

# **ASX ANNOUNCEMENT**

**13 February 2024** 

**ASX: DEG** 

# **Greater Hemi and Regional Exploration Update**

# Highlights

- Exploration remains a key value driver during the development phase of Hemi, with ongoing drilling programs aimed at extending resources at Hemi and the Western Hub, advancing prospects in the 40km Greater Hemi Corridor and cultivating new regional targets across the Project
- Encouraging results continue to be returned from multiple prospects within the Greater Hemi Corridor, extending from north of Hemi to the Egina JV
- Antwerp has been extended to the southwest, with recent results including 12m @ 1.4g/t Au in HMRC575D,
   4m @ 12.3g/t Au in HMRC626, and 8m @ 1.8g/t Au, 25m @ 1.3g/t Au, 16m @ 1.1g/t Au and 7m @ 1.7g/t Au in HMRC587D
- Drilling in the Gorrion area, north of Crow, has intersected mineralised intrusive adjacent to the Diucon Thrust including 6m @ 4.2g/t Au in HMRC701, and 1m @ 15.6g/t Au and 5m @ 1.4g/t Au in HMRC675
- Significant recent aircore results from the West Yule prospect include 6m @ 3.4g/t in MWAC2155, 20m @ 1.2g/t Au in MWAC2776, and 1m @ 12.2g/t Au in MWAC2825
- At the Egina JV, De Grey has completed resampling of anomalous gold zones from Novo's aircore program, verifying broad zones of gold anomalism associated with granitic intrusions
- At Egina JV, drilling at Lowe confirmed gold mineralisation associated with a deformed intrusive sill, with a best intercept of 8m @ 4.7g/t Au
- Geological review and drilling confirmed the presence of a large WNW-trending brittle fault zone in the Heckmair intrusion at Egina JV with broad intervals of anomalous base metals and low-level gold mineralisation mapping a fault to ~1.5 km in strike

#### De Grey General Manager Exploration, Phil Tornatora, commented:

"The Greater Hemi Corridor, which includes the 10.5Moz Hemi deposit, extends for over 40km, and contains deepseated structures and multiple intrusions, with associated gold anomalism. Recent early stage exploration at several prospects along this corridor is demonstrating the potential for significant mineralisation.

In addition to our ongoing exploration targeting strike and depth extensions to the Hemi deposits and potential new shallow resources adjacent to Hemi, De Grey is also continuing exploration for new large-scale discoveries along the Greater Hemi Corridor and other Regional prospects.

New discoveries close to Hemi can provide additional feed for the planned Hemi plant, whereas new discoveries west of the Yule River will contribute to the Western Hub project, which envisages a separate concentrator in the Withnell area to produce concentrate from the Regional deposits for further processing at Hemi."





De Grey Mining Limited (ASX: DEG, "De Grey", "Company") provides an exploration update on recent drilling activities within the Greater Hemi Corridor as shown in Figure 1. This corridor, which has been the focus of recent exploration, extends from east of the 10.5Moz Hemi deposit ("Hemi") through to the Becher area on the Egina JV, over a strike of at least 40km.

The Greater Hemi Corridor contains several major deposits and numerous gold anomalies. The corridor hosts large scale deep-seated regional structures and multiple intrusions which have been identified by logging and bottom of hole multi-element geochemistry. Many of these intrusions are geochemically similar to the intrusions within the corridor known to host large scale mineralisation at Hemi.

Results reported here include aircore ("AC"), reverse circulation ("RC") and some diamond ("DD") drilling extending from the Gorrion (Crow North) area just north of Hemi, and drilling at Antwerp to the east of Hemi. It also extends through to recent AC drilling at West Yule, and RC results from recent drilling at the Egina Joint Venture ("JV").

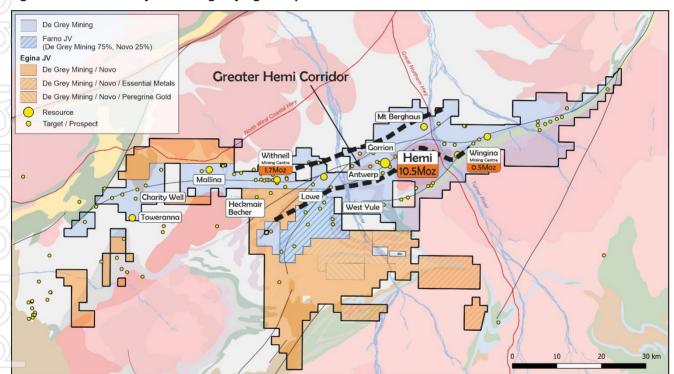


Figure 1. Hemi Gold Project showing major gold deposits and the Greater Hemi Corridor.

#### **Gorrion (Crow North) drilling**

The Gorrion area lies around 500m north of the Crow deposit at Hemi, extending along the Diucon Thrust for around 2.5km (Figure 2). Both RC and DD drilling programs targeting prospective Hemi style intrusions proximal to the Diucon Thrust have been completed. Significant intercepts are shown below, with full details in Table 1:

- 6m @ 4.2g/t Au from 49m in HMRC701
- 1m @ 15.6g/t Au from 146m and 5m @ 1.4g/t Au from 208m in HMRC675
- 11m @ 1.2g/t Au from 203m and 4m @ 1.5g/t Au from 192m in HMRC707
- 4m @ 1.4g/t Au from 42m and 5m @ 1.2g/t Au from 68m in HMRC706



The drilling targeted Diucon and Eagle mineralisation analogues within the footprint of the proposed mine development area. A systematic 160m x 80m RC and DD program was completed covering ~2.5km of strike. The program successfully defined gold mineralisation present in Hemi style intrusions proximal to sediment and/or ultramafic contacts. Whilst results are encouraging for a first pass RC/DD program, more drilling focused on zones of greater continuity of gold mineralisation is required to understand the potential size and continuity of the system. Drilling will now be extended further to the North-East along the Gorrion Trend and around to Scooby (Figure 2).

