

**ASX Announcement** 

**22 February 2018** 

# Kalgoorlie Boorara Project All Three Deposits Potential to Extend

The final results for the remaining 4,340 metres of the 34,067 metre Reverse Circulation (RC) drilling program focussed on 100 - 250 metres below the surface at Boorara reported significant intercepts:

BORC 271 - 19 metres at 1.56 g/t Au incl 1m at 6.75 g/t Au

BORC 374 - 13 metres at 1.44 g/t Au incl 1m at 6.36 g/t Au

BORC 380 - 3 metres at 12.25 g/t Au incl 1m at 34.3 g/t Au

BORC 279 - 4 metres at 4.55 g/t Au incl 1m at 15.4 g/t Au

Upgraded gold resource expected by March 2018.

# Near term Boorara project development options based on;

- ✓ Granted Mining leases totalling 3560 ha
- ✓ Fully permitted and approved tailings dam facility 4.8 million tonne capacity
- ✓ DMIRs (Dept of Mines, Industry Regulation and Safety) approved Boorara open pit and heap leach mining proposal
- ✓ Mains power connected 1.5 Mw allocation
- ✓ Licenced borefield to extract 1.5 million kilolitres per year
- ✓ Heritage, Flora and Fauna surveys completed
- ✓ Established site offices and associated infrastructure onsite



MacPhersons Resources Limited ("the Company") (ASX: MRP) is pleased to announce more excellent RC results to follow up on our recent announcement of 19 January 2018. The drilling was part of the proposed 37,000 metre RC program at the 100% owned Boorara Gold Project 10 kilometres east of Kalgoorlie, Western Australia. Two RC drilling rigs commenced drilling at the Southern Stockwork on Monday the 2nd of October 2017 and completed 34,067 metres of RC drilling to 18 January 2018.

The Boorara gold resource estimate is expected in March 2018, following that we will complete a series of preliminary open pit optimisations.

The RC drilling demonstrated that gold mineralisation extends at three main ore zones that have not been adequately drill tested and additional drilling is required that could potentially link all three deposits into one (see figure 4). Close spaced auger gold geochemistry anomalism (+ 100 ppb Au contour) defines a gold mineralisation zone that is continuous through all deposits and extends north from the Northern Stockwork Deposit along strike for almost 1 km.

Combined with the Gold Resource Estimate, the Company has commenced studies that will contribute to the Definitive Feasibility Studies for the Boorara Project.

- 1. Metallurgical sighter test work- The aim of the sighter test work is to identify gold recoveries over varying grind sizes. In essence, looking at gold recoveries for different ore sizing to determine type of grinding mills suited to the Boorara mineralised material. Following the preliminary work, we will seek to complete more exhaustive testing using a well-known metallurgical group.
- 2. Geotechnical studies are underway with independent consultant (estimating rock strengths, open pit wall stability which ultimately assist in open pit design engineering).

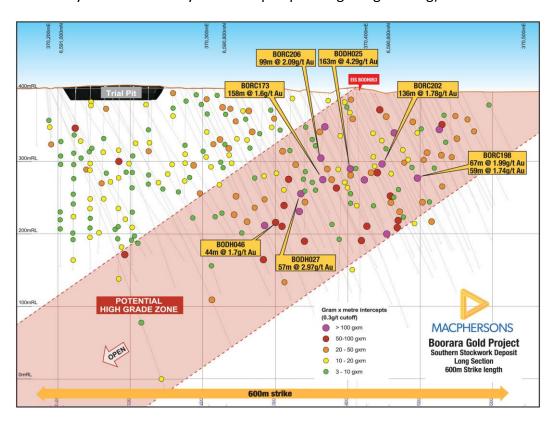


Figure 1: Boorara Southern Stockwork deposit - long section with gram x metre intercepts.



## Deep diamond holes identifies the mineralised Boorara dolerite

The two-hole diamond program has demonstrated that the Boorara dolerite hosting gold mineralisation extends to depth. MRP will target the zone at the preferred azimuth of 115 degrees in the next program.

MRP planned the first deep hole as part of a co-funded agreement with the WA State Government for a single 1,000-metre deep diamond drill hole at the Boorara Gold Project via the Exploration Incentive Scheme (EIS). Under the arrangement, the State Government will fund up to A\$200,000 of drilling costs.

The optimum azimuth of <u>115 degrees</u> to intersect the majority of the gold-bearing quartz arrays must be drilled from the footwall (ultramafic barren zone). MRP planned the hole at 240 degrees as it was considered drilling could miss the desired deep target. Drill holes at the 115 degree azimuth have intercepted all the wide gold intercepts at the Southern Stockworks. The list of spectacular assay results includes amongst others:

- 163 metres grading 4.3 g/t (BODH 025), (see ASX announcement 14<sup>th</sup> February 2017);
- 158 metres grading 1.6 g/t (BORC 173), (see ASX announcement 1<sup>st</sup> March 2017);
- 136 metres grading 1.78 g/t (BORC 202), (see ASX announcement 9<sup>th</sup> November 2017), and
- 99 metres grading 2.09 g/t (BORC 206), (see ASX announcement 30<sup>th</sup> November 2017).

The FIRST deep diamond drill hole BODH 053 as part of the Co-funded EIS campaign was drilled to 1023.1 metres downhole at <u>240-degree azimuth</u> in the Southern Stockwork Deposit. The dolerite was first intersected at 864 metres downhole and extended 116.5 metres to 980.5 metres. The deep hole intersected the dolerite zone at a vertical depth of 715 metres and some 310 metres below the previous deepest known gold mineralisation (BODH 033 452-453m, 1m at 10.25 g/t with visible gold). Analysis of the samples completed in January 2018 demonstrated the existence of gold mineralisation, even though the best gold grade was 1 metre grading 2.13 g/t.

MRP has drilled a SECOND-deep hole with an RC pre-collar hole to 603 metres followed by a diamond tail at an azimuth of <u>60 degrees</u> to intersect the quartz-vein packages hosting the gold mineralisation. The diamond tail has intersected the dolerite target at 720 metres downhole and the end of hole depth was 920.5 metres.

BODH 053 Significant results include:

- 1m at 1.21 g/t Au from 900m
- 1m at 2.13 g/t Au from 945m
- 1m at 1.52 g/t Au from 954m
- 1m at 0.82 g/t Au from 967m
- 1m at 0.72 g/t Au from 984m

# **Background**

The Boorara Project contains over 1.5 kilometres of mineralisation striking north-west at 330 degrees. The project is divided into Southern Stockwork (SSW), Crown Jewel (CJ) and Northern Stockwork (NSW) deposits.

The company has since confirmed an extension of the Boorara Southern Stockwork deposit at a vertical depth below 200 metres from the surface and some 600 metres along strike.

Located about one kilometre to the North West of BODH 025 (163m @ 4.29 g/t uncut) and BORC 173 (158m @ 1.6 g/t) is the historic Cataract Gold Mine (30,000 oz; 1897-1907) that is hosted within the Boorara dolerite. The deposit



has two major stope geometries, one striking 040° dipping to the North West and the other striking 330° and dipping near vertical. The significance of these stope geometries is that structural controls on historically mined high-grade gold veins is the same as the NW dipping quartz vein arrays encountered in the current drilling program.

