

## Mountain Maid Gold Resource Upgrade

#### **Highlights**:

- Historical resource increase with additional drilling and reported to JORC 2012 standards
- Inferred resource of 415 koz at 0.34 g/t Au using 0.2g/t Au cut-off grade including oxidised zone of 37.3koz at 0.35 g/t Au at or near surface
- Historical leach tests indicate 80% recovery in oxide zone reducing to ¬40% in primary zone.
- Higher grade zones now identified within a quartz monzonite intrusion creating new exploration opportunities.
- Mineralisation remains open in several directions including south where intersections such as 19m @ 1.30 g/t Au from 34 m (MMRC050) and 16 m @ 1.28 g/t Au from 50 m (MMRC041) have not been followed up.
- Potential by-product credits from Ag, Cu, Mo, Bi, Te and Sb in primary ore

R3D Resources Limited (ASX: **R3D**) (the **Company**), is pleased to announce that it has commissioned Bluespoint Mining Services Pty Ltd ("BMS") to review historical drilling data and combine the data from more recent drilling data to estimate a resource for the Mountain Maid gold project.

The Mountain Maid project is interpreted as a modest grade Intrusion Related Gold System which was discovered by Cyprus Amax in 1996 with a drillhole BMD4 drilling 275 m at 0.3 g/t Au from surface including 32 m at 0.84 g/t Au from 8 m depth. More recently Axiom Mining conducted extensive drilling between 2008 and 2012 and with earlier drilling, the deposit has been tested by almost 15 km of drilling.

R3D believes the Mountain Maid deposit has similarities with the Kidston Mine including sheeted quartz vein and quartz tourmaline breccias. Mountain Maid remains open in several directions, particularly the most southerly section where intersections from drilling such as 19 m at 1.30 g/t Au from 34 m depth (MMR050) remain open. R3D has also modelled the east dipping higher-grade quartz monzonite intrusive which appears to be a mineralising conduit as the gold grades are lower in the surrounding Nundah granodiorite host rock. This quartz monzonite has the potential to coalesce at depth with higher grades but has not been tested.

R3D Resources has applied for the mining lease to develop the resource with the application having advanced to the native title negotiation stage. The Company's identifies three opportunities with the project, namely, the development of a small gold heap leach project which exploits the surface oxide gold resource, investigating the potential to use ore sorting to upgrade the primary ore using the density contrast between the ore minerals and the host rock, and lastly, potential expanding the resource as well as following higher grade mineralisation at depth and along strike.

R3D Resources Limited (ASX: R3D) ACN: 111 398 040 r3dresources.com.au



R3D Managing Director Stephen Bartrop commented:

"The Mountain Maid resource is a large gold system which is evident from this initial resource announcement. This resource is the first step in both scoping out future mining options (low strip ratio, simple mineralogy, heap leach options) as well as evidence of our increasing understanding of the mineralisation. We have now identified higher grade domains with individual 1 m grades up to +5 g/t Au but with typical grades are in the 0.5 - 1.0 g/t Au range and these domains require further drilling to follow these zones down dip and along strike.

#### Mountain Maid Gold Resource

BMS has identified 4 domains reflecting different average gold grades and/or host rocks. The domains are:

- Domain 200: Oxidised granodiorite host rock
- Domain 300: Fresh granodiorite host rock
- Domain 400: Quartz monzonite porphyry host rock (zone 1)
- Domain 500: Quartz monzonite porphyry host rock (zone 2)

A resource has been estimated for each of the domains with the total of these resources providing the global inferred mineral resource presented in Figure 1(a). The resource estimate for the oxide mineralisation (domain 200) is also presented in Figure 1(b). Our preferred cut-off grade is 0.2g/t Au for the global resource and 0.2g/t for the oxide resource.

Grade Cut off (Au g/t)	Tonnes (Mt)	Au Grade (g/t)	Density (t/m³)	Contained Au (koz)	Grade Cut off (Au g/t)	Tonnes (Mt)	Au Grade (g/t)	Density (t/m³)	Contained Au ( <u>koz</u> )
0.1	73.6	0.25	2.6	591.5	0.1	6.3	0.25	2.6	51.0
0.2	38.0	0.34	2.6	415.5	0.2	3.3	0.35	2.6	37.3
0.3	16.7	0.46	2.6	247.0	0.3	1.5	0.47	2.6	23.0
0.5	5.3	0.66	2.6	112.2	0.5	0.6	0.63	2.6	11.5

Figure 1. (a) Global inferred mineral resource including oxide resource. (b) Oxide resource only. Source: BMS.

The two quartz monzonite porphyry zones (Domain 400 and 500) generally have higher grades than the granodiorite host and the Company believes that they could represent a conduit for mineralising fluids. Figure 2 outlines the combined resource estimate for both domains.



Cutoff Grade (Au g/t)	Au Grade (g/t)	Tonnage (t)	Contained Oz		
0.0	0.47	9,617,442	146,080		
0.1	0.47	9,589,590	146,212		
0.2	0.48	9,259,307	144,373		
0.3	0.52	7,997,101	134,096		
0.4	0.59	5,609,261	106,891		
0.5	0.66	3,826,472	80,732		
0.6	0.74	2,147,933	51,015		
0.7	0.83	1,113,195	29,742		

Figure 2. The resource estimate for Domains 400 and 500. Source: BMS.

The Mountain Maid deposit has been extensively drilled and provides a reliable base for resource estimation. Figure 3 outlined the RC and diamond drilling which has been conducted by Cyprus Amax and Axiom Mining and which totals almost 15 km.

		Number of holes	Metres	Average length (m)
Cyprus 1994–99	RC	2	610	305.1
	Diamond	6	1,476	245.9
	Subtotal	8	2,086	260.7
Axiom 2009–10	RC	53	11,081	209.1
	Diamond	7	1,729	247.0
	Subtotal	60	12,810	213.5
Total		68	14,896	219.1

Figure 3. Drilling at Mountain Maid. Source: BMS.

The resource is partially covered by a low-rise sandstone mesa. Figure 4 is a plan view which depicts the mesa, the outline of mineralisation at surface (and below the mesa) and the collar location of the drilling. Figure 4 also shows the outline of the quartz monzonite porphyry domains 400 and 500. They are relatively central to the broader mineralisation envelope. However, it is important to note that one of the quartz monzonite domains it open to the south. This is discussed later in this report, but the most southerly holes have intersections including 19 m @ 1.30 g/t Au from 34 m (MMRC050) and 16 m @ 1.28 g/t Au from 50 m (MMRC041) and with this mineralisation remaining open to the south due to a lack of drilling.





Figure 4. Plan view of the Mountain Maid resource including the location of drillhole collars and mineralised domains. Source: BMS.

A long section of the resource outline is presented in Figure 5, and which also highlights the central position of the quartz monzonite porphyry mineralisation (domains 400 and 500).





