation at a very oblique angle; this is the interface between the Indicated and Inferred classification, where there is a reduced confidence in the interpretation and/or grade estimate due to the sub-optimal drilling angle.

Some areas of the interpreted mineralisation have been excluded from the Mineral Resource due to the degree of extrapolation and the lack of support for the interpretation. These zones are unclassified and have not been reported; they include portions of the 1010 and 4013 domains (Figure 13.9). All other areas have been classified as an Inferred Mineral Resource.

**Figure 13.9 Applied Mineral Resource classification (Domain 1010 (left), Domain 4013(right)) (source: Optiro)**



## 14. ORE RESERVE ESTIMATES

### 14.1. INTRODUCTION

Ore Reserves at Bibiani, reported as of the 31 December 2018 are based entirely on the Bibiani Underground Ore Reserve. The declared Bibiani Ore Reserves are based on the October 2017 Mineral Resources as described in Section 13. The 2018 Ore Reserves comprise the extractable Mineral Resources (Measured and/or Indicated) within optimised stope shapes for the Bibiani Underground Project, together with appropriate modifying factors.

The Bibiani Ore Reserves have been prepared under the direction of a Competent Persons using accepted industry practice and have been classified and reported in accordance with the JORC Code (2012).

### 14.2. MINERAL RESERVE METHODOLOGY

The Ore Reserves were completed by AMC Consultants (AMC) as part of the updated 2018 Pre-Feasibility Study (AMC, 2018).

The previous 2016 Pre-Feasibility Study, completed by Snowden Mining Industry Consultants (Snowden), selected longhole open stoping (LHOS) with pillars as the only mining method (Snowden, 2016). As part of the 2018 update, AMC completed a trade-off study, comparing the following LHOS options:

- LHOS with pillars;
- Sublevel shrink (SLS; also known as LHOS with rockfill);
- Avoca; and
- LHOS with cemented fill.

Due to the strike length of the mineralisation, two discrete mining areas with associated different cut-off grades were used in the trade-off study, accessed from the two established declines in the north and south of the deposit. The final selected mining methods differ across the deposit; in areas of continuous and wide (>25 m) mineralisation, SLS has been selected due to the increased production rates, lower cut-off grades and improved cashflows. In narrower areas, LHOS with pillars using a 2.0 g/t gold cut off was selected.

Initial stope shapes were developed using the Mineable Shape Optimiser (MSO) software. A nominal stope size of 10 m (Y) by 10 m (Z) by 5 m (X) was used. This is significantly smaller than the 30 m planned level interval but was required to adequately capture the mining potential. Final LHOS stope designs were then manually input on 10 m cross sections around all potential ore, without consideration of voids or the 2.0 g/t gold cut-off grade. Stope designs were then reviewed and classified based on interaction with existing voids, with the following stoping recoveries applied:

- 80% recovery: no void interaction;
- 75% recovery: interaction with a single void, either internal to the stope shape or on the footwall or hangingwall;
- 55% recovery: interaction with multiple voids;
- 0% recovery: impractical to mine.

For the SLS mining area, stopes were assigned a flat 85% recovery, as used at Resolute's Mt Wright mine.

The final mine design was based on stope value, with an approximate cut-off grade of 2.2 g/t gold. A mining inventory of 10.1 Mt at 3.4 g/t gold, containing 1.1 Moz, was used to develop the final mine design. This includes 39% Inferred Mineral Resources and 69% Indicated Mineral Resources. No reduction factor has been applied to the Inferred Resources in the mine plan. Only Indicated Mineral Resources have been included in the declared Ore Reserve. It is not clear how stopes containing a portion of Inferred Resources have been treated in the reporting.

A full discussion of the modifying factors and assumptions used to generate the Ore Reserve is presented below.

### 14.3. ORE RESERVE ASSUMPTIONS

The parameters used in the Bibiani Ore Reserve are presented in Table 14.1.

**Table 14.1 Parameters used to generate the Bibiani Mineral Reserve (Source: Resolute, 2018)**

Parameter	Unit	Value
<b>Underground development</b>		
Ore development	m	23,883
Waste development	m	10,234
Vertical development	m	1,548
Total development	m	34,117
<b>Ore production</b>		
Development ore	kt	878
Stoping ore	kt	9,182
Total ore	kt	10,060
Metal grade (ROM)	g/t	3.4
Metal contained (ROM)	koz	1,084
<b>Recoveries</b>		
Stope mine recovery - SLS	%	85
Stope mine recovery – LHOS	%	55 to 80
Dilution - unplanned	%	15
Metallurgical recovery	%	87
Metal (recovered)	koz	974
<b>Operating unit costs</b>		
Underground Mining (excluding pre-production)	USD/t	31.30
Processing cost	USD/t	21.60
General and Administration	USD/t	9.00
Royalty and refining costs	USD/t	6.80
<b>Costs</b>		
Sustaining capital	USD M	63
All in Sustaining cost (AISC)	USD/oz	764

### 14.3.1. COMMODITY PRICES

A gold price of USD1,200 was used to prepare the 2018 Ore Reserve estimate.

### 14.3.2. GEOTECHNICAL AND HYDROGEOLOGICAL PROVISIONS

Considerations for the geotechnical parameters informing the Ore Reserve at Bibiani have been derived from geotechnical core logging, materials testing and application of industry standard methods. Several geotechnical studies have been completed at Bibiani to date, including those by African Mining Consultants (Broome, 2002), Rock Engineering (Baidoe, 2008) and Snowden (Richter, 2013). Information from site visits, underground and pit inspections and review of recent and historical drill core was used to determine the Bibiani geotechnical conditions. In summary:

- In general, underground ground conditions are good and amenable to large scale open stoping (Broome, 2002).
- Ground conditions at Bibiani are dominated by weakly developed orebody-parallel bedding.
- Graphitic shears are also present, with two main structures identified, on the footwall and hangingwall of the mineralised zones. These zones are expected to influence stope wall stability where they are present within a few metres of a planned stope. This may lead to local instability and increased dilution in some areas. Where these structures are identified, stope stability will be managed with the installation of ground support (cable bolts), strategic placement of pillars or changes in stope design.
- Stope design will be impacted by historical stope voids. Poor ground associated with these voids appears to be limited to a zone of loosening that is typically 2 to 3 m in extent. Stope planning and design will need to take these voids into consideration.
- Two main geotechnical rock domains are identified and considered important for mine design purposes (Broome, 2002); the phyllites and the felsic intrusives. It was highlighted that these domains would be impacted by the presence of voids and backfill. A summary of the rock mass parameters of these two domains is presented in Table 14.2.

### STOPE STABILITY

Using the geomechanics parameters described above and some assumptions (including stress factors, stope inclinations based on observations from underground excavations and diamond drill core) estimates have been made to give preliminary ground support requirements and stope shape parameters. A lift height of 35 m between the bottom floor level and top backs level has been assumed.

The empirical Stability Graph Method (Potvin 1988, and Nickson, 1992) has been used to generate a variety of stable stope dimensions for various support levels. The recommended maximum hydraulic radius for unsupported stopes is 8.1 m and for supported stopes (cable bolts) it is 12.5 m. The currently planned stopes have been designed with a hydraulic radius of 7.5 m.

**Table 14.2 Key geomechanical parameters**

Parameter	Phyllite	Felsic dyke
UCS (MPa)	150	250
Geological Strength Index (GSI)	65	78
Hoek Brown (m)	10	18

Parameter	Phyllite	Felsic dyke
Rock Mass Strength (MPa)	35.3	108
Deformation Modulus (GPa)	23.7	50.1
Friction Angle (Deg.)	35	44
Cohesion (MPa)	9.2	23.3

### STOPE FILL AND PILLAR LOCATION

Backfill is proposed to be used in areas where a down dip stoping sequence is planned, providing confinement to the hangingwall and footwall. Where no backfill is planned, suitable pillar arrangements will be required; currently pillars have been designed at a width to height ratio of 0.6:1. Pillars are to be positioned within lower grade areas where possible.

Closely-spaced infill drilling will confirm the location and extent of the existing voids. This information will then be used to provide a detailed assessment of backfill and pillar requirements.

### DEVELOPMENT SUPPORT

Ground support parameters have been developed from the rock properties of the two main domains identified by Broome (2002). Bolt spacings have been recommended at between 1.3 m and 1.5 m for the phyllites and a slightly larger spacing (2 m) for the felsic domain. These estimates are consistent with current ground support installed on the historic 7, 8 and 9 levels at Bibiani underground.

### MAIN PIT STABILITY

Mine access to the underground workings is currently from the South Portal from within the Main Pit. This portal has been established on the eastern pit wall at 140 mRL. The western wall of the Main Pit has experienced a pit wall failure, causing the ramp below the portal position to be impassable. The east wall of the Main Pit, which contains the access ramp, will require ongoing wall monitoring so that any regional changes in response to mining can be identified.

#### 14.3.3. MINING DILUTION

Mining dilution was applied separately per stope, as a function of the degree of interaction of the stope with existing voids. Stope recovery ranged from 55 – 80% for LHOS (see Section 14.2). SLS stopes were assigned a recovery of 85%. Unplanned dilution is estimated at 15%, comprising approximately 10% included in the process of producing the stope shapes and an additional 5% included in the mine schedule.

#### 14.3.4. CUT-OFF GRADE

A cut-off grade of 2.2 g/t gold was used to filter the MSO mining inventory to allow conceptual LHOS and pillar mine designs to be completed. In the Lower South area, a cut-off of 2.0 g/t was used. Both cut-offs account for stope recovery and dilution associated with each mining method, as well as the processing recovery. Both are based on an assumed gold price of USD 1,200 per ounce.

The Ore Reserves have been reported using a cut-off grade of 2.2 g/t gold, taking into account all forecasted costs (including capital, taxes and offsite costs) and modifying factors.



### 14.3.5. MINING PHYSICALS

The final Bibiani mine design used for calculating the 2018 Ore Reserve aims at delivering a production rate of approximately 1.0 Mtpa for a total of 100 koz recovered ounces per annum. Mining physicals used in the estimate are presented in Table 14.3.

**Table 14.3 Mining physicals (source: Resolute, 2018)**

Underground development	
Ore development (m)	23,883
Waste development (m)	10,234
Total Lateral Development (m)	34,117
Vertical Development (m)	1,548
Production	
Development ore (kt)	878
Stoping ore (kt)	9,182
Total ore (kt)	10,060
Total ore and waste mined (Mt)	11.3
Average gold grade ROM (g/t)	3.35
Contained metal ROM (koz)	1,083.8
Max ore throughput (Mtpa)	1.06
Life of Mine (years)	11

### 14.3.6. METALLURGICAL RECOVERY

The Ore Reserves were estimated using ore processing recovery factors as outlined in Section 13. Gold recovery has been estimated at 89.9% (previously 87%) with the addition of a gravity circuit and a downstream intensive leach reactor into the flowsheet as recommended by Wood (formerly Amec Foster and Wheeler, 2018).

### 14.3.7. COST ESTIMATES

Summaries of the estimated capital and operating costs for the major reporting areas are presented in Table 14.4 and Table 14.5. Should a final investment decision be made to restart mining operations at Bibiani, project capital is estimated to be USD115M with an estimated start-up capital of USD75M. Project capital includes USD42M for the procurement of mining equipment. All capital expenditure incurred after steady-state (commercial) production has been reported as sustaining capital.

### MINING COSTS

The mining costs associated with the recommencement of Bibiani underground are based on the operating cost base modified for changing activity levels and reasonable cost base reductions over the Life of Mine Plan (LOMP). The following assumptions have also been used:

- Contract mining for the first three years
- Purchase of the contractor mobile fleet at Year 4 at 50% of the new cost
- Owner mining from Year 4 onwards
- Owner management and technical services for the LOMP.