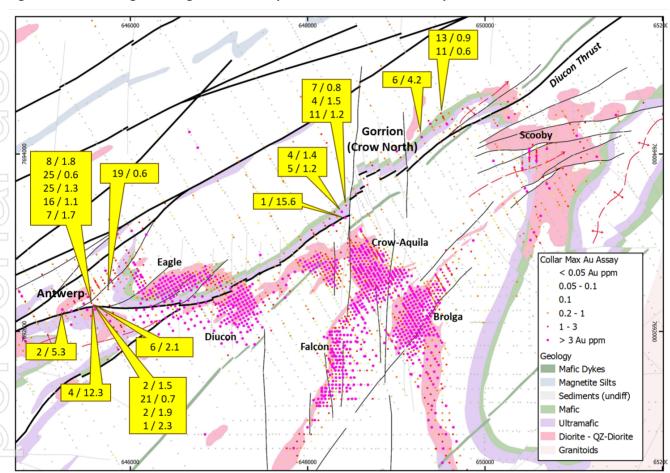


Figure 2. Plan showing recent significant intercepts in the Gorrion and Antwerp areas

#### Antwerp drilling

The Antwerp Prospect lies west of the Eagle Deposit at Hemi (Figure 2). RC and DD drilling has defined a >1km trend to the southwest of Eagle, with gold mineralisation associated with structures that either splay off, or are parallel to, the Diucon Thrust. Drill hole spacing is 80m x 40m along this trend and is aimed at defining Inferred resources. Several zones of gold mineralisation associated with Hemi type intrusions have been intersected.

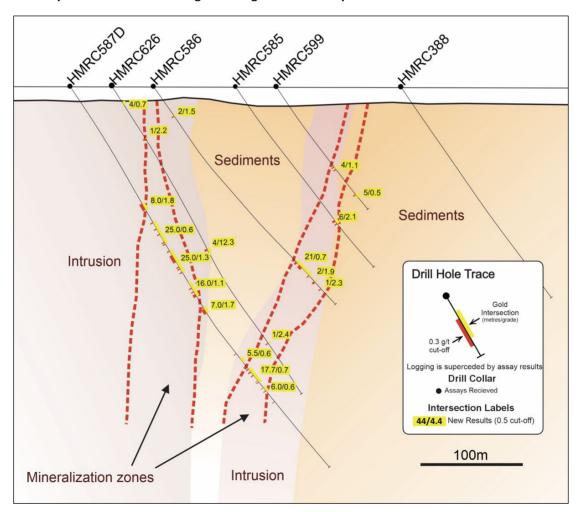
Significant intercepts are shown below:



- 12m @ 1.4g/t Au from 101m in HMRC575D
- 4m @ 12.3g/t Au from 183m in HMRC626
- 8m @ 1.8g/t Au from 134m, 25m @ 0.6g/t Au from 155m, 25m @ 1.3g/t Au from 187m, 16m
   @ 1.1g/t Au from 223m and 7m @ 1.7g/t Au from 251m in HMRC587D
- 1.6m @ 8.5g/t Au from 337.7m and 2.9m @ 3.8g/t Au from 348.81m in HMRC568D
- 6m @ 2.1g/t Au from 161m in HMRC585
- 2m @ 5.3g/t Au from 50m in HMRC625
- 3.6m @ 1.9g/t Au from 191.8m in HEDD231
- 21m @ 0.7g/t Au from 223m in HMRC586

Broad, low-grade mineralisation occurs along interpreted northeast-trending structures, with better developed higher grade gold zones associated with fault intersections and folding around the Eagle syncline. Some additional drilling is planned in the western portion of Antwerp to follow up zones of consistent mineralisation, with a focus on shallow resources which can be extracted via open pit mining methods. The mineralised Antwerp Trend remains open to the southwest. This will continue to be a focus for the Company as it recognises the exploration importance of this structural corridor.

Figure 3. Antwerp Section 27440E showing recent significant intercepts



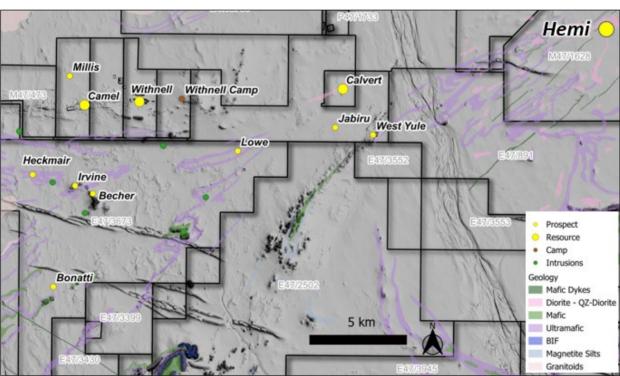


#### **West Yule Prospect**

The West Yule Prospect is around 12km WSW of Hemi within the Greater Hemi Corridor (Figures 1 and 4) and lies in the hanging wall of the Wohler shear zone. Host rocks comprise interbedded siltstones, black shales and sandstones within the Mallina Formation, with mineralisation associated with quartz veining and sericite alteration. Variably fractioned, sill-like intrusions of the Millindinna suite intrude the metasedimentary sequence. Structural architecture in the area features doubly plunging anticlines and synclines aligned with NE-SW-trending regional-scale thrust faults.