Figure 5. Mountain Maid long section showing drillhole traces, oxide granodiorite (Domains 200 and 300) as well has the higher-grade quartz monzonite porphyry mineralisation (Domains 400 and 500). Source: BMS.

Figures 6 and 7 present cross-sections through the deposit highlighting the outline of the various domains. The crosssections support the interpretation that the mineralisation is east dipping, particularly the higher-grade quartz monzonite porphyry zones.





Figure 6. Cross-section at 8105200N highlighting drill resource outlines and drill hole paths. Note mineralisation is dipping steeply east. Source: BMS.





Figure 7. Cross-section at 8105400N highlighting drill resource outlines and drill hole paths. Again, note mineralisation is dipping steeply east. Source: BMS.

#### Exploration Opportunities - the Kidston Geological Comparison

Kidston is located 280 km NW from Townsville and southwest from Cairns, in far north Queensland. Large-scale production commenced in 1984 by Kidston Gold Mine Ltd (then a subsidiary of Placer Development Ltd) with total gold production of 5 Moz by 2000 when production ceased. Ore production was 80 Mt @ 1.56g/t Au from the original Wises Pit and ~29 Mt @ 1.16g/t Au from the Eldridge pit. The total resource was 133 Mt @ 1.24g/t Au for 5.32Moz Au (Morrison, 2007).

The mineralisation is interpreted to involve multiple brecciation episodes of a stockwork of quartz veins (commonly with molybdenite, pyrite ±arsenopyrite ±chalcopyrite) within a rhyolite. The economic grade mineralisation is interpreted as being deposited after the brecciation episodes and is confined to an inverted funnel shaped zone of quartz-carbonate-sulphide veining and cavities referred to as the sheeted vein zone. This funnel shaped zone has a barren core, with the orebody having an annular shape, near the breccia pipe margin on any level, with the diameter decreasing downwards (Morrison, 2007).

Figure 8 shows the interpreted plan for Kidston highlight the outlining the annular shape of the gold ore on the margins of the intrusion as well as the metal zonation within the pipe structure.





Figure 8. (a) Plan view of Kidston gold mineralisation, note the arcuate shapes at the periphery of the intrusion. (b) Metal zonation within the Kidston pipe. (Source: Morrison 1997 Ore Controls in the Kidston Breccia Hosted Gold Deposit, EGRU Breccia Symposium Field Guide 2007.

The interesting comparison of Mountain Maid with Kidston is that the mineralisation at Mountain Maid has always been interpreted as trending north-south rather than an arcuate shape with the Kidston model also offering potential for other mineralised bodies nearby.



Drilling on the most southerly section recorded 19m @ 1.30 g/t Au in MMRC050 from 34m and 16m @ 1.28g/t Au from 50 m (within 44 m @ 0.64g/t Au) in MMRC041. Limited drilling south of this section, particularly if the mineralised body is arcuate shaped.

Untested below surface mineralisation on the historical assumption that the mineralisation strikes north – south and is not arcuate.



Figure 9. Exploration potential at the edges of the mineralisation which has not been tested, particularly if the mineralisation is arcuate in shape as seen at Kidston gold mine. The Mountain Maid gold mineralisation also has associated Cu, Mo, Bi, Te, Sn and Sb suggesting it is a deeper system than the upper parts of the Kidston pipe.

#### Metallurgy

Leach testwork has been conducted by both Axiom Mining and Cyprus Amax. The most recent results were conducted by Ammtex Ltd in 2010 and involved intermittent bottle roll agitation cyanidation time leach testwork on crushed samples with a crush size of 100% passing 12.5 mm. Testing was carried out in a sealed leach bottle for an extended leach time of 240 hours (10 days). Agitation is suppled intermittently, being 1 minute for every hour of leach contact time.

Ammtec report that excellent gold recoveries (>80%) were achieved from the 2 samples closest to surface. It notes that these samples would be considered highly amenable to heap leach processing, with rapid leaching and low to moderate reagent consumptions (see Figure 10).. Reasonable recovery (>50%) was achieved from one other relatively shallow sample. Otherwise, the combination of low grades and lack of "natural" liberation of contained gold has resulted in relatively poor response for the remaining 6 samples at the coarse crush size employed. Ammtec believes that finer crushing and / or grinding would result in improved recoveries although the extent of the improvement cannot be determined from the data at hand. Given that the near surface material is obviously very amenable, any additional testing should perhaps focus on the deeper materials at this stage.



Figure 10. Mountain Maid coarse bottle roll testing gold recovery results versus sample depth. Source: Ammtec Ltd 2010. Metallurgical Testwork conducted on 9 Composites of Gold Ore Samples from the Mountain maid Project.



This announcement has been approved by the Disclosure Committee of R3D Resources Limited.

Further Information:

**Stephen Bartrop** Managing Director **R3D Resources Limited** M: + 61 408 486 163 P: + 61 2 9392 8032

#### Further Information on the Resource Estimation

In accordance with Listing Rule 5.8.1 the Company provides the following information on the resource upgrade.

#### 1. Geology and geological interpretation

The Mountain Maid deposit as an Intrusion Related Gold System (IRGS), a style of granitic associated deposits characterised by the association of gold with a range of metals including tungsten, tin, molybdenum and bismuth. Mountain Maid mineralisation is associated with phyllic alteration and silicification and several styles of quartz veins of a wide range of orientations. Central portions of the mineralisation are overlain by an average of approximately 9 metres of un-mineralised Jurassic sandstone that caps a prominent mesa around 30 metres high. The mineralisation has been weathered to depths of ranging from approximately 5 to 90 metres and averaging around 40 metres.

#### 2. Sampling and sub-sampling techniques

RC holes either riffle split or speared into single metre or three metre composites. Some three metre composites were rechecked by one metre spear samples. Diamond holes half sawn at 1 m intervals by discrete geological units where required (niche representivity). Assays were checked against geology log on return.

#### 3. Drilling techniques

RC and diamond drilling has been conducted by Cyprus Amax and Axiom Mining as outlined in Figure 3 above.

#### 4. Drill Spacing and Other Criteria

Data spacing considered sufficient for inferred resource figures. 40m X 50m spacing in core of resource area

Geology model well constrained but open at depth and to the south. Extensions to north not ruled out as drill density is lower.

IRG mineralisation sits within the gold soil geochemistry footprint (except for that portion under a small sandstone cap).

#### 5. Sample analysis method

Samples were assayed by ALS/ Analabs Townsville – standard fire assay and AAS finish for Au. ICP (IC587) was also used to assay for Cu, Pb, Zn, AS, Mo, Bi, W, Te, Ag



#### 6. Estimation methodology

The Mountain Maid leases contain data for 89 surface drill holes. The Mountain Maid deposit contains data for 67 surface drillholes relevant for the Mineralised domain interpretation. The Mountain Maid deposit contains data for 58 surface Axiom drillholes that are relevant for the Mineralised Resource Estimate (MRE).