**Table 14.4 Capital Cost estimates**

Cost category	Unit of measurement	Estimate
<b>Capital Expenditure</b>		
Underground mining	USDM	86
Treatment	USDM	11
Shared and regional infrastructure	USDM	2
Site support services	USDM	2
Project management services	USDM	2
Other capitalised costs	USDM	10
Provisions	USDM	2
Sustaining capital	USDM	63
<b>Total - Project capital expenditure</b>	<b>USDM</b>	<b>178</b>

**Table 14.5 Operating cost estimates**

Cost category	Annual cost (USDM)	Cost per tonne (USD)
<b>Operating costs</b>		
<b>Mining</b>	<b>315.2</b>	<b>31.4</b>
Utilities	50.6	5
Labour	63.2	6.3
Maintenance and consumables	86.1	8.6
External services (contractor mining)	72.2	7.2
Overheads	43.1	4.3
<b>Processing</b>	<b>217.5</b>	<b>21.6</b>
Utilities	67.8	6.7
Labour	28.2	2.8
Maintenance and consumables	118.4	11.8
External services (contractor mining)	1.7	0.2
Overheads	1.4	0.1
Shared and regional infrastructure	0.1	0.1
General and administrative	90.3	9
<b>Total: Project operating expenditure</b>	<b>623.9</b>	<b>62.1</b>

Cost estimates are provided in 2018 USD and are based on 2017 supplier estimates (including Resolute's Syama underground development contract), AMC information and personnel and key consumable costs as provided by Resolute.

## PROCESSING COSTS

The processing costs were prepared by Wood (Amec Foster Wheeler, 2018) and are based on 2017 supplier estimates and information from other projects completed by Wood and comparable to Resolute's Syama operation. Operating processing costs include power consumption, labour, process and wear consumables, maintenance consumables, mobile equipment, assay and testwork and general and administration costs. Estimates are based on a base case 1.1 Mtpa production rate, with the plant operating for 8,000 hours per annum at a rate of 145 t/hr.



## RECLAMATION COSTS

Reclamation costs have not been fully developed for the Project. It has been assumed that the sale of the minesite fixed and mobile plant at the end of mine life will cover the cost of rehabilitation and remediation work.

### 14.3.8. ENVIRONMENTAL APPROVALS AND PERMITS

The Bibiani underground is current with all environmental approvals and compliant to those conditions set out in such approvals. Current approvals were received on 19 June 2018 and cover the mining and processing of the current Ore Reserve down to Level 18.

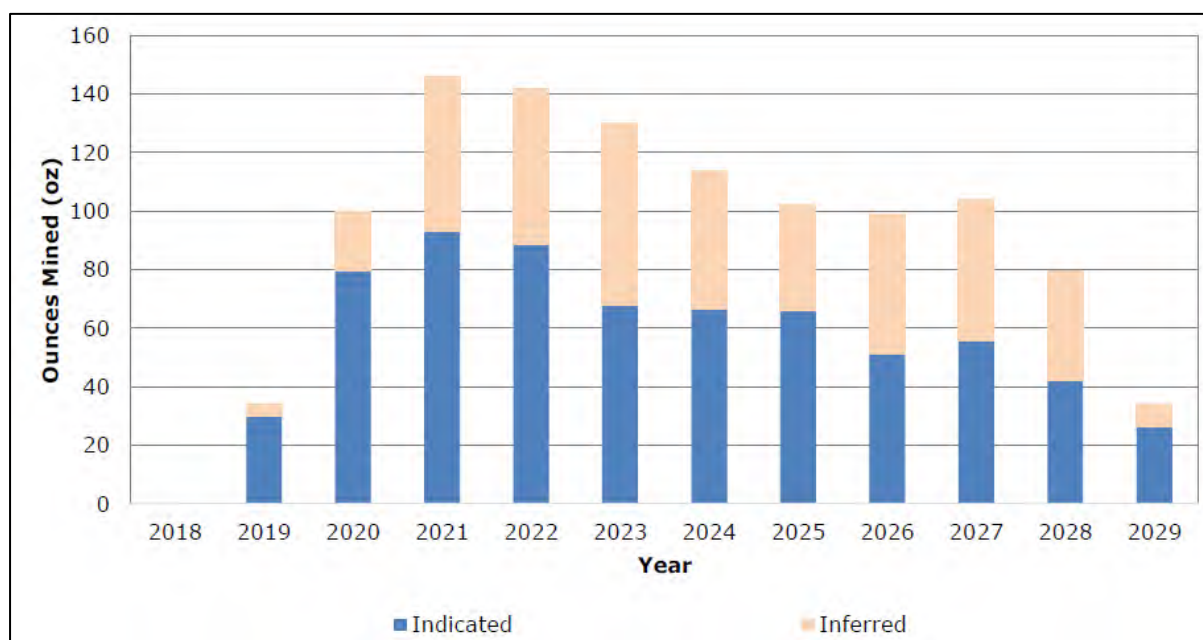
### 14.3.9. ROYALTIES

The royalty cost is the payment made to the Government based on 6% of the revenue gained from the sale of gold.

### 14.3.10. ECONOMIC TEST

The Bibiani LOMP prepared for the 2018 Pre-feasibility Study includes the mining and processing of the Ore Reserve. Inferred Mineral Resources were also used in the final LOMP, although scheduled later than the Indicated Resources (Figure 14.1). The final mine design contains 39% Inferred Mineral Resources, with no reduction factor applied. The LOMP includes a detailed financial model, which shows a positive NPV at a USD1,200 gold price. Note that Inferred Mineral Resources have not been reported in the declared Ore Reserve.

**Figure 14.1** Scheduled ounces by Resource classification (source: AMC, 2018)



An alternative mine schedule and economic evaluation was prepared using only the Mineral Reserve (i.e. Indicated Mineral Resources plus dilution and recovery factors). The subsequent technical and economic evaluation demonstrated the Bibiani Underground to be economically viable.

#### 14.4. ORE RESERVES

The declared 2018 Ore Reserves were completed by AMC (AMC, 2018) in May 2018 and were based on the October 2017 Mineral Resource. These have most recently been re-declared as at 31 December 2018 (Table 14.6). The Ore Reserve has been quoted using a 2.2 g/t cut-off.

**Table 14.6 Bibiani Ore Reserves as at 31 December 2018**

Ore Reserve	Proven			Probable			Total		
	Tonnes	Grade	Cont. metal	Tonnes	Grade	Cont. metal	Tonnes	Grade	Cont. metal
	(Mt)	(g/t gold)	(koz)	(Mt)	(g/t Au)	(koz)	(Mt)	(g/t Au)	(koz)
Bibiani Underground	-	-	-	6.40	3.3	660	<b>6.40</b>	<b>3.3</b>	<b>660</b>

David Lee is the Competent Person for the Bibiani Mineral Reserve estimate (Section 2). The CP considers that the currently declared Ore Reserve fairly reflects the potential of the proposed Bibiani underground mine.

## **15. MINING METHODS**

### **15.1. BACKGROUND**

At the effective date of the report, Bibiani is under care and maintenance and is currently the focus of various studies into the recommencement of underground mining. Resolute is yet to evaluate its funding alternatives for the Bibiani Gold Mine and as such, the Board is yet to make a decision with respect to a potential re-start of the Bibiani Gold Mine. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter. Descriptions of the proposed mining method are based upon the current 2018 study (Resolute, 2018) which forms the basis of the currently-declared reserves.

### **15.2. MINING METHOD**

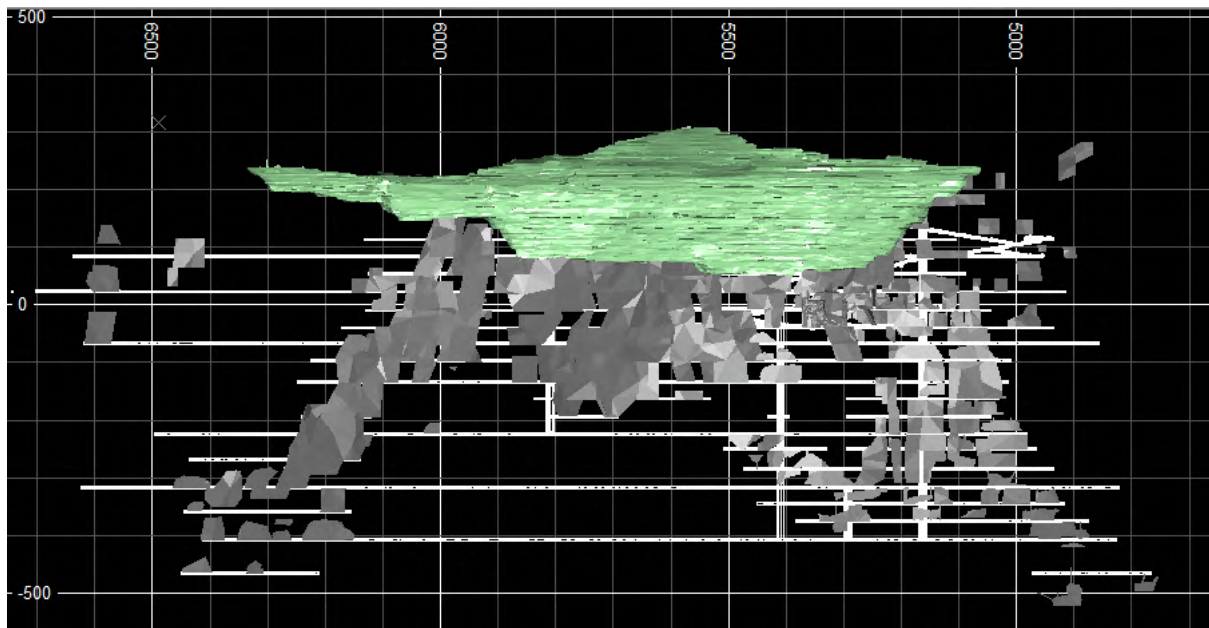
The main mining method at Bibiani underground will, if implemented, be longhole open stoping (LHOS) with pillars. This method will be used in the majority of the mining areas, where the stope blocks are less continuous, occur in multiple lodes or vary in width. LHOS entails developing a drill drive along the strike of the stope and drilling production holes in rings perpendicular to the drive. The stope is initiated via a slot raise at one end of the ore drive and ore is extracted by then progressively firing the drill rings and bogging the ore in a retreating manner along the strike. Ideally the ore drive is driven along the hangingwall of the stope, enabling the last hole in each ring to be drilled parallel to the hangingwall, reducing the damage done to the hangingwall of the stope, reducing the risk of premature failure, and thus reducing the overall dilution.

In the lower southern portion of the mine a large continuous block of mineralisation (>25 m in width) which is amenable to sublevel shrink (SLS) mining. SLS mining utilises a lower cut-off grade for higher production rates and lower costs and was used by Resolute at its Mt Wright mine at Ravenswood in Queensland, Australia.

#### **15.2.1. UNDERGROUND ACCESS**

The mine design (Figure 15.1) covers a strike length of 1.2 km and focuses on the Mineral Resources located between 5,000 and 6,200 m N. Due to the strike length of the design, two declines will be developed at depth, each servicing a 600 m strike length of ore.

The current access to the underground workings is via the south portal from within Main Pit (Figure 15.2). This portal was developed in 2002 at a nominal size of 5 m by 5 m and was designed primarily for 20-30 t low profile trucks. This portal was developed in 2002 and connects to a decline with nominal dimensions of 5 m by 5 m suited to 20-30 t low profile trucks. This modern decline extends to 9 level (-40RL). Stored plans from the AngloGold Ashanti ownership period indicate that the historic workings extend to approximately -500mRL, although they have remained under water below 9 level.