De Grey has completed two phases of aircore drilling. The first round was drilled in the second half of 2022 and returned positive results. These included multiple hits downhole in MWAC2155 including 7m @ 0.3g/t from 30m, 6m @ 3.4g/t from 96m and 3m @ 0.4g/t Au from 108m. Follow up aircore drilling was completed in October 2023. This latest round of aircore returned anomalous gold results along two dominant trends for at least 1.3km, with mineralisation open to the northeast and southwest (Figure 5). Significant intercepts are provided in Table 3 and include 20m @ 1.2g/t Au in MWAC2776, and 1m @ 12.2g/t Au in MWAC2825. Interpretation of recent results and planning of follow up drilling is currently underway.

Figure 4. Emerging regional prospects along the Greater Hemi Corridor, including West Yule (De Grey) and Heckmair, Irvine and Lowe (Egina JV).





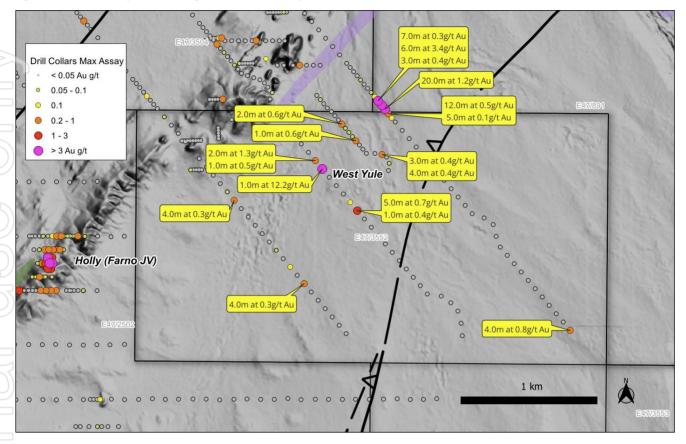


Figure 5. West Yule plan showing recent AC intercepts

#### Egina JV update

In June 2023 De Grey announced it had signed an exploration agreement with Novo Resources Corporation ("Novo") to earn a 50% interested in an approximately 1,000km² tenement package located immediately south of Withnell and southwest of the Hemi discovery ("Egina JV"). Since commencing field work on the Egina JV in August 2023, De Grey has completed 7,536m of aircore drilling (271 collars) across several greenfields targets. In addition, ongoing interpretation of Novo's aircore program yielded three priority targets based on gold and base metal anomalism. This warranted a follow up program of 4,154m of RC drilling (29 collars) which was completed at the Lowe, Heckmair and Irvine targets. No significant results were returned from AC drilling at Irvine, although RC hole MSRC0030 returned 1m @ 6.3g/t Au. Further details on interesting results from Lowe and Heckmair are provided below.

#### Lowe

Lowe is around 20km WSW of Hemi. The prospect includes a 5.2km long, synclinal layered sill, fractionated from pyroxenite at the base up to gabbro and diorite. It is substantially thicker on the northern side of the syncline and likely truncated by a fault and juxtaposed with altered metasediment to the south. A small RC drilling program of 10 holes (1786m) was completed by De Grey in late 2023. This drilling intercepted mineralisation in two holes in what is interpreted to be the same structure (Figure 6). 8m @ 4.7g/t Au from 97m was intersected in hole MSRC0031, and 4m @ 0.6g/t Au from 144m was intersected in MSRC0032. Mineralisation is hosted within strongly foliated and sheared pyroxenite and gabbro with prominent sericite alteration, quartz veining and pyrite.

Planning of follow up drilling is underway. Exploration to date is very limited, with most of the target zone located within the Yandeyarra Reserve. Applications to gain additional access to the Reserve are underway.



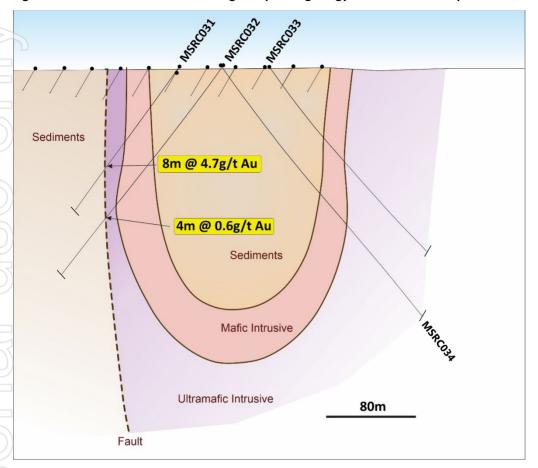


Figure 6. Cross section at Lowe showing interpreted geology with recent intercepts

#### Heckmair

After commencing the farm-in with Novo, De Grey undertook a comprehensive program of field reconnaissance and re-splitting 4m composite samples where anomalous gold or base metals had been intercepted. Interpretation of geophysics, geochemistry and geological data highlighted elevated gold and Pb-Zn-Ag values in aircore drilling within the Heckmair intrusive body, associated with a 1.5km long, WNW-trending fault zone interpreted from aeromagnetic data (Figure 7).

A follow-up RC program comprising 19 holes (2,368m) returned strong base metal values including 10m @ 0.1g/t Au, 29.7g/t Ag, 0.3% Cu, 1.5% Pb and 1.8% Zn in hole MSRC0016, and 24m @ 0.2g/t Au, 13.2g/t Ag, 0.1% Cu, 1.0% Pb and 0.1% Zn in hole MSRC0017, with individual metres grading up to 4% Zn and 4% Pb (Figure 8). The best gold intercept was 2m @ 2.8g/t Au in hole MSRC0013.