- The 3D wireframe files of five domains were created in Vulcan and snapped to the drill holes
- 67 drillholes were used to inform the MRE

Hole Type	Drill hole Series	Drill hole Number	Metres
DD	BMD (Cyprus)	4(2*)	1,071.5
DD	MMD (Cyprus)	4(4*)	1,014.2
RC	MRC (Cyprus)	18(3*)	1,732
DD	MMDD (Axiom)	10(8*)	3207.1
RC	MMRC (Axiom)	53(50*)	11,083
Total		89	18,107.8

- A Vulcan block model was created by BMS for the MRE with a block size of 20 m N-S  $\times$  20 m E-S  $\times$  20 m vertical with sub-cells of 2m  $\times$  2 m  $\times$  2 m.
- The block model was constrained to five domains. Parameters of the model are shown below.
- Gold was modelled through the block model.
- A Vulcan block model was created to encompass the full extent of the deposit. (Tidy up format this table, particularly min domain row, also revise in JORC table Section 3)

Model Name	Х	Y	Z
Origin	193000	8106000	500
Offset	0	-1800	-500
Offset	1000	0	0
Block Size (sub- blocks)	20 (2)	20 (2)	20 (2)



Variables	Description		
Au	Au Grade – reportable		
Min_Domain	Mineralisation domain		
Avg_dist	Average distance to samples		
Zone	In situ, mined etc.		
holecount	Number of drill holes		
Numsam	Number of Samples used for Block grade		
	interpolation		
BD	Bulk Density		
Mined	Mined or In situ		
Ox	Oxidation		

- Ordinary Kriged (OK) interpolation with an oriented ellipsoid search was used to estimate Au grade in four domains as per the reported block model. Domain 200, 300, 400 and 500.
- Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Au grade in five domains as per a check block model. Domain 100, 200, 300, 400, 500.
- Of the samples from the 89 assayed drillholes they were analysed drill holes within the R3D database provided by R3D. Only these assays from the 67 have been used by BMS in the Mountain Maid MRE.
- In the Mountain Maid resource defined area of the Mountain Maid the average sample length of all sampled holes is 1m. This reflects that the vast majority of samples were based on 1m lengths
- A first pass long axis radius of 30 m with a minimum number of informing samples of 8 was used. The major axis radius was increased to 60 m for the second pass. A third pass with an increased search radius of 180 m and a decrease in the minimum number of samples from 8 to 2 was required to fill blocks within the extremities of the resource wireframes (see tables below)
- - ~30% of the resource volume filled in the 1st pass, ~60% in the 2nd pass and the remainder in the 3rd pass for Mountain Maid
- high-grade gold cut of 2.5 g/t Au was applied to oxide Domain 200 only
- A bulk density value of 2.6 t/m3 was applied to Mountain Maid
- Search and estimation parameters below

Pass	Min Sample	Max Sample	Distance (m)
1	8	30	30
2	8	30	60
3	2	40	180



Domain	Strike	Plunge	Dip	Discretisation
100	348	-2	-73	3x:3y:3z
200	349.924	-0.867	-9.963	3x:3y:3z
300	315.0	-35.0	-90.0	3x:3y:3z
400	206.597	39.856	22.91	3x:3y:3z
500	206.597	39.856	22.91	3x:3y:3z

#### 7. Cut-off grade

A range of reportable MRE cut-off grades were provided with 0.2 g/t Au preferred as it provides an average gold grade in line with other lower grade, large scale heap leach operations.

# 8. Mining and metallurgical methods and parameters, and other material modifying factors considered to date.

Metallurgical recoveries discussed above and include 80% recoveries from intermittent bottle roll leach testwork with a 12.5mm crush size. Primary mineralisation had lower recoveries around 40% (See Figure 10) and further testwork is required to see whether further crushing will increase the recovery.



#### **About R3D Resources Limited**



R3D Resources is a significant copper, gold, silver and zinc explorer and developer in the Chillagoe Region of Far North Queensland. R3D owns several projects of varying maturity, with the most advanced being the Tartana mining leases, which contain an existing heap leach – solvent extraction – crystallisation plant nestled between resource estimates of 45,000 tonnes of copper at Tartana and 39,000 tonnes of zinc at Queen Grade both reported to JORC standards. Recommissioning the currently idle plant to provide future cash flow through the sale of copper sulphate is expected in H1 CY 2023.

#### **Competent Person's Statement**

The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Wayne (Tom) Saunders who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM), and a Member of the Australian Institute of Geologists (AIG). Mr Saunders has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Saunders is an employee of R3D Resources Limited, and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Geoff Reed who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM (CP)), and a Member of the Australian Institute of Geologists (AIG). Mr Reed has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Reed is a consultant of R3D Resources Limited, and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **Disclaimer Regarding Forward Looking Statements**

This ASX announcement contains various forward-looking statements. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking statements are inherently subject to



uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance or achievements to differ materially from the expectations described in such forward-looking statements.

R3D Resources does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.