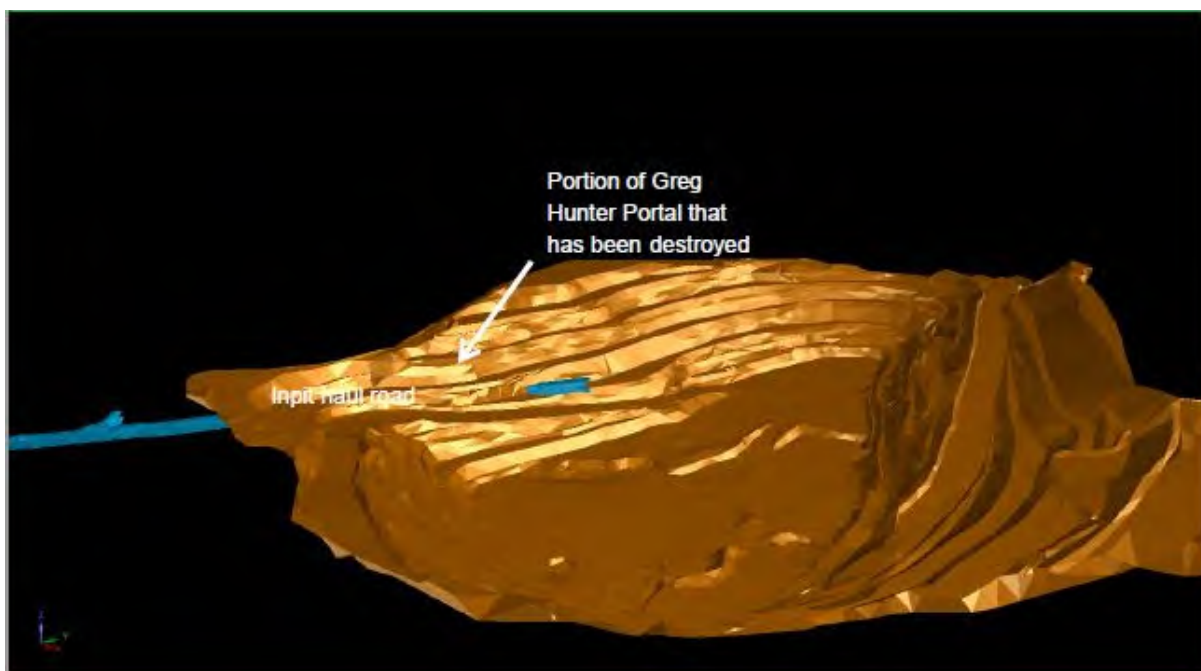
**Figure 15.1 Existing Bibiani mine long section looking west (source: AMC, 2018)****Figure 15.2 Existing portal and decline access located in the east wall of the Bibiani Main Pit**

A second decline, the Greg Hunter (GH) decline is located in the Strauss Pit, but is currently flooded. The GH decline portal was also destroyed by a subsequent cutback of the Strauss Pit. The GH decline approaches the Bibiani mineralisation from the northeast, but did not reach the orebody or connect to existing underground workings (Figure 15.3, Figure 15.4). Development of this decline commenced in late 2007 and was stopped in late 2008, with nearly 700 m having been developed. This decline was designed at 5.5 m wide and 5.5 m high, with a gradient of 1:7, and is suitable for the proposed trucking fleet. The initial portal location and top section of the decline appears to align with the ROM pad and primary crusher. However, due to the Strauss pit cutback the current alignment of the portal will need to be optimised for haulage operations.

Figure 15.3 Existing decline locations, plan view (source: Resolute, 2016)



Figure 15.4 Oblique view showing the Strauss Pit and Greg Hunter Decline Portal (source: Resolute, 2016)



A trade-off study was undertaken by AMC (AMC, 2018) to review access options using the current infrastructure. The current plan is to strip the Main Decline to 5.5 m wide by 5.8 m high to suit a 60-65 t trucking fleet, with this decline becoming the new South Decline extending down to 18 Level (-20 mRL). The GHD Decline will be dewatered, refurbished and extended, becoming the North Decline and accessing the northern mining block from the 7 Level (20 mRL) to the 17 Level (-280 mRL). The planned mine design is shown in Figure 15.5 and Figure 15.6.



Figure 15.7 Bibiani mine design long section facing west (source: Resolute, 2018)

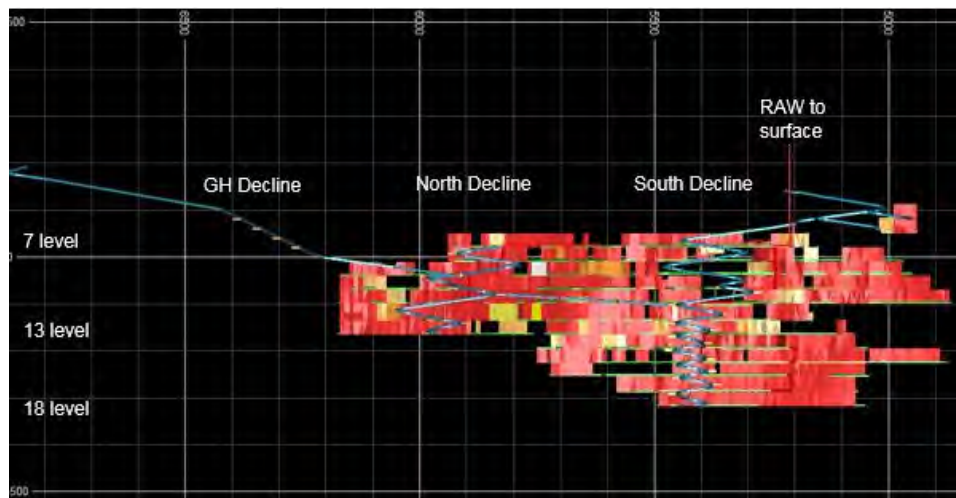
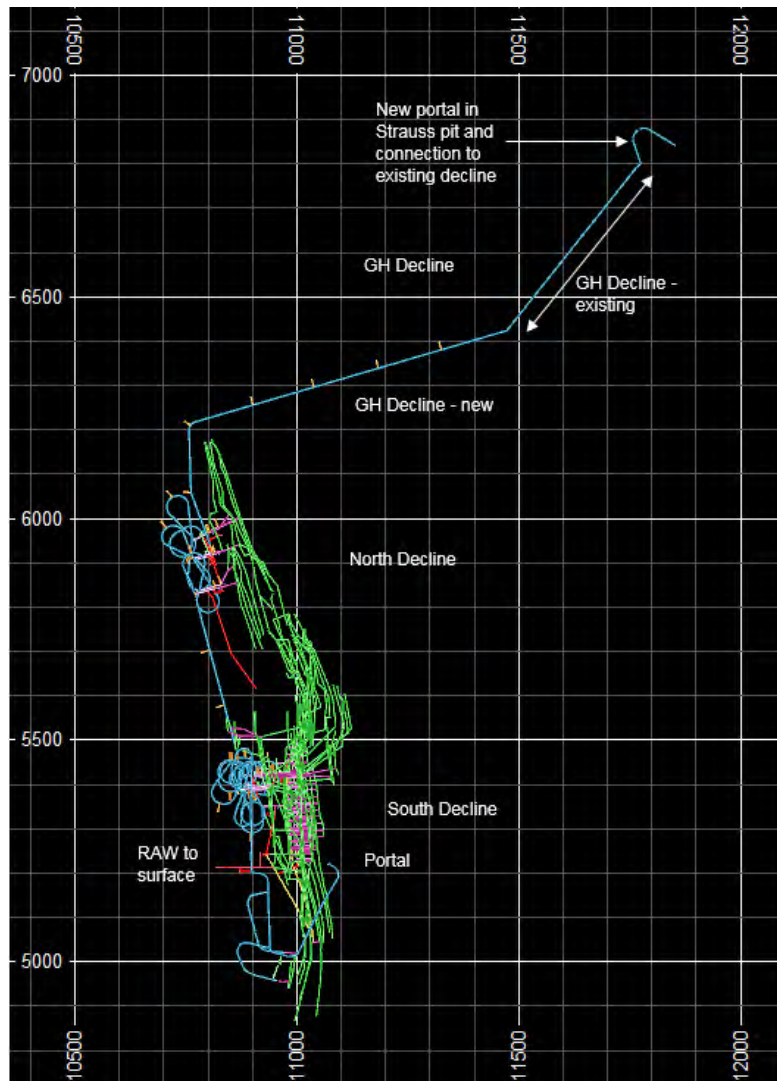


Figure 15.8 Bibiani mine design in plan view (Source: AMC, 2018)



### **15.2.2. LEVEL DEVELOPMENT**

Historically, level development was completed on 30 m vertical spacings. Current designs aim to replicate this, lining up with the historic levels where possible. Level designs will comprise the following:

- The main level access (requiring truck access) will be excavated 5.5 m wide and 5.5 m high, with an arched profile. These levels will generally be perpendicular to the strike of the lodes and at least 25 m long to avoid the influence of the stopes on the decline. They will connect the declines to the footwall drives.
- Cross cuts and ore drives will be designed to fit the longhole drills and loaders. The proposed ore drives will be 4.5 m high and 4.5 m wide to allow 14 t loaders to be utilised efficiently in the stopes.
- Stockpiles for storing stope material ready for truck loading will be placed every 150 m along the footwall drive.
- A sump placed in the Main Level access will be linked to the lower Levels via a drain hole. All development on the level will be at a gradient of 1/100 as it moves away from the sump. This will allow for drainage back to the sump without creating too much disparity in the mean elevation of the level.

All level development will be completed using a mechanised jumbo.

### **15.2.3. GEOTECHNICAL**

A description of the geotechnical conditions at Bibiani is provided in Section 14.3.2.

Pillars, or blocks of mineralisation left unmined, will be used to support the walls and backs of the stope and manage ground conditions. Pillars will be strategically placed at a width-to-height ratio of 0.6:1. Pillar placement will be optimised to improve stope recovery and reduce dilution, being informed by the location and extent of historical voids. If possible, pillars will be designed in lower grade areas of the orebody. The loss of ore to pillars could be significantly reduced with the use of fill that would support the wall; such fill would need to have some compressive and shear strength and some cohesion.

Level development will be supported by mesh and rock bolts. Development ground support designs should be based on a mean spacing of 1.3 m. If mesh is used, this spacing will need to be reduced to 1.2 m to fit the geometry of the mesh.

On each development level intersections will be cable bolted to secure the backs. Cable bolts in a 2.5 m by 2.5 m offset pattern, giving 6 cables per three-way intersection, will be required, increasing to 14 for a four-way intersection.

### **15.2.4. DEWATERING**

The modern development portion of the mine (Main decline) will be maintained in a dewatered state, with the mine currently flooded below 10 Level (-70m RL) only. To extend the mine at depth, the voids will need to be dewatered. The current pumping rates average approximately 3,000 to 3,500 m<sup>3</sup>/day (35 l/s to 40 l/s). This will need to be increased to approximately 60 l/s (5,000 m<sup>3</sup>/day) to recommence mining operations. The proposed dewatering strategy is to dewater ahead of the decline development through the use downhole pumps, located in dedicated large diameter

drillholes. Water from the mine dewatering process is expected to be used on-site or stored within the current facilities.

As mentioned, the GH decline is currently submerged and will need dewatering before mining can recommence.

#### **15.2.5. VENTILIATION**

The existing ventilation system consists of intakes via both declines, with air exhausting to openings in the Main Pit wall via vertical rises located in the footwall drives of the current development. The primary airflow, for the planned production rate of 1.0 Mtpa to 1.2 Mtpa, is expected to be 350 m<sup>3</sup>/s to 400 m<sup>3</sup>/s, provided via the two declines. The return airway to the surface will consist of two parallel, 4 m diameter raises, located in the southern part of the mine. The northern decline exhaust airway will be connected to the raise via the 7 Level footwall drive. Secondary ventilation fans will be used to draw air from the primary air flow and push it to the working areas via lay-flat ventilation ducting.