Other deposits and prospects within the Mallina Basin show that base metal anomalism can be associated with gold mineralisation. The Heckmair Fault shows evidence for broad-scale fluid flow within a fault conduit with favourable scale, and De Grey considers it to be a priority target, with follow up RC drilling planned for 2024.



Figure 7. Heckmair Prospect - aeromagnetic/gravity images with bottom of hole lead anomalism in aircore drilling

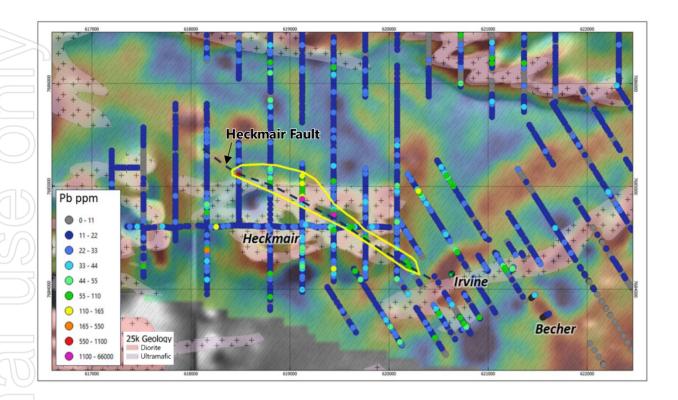
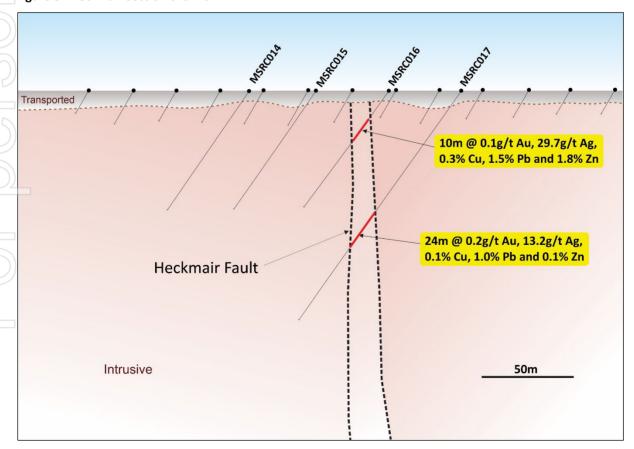


Figure 8. Heckmair Section 619120E.





#### **Upcoming exploration programs**

De Grey currently has four exploration drill rigs on site, comprising a mix of AC, RC and diamond rigs. Exploration during 2024 will target several areas, including:

- Extensions at depth down plunge and down dip at Hemi, to increase resources and support ongoing concept studies into potential future underground production from Hemi. Target areas with drilling planned include Eagle, Diucon, Aquila and Falcon.
- Exploration for shallow, open pit resources in the Greater Hemi district. This will mainly comprise RC drilling, with the rig to complete drilling in the Gorrion prospect, then move to follow up targets in the Antwerp and Scooby areas.
- AC drilling is planned initially for the Frillback area, beneath the planned waste dump (sterilisation drilling), with the rig then moving to test prospective structures in the extensive Mt Berghaus Proper area north of Hemi.
- AC and RC drilling is planned to follow up targets in the West Yule to Egina JV area. If resources are
  defined in this area they will contribute to the Western Hub inventory.
- Drilling is also planned to support studies into the Western Hub, including resource extension and infill, and geotechnical and metallurgical drilling. The Western Hub is currently the subject of a Scoping Study and envisages a separate concentrator in the Withnell area, producing concentrate from the Regional deposits which would be trucked to Hemi for further processing.

#### **Ends**

This announcement has been authorised for release by the De Grey Board.

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

## **Exploration Results**

The information in this report that relates to **Exploration Results** is based on, and fairly represents information and supporting documentation prepared by Mr. Phil Tornatora, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr. Tornatora is an employee of De Grey Mining Limited. Mr. Tornatora has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

These materials prepared by De Grey Mining Limited (or the "Company") include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or



revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Previously released ASX Material References that relates to the Hemi Gold Project (formerly the Mallina Gold Project) includes:

#### **Exploration Results for the Hemi Gold Project since 1 July 2023:**

- "Major extensions to Eagle and Diucon" 14 November 2023
- "Major strike and depth extensions to Eagle and Diucon" 8 August 2023
- "Presentation MGP provincial scale exploration opportunity" 27 July 2023

#### **Egina JV:**

"Exploration Agreement signed with Novo Resources Corp" (Significantly expands De Grey's exploration footprint to 2500km<sup>2</sup>) – 22 June 2023

#### **Mineral Resources and Ore Reserves:**

- "Hemi Gold Project Resource Update November 2023" 21 November 2023
- "Hemi Gold Project Definitive Feasibility Study" 28 September 2023
- "Mallina Gold Project Resource Statement 2023" 15 June 2023
- "Mallina Gold Project Preliminary Feasibility Study Outcomes" 8 September 2022
- "Mallina Gold Project Resource Statement 2022", 31 May 2022

Co the an pa Copies of these announcements are available at www.asx.com.au or https://degreymining.com.au/asx-releases/. DEG confirms that it is not aware of any new information or data that materially affects the information included in those announcements and, in relation to the estimates of DEG's Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.

DEG confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from those announcements.