A recent reinterpretation of the geometry of mineralisation at Boorara is due to structural mapping and interpretation of the Boorara Gold Project. The new Boorara structural geological model has allowed MacPhersons to make a better estimate of the true gold grade and size of the existing Boorara resource based on an interpretation of mineralised NW-dipping quartz vein arrays. From the structural mapping and the quartz veins exposed within the trial pit completed in October 2016, the drill orientation must be 115 degrees at the Southern Stockwork Deposit.

The drilling strategy is infill RC drilling continuing to test the geological model and scope out the extent of mineralisation associated with the two styles of gold mineralisation:

- Dolerite hosted NW dipping quartz vein arrays with associated weak to strong pervasive hematite alteration, iron carbonate alteration, with >1% pyrite and >1% arsenopyrite mineralisation, and
- High grade narrow quartz vein gold mineralisation with >1% pyrite and >1% arsenopyrite.

Gold mineralisation is hosted in a series of stacked quartz vein arrays that dip at 40-45° to the North West. The true thickness of the arrays is up to 50 metres vertical that are hosted within the quartz dolerite which dips at 73° to the north east. The mineralised dolerite has a true width of up to 40 metres based on a review of all the historic drilling and MRP drilling. Within the mineralised Boorara dolerite, high grade localised ore shoots consist of vein arrays up to 20 metres in width. The increased width of the mineralised dolerite indicates that this is potentially a larger mineralised system.

#### **RC Drilling Program Summary**

These latest gold results relate to 29 RC drill holes (4,341 m) from the Northern Stockwork deposit of the 1.5km Boorara discovery zone (see Table 1, Figures 5 & 6).

The reported drilling represents the second round of (20m x 10m) and (20m x 20m) RC drilling to infill the existing spacing and extend mineralisation at depth at Northern Stockwork. Significant gold mineralisation has been intersected at the Northern Stockwork on the Western and Eastern contacts that is open along strike to the North.

Previously reported RC intersections from north of the Southern Stockwork deposit and the north of the Crown Jewel deposits have a combined strike length of 500 metres that requires infill drilling on a 20m x 20m spacing. The aim of this planned drilling will be to define a potentially continuous zone of open pittable mined gold mineralisation that will enable all three deposits to be joined together.

A gold mineralisation zone has been outlined by close spaced auger gold geochemistry +100 ppb Au anomalism that links all deposits together and extends to north of the Northern Stockwork Deposit (see figure 5) along strike for almost 1km.

The planned RC drilling is part of a resource development program that is planned to potentially expand the existing Boorara gold resource that targets the mineralisation above a vertical depth of 250 metres.

The MRP drill strategy is to drill holes on two drill azimuths, a 115° azimuth to accurately estimate the gold grade of gold mineralisation at Boorara and a 060° azimuth to determine true width of gold mineralisation. The 060° azimuth will also intersect the Western and Eastern contact mineralisation.



# Significant results from recent drilling include:

BORC 266: 6m at 1.4 g/t Au from 85m	060° Azi
BORC 267: 15m at 1.32 g/t Au from 101m, including 1m at 5.17 g/t Au, 1m at 5.92 g/t Au	060° Azi
BORC 268: 2m at 4.26 g/t Au from 43m, including 1m at 8.16 g/t Au	060° Azi
BORC 270: 2m at 3.67 g/t Au from 94m, including 1m at 7.02 g/t Au	060° Azi
BORC 271: 19m at 1.56 g/t Au from 137m, including 1m at 6.75 g/t Au	060° Azi
BORC 274: 6m at 1.68 g/t Au from 96m	060° Azi
BORC 277: 3m at 2.65 g/t Au from 126m, including 1m at 6.06 g/t Au	060° Azi
BORC 279: 4m at 4.55 g/t Au from 31m, including 1m at 15.4 g/t Au	060° Azi
BORC 279: 4m at 2.79 g/t Au from 71m, including 1m at 8.82 g/t Au	060° Azi
BORC 372: 3m at 3.28 g/t Au from 57m, including 1m at 9.13 g/t Au	060° Azi
BORC 374: 13m at 1.44 g/t Au from 46m, including 1m at 6.36 g/t Au	060° Azi
BORC 374: 16m at 1.22 g/t Au from 66m, including 1m at 9.72 g/t Au	060° Azi
BORC 379: 10m at 1.28 g/t Au from 25m	060° Azi
BORC 380: 3m at 12.25 g/t Au from 92m, including 1m at 34.3 g/t Au	060° Azi
BORC 385: 14m at 1.31 g/t Au from 119m, including 1m at 7.77 g/t Au	060° Azi
	BORC 267: 15m at 1.32 g/t Au from 101m, including 1m at 5.17 g/t Au, 1m at 5.92 g/t Au BORC 268: 2m at 4.26 g/t Au from 43m, including 1m at 8.16 g/t Au BORC 270: 2m at 3.67 g/t Au from 94m, including 1m at 7.02 g/t Au BORC 271: 19m at 1.56 g/t Au from 137m, including 1m at 6.75 g/t Au BORC 274: 6m at 1.68 g/t Au from 96m BORC 277: 3m at 2.65 g/t Au from 126m, including 1m at 6.06 g/t Au BORC 279: 4m at 4.55 g/t Au from 31m, including 1m at 15.4 g/t Au BORC 279: 4m at 2.79 g/t Au from 71m, including 1m at 8.82 g/t Au BORC 372: 3m at 3.28 g/t Au from 57m, including 1m at 9.13 g/t Au BORC 374: 13m at 1.44 g/t Au from 46m, including 1m at 6.36 g/t Au BORC 374: 16m at 1.22 g/t Au from 66m, including 1m at 9.72 g/t Au BORC 379: 10m at 1.28 g/t Au from 25m BORC 380: 3m at 12.25 g/t Au from 92m, including 1m at 34.3 g/t Au

## **Structural Understanding**

A re-logging program has been undertaken on all MRP Boorara diamond drill hole core and RC drill chips at the Southern Stockwork and Crown Jewel areas. Key outcomes have been previously unrecognised lithological and structural complexity with cross faulting resulting in movement of mineralised ore blocks in the order of 10's of metres horizontally and vertically.

Previously unrecognised ultramafic and sediment lithologies have been identified adjacent to the Boorara dolerite. The Boorara dolerite can be divided into up to 7 individual units with the quartz granophyric unit being unit 5.

It is expected that future diamond drill holes will enable faulting to be better understood. The Boorara faulting is not dissimilar to that seen at the Mt Charlotte gold mine at Kalgoorlie (see Figure 2 & 3) note the scale the Reward quartz vein array orebody that has a strike length of approximately 150 metres on the three levels. Although the Mt Charlotte orebody has a short strike length it extends vertically for over 1200 metres depth and again faulting has resulted in the orebodies being moved considerable distances (see Figure 2 & 3).