#### **15.2.6. POWER**

Underground power is currently supplied from the Electricity Commission of Ghana from a substation located outside the lease, near the Main Pit. From here, 11 kV is supplied underground to four substations where it is converted to 415 V. It is expected that this low voltage 415 V network would be replaced by a 1000 V system, which is standard in Australia and which has operational advantages. Additional infrastructure will also be required for redevelopment of the GH decline.

An estimate of the underground power requirements has been completed based on the electrical equipment to be used, including drills, pumps and fans. Usage is expected to reach a maximum of 4.0 MW.

#### **15.2.7. MINING FLEET**

The mine will utilise large mechanised mining equipment, preferably sourced from Sandvik, with whom Resolute already has an established commercial relationship. The fleet will compose:

- Sandvik DD421 Jumbo (up to 4);
- Sandvik DL421 Production drill (up to 4);
- Sandvik LH621 21 t Loader (up to 3; for capital development and truck loading);
- Sandvik LH514 14 t Loader (up to 4; for ore development and production loading);
- Sandvik TH663 Truck (up to 4); and
- Ancillary equipment including charge-up machines, integrated tool-carriers, grader, water cart, agitator truck, Spraymec, light trucks.

The major mining fleet numbers were calculated based on the scheduled physical requirement and productivity estimated for individual equipment.

#### **15.2.8. WASTE ROCK DISPOSAL**

Waste rock produced from the development of the declines and levels is considered to be non-acid forming (NAF) material. All waste will be stored within the current pits or used as underground fill where possible. Alternatively, it will be hauled up the existing Main Pit decline and tipped into the



Main Pit, where it will assist in stabilisation of the walls of the pit. Waste hauled up the GH Decline will be tipped in to the base of Strauss Pit.

### 15.3. MINE PRODUCTION SCHEDULE

If the restart is approved, Bibiani is planned to be mined at a rate of 88,000 t of ore per month, with approximately 25,000 t of waste per month, giving a total rock movement of approximately 115,000 t. The following schedule priorities and sequence are required:

- Strip and re-support the Main decline;
- Establish the primary ventilation network from 7 Level to the surface;
- Develop the South decline to 18 Level;
- Separately dewater and develop the GH decline to provide full ventilation capacity, access to the ROM pad and a second mine egress;
- Stope the 5 to 8 Level South area;
- Stope the lower South area once access is established; this area contains the large continuous, highest grade ore zone which will allow for simpler, lower risk production with the highest ounces;
- Supplement from the North area and upper South area; and
- Transition to the North area as the South area is depleted.

The anticipated annual mine development and production schedules are shown in Figure 15.9 and Figure 15.10 respectively. Note that the LOMP includes both Indicated (61%) and Inferred (39%) Mineral Resources; the Inferred portion cannot be converted into Ore Reserves and has not been reported as such.

The time to first production of ore from the mine, as measured from first capital spend, is 6 months, with the ramp up to steady state production (88,000 t per month) after 11 months.

Figure 15.9 Annual development schedule by year (Source: Resolute, 2018)

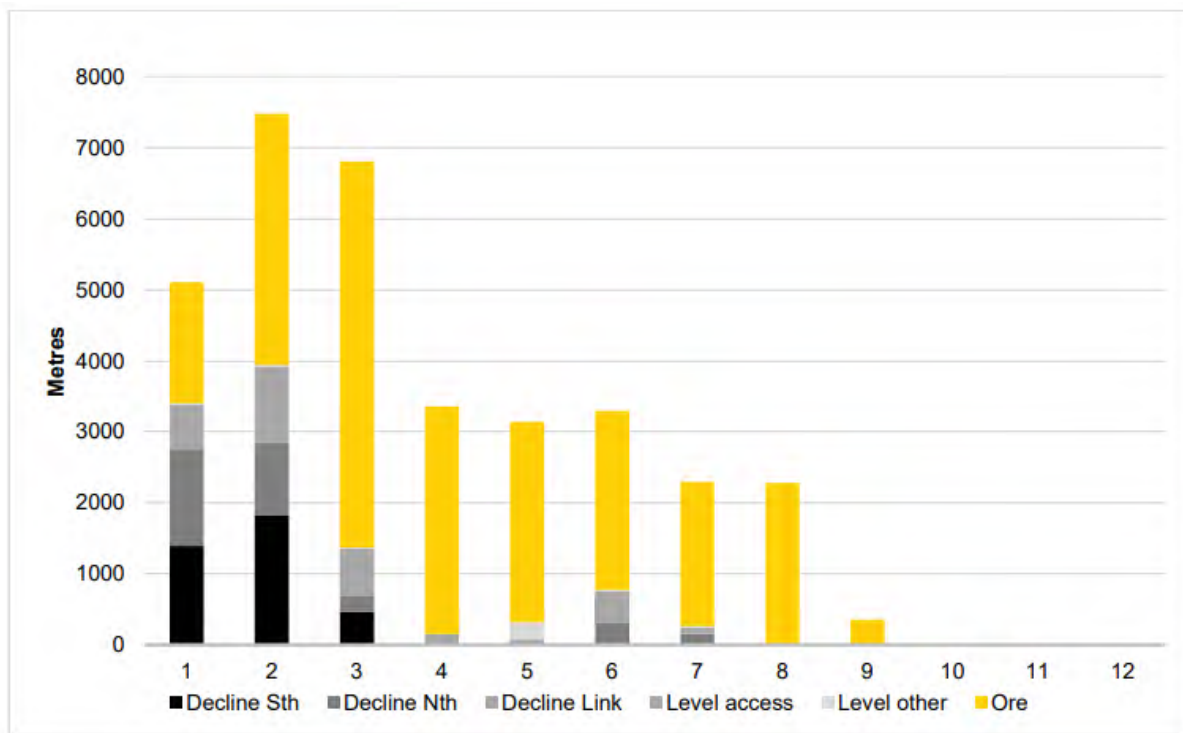
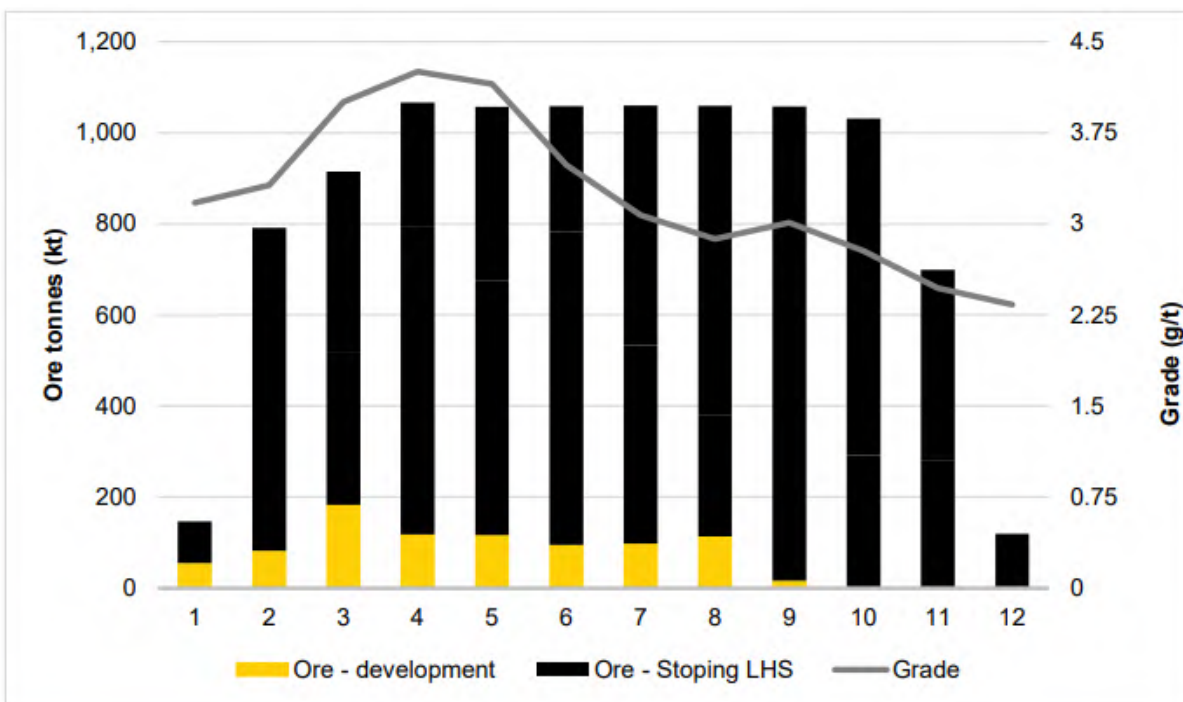


Figure 15.10 Annual production schedule by year (source: Resolute, 2018)



## 16. RECOVERY METHODS

### 16.1. INTRODUCTION

In 2012, work commenced on expanding the processing plant to a capacity of 3 Mtpa. Although significant construction work was carried out on the processing plant, it remained incomplete and further work is required on parts of the processing circuit and the primary crushing circuit before it is fully operational. The Bibiani processing plant is currently on care and maintenance, following the suspension of mining operations at Bibiani in May 2013. Information presented below is current as of 30 June 2018 and is based on an Operational Readiness Study completed by Wood (formerly Amec Foster Wheeler, 2018) on the refurbishment, upgrade and operational readiness of the Bibiani processing plant (Resolute, 2018). Resolute is yet to evaluate its funding alternatives for the Bibiani Gold Mine and as such, the Board is yet to make a decision with respect to a potential re-start of the Bibiani Gold Mine. It is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.

**Figure 16.1 Bibiani mine and processing facilities (source: Resolute, 2018)**



**Figure 16.2 Bibiani processing plant (source: Resolute, 2018)**

## 16.2. PROPOSED PLANT OPERATIONS

The proposed processing route for Bibiani underground fresh ore utilises the well-known and traditional technology of gold extraction incorporating comminution, gravity concentration, flotation, cyanide leaching of concentrate and flotation tails and gold recovery via carbon-in-leach. The processing rate is expected to match the underground mine production of a nominal 1 to 1.2 Mtpa.

The flowsheet for the Bibiani processing plant is presented in Figure 16.3, and has been designed based on the existing plant setup (with minimal recommissioning costs) and the 2015 metallurgical testwork programme of 17 variability samples and a Master Composite in grinding, floatation and leaching (see Section 12.1). Key unit operations are:

- Ore is primary crushed to nominal  $P_{80}$  of 120 mm for direct feeding to the milling circuit or to a crushed ore stockpile whenever the mill is unavailable;
- A 1 Mtpa milling circuit consists of the existing SAG mill in closed circuit with classification cyclones. The existing ball mill is no longer required;
- Coarse gold in the cyclone feed stream is removed using a gravity concentrator;
- Rougher flotation is used on the grinding circuit product (cyclone overflow at  $P_{80}$  106  $\mu\text{m}$ ) to produce a gold and sulphide rich concentrate at a target 8 - 10% mass recovery with respect to the feed tonnage;
- The flotation concentrate is cycloned to remove already fine particles, with the cyclone underflow reporting to the existing Metprotec stirred mill, which operates in open circuit. The mill discharge at  $P_{80}$  25 $\mu\text{m}$  is thickened to nominally 65% (w/w) solids prior to intense cyanidation;
- Flotation tailings are also thickened in a separate thickener to nominally 65% (w/w) solids, which reclaims the non-cyanide containing water for reuse in the milling and flotation circuits.