Drillhole	midx	middy	midz	From (m)	To (m)	Length (m)	Au g/t
BMD03	193537.8	8105412.1	369.6	0.0	26.9	26.9	0.04
BMD03	193537.8	8105412.1	295.6	26.9	148.0	121.1	0.10
BMD03	193537.8	8105412.1	197	148.0	224.0	76.0	0.35
BMD03	193537.8	8105412.1	119	224.0	304.0	80.0	0.16
BMD04	193563.2	8105088.5	362.7	9.3	34.4	25.1	0.92
BMD04	193538.8	8105088.5	320.4	34.4	106.9	72.5	0.22
BMD04	193503.7	8105088.5	259.7	106.9	174.8	67.9	0.26
BMD04	193470.4	8105088.5	202	174.8	240.0	65.2	0.22
MMD37	193617.8	8105020.5	226.1	175.0	187.0	12.0	0.27
MMD37	193596.7	8105010.3	198.2	187.0	248.0	61.0	0.56
MMD37	193567.2	8104995.9	159	248.0	289.2	41.2	0.14
MMD38	193449.5	8105023.8	334.7	26.4	48.3	21.9	0.04
MMD38	193467.9	8105033.5	298.6	48.3	109.7	61.4	0.09
MMD38	193482.1	8105041.1	270.6	109.7	112.9	3.3	0.15
MMD38	193516.2	8105059.2	203.8	112.9	264.0	151.1	0.16
MMD981	193626.7	8105077.6	352.4	17.0	21.2	4.2	0.20
MMD981	193604.6	8105076.5	325.9	21.2	86.0	64.8	0.24
MMD981	193576.6	8105075	292.6	86.0	108.3	22.3	1.03
MMD981	193538.7	8105073.6	247.4	108.3	204.0	95.8	0.40
MMD982	193396.5	8105116.4	335.2	0.0	36.7	36.7	0.19
MMD982	193424.5	8105139.7	290.7	36.7	115.0	78.4	0.23
MMD982	193461.6	8105170.1	232.8	115.0	187.0	72.0	0.64
MMD982	193483.6	8105187.2	200.8	187.0	200.0	13.0	0.35
MMDD001	193567.2	8105149.3	357.3	18.1	50.4	32.3	0.09
MMDD001	193542.6	8105138.9	311	50.4	125.0	74.6	0.24
MMDD001	193502.6	8105124	240.3	125.0	215.8	90.8	0.34
MMDD001	193470.8	8105113.6	188	215.8	249.1	33.3	0.20
MMDD002	193617.4	8105187.9	127.7	218.0	295.0	77.0	0.19
MMDD003	193480.6	8105246	357.4	15.8	51.4	35.6	0.21
MMDD003	193461.6	8105245	323.8	51.4	93.0	41.6	0.24
MMDD003	193436.2	8105244.1	278.7	93.0	155.0	62.0	0.40
MMDD003	193409.7	8105243.9	232.8	155.0	199.0	44.0	0.18
MMDD004	193596.5	8105347.8	338.4	50.0	53.0	3.0	0.18
MMDD004	193553.9	8105341.8	263.8	53.0	222.1	169.1	0.17
MMDD005	193480	8105350	360.5	7.7	45.4	37.7	0.07
MMDD005	193419.2	8105346.8	255.2	45.4	251.0	205.6	0.17
MMRC001	193445.9	8105342.3	360.9	9.0	49.0	40.0	0.10
MMRC001	193407.3	8105337.6	314.5	49.0	130.0	81.0	0.14
MMRC002	193521.3	8105345.1	355.9	9.0	55.0	46.0	0.11
MMRC002	193484.1	8105340.5	290.9	55.0	159.0	104.0	0.23
MMRC002	193446.6	8105337.3	224.3	159.0	208.0	49.0	0.42
MMRC002	193424.7	8105335.8	185	208.0	249.0	41.0	0.12
MMRC003	193433.9	8105250.5	345.9	6.0	42.7	36.7	0.22

Table 1. Drillholes and drillhole intersections used in the MRE



MMRC003	193424.2	8105249.3	329	42.7	45.0	2.3	0.22
MMRC003	193417.7	8105248.5	317.6	45.0	69.2	24.2	0.19
MMRC003	193394.6	8105245.7	277.3	69.2	138.0	68.8	0.18
MMRC004	193530.6	8105248	364.9	22.0	35.0	13.0	0.20
MMRC004	193501.6	8105244.4	314.2	35.0	139.0	104.0	0.19
MMRC004	193459.4	8105240.9	237.1	139.0	211.0	72.0	0.54
MMRC004	193439	8105239.5	199.2	211.0	225.0	14.0	0.25
MMRC005	193521.4	8105241.5	256.3	106.0	193.0	87.0	0.26
MMRC005	193489.4	8105237	204.5	193.0	228.0	35.0	0.65
MMRC005	193473.7	8105234.8	179.1	228.0	253.0	25.0	0.36
MMRC006	193463.9	8105152.9	347.7	5.0	75.2	70.2	0.37
MMRC006	193446	8105150.7	316.5	75.2	77.0	1.8	0.35
MMRC006	193436.9	8105149.6	300.6	77.0	111.9	34.9	0.32
MMRC006	193426.2	8105148.3	282	111.9	120.0	8.1	0.33
MMRC007	193512.7	8105147.9	353.3	8.0	56.0	48.0	0.36
MMRC007	193492.6	8105145.4	318.3	56.0	89.0	33.0	0.27
MMRC007	193466.1	8105142.2	271.9	89.0	163.0	74.0	0.56
MMRC007	193443.5	8105139.4	232.5	163.0	180.0	17.0	0.24
MMRC008	193584.5	8105144.9	254.5	40.0	240.0	200.0	0.18
MMRC009	193604.3	8105149.2	352.4	34.0	36.0	2.0	0.41
MMRC009	193576.5	8105145.7	303.9	36.0	146.0	110.0	0.18
MMRC009	193529.1	8105139.1	218.4	146.0	232.0	86.0	0.62
MMRC009	193493.2	8105133.1	150.6	232.0	300.0	68.0	0.13
MMRC010	193582	8105066.2	365.9	17.0	19.0	2.0	0.33
MMRC010	193535.6	8105060.5	299.2	19.0	180.0	161.0	0.20
MMRC011	193620.8	8105058.8	360	19.0	24.0	5.0	0.36
MMRC011	193612.4	8105057.8	345.3	24.0	53.0	29.0	0.15
MMRC011	193591.8	8105055.3	309.3	53.0	107.0	54.0	0.43
MMRC011	193543.3	8105049.4	227.3	107.0	244.0	137.0	0.15
MMRC012	193646.3	8105045.7	338.2	29.0	73.0	44.0	0.31
MMRC012	193620	8105042.5	292.3	73.0	135.0	62.0	0.64
MMRC012	193573.6	8105036.4	205.6	135.0	270.0	135.0	0.15
MMRC013	193396.3	8105249.9	357.7	16.0	40.0	24.0	0.15
MMRC013	193380.9	8105248	330.8	40.0	78.0	38.0	0.17
MMRC014	193456	8105049.7	343.3	0.0	18.0	18.0	0.22
MMRC014	193401.1	8105042.9	264.2	18.0	193.0	175.0	0.24
MMRC015	193490	8105065	348	0.0	18.0	18.0	0.61
MMRC015	193490	8105065	329.5	18.0	37.0	19.0	0.24
MMRC015	193490	8105065	296	37.0	85.0	48.0	0.41
MMRC015	193490	8105065	249.5	85.0	130.0	45.0	0.18
MMRC016	193612.4	8105035.7	152.1	181.0	299.0	118.0	0.15
MMRC017	193606	8105131.1	125.4	210.0	300.0	90.0	0.23
MMRC018	193670.6	8104946.3	349.3	0.0	15.0	15.0	0.11
MMRC018	193654.4		326	15.0	57.0	42.0	0.21
MMRC018	193635.6	8104942	298.9	57.0	81.0	24.0	0.69
MMRC018	193604	8104938.1	253.5	81.0	168.0	87.0	0.19