Table 1: Significant new RC results (>2 gram x m Au) - Intercepts - 0.5g/t Au lower cut, 4m maximum internal waste

HoleID	Prospect	Depth From	Depth To	Downhole Width (m)	Au (g/t)	Collar East	Collar North	Collar RL	Dip (degrees)	Azimuth (GDA94)	Hole Depth	Hole Type
LIED D 224	A . 1	(m)	(m)	2.2	4.5	(GDA94)	(GDA94)	(GDA94)	5.0	220	(m)	200
HEDD231	Antwerp	147.0	150.3	3.3	1.5	645779	7692581	67	-56	330	258	DD
HEDD231	Antwerp	191.8	195.4	3.6	1.9	645779	7692581	67	-56	330	258	DD
HMRC018D	Antwerp	496.3	497.0	0.7	3.9	646436	7692083	67	-56	330	672	DD
HMRC575D	Antwerp	101.0	113.0	12.0	1.4	645827	7692657	66	-56	329	211	DD
HMRC575D	Antwerp	122.1	126.7	4.6	1.1	645827	7692657	66	-56	329	211	DD
HMRC577	Antwerp	61.0	64.0	3.0	1.5	645836	7692801	66	-57	333	132	RC
HMRC578	Antwerp	147.0	150.0	3.0	1.1	645874	7692731	66	-57	330	162	RC
HMRC582	Antwerp	220.0	239.0	19.0	0.6	645750	7692474	67	-56	330	312	RC
HMRC584	Antwerp	253.0	258.0	5.0	1.0	645817	7692509	67	-57	329	366	RC
HMRC584	Antwerp	316.0	328.0	12.0	0.7	645817	7692509	67	-57	329	366	RC
HMRC585	Antwerp	161.0	167.0	6.0	2.1	645522	7692388	67	-56	334	222	RC
HMRC586	Antwerp	34.0	36.0	2.0	1.5	645561	7692319	67	-55	330	282	RC
HMRC586	Antwerp	223.0	244.0	21.0	0.7	645561	7692319	67	-55	330	282	RC
HMRC586	Antwerp	250.0	252.0	2.0	1.9	645561	7692319	67	-55	330	282	RC
HMRC586	Antwerp	260.0	261.0	1.0	2.3	645561	7692319	67	-55	330	282	RC
HMRC587D	Antwerp	134.0	142.0	8.0	1.8	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	155.0	180.0	25.0	0.6	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	187.0	212.0	25.0	1.3	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	223.0	239.0	16.0	1.1	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	251.0	258.0	7.0	1.7	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	312.5	318.0	5.5	0.6	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	325.5	343.2	17.7	0.7	645600	7692248	67	-57	326	450	DD
HMRC587D	Antwerp	349.0	355.0	6.0	0.6	645600	7692248	67	-57	326	450	DD
HMRC588	Antwerp	44.0	46.0	2.0	1.6	645610	7692555	66	-56	332	126	RC
HMRC588	Antwerp	52.0	58.0	6.0	1.1	645610	7692555	66	-56	332	126	RC
HMRC589	Antwerp	88.0	94.0	6.0	0.5	645629	7692520	66	-57	329	162	RC
HMRC596	Antwerp	66.0	73.0	7.0	0.5	645252	7692215	67	-57	329	213	RC
HMRC596	Antwerp	105.0	117.0	12.0	0.5	645252	7692215	67	-57	329	213	RC
HMRC598	Antwerp	233.0	235.0	2.0	1.0	645334	7692076	67	-55	331	353	RC
HMRC598	Antwerp	285.0	296.0	11.0	0.6	645334	7692076	67	-55	331	353	RC
HMRC598	Antwerp	338.0	341.0	3.0	2.6	645334	7692076	67	-55	331	353	RC
HMRC599	Antwerp	96.0	100.0	4.0	1.1	645499	7692421	67	-57	331	149	RC
HMRC599	Antwerp	130.0	135.0	5.0	0.5	645499	7692421	67	-57	331	149	RC
HMRC616	Antwerp	61.0	63.0	2.0	1.1	645689	7692577	66	-57	331	143	RC
HMRC616	Antwerp	85.0	98.0	13.0	0.5	645689	7692577	66	-57	331	143	RC
HMRC620	Antwerp	192.0	193.0	1.0	2.0	645890	7692070	68	-55	332	300	RC
HMRC623	Antwerp	135.0	137.0	2.0	1.2	645431	7692384	67	-56	330	149	RC
HMRC625	Antwerp	50.0	52.0	2.0	5.3	645234	7692247	67	-55	329	185	RC
HMRC625	Antwerp	75.0	77.0	2.0	1.8	645234	7692247	67	-55	329	185	RC
HMRC626	Antwerp	18.0	22.0	4.0	0.7	645582	7692284	67	-58	326	353	RC
HMRC626	Antwerp	60.0	61.0	1.0	2.2	645582	7692284	67	-58	326	353	RC
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HMRC626	Antwerp	183.0	187.0	4.0	12.3	645582	7692284	67	-58	326	353	RC