- Concentrate is leached in a carbon-in-leach (CIL) circuit with 12 hours residence time. Concentrate leach tail joins the flotation tail in a CIL circuit for a further 24 hours leaching time;
- Carbon is stripped in 10 tonne batches and metallic gold is produced using traditional electrowinning cells. Gravity gold recovered in the cyclone feed stream is leached in an intense leach reactor (ILR), with the pregnant solution combined with the eluate from the stripping column;
- The Final CIL tailings are pumped to the existing tailings storage facility with decant return water reclaimed and reused to dilute the leach feed densities to nominally 45% (w/w) solids. Remaining decant water is detoxified using hydrogen peroxide and copper sulphate to remove residual cyanide before being recycled to the Process Water Dam.





### **16.3. PLANT UPGRADES**

Prior to recommissioning, a series of upgrades and maintenance will be required.

New plant equipment is proposed for the following areas:

- Primary classification;
- Scavenger flotation and associated equipment;
- Regrind classification;
- Concentrate thickening; and
- Concentrate and tails leach tanks and associated equipment.

The following areas and plant equipment are planned to be refurbished and reused:

- Primary crusher and associated equipment;
- Reclaim bin and associated;
- SAG and associated equipment;
- One Skim-Air flotation machine;
- Metprotec stirred regrind mill;
- Tailings thickener;
- One leach tank (for cyanide detoxification);
- Carbon elution, regeneration and gold room;
- Reagents and services; and
- Tailings Storage Facility (TSF).

## 17. PROJECT INFRASTRUCTURE

The proposed Project is similar in nature and scale to previous operations at Bibiani, and as such it is not expected to require any significant new surface infrastructure or services. Existing surface infrastructure is located adjacent to the Main Pit and includes offices, meeting rooms, change rooms, workshops, mines rescue and medical facilities. Most of the facilities are in reasonable condition but will require refurbishment and upgrading to cater for full scale production. The current site layout is presented in Figure 17.1.

**Figure 17.1** Current Bibiani site layout (source: Resolute)



Mine infrastructure, including ventilation, dewatering, and re-establishment of the GH decline, still requires further work before mining can recommence.

### 17.1. UNDERGROUND ACCESS

The current access to underground workings is via the Main Decline, with a portal located in the Main Pit. This portal has been established on the eastern pit wall, at 140 m RL. The portal was developed in 2002 at a nominal size of 5 m by 5 m and the decline extends down to the 9 Level. The excavation of the decline is fair in quality but has many sharp corners and a floor which is not even in grade.

The GH Decline commences from a portal in the wall of the Strauss Pit and approaches the Bibiani main lodes from the northeast. This decline was designed at 5.5 m wide and 5.5 m high, with a gradient of 1:7. The portal of the GH decline was removed with a subsequent cutback of the Strauss Pit and the decline is currently fully submerged. It is planned to dewater and redevelop the GH decline so that it can be utilised as the preferred truck haulage route due to its proximity to the ROM pad.



Both declines will be joined between Levels 10 and 11 for haulage. In both cases, the declines provide the intakes for the underground mine primary ventilation system.

## **17.2. VENTILATION**

The current ventilation infrastructure is sufficient for light vehicles only, and not suitable for full scale production. Short term strategies have been outlined and involve enhancements to the current system prior to the establishment of a long-term primary circuit. The primary ventilation network has been designed and preliminary testing completed using Ventsim software; however, further work is still required. Currently the fresh air intake is planned to use the Main and GH declines to feed the South and Main areas respectively. Twin 3.5 m raise bores will provide return airways for existing development from the 7 Level to the surface, with 4 m by 4 m longhole raises between underground levels in each decline. Secondary ventilation will be provided using auxiliary fans and ducting of appropriate dimensions.

## **17.3. PROCESSING FACILITIES**

The Bibiani processing facilities have been on care and maintenance since 2013. A recent (2018) operational readiness study completed by Wood (Amec Foster Wheeler) has assessed the current status of the processing facilities and the requirements to prepare them for operation. Plant upgrade details are summarised in Section 16.3. Work has been categorised into the following broad areas:

- Addition of new systems: installation of new components to meet the flowchart requirements.
- Commissioning: installation of equipment acquired under previous projects, which has largely been delivered to site but not been fully installed or commissioned.
- Modifications and upgrades: Existing equipment that needs to be modified, upgraded or relocated to meet flowsheet requirements.
- Decommissioning: Existing equipment that is not part of the flowchart and needs to be decommissioned or put into long-term care if potentially required for future upgrades.
- Major work to refurbish and commission equipment placed into care and maintenance.

Cost estimates for recommissioning of the Bibiani plant have been updated for the 2018 FS (Resolute, 2018).

## **17.4. TAILINGS STORAGE**

The current Bibiani Tailings Storage Facility (TSF), originally designed by Knight Piesold in the mid-1990s, requires expansion to store the additional material arising from the reopening of the mine. The current proposal, produced for the purposes of regulatory approval, is to store 5.4 Mt of tailings in the TSF, with an option to increase this to 11 Mt. The current study by Advisian (formerly Worley-Parsons Consulting, 2018) has investigated a proposal for the raising of the TSF embankment to accommodate the additional tailings requirement. The actual storage volume occupied by tailings is a function of the deposited in situ dry density and the current TSF surface. Using an in situ dry density of 1.55 t/m<sup>3</sup> a proposed embankment raise of 2.5 m to RL 212.9 m is required (Advisian, 2018). Stability analyses have been completed and suggest that an expansion of the buttress is also required. Modelling determines that the existing buttress of 6 m will need to be expanded to a total of 10 m width to support the proposed embankment rise of 2.5 m.

## 17.5. WATER SUPPLY

To recommence the sinking of the GH decline, the Strauss pit and existing GH decline will require dewatering. The water generated from dewatering processes (raw water) will be used within the underground operations, as well as for dust suppression, domestic use and the process plant. The existing water storage system currently provides a secure plant supply in case of extended drought conditions. Raw water will be stored in the mine dewatering settling pond and the seven levees that were historically constructed as tailings storage ponds (see Figure 17.2). Levee embankments are well vegetated, which protects them from erosion and subsequent sedimentation, as well as improving water quality by removing trace metals and nutrients. From the settling pond and levees, water is pumped to a 5,000 m<sup>3</sup> raw water pond (HDPE lined earth dam) located at the plant site. Most of the direct run-off from the mine area is collected in the levees; however, incident rainfall runoff in the Mineral Processing Plant will be contained and discharged to the TSF.

**Figure 17.3 Two co-joined levees (source: Resolute)**



Water originating from the processing circuit is categorised into Raw, Process and TSF Return water. TSF Return water is used for CIL slurry dilution, with any excess detoxified, then used to supplement the Process water. During mine operation it is envisaged that the processing plant will reuse the dewatering supply; hence minimal release of water into the environment will occur, with all decant water from the TSF being reused by the plant.

## 17.6. POWER SUPPLY

Electricity for the Project will be supplied by an existing 33 kV grid by the Electricity Commission of Ghana (ECG). A formal letter from ECG confirming the likely tariff arrangements has been received by Resolute. The 33 kV overhead power line terminates at the main plant substations located outside the lease, near the Main Pit. Electricity is then reticulated to the mine by 11 kV overhead power lines.

Power supply is generally accepted to be fair at Bibiani, but occasional power supply disruptions can occur, typically resulting from a disruption from the supply distribution network rather than the

power generation. Power disruptions last up to several hours and range from brownouts to blackouts, with restoration of services occurring quickly. Prior to care and maintenance, the power system was adequate to supply the processing plant, but lack of a reliable power supply is considered a risk to the project. Currently, a standby 1 MVA diesel-fuelled generator provides power to the processing plant tank agitators and essential ancillary services, should there be a supply disruption. In addition, there are eight other diesel generators, ranging in size from 30 kVA to 651 kVA for use on the mine property.

The main consumers of electrical power at the Project will be the processing plant, underground operations and auxiliary services (offices, workshops, accommodation etc.) The processing plant is estimated to require 5,900 kW of power, and taking utilisation into consideration, the average power consumption is expected to be 4,146 MWhrs per month (Wood, 2018). For underground operations the main use of power will be the drills, pumps and fans. To estimate the power consumption, utilisation rates have been used to modify the underground requirements. Currently the 11 kV feed to five existing substations located underground will be sufficient for the initial works in the Main Pit. Over the life of the mine, power consumption is expected to rise as the underground workings become deeper, then reduce near the end of the life of mine as the development requirements are reduced. As such, upgrading the current 440 V system to a 1,000 V supply will be required at some stage. Auxiliary power consumption has been estimated to be 220 kW per hour, approximately a 25% increase to the baseline power consumption while those services were on care and maintenance. No power infrastructure is currently located in the Strauss Pit for the GH decline recommencement.

## **18. GOLD REFINING**

The Project will produce uniform “good delivery” doré bars of varying purity in the onsite gold smelting facility as the final stage of the ore processing. A third party will market and further refine the doré bars, with by-product credits such as recovered silver paid to Resolute.

## 19. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

### 19.1. BACKGROUND

Completion of an Environmental Impact Assessment (EIA) for developments, projects or undertakings is required by law, under the Environmental Assessment Regulation, Legislative Instrument 1652, which was passed by Parliament in June 1999. Requirements of the Environmental Assessment Regulations 1999 include:

- Initial notification of a proposed project for screening.
- Preparation of a scoping report that outlines the scope or extent of the environmental impact assessment to be carried out. This includes a draft terms of reference document indicating the essential issues to be addressed in the Environmental Impact Statement (EIS).
- Environmental Protection Agency (EPA) to review and provide recommendations and/or direction for progress to EIA.
- EIA to be completed as specified by the approved scoping study, completed by recognised professionals and experts in the relevant fields and addressing the possible direct and indirect impact of the proposed operation on the environment at all phases of the project.

### 19.2. ENVIRONMENTAL STUDIES

The Project is a historic mining site with production dating back to the early 1900s. Existing baseline data from previous Environmental Studies has been well-documented and includes the whole of the lease area. While the mine has been on care and maintenance, Resolute has continued to conduct environmental monitoring, with this data being added to the previous EIS to strengthen the baseline data.

Current environmental assessments used to inform the EIS have covered the following aspects:

- **Air quality:** Results from the air quality monitoring programme of MGBL for the period 2013-2016 indicate that the levels of TSP recorded for 24-hour periods are within the World Health Organisation (WHO) acceptable standards of 500  $\mu\text{g}/\text{m}^3$  and EPA Ghana guideline levels of 150  $\mu\text{g}/\text{m}^3$  for residential and 230  $\mu\text{g}/\text{m}^3$  for industrial operations respectively.
- **Measured integrated noise levels:** all the baseline noise level measurements showed levels which fall within the relevant EPA and Department of Factories Inspectorate Guidelines.
- **Water quality:** The mine concession is drained by a series of tributary streams. The quality of water in these streams have been affected by previous mining activities and galamsey (artisanal) miners. Efforts have been made to divert some streams to minimise contamination and routine water quality monitoring is undertaken. Monitoring had demonstrated that levels of both the analysed physico-chemical and bacteriological parameters were within the EPA- Ghana Guidelines values. Sediment concentrations were found to be very low in the surface waters. Vegetation around the levee system actively reduces trace element levels in water leaving the concession.
- **Biological Environment:** The majority of flora in the area (68.3%) were found to fall within the Green Star status. This implies that they were common in Ghana and also were of no conservation concern. None of the trees identified on the concession, whether or not of

commercial importance, are classified as endangered or rare in Ghana. Fauna surveys have not identified any species which are considered endangered or of conservation significance.

### **19.3. ENVIRONMENTAL MANAGEMENT**

The proposed underground mine is not expected to disturb any new areas, with the underground access to the mine being from existing open pit excavations. Existing offices, stores, workshops and buildings will be utilised, with any new buildings being built on the existing site. It is intended that waste rock be used underground and void fill or tipped into existing open pits. Haul ways and roads, and the designs for the TSF are the same as those previously approved in former Environmental Permits.