MMRC019	193709.4	8104947.2	348.7	0.0	11.0	11.0	0.12
MMRC019	193656.2	8104940.7	255	11.0	216.0	205.0	0.25
MMRC020	193501.8	8104951.2	331.4	0.0	2.0	2.0	0.44
MMRC020	193447.4	8104944.5	236.6	2.0	219.0	217.0	0.21
MMRC021	193596.6	8104944.9	337.6	0.0	20.0	20.0	0.19
MMRC021	193546.7	8104938.7	250.6	20.0	201.0	181.0	0.10
MMRC022	193458.8	8105298.1	357.9	10.0	60.0	50.0	0.12
MMRC022	193443.4	8105296.3	331.1	60.0	72.0	12.0	0.27
MMRC022	193434.2	8105295.1	315	72.0	97.0	25.0	0.58
MMRC022	193416.6	8105293	284.3	97.0	143.0	46.0	0.23
MMRC023	193500.8	8105297.3	351.4	11.0	64.0	53.0	0.11
MMRC023	193476	8105294.2	308.1	64.0	111.0	47.0	0.20
MMRC023	193454.2	8105291.6	266.5	111.0	158.0	47.0	0.71
MMRC023	193435.3	8105289.2	229.1	158.0	195.0	37.0	0.36
MMRC024	193559	8105298.8	360	12.0	41.0	29.0	0.12
MMRC024	193520.1	8105294	292.1	41.0	169.0	128.0	0.16
MMRC024	193467	8105287.5	212.5	169.0	233.0	64.0	0.44
MMRC024	193447.8	8105285.2	185.7	233.0	235.0	2.0	0.20
MMRC025	193432.8	8105195.2	358	6.0	60.0	54.0	0.25
MMRC025	193419.1	8105193.5	334.2	60.0	61.0	1.0	0.35
MMRC025	193418.5	8105193.5	333.1	61.0	62.6	1.6	0.67
MMRC025	193412.3	8105192.7	322.3	62.6	86.0	23.4	0.38
MMRC025	193405	8105191.8	309.5	86.0	92.0	6.0	0.27
MMRC026	193486.4	8105195.3	358.7	7.0	66.0	59.0	0.33
MMRC026	193467.5	8105193	325.8	66.0	83.0	17.0	0.28
MMRC026	193454.4	8105191.3	302.8	83.0	119.0	36.0	0.50
MMRC026	193435.3	8105189	269.5	119.0	160.0	41.0	0.31
MMRC027	193539.3	8105195.2	354.2	14.0	63.0	49.0	0.16
MMRC027	193513.7	8105192.1	309.6	63.0	117.0	54.0	0.24
MMRC027	193482.9	8105188.3	254.2	117.0	190.0	73.0	0.38
MMRC027	193449.5	8105184.2	190	190.0	262.0	72.0	0.32
MMRC028	193587.1	8105196.4	352.2	14.0	68.0	54.0	0.16
MMRC028	193548.9	8105191.7	285.6	68.0	168.0	100.0	0.17
MMRC028	193513.3	8105187.4	217.5	168.0	222.0	54.0	0.55
MMRC028	193486.3	8105184	162.9	222.0	290.0	68.0	0.19
MMRC029	193615.4	8105196.4	343.6	37.0	60.0	23.0	0.26
MMRC029	193582.3	8105192.3	261.1	60.0	215.0	155.0	0.20
MMRC029	193542.9	8105187.5	160.2	215.0	277.0	62.0	0.42
MMRC029	193527.8	8105185.6	121.5	277.0	298.0	21.0	0.28
MMRC030	193546.3	8105096.4	365.9	5.0	34.0	29.0	0.34
MMRC030	193495.9	8105090.2	305.4	34.0	163.0	129.0	0.23
MMRC030	193447.4	8105084.2	242	163.0	194.0	31.0	0.35
MMRC030	193436.2	8105082.9	227.4	194.0	200.0	6.0	0.29
MMRC031	193573.4	8105095.6	357.9	7.0	46.0	39.0	0.40
MMRC031	193561.5	8105094.1	337.1	46.0	55.0	9.0	0.42
MMRC031	193552.8	8105093.1	321.9	55.0	81.0	26.0	0.85



MMRC031	193543.1	8105091.9	305	81.0	94.0	13.0	0.21
MMRC032	193607.6	8105091.8	307.3	38.0	124.0	86.0	0.18
MMRC032	193575.3	8105087.8	251	124.0	168.0	44.0	0.63
MMRC032	193536.2	8105083	192.6	168.0	265.0	97.0	0.21
MMRC033	193491.2	8105397.1	373.6	3.0	27.0	24.0	0.04
MMRC033	193463.4	8105393.7	325.1	27.0	115.0	88.0	0.14
MMRC034	193542.9	8105397.2	369.5	2.0	27.6	25.6	0.10
MMRC034	193510.2	8105393.2	312.3	27.6	134.0	106.4	0.10
MMRC034	193473.2	8105388.7	242.4	134.0	186.0	52.0	0.42
MMRC034	193459.9	8105387	215	186.0	195.0	9.0	0.23
MMRC035	193461.1	8105098.3	344.4	0.0	42.0	42.0	0.22
MMRC035	193441.5	8105095.9	310.2	42.0	79.0	37.0	0.13
MMRC035	193425.4	8105093.9	282	79.0	107.0	28.0	0.31
MMRC035	193404.3	8105091.3	245.2	107.0	164.0	57.0	0.23
MMRC036	193425.9	8105014.9	331.8	0.0	17.0	17.0	0.19
MMRC036	193382.1	8105009.5	268.8	17.0	154.0	137.0	0.24
MMRC037	193454.2	8104991.1	325.8	0.0	27.0	27.0	0.09
MMRC037	193424.4	8104987.5	273.8	27.0	120.0	93.0	0.19
MMRC038	193537.9	8105000.8	337.9	0.0	18.0	18.0	0.07
MMRC038	193486.6	8104994.5	264.2	18.0	180.0	162.0	0.16
MMRC039	193556.4	8105000.6	337.1	0.0	17.0	17.0	0.31
MMRC039	193515.3	8104995.5	223.3	17.0	242.0	225.0	0.17
MMRC040	193619.3	8104987.6	239.3	145.0	167.0	22.0	0.12
MMRC040	193597.1	8104984.9	207.9	167.0	222.0	55.0	0.12
MMRC040	193580.1	8104982.8	183.9	222.0	226.0	4.0	0.09
MMRC041	193659.1	8104898.7	324.4	18.0	45.0	27.0	0.20
MMRC041	193643	8104896.7	296.2	45.0	83.0	38.0	0.70
MMRC041	193619.6	8104893.8	254.9	83.0	140.0	57.0	0.12
MMRC042	193479.2	8105070.5	345	0.0	26.0	26.0	0.24
MMRC042	193469	8105069.2	323.2	26.0	48.3	22.3	0.23
MMRC042	193459.1	8105068	301.7	48.3	73.3	25.1	0.44
MMRC042	193418.1	8105061.6	209.3	73.3	251.0	177.7	0.22
MMRC043	193544.7	8105287.5	235.1	32.0	299.0	267.0	0.17
MMRC045	193428.1	8105295.2	357.6	35.0	42.0	7.0	0.17
MMRC045	193421.7	8105294.4	349.9	42.0	55.0	13.0	0.38
MMRC045	193395.6	8105291.2	318.5	55.0	124.0	69.0	0.16
MMRC048	193446.6	8104954.1	332.9	0.0	1.0	1.0	0.13
MMRC048	193400.5	8104948.5	252.9	1.0	185.0	184.0	0.23
MMRC049	193584.8	8104981	291.1	8.0	130.0	122.0	0.11
MMRC050	193656.1	8104900.1	345.5	0.0	13.0	13.0	0.83
MMRC050	193647.1	8104899	329.9	13.0	36.0	23.0	0.15
MMRC050	193633.7	8104897.4	306.5	36.0	67.0	31.0	0.89
MMRC050	193612.4	8104894.8	269.3	67.0	122.0	55.0	0.14
MMRC051	193557.1	8105390.5	293.2	33.0	172.0	139.0	0.18
MMRC051	193507.8	8105380.6	207.4	172.0	232.0	60.0	0.30
MMRC051	193487.8	8105376.1	176	232.0	247.0	15.0	0.18