The iron enrichment present within the Boorara quartz dolerite provides an oxidised chemical composition favourable to wall rock reaction with reduced gold fluids, this is a well-known host rock setting for major gold deposits in the Eastern Goldfields such as Mt Charlotte (6 Moz) and Darlot-Centenary (3.2 Moz). Reverse fault controlled quartz veins are interpreted for Boorara which is similar to the sub-horizontal quartz veins that are controlled by reverse faults at the Darlot-Centenary gold deposit (3.2 Moz) (see Figure 9).

The Boorara Southern Stockwork gold mineralisation like Mt Charlotte (see Figure 2 & 3) consists of irregular shaped pipe-like quartz vein arrays that are hosted in quartz dolerites that are structurally complex and require close spaced systematic drilling to define.

Structural logging and measurements of quartz veins taken from current diamond holes and previous MRP drilled holes has determined three dominant quartz vein geometries:

- 1. Striking 020° and dipping 48° west
- 2. Striking 060° and dipping 40° north west



## 3. Striking 100° and dipping 43° north

## **Mt Charlotte History**

The Mt Charlotte mine is located close to the original gold discovery at Kalgoorlie by Paddy Hannan in June 1893 and it is most probable that Hannan's original gold originated from the Mt Charlotte orebody (Haycraft 1979). Mining by open methods at Mt Charlotte from 1893 -1916 produced 71,000 ounces of gold and then mining ceased shortly after reaching the pyritic ores.

It was in 1962 after detailed evaluation by Western Mining Corporation Ltd (WMC) and its associated company Gold Mines of Kalgoorlie (Australia) Limited that an ore reserve of 2.97 Mt @ 4.9 g/t and a large scale underground mining operation was considered viable (Haycraft 1979). The work in 1962 involved dewatering the mine and structural mapping that identified the three principle sets of veins within the quartz dolerite host. Based on this work it was determined by WMC that to estimate the true grade of the orebody close spaced drilling was required using a drill azimuth of 156.5° to intersect all 3 principle vein sets. This strategy has proved to be the only method of accurately determining the grade of the Mt Charlotte orebody to this day. Western Mining Corporation Ltd recognised the importance of drilling perpendicular to the NW dipping quartz veins at Mt Charlotte to better estimate gold grade; this same strategy has been adopted by MacPhersons at Boorara.

It took from discovery of gold near Mt Charlotte in 1893 to 1962 - over 69 years for the Mt Charlotte orebody to be recognised and its gold endowment now is 6 million ounces.

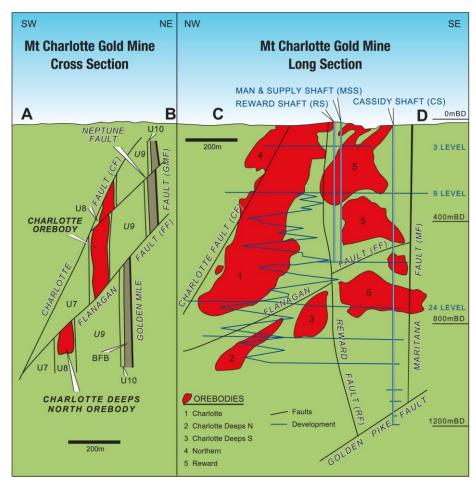


Figure 2: Mt Charlotte Cross Section and Long Section (after Clout, Cleghorn & Eaton 1990) to illustrate the depth extent of the Mt Charlotte mine compared to strike extent.



# Mt Charlotte Gold Mine - Plan View

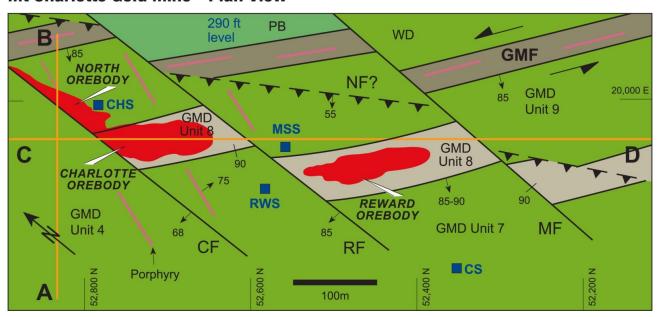


Figure 3: Mt Charlotte 3 level structural plan (Mueller 2015) showing the GMF (Golden Mile Fault) the quartz dolerite host (GMD unit 8), Golden Mile Dolerite (GMD units 4, 7, 8 & 9), Paringa Basalt (PB) and the Williamstown Dolerite (WD). The quartz vein array orebodies are the Charlotte (COB), Reward (ROB) and Northern (NOB). The Cassidy Shaft is shown along with the Charlotte Shaft (CHS), Reward Shaft (RWS) and the Man and Supply Shaft (MSS). Porphyry dykes and shown as red lines. Faults are shown as black lines including the Charlotte Fault (CF), Reward Fault (RF) and Maritana Fault (MF).

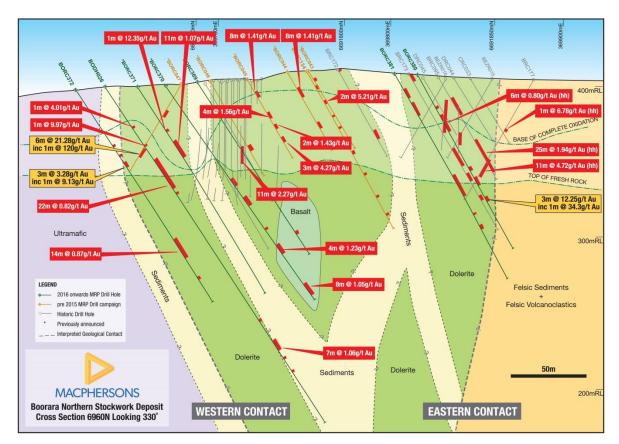


Figure 4: Northern Stockwork cross section view of BORC 372 with interpreted geology.



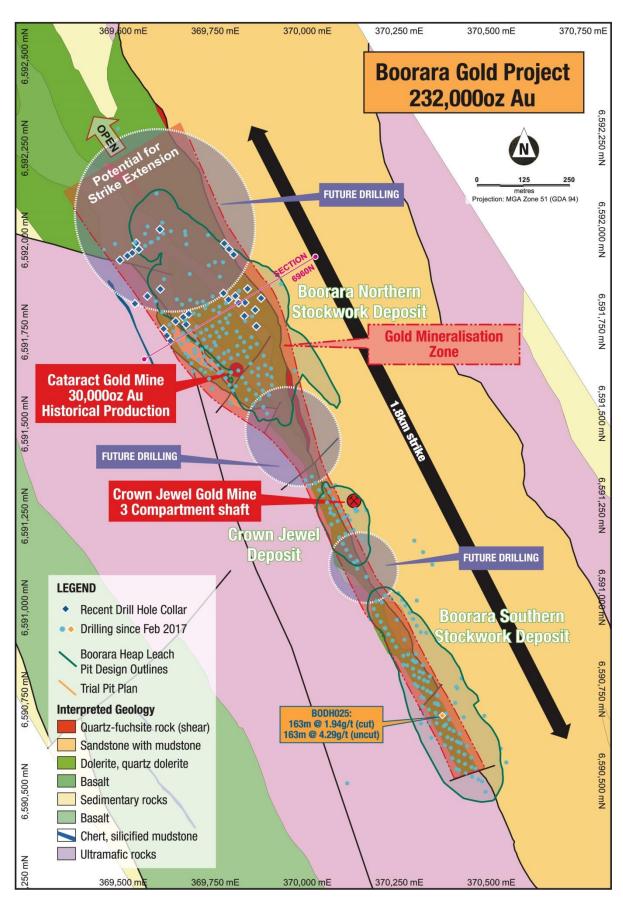


Figure 5: Plan view of Boorara drill holes with interpreted geology.