Resolute has identified three phases of operations at Bibiani; Preconstruction/Construction, Operation and Decommissioning/Closure. Key potential environmental and social impacts within each phase have been identified, described and their significance level of impact rated in the EIA. Where the significance level of the impact is low-medium or above mitigation measures must be outlined and put in place.

MGBL has committed to develop a provisional Environmental Management Plan (EMP) which addresses all identified risks and subsequent mitigation outlined in the EIA. The EMP will apply to activities during the first 18 months of construction and operation, after which the EMP will be reviewed and updated to cover the subsequent three years of operation. This will continue through the life of the Bibiani Project in response to significant amendments or modifications. It will contain all pertinent sections and will include but not be limited to:

- Ambient and workplace air quality;
- Water resource quality;
- Noise and vibration;
- Hazardous chemical substance control and monitoring;
- Health and safety including physical injury, fire hazard etc; and
- Socio-economic conditions.

#### **19.3.1. AIR QUALITY**

Historically the mining activity has centred around surface mining; thus, it is expected that there will be less dust generated by the proposed underground mining activities. The use of the Greg Hunter Decline reduces surface haulage to a few hundred metres from Strauss Pit to the ROM for ore, and even less for waste rock. The main source of dust is likely to be the crushing and screening plant. The use of dust control measures and maintaining vegetative barriers around the project is expected to mitigate any issues.

The main potential impacts on workplace air quality would include increased use of diesel equipment for blasting and excavations/drilling underground, as well as for running of electric generators, submersible water pumps used for mine dewatering and the use of diesel and other petroleum hydrocarbon products for haulage from underground to the surface. Mitigation of these issues includes monitoring of all equipment performance, optimisation of the ventilation systems underground and provision of adequate safety equipment to persons working in the mine who are likely to be working in conditions which exceed the regulations.

### **19.3.2. WATER RESOURCE QUALITY**

The Project's Water Management Plan will be developed to ensure that the use of and discharge of water on the site would satisfy the Environmental Protection Agency Act, 1994 (Act 490), Environmental Assessment Regulations, 1999 (LI 1652), Environmental Guidelines and Water Resources Commission Act, 1996 (Act 522), Ghana Minerals and Mining (Health, Safety and Technical) Regulations, 2012 and any regulations or standards related to these as a minimum.

The Bibiani concession covers five sub-catchments of the Tano River Basin of the Southwestern Basin System of Ghana. These sub-catchments are the Amponsah, Mpokwampa, Mensin, Kyirayaa and Pamunu rivers. The Amponsah and the Mpokwampa drain various areas of the mine before joining the Mensin through the levees. Historically the quality of water in these rivers has been affected by previous mining activities and galamsey workings.

In the original EIS submitted by Ashanti Goldfields Limited on the Project to the Environmental Protection Agency in 1997, arsenic concentrations of 40 ppm were reported from the Mpokwampa basin which were introduced into the surface water network. The high levels of conductivity and total dissolved solids (TDS) are generated from three main sources:

- Naturally from the source of the Mpokwampa stream;
- Enrichment of the "spring" originating from the old underground mine structure; and
- Contact with the old tailings scattered on the mine.

Previous operators, AngloGold Ashanti Bibiani Limited, undertook a consistent quality monitoring programme over the concession surface and underground waters from the onset of operations. Monitoring is based on sample stations established by SGS in 1995, which have been maintained by subsequent owners, including MGBL. The aim of the programme is to determine seasonal quality variations.

Surface water samples are collected from the various streams and reservoirs which drain the concession area. Effluent water samples are collected at the process plant water pond, the tailings return water and the seepage collection sump. There are also three monitoring boreholes downstream of the existing TSF to ensure that seepage is not entering the environment. Historically, samples were also collected from six different wells and boreholes used largely by the local inhabitants at various locations.

Microbiological and physico-chemical analyses, including arsenic and cyanide, have been conducted on the samples according to their respective location and use as domestic water by the local inhabitants. The effects of the old mine activities at Bibiani on surface water quality are still measurable. It appears there are high amounts of TDS which have been introduced from the Mpokwampa basin into the surface water network of the concession area. The levels decrease significantly before the Mensin and the Kyirayaa main channels. Conductivity values are also higher in the Mpokwampa and the underground water in the settling tanks. Analyses of water sampled from boreholes downstream of the concession and used by MGBL show stability in pH, turbidity, conductivity and TSS below WHO drinking water guidelines.

When operations commence, the intent will be to recycle process water and limit any discharge to those that have been accepted before and shown not to adversely affect the quality of water downstream. The piezometers, monitoring bores and seepage collection system around the TSF are

adequate and maintained and will be used once the project recommences operations to monitor and control water levels and water quality.

### **19.3.3. NOISE AND VIBRATION**

Being an underground operation, the mining-related sources of noise are likely to be surface haulage, crushing and screening, exploration activities, mine traffic, horns, compressors, conveyors, mills, and pumping facilities. Most of this noise will be centred around the existing processing plant, which is isolated from the community. Vibrations may be felt by surrounding communities at blasting times; however, these are not expected to have a significant impact and measures to control it will be in place. These will include conducting blasting at times that will cause the least disruption, controlled blasting techniques and monitoring.

## **19.4. PERMITTING AND APPROVALS**

### **19.4.1. PERMITS AND APPROVALS**

Resolute submitted the Bibiani EIS in March 2018, followed by the Bibiani EIA in May 2018. On 19 June 2018 the Environmental Permit for re-initiation of underground gold mining and processing at the Project was approved by the EPA pursuant to Sections 2 (i) and 12 (1) of the Environmental Protection Agency Act, 1994 (Act 490) and Part 1 of the Environmental Assessment Regulation 1999 (LI 1652). This permit is valid until 18 December 2019, a period of 18 months effective from the date of issue. It allows the recommencement of underground mining at Bibiani down to Level 18 only and is subject to further review by the EPA if any of the following conditions vary:

- Changes to the project concept;
- Changes in environmental monitoring point locations;
- Installation and/or decommissioning of any facility;
- Groundwater drawdown effects on the local community;
- Development of sinkholes/subsidence;
- Changes in methods of mining;
- Mining below Level 18 (-320.6 mRL) depth; and
- Any other activity other than underground gold mining and processing project work.

In accordance with Regulation 23 of the Environmental Assessment Regulation 1999 (LI 1652), a reclamation bond of USD9.8M has already been posted covering the previous surface operations. This bond is in the form of a cash deposit (USD2.7M) and bank guarantee (USD7.1M).

## **19.5. COMMUNITY**

Resolute respects the history, culture and the values of its host communities. Resolute's operations will adapt to take cognizance of historic sites with cultural, religious, and heritage significance. This approach will reduce actual or potential harm to sites. Important heritage sites include Amponsah Shrine, Mensin Stream Shrine, Adzenkye cemetery and Old Admin cemetery.

As part of its corporate social responsibility, MBGL has assisted the communities in diverse ways over the past years in the provision of portable water, sponsorship package for the Gold Stars football team, provision of transport – community bus, health, education, community projects, donations and assistance, employment, etc. Should mining and processing operations recommence



at Bibiani, Resolute would continue to work with the local communities. The focus would be based around the follow areas:

- **Education and training:** with an emphasis on helping to make future generations job ready;
- **Health:** assisting communities to educate and control the incidence of disease and illness;
- **Water:** assisting communities to develop suitable sources of water for domestic use; and
- **Business development and income diversification:** helping local groups to develop sustainable business and develop business skills.

Prior to re-establishment of the mining operations, a Community Management Plan (CMP) will be drafted. The CMP will outline the operations strategy for working with the local communities, the processes to be followed, the levels of authority, and importantly how communication and consultation with the local community groups will be maintained.

Initially, key posts requiring specific skills or experience will most likely be filled by expatriates. In addition to performing their job function, expatriate personnel will be expected to transfer knowledge and expertise to develop the capabilities of their Ghanaian staff. In the longer term, it is anticipated that Ghanaian nationals will fill most operating and management positions within the company.

## 19.6. CLOSURE

At the end of the projected mine life, the rehabilitation and decommissioning plan of all disturbed areas will attempt to balance the respective interests of a variety of existing land users and other stakeholders, including the EPA, Minerals Commission, Inspectorate Division of the Minerals Commission and the Bibiani-Anhwiaso-Bekwai Assembly. The essence of the company's reclamation programme is to return disturbed lands to a stable and safe condition, as well as to any appropriate use, including agricultural, industrial, residential and/or reforestation. This includes mined-out pits, waste rock dumps, haul roads, the TSF and all levees.

Reclamation costs have been calculated, independent of the proposed underground mining operations, in that the estimated costs would still be incurred whether the Project is approved or not. The total reclamation cost has been estimated at USD7.6M. The financial calculations for the project have assumed that the sale of fixed and mobile assets at Bibiani at the end of production will provide the funds required to undertake the mine rehabilitation process.

## 20. CAPITAL AND OPERATING COSTS

### 20.1. CAPITAL COST ESTIMATES

Project capital expenditure estimates based on the final LOMP are in USD real terms, dated 2018, and are accurate to  $\pm 20\%$ . The 2018 capital cost estimates are summarised in Table 20.1.

**Table 20.1 2018 Capital spend summary (source: Resolute, 2018)**

Cost category	Estimate (USDM)
Underground mining	86
Treatment	11
Shared and regional infrastructure	2
Site support services	2
Project management services	2
Other capitalised costs	10
Provisions	2
Sustaining capital expenditure	63
<b>Total</b>	<b>178</b>

Should an investment decision in relation to the restart of mining operations at Bibiani, the Project capital spend is estimated to be USD115M over the life of the Project, with a large portion being spent within the first four years to purchase mining equipment and reconfigure the processing plant. Contained in this is the approximate start-up capital of USD75M. Initial development of the underground mine is planned to be undertaken by a contractor, diminishing the initial capital requirement for equipment and ensuring prompt access to ore.

The processing plant cost estimate has been developed on a base case 1.06 Mtpa production rate, with the plant operating for 8,000 hours per annum at a rate of 145t/hr. This estimate includes upgrades to the processing flowsheet, increasing the capacity of the TSF to 11 Mt, as well as first fills and consumables, project management and site support services.

All capital expenditure incurred post steady-state (commercial) production has been reported as sustaining capital.

### 20.2. OPERATING COSTS

Project operating cost estimates accompanying the LOMP are based on quantities derived from the LOM schedule and the unit rates calculated using a cost model for materials, parts and consumables using 2018 price estimates. A summary of the 2018 total operating cost estimates for the life of the Project is presented in Table 20.2. The LOM average unit cost of production is estimated at USD 62/t ore milled at an all-in-sustaining cost of USD764/oz sold.

Mining operating costs are essentially costs associated with ore development, stoping, ore haulage and a portion of mining overheads apportioned between capital and operating. Overall mining costs have been generated by AMC (AMC, 2018) and are based on the operating cost base modified for changing activity levels and reasonable cost base reductions over the LOMP. The following assumptions have also been used:

**Table 20.3 Operating expenditure per cost category (source: Resolute, 2018)**

<b>Cost category</b>	<b>Estimate (USD/t milled)</b>
Underground mining	31.4
Treatment	21.6
Shared and regional infrastructure	0.1
General and administrative	9.0
<b>Total</b>	<b>62.10</b>

- Contract mining for the first three years;
- Purchase of the contractor mobile fleet at Year 4 at 50% of the new cost;
- Owner mining from Year 4 onwards; and
- Owner management and technical services for the LOMP.

The processing costs were prepared by Wood (Amec Foster Wheeler, 2018) and are based on supplier estimates and information from other projects completed by Wood which are comparable to Resolute's Syama operations. Operating processing costs include power consumption, labour, process and wear consumables, maintenance consumables, mobile equipment, assay and testwork and general and administration costs. The general and administration operating cost allowance is \$9 per tonne, based on similar allowances at Resolute's Syama and Ravenswood mining operations.