MMRC051	193478.2	8105373.9	160.9	247.0	268.0	21.0	0.13
MMRC052	193626.1	8105029.8	236.9	124.0	200.0	76.0	0.23
MMRC053	193757.4	8104949.3	339.5	10.0	16.0	6.0	0.17
MMRC053	193717.9	8104944.5	270.7	16.0	169.0	153.0	0.22
MRC07	193516.9	8105297.8	362.4	9.7	34.0	24.3	0.08
MRC31	193684.2	8104937.4	348.8	0.0	12.6	12.6	0.17
MRC31	193684.2	8104937.4	265.8	12.6	166.0	153.4	0.15
MRC36	193557	8105212	356.7	10.2	50.4	40.2	0.25
MRC36	193557	8105212	319.8	50.4	84.0	33.6	0.16

## JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data		
Criteria	Commentary	
Sampling techniques	<ul> <li>AVQ 2010 drilling – majority of holes 4.5in RC percussion</li> <li>Previous Cyrus and Queensland Epithermal Minerals (QEM) – HQ and NQ diamond core and shallow percussion methods.</li> <li>2011 sampling by ¼ and ½ core sawing method. Completed onsite.</li> <li>AVQ 2011 Drilling – HQ and NQ diamond</li> </ul>	
Drilling techniques	<ul> <li>Historic holes used for resource purposes are diamond core and some shallow percussion (not used in calculations).</li> <li>RC holes from 2010 drill program</li> <li>2011 drilling had RC pre-collars (in some cases) outside of the IRGS target zone. Pre-collars only sampled when veining or alteration noted.</li> <li>2011 Core was oriented using core orientation tool</li> <li>Downhole camera surveys were completed at 30m and/or 50m intervals</li> </ul>	
Drill sample recovery	<ul> <li>Historic holes sample recovery for core sections assayed generally 95 -100% with few exceptions</li> <li>2010 drilling in AVQ database, generally 100% recovery - rare exceptions. No concerns in regard to representivity or sample bias.</li> <li>2011 diamond coring exceeds 99% in all cases. Very few areas of open fracturing.</li> <li>Axiom RC drilling averaged 80% recovery.</li> </ul>	
Logging	<ul> <li>Historic drillhole data has been re-assessed and recoded in detail. Independent reassessment was also undertaken in 2004 to the</li> </ul>	



Criteria	Commentary	
Sub-sampling techniques and sample preparation	<ul> <li>Connicition y</li> <li>Canadian NI 43-101 standard (as of that time).</li> <li>2011 holes have been logged for structure to enhance the geological model used for resource modelling.</li> <li>New holes have been photographed by core tray + detailed photography of mineralisation units as mapped.</li> <li>AVQ completed a relogging program post 2011 IR to standardized all logs. This was undertaken in 2011 program</li> <li>AVQ, in 2014/2015, in conjunction with the Geological Survey of Queensland (GSQ), James Cook University and Klondike Exploration, as part of a Queensland wide re-evaluation of IRGS completed a relog of all 2010 and 2011 drill core and chips and a standardization of all data based on the instruction of experienced IRGS geologists.</li> <li>All AVQ drilling is fully photographed.</li> <li>The 2023 IR is based on the 2010/2011 standard as it was already in the database. The 2015 data is only on excel paper copies which need digesting.</li> <li>RC holes either riffle split or speared into single metre or three metre composites.</li> <li>Some three metre composites were rechecked by one metre spear samples.</li> <li>2011 holes - Sawn half core sampled at either 1m intervals or by discrete geological units where required (niche representivity). Samples analysed by appropriate methods at a commercial laboratory. Assays were checked against geology log on return.</li> <li>Historic holes - sampling techniques considered acceptable.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>Samples were assayed by ALS/ Analabs Townsville – standard fire assay and AAS finish for Au. ICP (IC587) was also used to assay for Cu, Pb, Zn, AS, Mo, Bi, W, Te, Ag</li> <li>The methodology, nature, and quality of the assay data is considered representative.</li> <li>Post 2010 IR release to the ASX, and based on recommendations of that 2004 IR, AVQ undertook:         <ul> <li>Additional check assaying of the 2010 RC chip sampling including blanks, standards and duplicates as well as submission of additional samples to another laboratory.</li> <li>The 2011 diamond coring undertook blanks, standards and duplicates and additional assaying by another laboratory. All results were within expected variances.</li> <li>AVQ undertook check assaying of the chips from a number of RC holes using a pXRF to examine both macro and trace elements. The results of this check work was</li> </ul> </li> </ul>	



Criteria	Commentary
	<ul> <li>within expected parameters. Calcium was identified up to 5% in mineralized sections suggesting the potential for a rapid mineralizing definition technique. The pXRF did not test for gold. The pXRF was also matched to pXRF soil orientation completed in 2012; notably Mo and Bi as accompanying gold mineralization.</li> <li>AVQ undertook detailed onsite density determinations of all zones drilled by diamond core in 2011. Outside of some heavier unmineralized gneisses and basic volcanics – the density of the granite and mineralized zones were very consistent with little variance.</li> </ul>
Verification of sampling and assaying	<ul> <li>Verification of significant intersections had been conducted by AVQ personnel and independent consultant in 2012, 2014 and 2015.</li> <li>Duplicate assaying completed in 2011 and 2013 as detailed above.</li> </ul>
Location of data points	<ul> <li>Accuracy of drillhole collars for 2010 and 2011 program is +/- 30mm completed by DGPS 2022.</li> <li>Not all older holes picked up by DGPS but previously located by handheld GPS +/- 5m; however comparison to the DGPS indicates no significant variances.</li> <li>Boundary of the MLA and surface points were completed when the MLA was applied for with an accuracy of +-12mm.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing considered sufficient for inferred resource figures. 40m X 50m spacing in core of resource area</li> <li>Geology model well constrained but open at depth and to the south. Extensions to north not ruled out as drill density is lower.</li> <li>IRG mineralisation sits within the gold soil geochemistry footprint (except for that portion under a small sandstone cap).</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Drilling (past and present) has taken the orientation of the mineralised structure into careful consideration and drilled appropriately. The orientation of mineralised intersections is well controlled, understood, and taken into account for later true width measurements.</li> <li>R3D remodeling has refined both the main strike and predominate dip of the main mineralisation compared to the 2010 inferred resource (2004 JORC).</li> </ul>
Sample security	<ul> <li>Security protocols were in place in both the Cardross camp site and AVQ offices and core facilities. AVQ staff delivered all samples to the Townsville laboratories.</li> </ul>