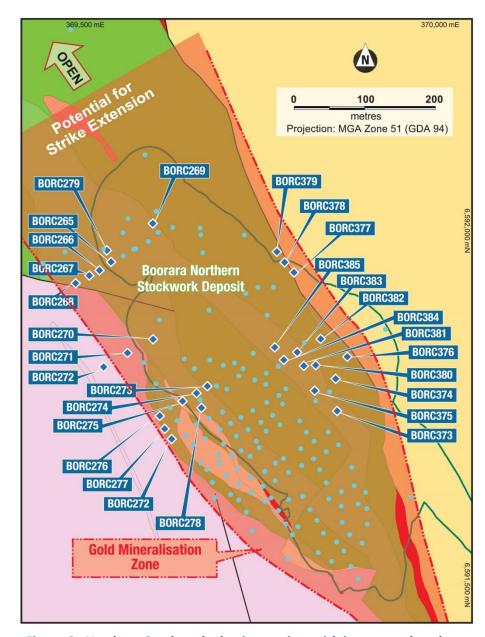


Figure 6: Northern Stockwork plan insert view with interpreted geology.



Figure 7: Darlot Centenary orebody 1100 level underground face photo mosaic showing sub-horizontal moderately dipping veins (Kenworthy, Hagemann 2007)



# For further information please contact:

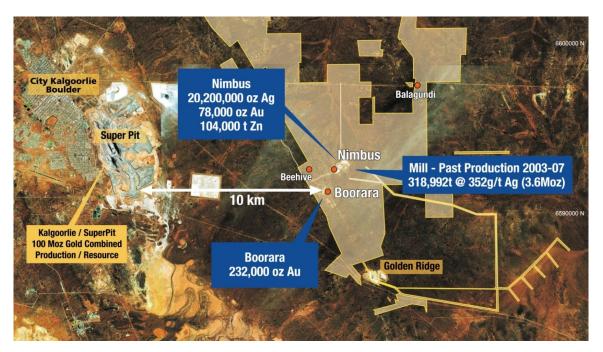
Jeff Williams OR Andrew Pumphrey
Managing Director General Manager
+61 418 594 324 +61 419 965 976

#### **About MacPhersons**

MacPhersons Resources Ltd (MRP) is a Western Australian resource company with a number of advanced gold, silver and zinc projects.

The company's long term objective is the development of its existing assets and unlocking the full potential of its 100% owned highly prospective Boorara and Nimbus projects.

For more information on MacPhersons Resources Limited and to subscribe for regular updates, please visit our website at: <a href="www.mrpresources.com.au">www.mrpresources.com.au</a> or contact our Kalgoorlie office via email on <a href="mailto:info@mrpresources.com.au">info@mrpresources.com.au</a> or telephonically on 08 9068 1300



## **Competent Person's Statement**

The information is this report that relates to exploration results is based on information compiled by Andrew Pumphrey who is a Member of the Australian Institute of Geoscientists and is a Member of the Australasian Institute of Mining and Metallurgy. Andrew Pumphrey is a full time employee of Macphersons Resources Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 Pumphrey has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.



Table 1: Boorara RC significant composite intervals > 0.7 g/t Au, 0.3 g/t Au cut off — max 2m internal dilution at zero grade.

HOLE-ID Depth From (m) INTERVAL (m) (g/t) Azimuth (°) Dip (°) EOH Easting (GDA) mRL Area	
BORC 265 73 76 3 0.82 62.47 -60.18 149 369531.77 6591961.04 398.94 NSW	5 73
BORC 265 119 124 5 0.75 62.47 -60.18 149 369531.77 6591961.04 398.94 NSW	5 119
BORC 266 47 61 14 0.85 60.64 -60.62 149 369513.89 6591951.11 398.14 NSW	6 47
BORC 266 63 65 2 0.86 60.64 -60.62 149 369513.89 6591951.11 398.14 NSW	6 63
BORC 266 69 72 3 0.7 60.64 -60.62 149 369513.89 6591951.11 398.14 NSW	6 69
BORC 266 85 91 6 1.4 60.64 -60.62 149 369513.89 6591951.11 398.14 NSW	6 85
BORC 266 124 125 1 1.47 60.64 -60.62 149 369513.89 6591951.11 398.14 NSW	6 124
BORC 267 101 116 15 1.32 61.94 -59.78 147 369500.92 6591943.30 397.39 NSW	7 101
incl 101 102 1 5.17 61.94 -59.78 147 369500.92 6591943.30 397.39 NSW	101
incl 102 103 1 5.92 61.94 -59.78 147 369500.92 6591943.30 397.39 NSW	102
BORC 268 43 45 2 4.26 61.38 -60.40 161 369480.26 6591931.79 395.88 NSW	8 43
incl 43 44 1 8.16 61.38 -60.40 161 369480.26 6591931.79 395.88 NSW	43
BORC 268 104 105 1 1.94 61.38 -60.40 161 369480.26 6591931.79 395.88 NSW	3 104
BORC 268 125 154 29 0.77 61.38 -60.40 161 369480.26 6591931.79 395.88 NSW	8 125
BORC 269 43 47 4 0.79 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 43
BORC 269 57 62 5 1.02 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 57
BORC 269 68 71 3 0.72 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 68
BORC 269 74 75 1 1.06 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 74
BORC 269 83 89 6 1.06 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 83
BORC 269 108 110 2 1.62 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 108
BORC 269 161 163 2 1.14 61.57 -60.51 167 369588.99 6592015.67 398.62 NSW	9 161
BORC 270 55 57 2 0.86 62.76 -60.55 149 369590.20 6591853.10 400.10 NSW	55
BORC 270 94 96 2 3.67 62.76 -60.55 149 369590.20 6591853.10 400.10 NSW	94
incl 95 96 1 7.02 62.76 -60.55 149 369590.20 6591853.10 400.10 NSW	95
BORC 270 113 116 3 1.65 62.76 -60.55 149 369590.20 6591853.10 400.10 NSW	0 113
BORC 270 131 132 1 1.15 62.76 -60.55 149 369590.20 6591853.10 400.10 NSW	0 131
BORC 271 91 93 2 0.9 61.95 -60.37 161 369554.85 6591833.64 398.32 NSW	1 91
BORC 271 107 111 4 1.03 61.95 -60.37 161 369554.85 6591833.64 398.32 NSW	1 107
BORC 271 114 115 1 2.1 61.95 -60.37 161 369554.85 6591833.64 398.32 NSW	1 114
BORC 271 137 156 19 1.56 61.95 -60.37 161 369554.85 6591833.64 398.32 NSW	1 137
incl 151 152 1 6.75 61.95 -60.37 161 369554.85 6591833.64 398.32 NSW	151
BORC 272 33 37 4 0.88 62.16 -60.62 221 369521.15 6591813.55 396.38 NSW	2 33
BORC 272 118 119 1 1.94 62.16 -60.62 221 369521.15 6591813.55 396.38 NSW	2 118
BORC 273 5 9 4 0.9 59.67 -60.99 161 369667.57 6591785.35 403.45 NSW	3 5
BORC 273 12 16 4 0.94 59.67 -60.99 161 369667.57 6591785.35 403.45 NSW	3 12
BORC 273 28 30 2 0.76 59.67 -60.99 161 369667.57 6591785.35 403.45 NSW	3 28