Reclamation costs have not been fully developed for the Project. It has been assumed that the sale of the minesite fixed and mobile plant at the end of mine life will cover the cost of rehabilitation and remediation work.

Royalties are based on 6% of the revenue from the sale of gold.

## **21. ECONOMIC ANALYSIS**

### **21.1. BACKGROUND**

A detailed economic analysis was completed as part of the 2018 Pre-feasibility Study update. The principal method of valuation used was Discounted Cash Flow (DCF) using 1 January 2019 as the base date of the evaluation.

For this study a gold price of USD1,200 was used as the base case. A sensitivity analysis, testing fluctuations in gold price ranging from USD1,000 to USD1,300, was conducted to give an indication of risk and opportunity related to gold price changes.

Estimates of costs include all capital and operating expenditure and royalties over the current 11-year mine life based on the current LOMP. All project capital expenditure incurred post commercial production has been reported as sustaining capital. No additional allowances for minor capital replacements over the LOM have been estimated. As such, the cost of minor capital replacements has been accounted for in the operating cost estimates. Operating costs were estimated to identify fixed and variable production costs. Fixed costs relate to those monthly production costs which are incurred irrespective of production scale, whereas variable production costs are directly proportional to production throughput. These costs were cash flowed according to the following main Activities: Mining, Processing, Infrastructure and General and Administration.

A discount rate of 5.5% for calculating net present value (NPV) was used. All-in-sustaining-costs are expected to be USD764/oz for a Life of Mine production of 974 koz.

### **21.2. PARAMETERS**

#### **21.2.1. KEY ECONOMIC ASSUMPTIONS**

The key economic assumptions refer to those factors considered uncontrollable or largely not within the control of the Project team. Some of these factors are mostly driven by market forces within the greater macro-economic environment.

No pre-evaluation date tax losses have been carried forward into the financial model. Tax losses are estimated in the financial model have been offset against taxable income to a maximum of five years, as per Ghanaian regulations.

Capital expenditure allowances have been estimated in the financial model on an annual basis, offset against taxable income and are based on the various allowable capital expenditure (ACE) depreciation rates per asset class, but are not carried forward, as per Ghanaian regulations.

**Table 21.1 Key economic assumptions (source: Resolute)**

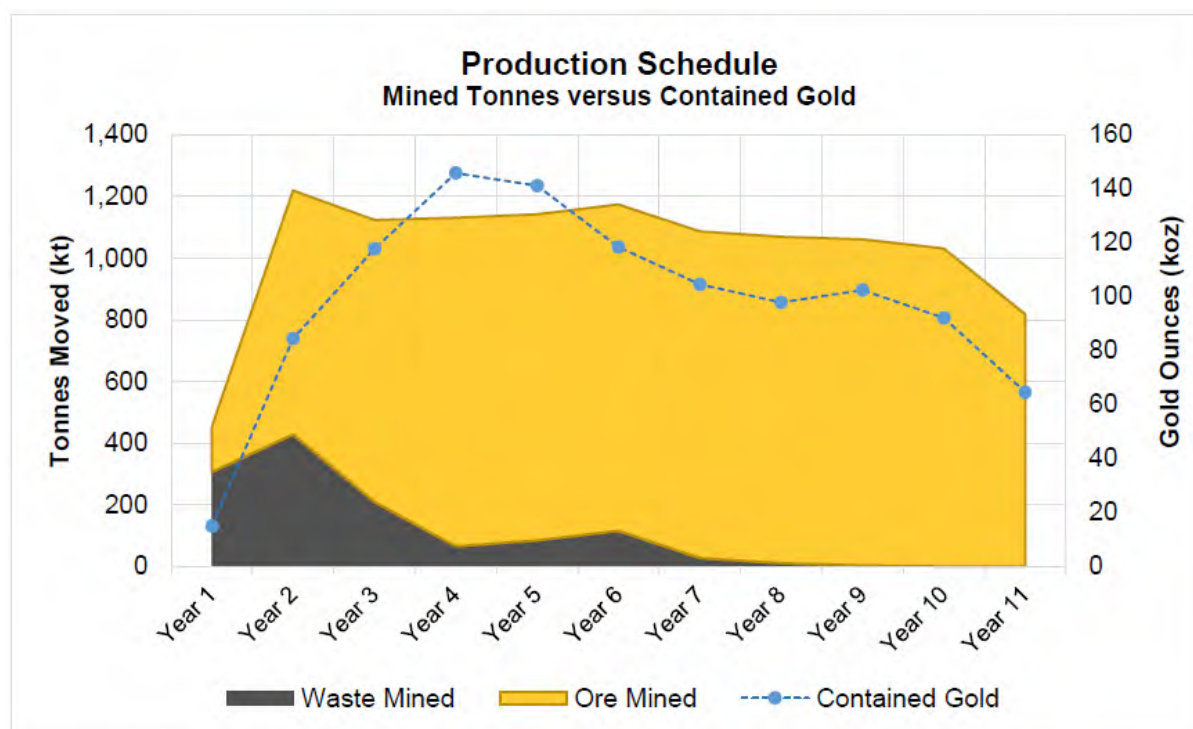
Metric	Unit of measurement	Assumption
<b>Discounting</b>		
Discount Rate: Pre-Tax (Real)	% USD real	8.50
Discount Rate: Post-Tax (Real)	% USD real	5.50
Discount Rate: Pre-Tax (Nominal)	% USD nominal	8.00
Discount Rate: Post-Tax (Nominal)	% USD nominal	7.50
<b>Commodity prices</b>		
Gold Price (long-term real)	USD/oz real 2018	1,200
<b>Inflation factors</b>		
USA (long-term)	% per annum	1.80
Ghana (long-term)	% per annum	10.00
<b>Exchange rate</b>		
USD:GHS (long-term real)	GHS real 2018	4.50
<b>Selling expenses</b>		
Handling and transport cost	USD/oz real 2018	1.75
Refining charges	USD/oz real 2018	2.25
<b>Regulatory</b>		
Corporate income tax rate	% of Taxable Income	35.00
Mineral royalties: gold	% of Net Revenue	5.00
Other government royalties	% of Net Revenue	1.00
Community support and development	USD/oz sold real 2018	1.00

**21.2.2. PRODUCTION SCHEDULE AND GRADES**

The proposed production schedule and accompanying mined-grade profile for the Project has been developed and incorporated into the financial model. Development and production rates have been scheduled to achieve the desired production rate of 1.06 Mtpa. Production rates are close to 83 kt per month. The time to first production of ore from the mine, as measured from the first capital spend, is forecast at six months, with the ramp-up period to steady state ore production (88 kt per month) estimated at eleven months.

**21.2.3. METALLURGICAL RECOVERIES**

The metallurgical recoveries have been kept constant over the LOM and have not been varied on a monthly or annual basis according to the mine grade profile. The LOM average metallurgical recovery of gold has been estimated to be 89.9%, with the total recovered gold over the 11-year economic life amounting to 974 koz.

**Figure 21.1 Annual development schedule (source: Resolute, 2018)**

#### 21.2.4. SENSITIVITY ANALYSIS

A sensitivity analysis was conducted on each of the key project variables, including gold price, processing recovery, operating costs and capital cost. The sensitivity analysis was performed on the base case financials and demonstrates that the Project is most sensitive to changes in gold price and gold grade.

## **22. ADJACENT PROPERTIES**

Properties adjacent to Bibiani have no material impact on the Mineral Resources or Ore Reserves and are not considered relevant.

## **23. OTHER RELEVANT DATA AND INFORMATION**

There is no other data which is relevant either to Bibiani at the effective date of the report.

## 24. CONCLUSION

Bibiani has a long history of production through several owners since the 1800s, with a total historical production around 5 Moz of gold. After the failure of the previous owner of the mine, Noble Mineral Resources Limited in 2013, Resolute initially acquired a 20% stake in the local holding company and increased this to a controlling stake by early 2014. Since this time, Resolute's strategy has been to plan for a restart of the operations. This has been furthered by a number of studies, culminating in the 2018 Feasibility Study update.

Resolute has drilled a number of holes since assuming control of the project and several Mineral Resource and Ore Reserve updates have been estimated. The current Mineral Resource contains around 2.5 Moz gold, with 1 Moz of this being in the lower-confidence Inferred category. The most recent Mineral Reserve contains 660 koz gold, with the difference between this and the life-of-mine production being made up of the assumed conversion of Inferred Resources (which cannot be reported as reserves) to higher confidence categories.

Resolute's strategy at the Bibiani Gold Mine is to generate an operational readiness programme and to complete the process of seeking all approvals from the Government of Ghana. Once these two objectives have been realised, it is Resolute's current expectation that the Board will be in a position to make a decision whether to approve the potential re-start of the Bibiani Gold Mine during the December 2019 Quarter.



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## 26. GLOSSARY

### 26.1. ABBREVIATIONS

Abbreviations	Explanation
%	percentage
µm	one millionth of a metre
AAS	Atomic Absorption Spectrometry
AC	Aircore drilling
Ag	Silver
As	arsenic
Au	Gold
AUD	Australian Dollars
AusIMM	Australian Institute of Mining and Metallurgy
CP	Chartered Professional of the AusIMM
DD	Diamond drilling
EM	electromagnetic
Ga	Billion years
GHS	Ghanaian Cedis
g/t	grams per tonne
IOCG	iron oxide, copper, gold (deposits)
IRG	intrusion-related gold
JV	joint venture
km	kilometre
km <sup>2</sup>	square kilometre
kt	kilotonnes
ktpa	kilotonnes per annum
m	metre
M	million
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metres
Ma	million years
mm	millimetres
Mo	molybdenum
MOU	Memorandum of understanding
Moz	Million ounces

Abbreviations	Explanation
MPa	Megapascals, a unit of rock strength
mRL	meters Reduced Level
Mt	million tonnes
Mtpa	million tonnes per annum
MW	Megawatt, one million watts
Ni	nickel
Pb	lead
QAQC	quality assurance, quality control
RAB	Rotary Air Blast drilling
RC	Reverse Circulation drilling
RL	Reduced Level
t	metric tonnes
t/m <sup>3</sup>	tonnes per metre cubed
TSX	Toronto Securities Exchange
TSX-V	Toronto Venture Exchange
USD	United States Dollars
Zn	zinc

## 26.2. TERMS

Term	Explanation
3D geological model	Computerised representation of the geology, incorporating stratigraphy, structural features and other important geological features
aerial photography	Photographs taken from an aircraft or other flying object
aeromagnetic	A geophysical exploration technique which maps the magnetic signature of rocks from an aeroplane or drone.
alluvial	Associated with sedimentary processes involving water
alluvial gold	An accumulation of alluvium (sediment), sometimes containing gold in the bed or former bed of a river.
alluvium	Loose, unconsolidated sediment that has been eroded by water
antiform	An arched shape formed by folded or faulted rocks, with a crest (high point) and limbs.
aquifer	A rock layer or stratum which preferentially channels water or other deleterious fluids
Archaean	A geological period from 4,000 to 2,500 million years before present day.
assay	The process of determining the content of a mineral or metal through a range of physical or chemical techniques.
backfill	Broken and/or cemented waste rock or processing residue pumped underground and used to fill relatively small voids (stopes), allowing rocks next to the filled stope to be mined by blasting.
basalt	A fine-grained igneous rock consisting mostly of plagioclase feldspar and pyroxene.
basement	The surface beneath which sedimentary rocks are not found; the igneous, metamorphic, or highly deformed rock underlying sedimentary rocks.
basement/bedrock	In general terms older, typically crystalline rocks which are often covered by younger rocks.