Criteria	Commentary
Audits or reviews	<ul> <li>R3D has completed additional audits and QAQC on the data package in 2022.</li> <li>As part of the Mining Lease Application, R3D completed an internal first pass feasibility study to understand the economics of the Maid and Cardross projects. This would be now equivalent to a current Scoping Study and utilized the 2010 IR as its basis; but combined with an interval geological remodel, first pass pit designs and optimization of the MLA to cover the projected phase one oxide heap leach.</li> </ul>

### Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul> <li>DME registered Option to Purchase and Royalty Agreement wit</li> <li>Current tenures are:         <ul> <li>MLA 100270 Maid. Currently undergoing native title negotiations. Land holder compensation is completed.</li> <li>ML 100271 Cardross. Ditto.</li> <li>EPM 27735 Maid – granted and surrounding both projects and cover potential mineralizing extensions to both.</li> </ul> </li> <li>The 2023 IR lies wholly within MLA 100270.</li> </ul>
Exploration done by other parties	<ul> <li>Early geochemical exploration by a number of large companies including Cyprus but most concentrated on the Split Rock Porphyry Copper prospect 2km SW of Maid.</li> <li>Queensland Epithermal Minerals (later Queensland Minerals), both alone and in JV with Cyprus undertook and delineated the initial Mountain Maid mineralization.</li> <li>Axiom Mining (AVQ) undertook detailed infill RC and diamond drilling and produced a 2004 JORC IR in 2010.</li> <li>All parties also completed various geochemical and geological evaluation programs.</li> <li>AVQ, in partnership with GSQ, JCU and Klondike, undertook detailed assessment of the Mountain Maid IRGS system, including dating, and was able to place the system into spatial relationships of other IRGS systems, depth of exposure, zoning patterns, etc.</li> </ul>
Geology	• Classic Eastern Australian IRGS with altered porphyries intruding acid granites. Very low sulphide and a strong correlation with Mo, Bi and Cu.
Drill hole Information	<ul> <li>Historical drilling well documented and all in open file records with the Queensland Government</li> <li>Drilling from 2010 and 2011 RC percussion and diamond coring.</li> <li>All holes have unique identification, collars picked up by DGPS,</li> </ul>



Criteria	Commentary
	down hole surveys.
Data aggregation methods	<ul> <li>All aggregated zones are length weighted.</li> </ul>
	<ul> <li>No high-grade cuts have been used,</li> </ul>
Relationship between mineralisation widths and intercept lengths	• The orientation of the mineralised structure is well controlled. The angle of intercept between drill hole and structure has been calculated for each hole where assay data used (Table available), this has been used to calculate true widths to apply to resource model and weighting of assays for grade estimates.
Diagrams	<ul> <li>See main report</li> <li>See ASX 2010, 2011 and 2012 Axiom press releases.</li> <li>See R3D Prospectus and ASX releases.</li> </ul>
Balanced reporting	<ul> <li>Report is a balanced report combining the geology and metallurgical testing.</li> </ul>
Other substantive exploration data	<ul> <li>AVQ identified a strong veining system south along strike from the current IR footprint with rock chips of 5m @ 1.2 g/t Au at surface (true width). This is 80m south of the current resource limits and is undrilled.</li> </ul>
	<ul> <li>As part of the 2020 ML application, R3D also undertook preliminary oxide pit design, layout of potential heap leach pads, waste dumps, plant sites, water supply and storage and dams; all within the current MLA footprint.</li> </ul>
Further work	<ul> <li>Upon grant of the mining lease, R3D plan to undertake detailed drill testing and other activities to upgrade this IR up to a mining status.</li> </ul>

#### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary	
Database integrity	<ul> <li>R3D Resources have compiled all existing spreadsheets into Vulcan database for modelling and for verification</li> <li>Drill hole collars have been accurately surveyed in using a GI Historical drilling has been converted to GDA2020 grid.</li> <li>100% of drill holes are angled drill holes.</li> <li>No known twin holes have been used in the BMS MRE</li> </ul>	
Site visits	<ul><li>TS involved in the various Axiom programs</li><li>GR has not made a site visit</li></ul>	
Geological interpretation	<ul> <li>The Mountain Maid deposit is hosted by the Silurian Nundah Granodiorite (Domain 200 (Oxidised) and Domain 300 (Fresh)), which intrudes gneissic metamorphic rocks and granite plutons of the Proterozoic Dargalong Metamorphic Group. The Nundah Granodiorite typically</li> </ul>	



Criteria	Commentary
	<ul> <li>comprises a medium- to coarse-grained leucocratic biotite muscovite granodiorite and an adamellite.</li> <li>Mountain Maid deposit has been classed as an intrusion-related, structurally controlled gold deposit (Morrison, 2017), with the mineralisation associated with phyllic alteration and silicification and hosted by several styles of quartz veins of varying orientations. Central portions of the mineralisation are unconformably overlain by unmineralised Jurassic sandstone (Domain 100).</li> <li>The mineralised Quartz Monzonite domains (domain 400 and 500) dips at approximately 70° towards the east.</li> <li>Mountain Maid mineralisation is not closed off by drilling at depth, and the interpreted mineralised domain extends to 0 mRL which approximates to 300 m below surface.</li> <li>The mineralisation was intersected on approximately 13 drilling sections and is currently known to a depth of at least 300m below the surface.</li> <li>Mineralisation is present as five mineralised domains - defined using lithology logs, where possible, and au grades.</li> <li>The likelihood that mineralisation is developed in an orientation other than that interpreted is considered to be low, due to the drill pattern which provides a good density of data.</li> </ul>
Dimensions	600m by 3000m by 3000m inferred MRE
Estimation and modelling techniques	<ul> <li>The Mountain Maid leases contain data for 89 surface drill holes. The Mountain Maid deposit contains data for 67 surface drillholes relevant for the Mineralised domain interpretation. The Mountain Maid deposit contains data for 58 surface Axiom drillholes that are relevant for the Mineralised Resource Estimate (MRE).</li> <li>The 3D wireframe files of five domains was created in Vulcan and snapped to the drill holes</li> <li>67 drillholes were used to inform the MRE</li> </ul>



#### Criteria

#### Commentary

Hole Type	Drill hole Series	Drill hole Number	Metres
DD	BMD (Cyprus)	4(2*)	1,071.5
DD	MMD (Cyprus)	4(4*)	1,014.2
RC	MRC (Cyprus)	18(3*)	1,732
DD	MMDD (Axiom)	10(8*)	3207.1
RC	MMRC (Axiom)	53(50*)	11,083
Total		89	18,107.8

\* Drilling database summary of diamond drill holes that intersect mineralisation.