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HOLE-ID	Depth From (m)	Depth To (m)	INTERVAL (m)	Au (g/t)	Azimuth (°)	Dip (°)	EOH (m)	Easting (GDA)	Northing (GDA)	mRL	Area
BORC 273	43	46	3	1.43	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 273	51	55	4	0.86	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 273	73	76	3	1.35	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 273	107	109	2	1	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 273	138	142	4	0.82	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 273	145	157	12	0.76	59.67	-60.99	161	369667.57	6591785.35	403.45	NSW
BORC 274	29	32	3	0.85	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	48	51	3	1.24	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	64	77	13	0.74	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	96	102	6	1.68	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	108	109	1	1.08	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	129	134	5	1.29	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	145	151	6	0.73	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 274	155	157	2	1.18	61.99	-61.12	167	369652.22	6591776.62	401.72	NSW
BORC 275	79	86	7	0.92	60.99	-60.14	173	369631.92	6591765.16	399.76	NSW
BORC 275	151	152	1	1.26	60.99	-60.14	173	369631.92	6591765.16	399.76	NSW
BORC 276	61	64	3	0.78	60.72	-60.63	155	369598.88	6591744.79	397.06	NSW
BORC 276	91	93	2	1.29	60.72	-60.63	155	369598.88	6591744.79	397.06	NSW
BORC 276	102	104	2	2.54	60.72	-60.63	155	369598.88	6591744.79	397.06	NSW
BORC 276	131	140	9	0.82	60.72	-60.63	155	369598.88	6591744.79	397.06	NSW
BORC 277	109	111	2	0.72	62.98	-60.90	167	369607.56	6591726.40	396.64	NSW
BORC 277	126	129	3	2.65	62.98	-60.90	167	369607.56	6591726.40	396.64	NSW
incl	128	129	1	6.06	62.98	-60.90	167	369607.56	6591726.40	396.64	NSW
BORC 277	143	144	1	2.29	62.98	-60.90	167	369607.56	6591726.40	396.64	NSW
BORC 278	47	51	4	0.71	62.82	-60.85	173	369660.09	6591756.49	400.62	NSW
BORC 278	147	161	14	0.71	62.82	-60.85	173	369660.09	6591756.49	400.62	NSW
BORC 279	31	35	4	4.55	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
incl	32	33	1	15.4	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
BORC 279	71	75	4	2.79	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
incl	72	73	1	8.82	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
BORC 279	144	146	2	1.12	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
BORC 279	157	161	4	1.31	58.13	-60.70	167	369524.48	6591978.31	397.90	NSW
BORC 372	44	45	1	1.3	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
BORC 372	52	53	1	1.08	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
BORC 372	57	60	3	3.28	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
incl	59	60	1	9.13	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
BORC 372	107	108	1	1.01	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
BORC 372	119	133	14	0.87	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW
BORC 372	148	149	1	1.06	60.99	-55.40	167	369617.50	6591712.04	397.39	NSW



HOLE-ID	Depth From (m)	Depth To (m)	INTERVAL (m)	Au (g/t)	Azimuth (°)	Dip (°)	EOH (m)	Easting (GDA)	Northing (GDA)	mRL	Area
BORC 373	45	66	21	0.84	59.09	-60.20	125	369850.75	6591751.44	408.88	NSW
BORC 373	81	96	15	1.08	59.09	-60.20	125	369850.75	6591751.44	408.88	NSW
BORC 374	19	21	2	0.72	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
BORC 374	46	59	13	1.44	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
incl	49	50	1	6.36	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
BORC 374	66	82	16	1.22	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
incl	66	67	1	9.72	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
BORC 374	89	91	2	0.75	60.07	-60.12	113	369848.14	6591796.70	407.70	NSW
BORC 375	19	22	3	1.06	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 375	43	46	3	0.71	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 375	57	65	8	0.7	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 375	93	97	4	1.55	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 375	104	114	10	0.92	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 375	122	129	7	0.79	59.69	-60.06	152	369818.38	6591779.99	409.93	NSW
BORC 376				NSI	58.38	-60.16	77	369863.72	6591828.30	405.63	NSW
BORC 377				NSI	55.19	-59.66	89	369789.50	6591946.43	401.12	NSW
BORC 378	66	67	1	1.78	58.93	-59.94	95	369776.86	6591961.62	400.70	NSW
BORC 379	20	22	2	0.74	58.17	-59.88	113	369763.87	6591977.26	400.58	NSW
BORC 379	25	35	10	1.28	58.17	-59.88	113	369763.87	6591977.26	400.58	NSW
BORC 379	72	74	2	0.72	58.17	-59.88	113	369763.87	6591977.26	400.58	NSW
BORC 380	24	25	1	1.16	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	30	31	1	1.13	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	37	43	6	0.8	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	52	53	1	1.04	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	62	64	2	1.06	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	77	83	6	0.79	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	92	95	3	12.25	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
incl	92	93	1	34.3	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 380	100	102	2	1.28	58.14	-60.09	131	369820.37	6591816.23	407.12	NSW
BORC 381	12	20	8	0.79	59.19	-60.33	155	369802.77	6591815.59	408.01	NSW
BORC 381	23	35	12	0.74	59.19	-60.33	155	369802.77	6591815.59	408.01	NSW
BORC 381	78	101	23	0.8	59.19	-60.33	155	369802.77	6591815.59	408.01	NSW
BORC 381	106	107	1	1.3	59.19	-60.33	155	369802.77	6591815.59	408.01	NSW
BORC 381	115	118	3	1.67	59.19	-60.33	155	369802.77	6591815.59	408.01	NSW
BORC 382	7	15	8	1.08	56.34	-60.04	107	369827.14	6591853.60	404.50	NSW
BORC 382	29	32	3	0.73	56.34	-60.04	107	369827.14	6591853.60	404.50	NSW
BORC 382	89	90	1	1.65	56.34	-60.04	107	369827.14	6591853.60	404.50	NSW
BORC 383	13	16	3	0.73	59.59	-60.21	161	369793.93	6591834.31	406.47	NSW
BORC 383	26	28	2	0.86	59.59	-60.21	161	369793.93	6591834.31	406.47	NSW