Term	Explanation
basin	Large low-lying area, often below sea level, in which sediments collect
basin (sedimentary)	Refers to any geographical feature exhibiting subsidence (downward shift) and consequent infilling by sedimentation.
basin inversion	A phase of movement where rocks in a basin shape are lifted by tectonic forces to remove the basin.
beneficiation	The process of concentrating the elements or minerals of interest through a wide range of physical or chemical separation techniques.
block model	A model comprised of rectangular blocks, each with attributes such as grades, rock types, codes that represents a given mineral deposit.
breccia	Fractured or broken rocks, cemented or formed into a solid layer.
brecciated	Converted into or resembling a breccia.
brecciated siltstone	A siltstone containing small fragments of breccia.
brecciation	Converted into or resembling a breccia.
brine	A salt- and metal-rich mineralising aqueous solution.
bulk density	A property of particulate materials. It is the mass of many particles of the material divided by the volume they occupy. The volume includes the space between particles as well as the space inside the pores of individual particles.
carbonate rock	A sedimentary rock generally formed in shallow marine conditions which is characterised by the presence of varying amounts of calcium carbonate or magnesium carbonate. Coral reefs and/or marine creatures may contribute to the constituents in the rock.
Carboniferous	A geological period comprising rocks aged between 345 and 280 million years before the present day.
clastic	Composed of fragments or particles of various sizes.
comminution	reduction in the particle size of crushed rock in a process plant.
craton	An old stable portion of the earth's crust, generally of Archaean age
Cretaceous	A geological period after the Jurassic and before the Tertiary, containing rocks aged between 135 and 65 million years before the present.
cut-off grade	The grade that differentiates between mineralised material that is economic to mine and material that is not.
deformation	Term used to describe changes in rocks after their formation, usually caused by tectonic forces.
deltaic sediment	Sediments deposited in deltaic plains. See delta plain
delta plain	A low-lying coastal plain, formed where a river empties into the sea (or, rarely, into a freshwater body).
de-stress	A mining approach which excavates an opening below the orebody to be mined in order to relieve the pressure in the rocks, making safe for excavation.
Devonian	A geologic period after the Silurian and before the Carboniferous periods, representing rocks aged between 400 and 345 million years before present.
diamond drilling	Drilling method that uses a rotating bit encrusted with diamonds to collect a cylinder of rock. Drilling fluids may be used.
dolomite	A carbonate rock consisting of calcium magnesium carbonate.
drillhole data	Data collected from the drilling, sampling and assaying of drillholes.
en echelon fractures or veins	Structural features within rock which appear as a set of short, closely-spaced parallel or sub-parallel lenses. They originate as tension fractures that are parallel to the major stress orientation in a shear zone. They are subsequently filled by precipitation of a mineral, typically quartz or calcite to form veins.
exploration licence	Rights to explore for minerals in an area, granted by a government to an individual/company.
exploration licence application	Application of an individual/company to a government to obtain the rights to explore for minerals.
facies	A condition or set of conditions in which a specific sedimentary rock was deposited; a generic name for a type of rock.
feasibility study	A mining and or processing study into the economic development of a project for which the inputs have an accuracy of 5% to 10%.
fire assay	The quantitative determination in which a metal or metals are separated from impurities by fusion processes and weighed in order to determine the amount present in the original sample
flotation	A metallurgical concentration method whereby bubbles of air are used to separate crushed sulphide particles from waste rock of a different density or different physical characteristics.

Term	Explanation
fluorite	A mineral, calcium fluoride.
foliation	Parallel orientation of platy minerals or mineral banding in rocks.
galena	Lead sulphide, the main ore of lead.
gangue	The non-economic portion of a mineralised rock.
geotechnical	A generic term for work carried out using the mechanical properties of rocks.
geotechnical analysis	Analysis of the factors affecting the stability of a rock mass.
geotechnical core logging data	Data collected on the geotechnical properties of rock mass by examining diamond drill core.
geotechnical strength testing	Analysis of the factors affecting the stability of a rock mass.
geothermal	The heating of rocks or groundwater from natural sources deep in the earth.
graben	A crustal block that has been depressed relative to the blocks on either sides. The bordering faults (on the long side of the graben) are usually of near-parallel strike and steeply dipping. In its initial surface form, it is typically a linear structural depression.
grade cap (top cut)	Restriction of the influence of very high grades, designed to avoid over smoothing of these grades into too large an area.
grade control	The process of collecting geological, sample and assay information for the delineation of mineable ore boundaries; the minimization of dilution and ore loss, and the reconciliation of the predicted grade and tonnage to the grade and tonnage mined and milled.
greenschist facies	Assemblage of minerals formed during regional metamorphism. The rocks of the greenschist facies form under the lowest temperatures (300 - 450 celcius) and pressure (1 to 4 kilobars) conditions usually produced regional metamorphism.
greenstone belt	Zones of variably metamorphosed mafic to ultramafic volcanic sequences with associated sedimentary rocks that occur within Archaean and Proterozoic cratons between granite and gneiss bodies.
greenstones	Zones of variably metamorphosed mafic to ultramafic volcanic sequences with associated sedimentary rocks that occur within Archaean and Proterozoic cratons between granite and gneiss bodies
HQ, BQ, NQ	Diamond drill core diameters – 63.5, 33.5 and 45.1 mm respectively.
hydrothermal	Relating to fluids which contain minerals of interest and water, generally at elevated temperatures.
igneous	Rock is formed through the cooling and solidification of magma or lava.
Indicated Mineral Resource	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.
Inferred Mineral Resource	An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drillholes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.
instrument	The guidelines and rules of the National Instrument 43-101 Rules and Policies
intercept	Mineralised intersection in a borehole.
intrusion	The action or process of forcing a body of igneous rock between or through existing formations, without reaching the surface
inverse distance estimation	A method for interpolation, which assigns values to unknown points by using values from a set of known points. The value at the unknown point is a weighted sum of the values of the known points.
island arc volcanism	Offshore volcanoes form islands, which result over time in a volcanic island arc. Generally, volcanic arcs result from the subduction of an oceanic tectonic plate under another tectonic plate, and often parallel to an oceanic trench.
isotropic	The same in all directions.
JORC Code	The JORC Code is an Australian reporting code which is applicable for companies listed on the Australian Securities Exchange. It provides minimum standards for public reporting to ensure that investors and their advisers have all the information they would reasonably require for forming a reliable opinion on the results and estimates being reported. The current version is dated 2012.

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Term	Explanation
Jurassic	A geological period after the Triassic and before the Cretaceous, comprising rocks aged between 190 and 135 million years before the present day.
kriging	A geostatistical estimation method using a distance weighting technique which is based upon the relative spatial continuity of the samples.
lithology	The study and description of rocks, including their mineral composition and texture.
lode	Ore zone.
Measured Mineral Resource	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.
metallurgy	Study of the physical properties of metals as affected by composition, mechanical working and heat treatment.
mica	One of a family of platy minerals.
mica schist	A group of medium-grade metamorphic rock, chiefly notable for the preponderance of lamellar minerals such as micas, chlorite, talc, hornblende, graphite, and others.
Mineral Resource	The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Ore Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cut-off grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.
mineralisation	The process by which a mineral or minerals are introduced into a rock, resulting in a valuable deposit.
mineralisation solid	See wireframe.
nugget effect	A variability component reflecting the short-scale differences in grade for a set of assays.
Ordovician	A geological period after the Cambrian and before the Silurian periods, representing rocks between 500 and 440 million years ago.
Ore Reserve	Ore Reserves are those parts of Mineral Resources which, after the application of all mining factors, result in an estimated tonnage and grade which, in the opinion of the Qualified Person(s) making the estimates, is the basis of an economically viable project after taking account of all relevant Modifying Factors. Ore Reserves are inclusive of diluting material that will be mined in conjunction with the Ore Reserves and delivered to the treatment plant or equivalent facility. The term 'Mineral Reserve' need not necessarily signify that extraction facilities are in place or operative or that all governmental approvals have been received. It does signify that there are reasonable expectations of such approvals.
ore sorting	A generic term for one of a number of techniques for separating rocks based upon one or a combination of physical, chemical or electrical properties, e.g. density, brightness, conductance.
ore zone /ore body	Zone of mineralised material.
orogeny	The process of mountain building, and may be studied as a tectonic structural event, as a geographical event and a chronological event, in that orogenic events cause distinctive structural phenomena and related tectonic activity, affect certain regions of rocks and crust and happen within a time frame.
orogeny/orogenic	Relating to tectonic forces resulting in large scale deformation of portions of the earth's crust.
panel	A mining unit underground.
Phanerozoic	A general term for geologic time younger than the Archaean era.
polygonal	A grade estimation technique whereby each block assumes the grade of the closest sample to the block centre.
PQ	Diamond drill core - internal diameter of 85 mm
Precambrian	The Precambrian is the earliest part of the Earth's history, and denotes rocks older than the Cambrian age. This time period is subdivided into three eons (Hadean, Archaean, and Proterozoic) of the geologic timescale. It spans from the formation of the Earth to about 4.6 billion years ago (Ga) to the beginning of the Cambrian about 541 million years ago (Ma).
Prospecting Licence	Authorization granted by a government to an individual permitting the person to prospect for minerals.
Proterozoic	Era of the geological time scale within the Precambrian eon containing rocks of approximately 1000 – 2500 million years

Term	Explanation
	old.
Pulp	Pulverised rock sample, generally with a size of 100 micron or finer.
QAQC	Quality Assurance/Quality Control – a set of tests to ensure precision, accuracy and lack of bias of grade and bulk density measurements.
range	The maximum distance within which a set of grades are correlated with itself.
recovery	A generic term for the extraction and retrieval of a metal (e.g. zinc) from the broken rock fed into a processing plant, expressed as a percentage.
recovery (metallurgy)	The percentage of metal that can be recovered given the limitations of the processing equipment.
reef	A carbonate rock comprised of ancient corals or other massive limestone, including the shells of micro-organisms.
room-and-pillar	A reasonably intensive underground mining method where areas of waste rock or pillars are left at regular intervals in an orebody. It is used for relatively flat or tabular orebodies.
scavenger cleaning	A second phase of flotation which recovers minerals not extracted during the initial phase.
sedimentary	Rock forming process where material is derived from pre-existing rocks by weathering and erosion.
sediments	Loose, unconsolidated deposit of debris that accumulates on the Earth's surface.
seismic survey	A geophysical exploration technique based on tracking the movement of shock waves from exploration or impact through the earth. It is used to highlight faults or areas of different density.
stratabound (stratiform)	Rocks or mineralisation which sits within and conformable with sedimentary layered rocks.
sub-level cave	A mining method generally initiated from the bottom upwards and comprising a column of broken rock (broken by explosives) recovered from the base of the column.
sulphide	Economic minerals comprising a metal (such as lead, iron, zinc) and sulphur.
tenement	A generic term for an exploration or mining licence or lease.
testwork	A generic term for a wide range of metallurgical tests applied to rock samples designed to predict the performance of a processing plant.
top cut	A process that reduces the effect of isolated (and possible unrepresentative) outlier assay values on the estimation.
tramming	Transport of broken rock underground, by rail or in trucks or loaders.
turbidites	a sedimentary rock deposited by a turbidity current.
turbidity current	A rapid, downhill gravity flow of water and sediment. Turbidity currents can be caused by earthquakes, collapsing slopes, and other geological disturbances. They are responsible for distributing vast amounts of unconsolidated clastic sediment into the deep ocean.
variography	Definition of the three-dimensional grade continuity of drillhole samples by estimating and modelling the relationship between grade similarity and distance in every direction and at every sample spacing.
volcanic	An igneous rock of volcanic origin.
volcaniclastics	Sedimentary rocks derived from erosion of volcanic rocks.
volcanics	Sequence of strata formed from an erupting volcano.
wedge	A branch off a diamond drillhole providing a second orebody intersection from the main hole.
wireframe	A surface or 3D volume formed by linking points together to form triangles. Wireframes are used in the construction of block models.