HoleID	Prospect	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees)	Azimuth (GDA94)	Hole Depth (m)	Hole Type
HMRC626	Antwerp	293.0	294.0	1.0	2.4	645582	7692284	67	-58	326	353	RC
HMRC628	Antwerp	43.0	45.0	2.0	1.1	644856	7691817	68	-55	332	263	RC
HMRC628	Antwerp	67.0	70.0	3.0	0.9	644856	7691817	68	-55	332	263	RC
HMRC628	Antwerp	76.0	84.0	8.0	0.8	644856	7691817	68	-55	332	263	RC
HMRC629	Antwerp	109.0	114.0	5.0	1.2	644896	7691747	68	-56	335	275	RC
HMRC630	Antwerp	17.0	21.0	4.0	0.9	644793	7691924	68	-55	330	149	RC
HEDD234	Gorrion	33.0	35.0	2.0	1.8	649531	7694405	65	-56	330	246	DD
HEDD234	Gorrion	152.0	155.0	3.0	0.9	649531	7694405	65	-56	330	246	DD
HEDD235	Gorrion	216.0	225.0	9.0	0.8	649570	7694337	66	-55	329	294	DD
HEDD236	Gorrion	397.8	405.4	7.6	0.6	649652	7694197	66	-55	330	432	DD
HMRC651	Gorrion	76.0	79.0	3.0	0.7	649144	7694112	66	-55	330	148	RC
HMRC654	Gorrion	69.0	73.0	4.0	1.3	649005	7694031	66	-56	328	118	RC
HMRC660	Gorrion	118.0	123.0	5.0	0.6	648729	7693871	65	-56	331	148	RC
HMRC662	Gorrion	139.0	142.0	3.0	1.1	648631	7693723	66	-56	332	202	RC
HMRC665	Gorrion	86.0	97.0	11.0	0.6	649451	7694382	65	-56	334	190	RC
HMRC665	Gorrion	102.0	115.0	13.0	0.9	649451	7694382	65	-56	334	190	RC
HMRC669	Gorrion	148.0	151.0	3.0	1.4	649630	7694392	66	-57	330	184	RC
HMRC674	Gorrion	69.0	72.0	3.0	0.8	648247	7693271	66	-55	330	149	RC
HMRC674	Gorrion	83.0	87.0	4.0	0.6	648247	7693271	66	-55	330	149	RC
HMRC675	Gorrion	146.0	147.0	1.0	15.6	648287	7693199	66	-55	330	251	RC
HMRC675	Gorrion	159.0	161.0	2.0	1.6	648287	7693199	66	-55	330	251	RC
HMRC675	Gorrion	208.0	213.0	5.0	1.4	648287	7693199	66	-55	330	251	RC
HMRC678	Gorrion	67.0	70.0	3.0	0.8	649748	7694508	66	-56	334	149	RC
HMRC701	Gorrion	49.0	55.0	6.0	4.2	649285	7694191	66	-56	331	202	RC
HMRC703	Gorrion	55.0	57.0	2.0	1.9	649382	7694341	65	-55	332	124	RC
HMRC705	Gorrion	78.0	80.0	2.0	1.2	649504	7694133	66	-55	330	222	RC
HMRC706	Gorrion	42.0	46.0	4.0	1.4	648384	7693349	66	-56	333	142	RC
HMRC706	Gorrion	68.0	73.0	5.0	1.2	648384	7693349	66	-56	333	142	RC
HMRC707	Gorrion	162.0	169.0	7.0	0.8	648424	7693280	66	-56	332	256	RC
HMRC707	Gorrion	192.0	196.0	4.0	1.5	648424	7693280	66	-56	332	256	RC
HMRC707	Gorrion	203.0	214.0	11.0	1.2	648424	7693280	66	-56	332	256	RC
MSRC0013	Heckmair	26.0	29.0	3.0	0.8	619121	7684326	35	-56	181	148	RC
MSRC0013	Heckmair	108.0	110.0	2.0	2.8	619121	7684279	-31	-56	181	148	RC
MSRC0030	Irvine	109.0	110.0	1.0	6.3	620602	7685064	-35	-61	149	220	RC
MSRC0031	Lowe	97.0	105.0	8.0	4.7	629766	7686251	-18	-55	150	148	RC
MSRC0032	Lowe	144.0	148.0	4.0	0.6	629761	7686258	-52	-56	146	220	RC



### Table 2: Significant RC gold and base metal results - Intercepts - 0.5% Pb lower cut, 4m maximum internal waste

HoleID	Prospect	Depth From (m)		Downhole Width (m)	Au (g/t)	Ag g/t	Cu%	Pb%					Dip (degrees )			Hole Type
MSRC0016	Heckmair	40	50	10	0.12	29.7	0.3	1.5	1.8	619123	7684905	58	-55	178	82	RC
MSRC0017	Heckmair	105	129	24	0.15	13.2	0.1	1.0	0.1	619124	7684946	58	-55	179	160	RC