HOLE-ID	Depth From (m)	Depth To (m)	INTERVAL (m)	Au (g/t)	Azimuth (°)	Dip (°)	EOH (m)	Easting (GDA)	Northing (GDA)	mRL	Area
BORC 383	67	73	6	0.9	59.59	-60.21	161	369793.93	6591834.31	406.47	NSW
BORC 383	94	104	10	1.14	59.59	-60.21	161	369793.93	6591834.31	406.47	NSW
BORC 383	110	120	10	0.71	59.59	-60.21	161	369793.93	6591834.31	406.47	NSW
BORC 384	43	48	5	0.92	62.07	-59.79	185	369775.42	6591824.71	409.74	NSW
BORC 384	92	93	1	1.03	62.07	-59.79	185	369775.42	6591824.71	409.74	NSW
BORC 384	124	131	7	0.76	62.07	-59.79	185	369775.42	6591824.71	409.74	NSW
BORC 384	155	157	2	0.84	62.07	-59.79	185	369775.42	6591824.71	409.74	NSW
BORC 385	30	33	3	2.76	63.80	-59.64	203	369761.78	6591841.82	409.664	NSW
incl	31	32	1	5.41	63.80	-59.64	203	369761.78	6591841.82	409.664	NSW
BORC 385	119	133	14	1.31	63.80	-59.64	203	369761.78	6591841.82	409.664	NSW
incl	122	123	1	7.77	63.80	-59.64	203	369761.78	6591841.82	409.664	NSW
BODH 026	58	80	22	0.82	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW
BODH 026	84	85	1	1.59	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW
BODH 026	185	186	1	1.64	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW
BODH 026	203	210	7	1.06	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW
BODH 026	214	215	1	1.13	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW
BODH 026	225	226	1	1.62	62	-56.58	265.40	369637.54	6591717.10	399.47	NSW

\*NSR: Denotes a drill hole with no significant result

<sup>\*\*</sup>NA: Denotes a drill hole that has not been assayed



# **JORC Code, 2012 Edition – Table 1 Report**

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	The Boorara Deposit 29 RC holes (BORC 265 - 279 & 372 - 385 4,341m), azimuth 060° dipping -58° and 1 diamond hole BODH 026 azimuth 060° dipping -58°.  The RC samples are collected from the drill rig cyclone in a green plastic bag in 1m intervals and are laid out in rows of either 20 or 40 samples. A 2-4kg representative sample is split via the rig mounted cone splitter and placed on top of the green plastic for that metre interval.  Diamond drilling completed using one metre sampling lengths (3 diamond samples were sampled as 0.70m lengths), core half cut adjacent to bottom of hole orientation line.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All sampling is undertaken using MacPhersons Resources sampling procedures and QAQC in line with industry best practise which includes certified standards on average every 30 samples.  The RC drill rig provides a sample at the end of each
		<ul> <li>metre of drilling. A 2-4 kg sample is collected from the drill rig via a cone splitter which is representative of that metre.</li> <li>HQ diamond core was half cut to produce a 2-4 kg sample for analysis.</li> </ul>
	Aspects of the determination of mineralisation that are Material to the Public Report.	Historic hole collars have been recovered where possible and surveyed by a licenced surveyor using a DGPS (0.01). Historic holes were down hole surveyed where possible for deviation by north seeking gyroscope method by local contactor ABIMS.
	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The RC one metre sample intervals were collected with a 2-4 kg representative sample despatched to the laboratory for gold analysis.  The diamond half core sample intervals were typically a 2-4 kg representative sample despatched to the laboratory for gold analysis.  All analysis was by 50g fire assay with AAS finish with the exception of cases where visible gold has been observed or a fire assay grade has exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and those results reported instead of the fire assay result.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	The RC drilling was undertaken using a face sampling percussion hammer using 137mm drill bits.  The diamond drilling was undertaken using HQ3 (triple tube) and HQ3 (standard tube) techniques.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Each metre of RC sample is checked and an estimate of sample recovery is made. For this program, greater than 80% of samples had a recovery of 70% or higher. Sample weights reported by laboratory can also give an indication of recoveries  Drill core was measured and compared to drilled intervals, and recorded as a percentage recovery. Recovery in oxidised rock can be reasonable whereas recovery in fresh rock is excellent.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Drillers experience is important. Steady drilling, using modern well maintained drilling equipment, regular cleaning of cyclone and splitter, pausing the drilling at each metre to allow sample to pass through drill string and reducing sample loss. Using a RC rig equipped with auxiliary and booster compressors is critical to maintaining good RC sample recovery.  Using professional and competent core drilling contractor minimises issues with sample recoveries through the use of appropriate drilling equipment techniques and drilling fluids suited to the particular ground conditions.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	RC sample recoveries from the mineralised zones are generally high although some of the weathered material is lost in drilling (dust) and some natural voids do exist. High water flows were encountered in all holes from 180m downhole. No sample was lost from 2-4 kg split from cyclone that was submitted for analysis, some loss of sample occurred from large green bags and some bias may have occurred to that sample as water was flowing from sample bag – this sample has not been analysed and therefore will not affect results reported in this release.
		The core sample recovery in the transitional and fresh rock zones is very high and no significant bias is expected. Recoveries in oxidised rock were lower.  Although no exhaustive studies have been undertaken, no significant bias is expected, and any potential bias is not considered material at this stage of resource development.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Each RC metre drilled underwent detailed logging through the entire hole with record kept of colour, lithology, degree of oxidation, and type and intensity of alteration veining and sulphide content.  Diamond core metres underwent detailed logging through the entire hole with record kept of colour, lithology, degree of oxidation, and type and intensity of alteration, veining and sulphide content. Structural, density and geotechnical data is also collected on drill core.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All logging is qualitative in nature and included records of lithology, oxidation state and colour with estimates of intensity of mineralisation, alteration and veining.  Wet and dry photographs were completed on the core.
	The total length and percentage of the relevant intersections logged.	All drill holes were geologically logged in full (100%).
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core was half cut with a diamond saw with the same half always sampled and the other half retained in core trays.  In some instances oxidised and non-competent clay zones are carefully split in half using sampling wedge and sampled as half core.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All RC sub-samples are collected via a cone splitter system mounted on the drill rig. An estimated 30% of samples were moist to wet in nature that passed through the cyclone – splitter system.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All samples were analysed via a 50 gram fire assay. Following that analysis in cases where visible gold has be observed or a fire assay grade has exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and those results reported instead of the fire assay result.
		Sample preparation and analysis were completed by ALS in Kalgoorlie. When received, samples are processed by code PREP-31 - logged in tracking system and bar code attached, wet samples dried through ovens, fine crushing to better than 70% passing 2mm, split sample using riffle splitter, split of up to 1000g pulverised to >85% sample passing 75um.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All sampling equipment and sample bags are kept clean at all times.  The RC drill rig mounted cone splitter is adjusted to ensure that the 1m split sample weighs on average