- A Vulcan block model was created by BMS for the MRE with a block size of 20 m N-S × 20 m E-S × 20 m vertical with sub-cells of 2m× 2 m × 2 m.
- The block model was constrained to five domains. Parameters of the model are shown below.
- Gold was modelled through the block model.
- A Vulcan block model was created to encompass the full extent of the deposit.

Model Name	Х	Y	Z
Origin	193000	8106000	500
Offset	0	-1800	-500
Offset	1000	0	0
Block Size (sub-	20 (2)	20 (2)	20 (2)
blocks)			

Variables	Description
Au	Au Grade – reportable
Min_Domain	Mineralisation domain
Avg_dist	Average distance to samples
Zone	In situ, mined etc.
holecount	Number of drill holes
Numsam	Number of Samples used for Block grade
	interpolation
BD	Bulk Density
Mined	Mined or In situ
Ox	Oxidation



Criteria	Comment	ary						
	elliµ don	osoid sear nains as p	ch was er the	used	to estim	ate A	an oriented u grade in fo el. Domain 2	our
	<ul> <li>300, 400 and 500.</li> <li>Inverse Distance (IVD) interpolation with an oriented ellipsoid search was used to estimate Au grade in five domains as per a check block model. Domain 100, 200, 300, 400, 500.</li> <li>Of the samples from the 88 assayed drill holes they were analysed drill holes within the R3D database provided by R3D. Only these assays from the 56 have been used by BMS in the Mountain Maid MRE.</li> <li>In the Mountain Maid resource defined area of the Mountain Maid the average sample length of all sampled holes is 1m. This reflects that the vast majority of samples were based on 1m lengths</li> <li>A first pass long axis radius of 30 m with a minimum number of informing samples of 8 was used. The major axis radius was increased to 60 m for the second pass. A third</li> </ul>							
	pas dec was reso	s with an i rease in tl required ource wire	increas ne min to fill l eframe	sed se imun olock s (see	earch rad n number s within t e tables b	ius of <sup>•</sup> of sai he ext elow)	180 m and a mples from tremities of	a 8 to 2 the
	<ul> <li>~30% of the resource volume filled in the 1st pass, ~60% in the 2nd pass and the remainder in the 3rd pass for Mountain Maid</li> </ul>							
	<ul> <li>high</li> </ul>		old cut	of 2.	5 g/t Au v	vas ap	plied to oxi	de
	Mai	id	-				plied to Mo	untain
I		rch and es						(m)
	Pass 1	Min Sam 8	ipie	IV	lax Samp 30	ne	Distance 30	5 (III)
	2	8			30		60	
	3	2		40		180		
I	-	_					100	1
	Domain	Strike	Plun	-	Dip		retisation	
	100	348	-2		-73		x:3y:3z	
	200 300	349.924 315.0	-0.8 -35		-9.963 -90.0		x:3y:3z x:3y:3z	

27

39.856

39.856

22.91

22.91

206.597

206.597

3x:3y:3z

3x:3y:3z

400

500



Criteria	Commentary
	<ul> <li>To check that the interpolation of the Block Model correctly honoured the drilling data and domain wireframes, BMS carried out a validation of the estimate using the following procedures:         <ul> <li>Comparison of volumes defined by the domain wireframes and the associated Block Model</li> <li>A comparison of the composited sample grade statistics with Block Model grade statistics for the single domain</li> <li>Visual sectional comparison of drill hole grades versus estimated block grades.</li> </ul> </li> <li>The volumes were almost identical. The overall volume difference is less than 1%. BMS considered this to be an acceptable result.</li> <li>A visual section comparison was undertaken of drill hole grades versus estimated block grades.</li> </ul>
Moisture	<ul> <li>All estimations carried out on dry basis. Oxide zone sits in the wet and dry season fluctuation zone. No recovery issues were noted in the RC drilling and samples dried prior to assay.</li> </ul>
Cut-off parameters	• Various cut off grades applied with 0.2 g/t Au preferred.
Mining factors or assumptions	<ul> <li>Preliminary mining cost data supplied by AMC. Strip ratio estimated to be low given shape of resource.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>AVQ in 2010 completed a first pass bottle roll leach tests on both oxide and primary ores. Oxide recoveries were 90.6% into solution. Primary ore recoveries were lower and further tests were recommended especially around fine grinding.</li> <li>Earlier first pass bottle roll leach test from primary ore was undertaken in 2002. The results were 49.6% recovery, very similar to the AVQ results.</li> <li>A simple flotation test was then taken from the same zone and using a copper/gold flotation frother only. This generated a concentrate of only 1.31% of feed weight; but with a recovery of 64.6% Au and 71.3% Cu plus Mo and Bi.</li> <li>Overall, these early tests indicate that the oxide ore has high potential for a cyanide leach methodology such as in a heap leach whilst the flotation tests are showing potential to produce a small tonnage high value concentrate.</li> </ul>
Environmental factors or assumptions	• Nil
Bulk density	2011 AVQ diamond coring completed detailed displacement



Criteria	Commentary					
	<ul> <li>density determinations on all core enabling a robust BD estimate of the mineralized zones.</li> <li>a density of 2.6 was used for all Axiom calculations – 2.6 was again used by R3D.</li> </ul>					
Classification Audits or reviews	<ul> <li>Inferred Resource.</li> <li>Mineral Resource Estimates have been classified as Inferred according to JORC Code 2012 guidelines based on the drilling density, grade continuity and level of geological understanding</li> <li>Grade-tonnage curves representing all blocks in the model for gold were plotted</li> <li>Internal only</li> </ul>					
Discussion of relative accuracy/ confidence	<ul> <li>Drill density sufficient for inferred.</li> <li>The Mountain Maid deposit has been tested with high-quality drilling, sampling and assaying. Drilling and logging have defined the mineralised domains to provide an accurate volume. The relative accuracy of the MRE is reflected in the reporting of the Mineral Resource. The Mineral Resource has been classified as an Inferred Mineral Resource as per the JORC Code (2012) guidelines</li> <li>These MREs are global in nature until relevant tonnages and relevant technical and economic evaluations are required and</li> </ul>					