HoleID	Prospect	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Ag g/t	Cu%	Pb%		Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees )	Azimuth Hole (GDA94) Dept (m)	
MSRC0016	Heckmair	40	50	10	0.12	29.7		0.3 1.5	1.8	619123	768490	5 58	-55	178	82 RC
ISRC0017	Heckmair	105	129	24	0.15	13.2		0.1 1.0	0.1	619124	768494	5 58	-55	179	160 RC
able 3:	Significant A	i <b>t</b> 1	Its (>0 Depth From (m)	Depth To (m)	x m Au  Downho  Width (r	ole Au		Collar East (GDA94)	J/t Au lo Collar North (GDA94	Colla:	Dip	А	interna zimuth GDA94)	Hole Depth (m)	Hole Type
MWAC2	.55 West Yu	le	30.0	37.0	7	7.0	0.3	636965	768659		69	-60	141	124	AC
MWAC2			94.0	100.0		5.0	3.4	636965	768659		69	-60	141	124	AC
MWAC2		le	108.0	111.0	3	3.0	0.4	636965	768659	4	69	-60	141	124	AC
MWAC2	75 West Yu	le	20.0	32.0	12	2.0	0.5	637039	768650	0	70	-60	140	42	AC
MWAC2	75 West Yu	le	36.0	41.0	5	5.0	0.1	637039	768650	0	70	-60	140	42	AC
MWAC2	76 West Yu	le	21.0	41.0	20	0.0	1.2	637017	768653	3	70	-60	140	81	AC
MWAC2	777 West Yu	le	60.0	64.0	4	1.0	0.8	638377	768490	7	70	-60	140	101	AC
MWAC2	'89 West Yu	le	21.0	24.0	3	3.0	0.4	636994	768619	9	70	-60	140	99	AC
MWAC2	'89 West Yu	le	40.0	44.0	4	1.0	0.4	636994	768619	9	70	-60	140	99	AC
MWAC2	'94 West Yu	le	105.0	106.0	1	1.0	0.6	636802	768630	1	70	-60	140	120	AC
MWAC2	'98 West Yu	le	94.0	96.0	2	2.0	0.6	636699	768642	3	70	-60	140	99	AC
MWAC2	West Yu	le	20.0	25.0	5	5.0	0.7	636812	768578	7	70	-60	140	90	AC
MWAC2	West Yu	le	53.0	54.0	1	1.0	0.5	636812	768578	7	70	-60	140	90	AC
MWAC2	West Yu	le	63.0	64.0	1	1.0	12.3	636555	768609	4	70	-60	140	65	AC
MWAC2	West Yu	le	30.0	32.0	2	2.0	1.3	636504	768615	5	70	-60	140	84	AC
MWAC2	West Yu	le	60.0	61.0	1	1.0	0.5	636504	768615	5	70	-60	140	84	AC
MWAC2	36 West Yu	le	20.0	24.0	4	1.0	0.3	636422	768525	1	70	-60	140	81	AC
MWAC2	West Yu	le	80.0	84.0	4	1.0	0.1	636319	768537	3	70	-60	140	96	AC
MWAC2	West Yu	le	48.0	52.0	4	1.0	0.3	635908	768586	3	70	-60	140	76	AC



# Appendix 3: Hemi JORC Code, 2012 Edition - Table 1

## **Section 1: Sampling Techniques and Data**

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



Criteria	JORC Code explanation	Commentary
	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).	Aircore holes were drilled with an 83mm diameter blade bit.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recovery is measured for each drilling run by the driller and then checked by the company geological team during the mark up and logging process.</li> <li>RC and aircore samples were visually assessed for recovery.</li> <li>Samples are considered representative with generally good recovery. Deeper RC and aircore holes encountered water, with some intervals having less than optimal recovery and possible contamination.</li> <li>No sample bias was observed.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The entire holes have been geologically logged and core was photographed by company geologists, with systematic sampling undertaken based on rock type and alteration observed.</li> <li>RC and diamond sample results are appropriate for use in resource estimation.</li> <li>The aircore results provide a good indication of mineralisation but are not used in resource estimation.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>RC sampling was carried out by a cone splitter on the rig cyclone and drill cuttings were sampled on a 1m basis in bedrock and 4m composite basis in cover.</li> <li>Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Each sample was dried, split, crushed and pulverised to 85% passing 75µm.</li> <li>Sample sizes are considered appropriate for the material sampled.</li> <li>The samples are considered representative and appropriate for this type of drilling.</li> <li>Core and RC samples are appropriate for use in a Mineral Resource estimate.</li> <li>Aircore samples are generally of good quality and appropriate for delineation of geochemical trends but were not used in the Mineral Resource estimate.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The samples were submitted to a commercial independent laboratory in Perth, Australia.</li> <li>For RC samples, Au was analysed by a 30 g or 50 g charge Fire assay fusion technique with an AAS finish.</li> <li>Aircore samples were analysed for Au using 25g aqua regia extraction with ICPMS finish.</li> <li>All aircore samples and at least every fifth RC and DD sample were analysed with ALS procedure MS61 which comprises a four-acid digest and reports a 48-element analysis by ICPAES and ICPMS.</li> <li>Regional-scale aircore sampling follows a modified protocol with samples composited to 4 m intervals with 11 elements assayed with aqua regia mass spectrometry (ME-MS43), 29 additional elements with ICP-AES to a 25 g Au assay by aqua regia (ME-ICP43) and trace-level gold by 25 g aqua regia (ICP-MS).</li> <li>All aircore holes end with a 1 m bottom of hole sample using the ME-MS61 method with Au by 30 g fire assay (Au-ICP21).</li> <li>Anomalous aircore composites, greater than 0.1 ppm gold over 4 m, are re-split to 1 m samples and assayed with ME-MS61 with</li> </ul>