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		between 2-4kg. The cone splitter is cleaned using an air nozzle after every drill rod – 6m.
		MacPhersons Resources sampling procedures and QAQC is used to maximise representivity of samples.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	For drill core, the entire core is sampled at one metre intervals to ensure that samples are representative of the entire in-situ rock being tested. The laboratory ensures that the entire sample submitted is crushed and split appropriately to provide a representative subsample.
		No duplicate samples are taken from the core
	Whether sample sizes are appropriate to the grain size of the material being	The sample sizes (0.5 kg to 4 kg) are considered appropriate for the style of mineralisation at Boorara.
	sampled.	Half cut HQ diamond core samples over 1m length (normally at the end of hole) were up to 4kg.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The nature, quality and appropriateness of the assaying and laboratory procedures are industry standard for Archaean mesothermal lode gold deposits. The fire assay technique will result in a total assay result. In cases where visible gold has be observed or a fire assay grade has exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and reported instead of the fire assay result.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	None of these tools are used
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified Reference Materials (standards) are purchased from an independent supplier of such materials. Blanks are made up from samples previously collected from other drill programs at Boorara –Nimbus that have analysed as less than detection Au values.
		A standard sample followed by a blank sample are inserted every 30 <sup>th</sup> sample. A duplicate sample is taken every 25 samples.
		Evaluation of the Macphersons submitted standards and blanks analysis results indicates that assaying is accurate and without significant drift.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	At least two different company personnel visually verified intersections in the collected drill chips. At least two different company personnel visually verified intersections in the diamond core. A representative



CRITERIA	JORC CODE EXPLANATION	COMMENTARY		
assaying		sample of each metre is collected and stored for further verification if needed. Drill core or core photos are used to verify drill intersections in diamond core samples.		
	The use of twinned holes.	The spatial location and assaying accuracy of historical drilling was confirmed with RC and DD twinned holes.		
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data collected in the form of spread sheets, for drill hole collars, surveys, lithology and sampling.		
	(prydiadrana dicetronic) protection.	All geological and field data is entered into Microsoft Excel spreadsheets with lookup tables and fixed formatting (and protected from modification) thus only allowing data to be entered using the MacPhersons geological code system and sample protocol.		
		Data is verified and validated by MRP geologists and stored in a Microsoft Access Database		
		Data is emailed to a database administrator for validation and importation into a GEMS database and periodically into a SQL database using Datashed.		
	Discuss any adjustment to assay data.	No adjustments are made to the primary assay data imported into the database.		
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Initial hole collars surveyed by licenced surveyor DGPS (0.01m). Diamond drill line by surveyed back sight and foresight pegs. Dip was checked with clinometer on drill mast at set up on hole. RC holes are surveyed by down hole surveys at 30m intervals using single shot "Reflex Camera +/- 0.10" by drill contractor.		
		Diamond holes are surveyed by down hole surveys at 30m intervals using single shot "Reflex Camera +/- 0.10" by drill contractor.		
		All holes are surveyed for deviation at end of hole by gyroscope method by local contractor ABIMS Ltd. This is normally inside rods but may be open hole for RC drilling.		
		Final hole collar locations surveyed by licenced surveyor (Minecomp Pty Ltd) DGPS (0.01m).		
	Specification of the grid system used.	The grid system used is Geocentric Datum of Australia 1994 (GDA94).		
	Quality and adequacy of topographic control.	Historical – Aerial photography used to produce digital surface topographic maps at 1:2500 1m contours.		
		2011 - Fugro Spatial Solutions Pty Ltd detailed aerial photographic survey. Orth rectification and mosaicking performed using Inpho Digital Photogrammetric		



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Systems. Expected accuracy of detail within 0.8mm at the ortho-image map scale.
		Topographic control is from an aerial photographic survey completed during 2012 with accuracy within 0.01m.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The majority of drilling at Boorara is close spaced down to 10m line x 5m hole, with the remainder 20m line x 10m hole and some more wide spaced at 40m line x 10m hole.
		The holes reported in this release were on 20m spaced lines that are 10m apart along the lines.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The data spacing and distribution is sufficient to demonstrate spatial and grade continuity of the mineralized domains to support the current MRE classifications as Measured, Indicated and Inferred according to JORC (2012 Edition) reporting criteria.
	Whether sample compositing has been applied.	No sample compositing has been applied in the field within the mineralised zones.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Diamond drill holes and RC holes were orientated 115°/-60° which is considered to be perpendicular to the dominant quartz vein arrays or at 060°/-60° perpendicular to geology contacts. Various other orientations have been tried historically to try and capture the best orientation to drill various different structures and vein orientations. Historically diamond core holes were orientated 060°/-60°. BORC 265-279 & 372-385 were orientated 060°/-58°. BODH 026 is orientated 060°/-58°. The 115°/-58° orientated holes are close to perpendicular to the dominant quartz vein geometry.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	It is not believed that drilling orientation has introduced a sampling bias as the dominant mineralised quartz vein arrays at SSW area at Boorara are orientated 020°/35°NW, 040°/55° NW, 060°/40°NW & 100°/43°N.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by MRP. Field samples are stored overnight in a shed onsite (if not delivered to laboratory) which is equipped with security cameras and caretaker in residence who is an employee of MacPhersons.
		Field samples are delivered to the assay laboratory in Kalgoorlie by MRP personnel once the hole is completed. Whilst in storage at the laboratory, they are kept in a locked yard. Tracking sheets have been set up online to track the progress of batches of samples through the laboratory.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Sample pulps and coarse rejects are stored at ALS for a period of time and then returned to MRP.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	CSA completed a review in early 2015 of the MRP sampling protocols as part of their Resource estimation work and were satisfied that the adequacy of sample preparation, sample security and analytical procedures support the Mineral Resource classification discussed and are of industry standard.  MRP have maintained those sampling protocols from that time.



# **JORC Code, 2012 Edition – Section 2 Report**

# **Section 2 Reporting of Exploration Results**

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Boorara Project is located approximately 17km east-southeast of Kalgoorlie, 2km west of Nimbus and 6km north-northwest of Golden Ridge' The Boorara project is situated within mining leases M26/29, M26/277 and M26/318 accessed from the Kalgoorlie-Bulong Road via an unsealed haul road. The tenements are located within the Hampton Hill Pastoral Station.
		Normal Western Australian state royalties apply. A third party royalty of \$1/t is payable to a maximum of \$1 million on M26/277. A third party royalty based on production milestones is payable on M26/29, M26/318 & M26/161 as below;
		<ul> <li>25,000 ounces gold production – 375 ounce royalty payable</li> <li>50,000 ounces gold production – 375 ounce royalty payable</li> <li>75,000 ounces gold production – 375 ounce royalty payable</li> <li>100,000 ounces gold production – 375 ounce royalty payable</li> </ul>
		Situated within the Boorara Project area are the reserves associated with the Boorara townsite. Proposed open pit operations will not impact on the reserves.
		The location of waste dumps will be sited so as to avoid mineral resources, exploration targets and to work with other mining infrastructure associated with the Nimbus operations located within 2km of the proposed Boorara open pits.
		MRP purchased the Nimbus property on 8 <sup>th</sup> September 2011 from Kalgoorlie Ore Treatment Company Pty Ltd (KOTC). The tenements are held by KOTC, a wholly owned subsidiary of MacPhersons Resources Ltd.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenements are in good standing and no known impediments exist.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historic gold production at Boorara produced 30,673 oz's from the treatment of 54,731 tonnes of ore. This production was from underground mining at the Cataract shaft, East Lode shaft and the Crown Jewel shaft. Historic mine plans and sections show two orientations of mine stopes, one at 040°/25° NW and another at 315°/65°W.
		Dampier Mining Pty Ltd and Texas Gulf Australia Ltd in 1980 drilled 20 RC holes for 1,038m and 10 diamond holes for 1,695m.
		Western Reefs NL in 1985 undertook soil sampling on a 40m x 20m grid. They also completed 180 RAB holes for 9892m, 268 RC holes for 20,831m and 26 diamond holes for 2,609m. Geological mapping was undertaken by Western Reefs including costean mapping and sampling. The Cataract shaft was refurbished and geologically mapped and surveyed. The Crown Jewel shaft was mapped and surveyed also.
		Windsor Resources in 1988 drilled 174 RC holes for 11,274m.
		Newmont in 1990 drilled 338 RAB holes for 15,446m, 39 RC holes for 4,319m and 4 diamond holes for 718m. Geological mapping and soil sampling was also undertaken.
		Mt Monger Gold Project in 1993 drilled 116 RC holes for 6,222m.
		Fimiston Mining NL in 1995 drilled 110 RC holes for 7,257m and 1 diamond hole for 195m. The data relating to the Boorara gold deposits comprising the Southern Stockwork Zone, Northern Stockwork Zone, Cataract Area, East Lode and Digger Dam was reviewed. The database was updated to incorporate the drilling completed by Fimiston and cross sections and interpretations made. A global polygonal based resource estimate was made which estimated resources of 2.25 million tonnes @ 1.40g/t Au at a cut-off grade of 0.5g/t or 1.42 million tonnes @ 1.72 g/t Au at a cut off of 1.0 g/t to be estimated. Block modelling of this polygonal data was then completed which returned a total oxide resource of 1,293,000 tonnes @ 1.49 g/t, and a total fresh resource of 1,095,000 tonnes @ 1.86g/t.
		New Hampton Goldfields Ltd in 2001 undertook a resource estimate at Boorara which resulted in a JORC compliant undiluted mineral resource of



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		1,506,000t @ 1.85 g/t Au. Open pit design of the Southern Stockwork, Cataract and the Northern Stockwork resulted in a Probable Reserve of 179,000t @ 3.0 g/t Au. The New Hampton Goldfields Ltd — Jubilee Gold Operations report, "Mineral Resource Estimate Report, Boorara M26/29 M26/318 and M26/161, June 2001 G Job" outlines the methodology and an explanation of the resource calculation.
		Polymetals (WA) Pty Ltd in 2006 estimated a NON JORC complaint total resource summary of 1,904,800t @1.38g/t Au using a cutoff grade of 0.5 g/t Au.
		Polymetals (WA) Pty Ltd in 2009 completed 18 RC holes for 1770m. From this program 126 samples with >1.0g/t Au were screen fire assayed, with another 34 duplicates taking the total samples assayed via screen fire assay to 160.
Geology	Deposit type, geological setting and style of mineralisation.	The Boorara Au deposit is an Archaean mesothermal Au deposit.
		The Boorara local geology consists of a sequence of ultramafic, mafic and felsic volcanic and volcaniclastic rocks, with interflow carbonaceous sediments found on the lithological boundaries. Dolerite intrusions are conformable within the sequence. The metamorphic grade of rocks at Boorara is lower greenschist facies. The alteration assemblage associated with better Au grades consists of quartz carbonate and sericite. Pyrite and arsenopyrite are associated with the better Au grades at Boorara.
		At Boorara gold mineralisation has been described by Verbeek (1987) to occur:
		<ul> <li>Near dolerite contacts associated with quartz stockwork or vein arrays. Pervasive carbonate-sericite alteration is present.</li> <li>Sulphides occur in the vein selvedge with proximal arsenopyrite and distal pyrite.</li> <li>Veins are usually less than 20 mm wide whilst the selvedge may be 1 to 4 times the width of the vein.</li> <li>Associated with quartz veins in shallow (20 to 45 degrees) north-dipping shear zones.</li> <li>Associated with steep (50 to 70 degrees) east-dipping shear zones on dolerite contacts.</li> </ul>



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		<ol> <li>Mineralisation envelopes at Boorara consist of three dominant orientations:</li> <li>NW trend of sub-vertical mineralisation which is typified by the East Lode workings, and interpreted as sub parallel to lithology contacts</li> <li>NW moderate NE dipping structure at Crown Jewel, sub parallel to lithology contacts</li> <li>NE striking, shallow to moderate NW dipping vein arrays as seen in the Boorara trial pit and at the Cataract workings.</li> </ol>
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  1. easting and northing of the drill hole collar  2. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  3. dip and azimuth of the hole  4. down hole length and interception depth  5. hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the	Other relevant drill hole information can be found in Section 1-"Sampling techniques, "Drilling techniques" and "Drill sample recovery".
Data aggregation methods	report, the Competent Person should clearly explain why this is the case.  In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All one metre diamond drill results are reported in Appendix 1 Section 2 of JORC table 1. Holes include up to 2m of internal dilution - host dolerite was intersected in the 2m diluted section with significant alteration. A bottom cut off grade of 0.3 g/t was used and no top cut grade was applied.  The procedure applied to the aggregate intercepts quoted is length weighted average (sum product of
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	interval x corresponding interval assay grade), divided by sum of interval lengths and rounded by one decimal place.



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	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	These drill holes are designed to drill perpendicular to the dominant quartz vein array geometry within the Boorara dolerite at Boorara which gives MRP geologists a good understanding of mineralisation widths encountered.  The dominant mineralisation geometries seen at the Boorara gold project are;
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	<ol> <li>Shear zone hosted mineralisation on the dolerite east contact which strikes 320° and is steeply dipping to the west.</li> <li>Quartz vein sheeted vein array hosted mineralisation that is orientated 020°/48°NW, 060°/40°NW &amp; 100°/43°N.</li> </ol>
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The estimated true width of the granophyric dolerite has been estimated at 20m and this based on BORC 157 intersection 23m @ 2.02 g/t. BODH 035 intersected 22m @ 2.1 g/t which has been used to estimate true width.
		The true width of the ore at the Boorara gold resource is reasonably well known from the earlier deeper resource drilling, but at Boorara does not appear to be consistent in width due to the structural setting of the mineralisation. Greater than 90% of all drill holes would define both boundaries to mineralisation from which a true width can be reasonably determined.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Please refer to the body of the report.
	(NOTE: Any map, section, diagram, or other graphic or photo must be of high enough resolution to clearly be viewed, copied and read without distortion or loss of focus).	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Please refer to table 1 in the body of the report.



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Other substantive	Other exploration data, if meaningful and material, should be reported including (but	The diamond holes were also utilised for bulk density measurements.
exploration data	not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further RC & Diamond drilling is planned to further test mineralisation associated with this release.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Please refer to the body of the report.
	(NOTE: Any map, section, diagram, or other graphic or photo must be of high enough resolution to clearly be viewed, copied and read without distortion or loss of focus).	