Criteria	JORC Code explanation	Commentary
D		gold assayed with a 30 g charge (Au-ICP21) and any assays greater than 10 ppm Au are assessed using a gravimetric assay method (Au-GRA21).
		<ul> <li>All RC drilling is sampled on a 1 m basis, using ME-MS61, 30 g Au fire assay (Au- ICP21) and high range results (&gt;10 ppm Au) assessed with the (Au-GRA21).</li> </ul>
		Ore grade Ag (>100 ppm Ag), and ore grade Cu, Pb Zn where values >10,000 ppm, are assayed by OG62 at ALS.
		The techniques are considered quantitative in nature.
		<ul> <li>A comprehensive QAQC protocol including the use of CRMs, field duplicates and umpire assays at a second commercial laboratory has confirmed the reliability of the assay method.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	Sample results have been merged into the database by the company's database consultants.
	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Results have been uploaded into the company database, checked and verified.</li> <li>No adjustments were made to the assay data.</li> <li>Results are reported on a length weighted basis.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system</li> </ul>	<ul> <li>RC drill hole collar locations are located by DGPS to an accuracy of +/-10cm.</li> <li>Aircore hole collar locations are located by DGPS or by handheld GPS to an accuracy of 3m.</li> <li>Locations are recorded in GDA94 zone 50</li> </ul>
	<ul><li>used.</li><li>Quality and adequacy of topographic control.</li></ul>	<ul> <li>projection.</li> <li>Diagrams and location tables have been provided in numerous releases to ASX.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Topographic control is by detailed aerial photography and differential GPS data.</li> <li>Down hole surveys were conducted for all RC and DD holes using a north seeking gyro tool with measurements at 10m down hole intervals.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Aircore drilling varies and can be divided into two categories. Novo's AC drilling was drilled at spacings of 320 x 25 m spacing along N-S or NW-SE oriented drill lines.</li> <li>De Grey's AC drilling at West Yule was 320 m line spacing with an initial pass of 80 holes spacing, with later infill to 40 m collar spacing.</li> <li>RC drilling was done is select areas with holes drilled along section at 40 m spacing.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The drilling is approximately perpendicular to the strike of mineralisation. The holes are generally angled at -60° which provides good intersection angles into the mineralisation which ranges from vertical to -45° dip.</li> <li>The sampling is considered representative of the mineralised zones.</li> <li>Where drilling is not orthogonal to the dip of mineralised structures, true widths are less than down hole widths.</li> </ul>
Sample security	The measures taken to ensure sample security.	Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	QAQC data has been both internally and externally reviewed.



## **Section 2: Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>Drilling occurs on various tenements held by De Grey Mining Ltd or its 100% owned subsidiaries and on ground owned by Novo Resources where De Grey is the nominated operator. For the Egina JV, De Grey has the right to earn a 50% joint venture interest in the Novo tenements by spending A\$25M over four years, with a minimum of A\$7M within 18 months. De Grey is currently partway through the minimum spend</li> <li>Antwerp and Gorrion lie on exploration licence E45/3392</li> <li>West Yule is located 80 km from Port Hedland on extends across two licences, E47/891 and E47/3552</li> <li>Heckmair, Irvine and Lowe prospects are located on Novo Resources exploration licence E47/3673, approximately 5 km south of the Withnell gold mine, and 100 km SW of Port Hedland.</li> <li>The tenements are in good standing as at the time of this report.</li> <li>There are no known impediments to operating in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>No detailed exploration is known to have occurred on the Hemi tenement prior to De Grey Mining. Prior to the Hemi discovery, De Grey completed programs of airborne aeromagnetics/radiometrics, surface geochemical sampling and wide spaced aircore and RAB drilling. Limited previous RC drilling was carried out at the Scooby Prospect approximately 2km NE of the Brolga deposit at Hemi.</li> <li>On the Egina JV, Novo have undertaken close-spaced AC drilling in some areas, down to an average depth of around 20m. Novo also completed ground gravity and aeromag.</li> </ul>



Criteria	JORC Code explanation	Commentary
		Previous exploration took place around Becher in the 1980's and 1990's.
Geology	Deposit type, geological setting and style of mineralisation.	The Mallina Basin is Mesoarchaean 3020 to 2950 Ma and is comprised of the Whim Creek greenstone belt and the 2970 to 2940 Ma De Grey Group. The basin is an east-northeast trending region measuring 200 x 90 km, located between the East Pilbara and West Pilbara granite greenstone terranes. It is bounded by the ENE-trending Scholl shear zone along the northern edge and the exposed core of the Central Pilbara craton to the south. The basin is unconformably overlain and partly obscured by the Fortescue Basin, and recent alluvial, and aeolian cover.
		The De Grey Group lies unconformably on older greenstone basement and is up to 8,000 m thick sequence comprising conglomerate, wacke, feldspathic sandstone, arkose, shale, banded iron formation, basalt, high-Mg basalt, siltstone, and chert.
		The basin is intruded by the Sisters Supersuite, including various metamorphosed granitic and ultramafic to mafic intrusive rocks. Of principal interest is the Indee Suite, which is a series of high-Mg diorite (sanukitoid) intrusions. These intrusions form a linear trend across the basin and range from massive to moderately foliated, mesocratic, hornblende-biotite granodiorite and tonalite compositions.
		The Mallina basin is one of the more mineralized parts of the Pilbara craton, with gold mineralization distributed over a length of more than 150 km².
		Three styles of gold mineralization are present in the region: lode gold deposits associated with sericite-carbonate-pyrite alteration assemblages, lode gold deposits associated with pyrophyllite-bearing alteration assemblages, and antimony-gold deposits, and the recently identified intrusion-related



Criteria	JORC Code explanation	Commentary
		gold mineralisation, exemplified by the Hemi deposit with a current MRE of 10.5 Moz Au.
		In general, the Mallina Basin, comprised of the De Grey Group and the Indee Suite intrusions, are highly prospective for large scale, intrusion-related gold deposits like Hemi, and lode gold deposits such as Withnell.
Drill hole Information	A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:	Drill hole location and directional information are provided in this release.
	<ul> <li>easting and northing of the drill hole collar</li> </ul>	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	
	• dip and azimuth of the hole	
	<ul> <li>down hole length and interception depth</li> </ul>	
	• 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 report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high</li> </ul>	<ul> <li>RC drill results are reported to a minimum cutoff grade of 0.5g/t gold with an internal dilution of 4 m maximum. Selected results over 2 gram x metres gold are reported using this method.</li> <li>Base metal RC results are reported to a minimum cutoff grade of 0.5% Pb with an internal dilution of 4 m maximum</li> </ul>



Criteria	JORC Code explanation	Commentary
	grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	<ul> <li>Initial aircore samples are collected as 4 m composites down hole with anomalous samples &gt;0.1 re-split to 1 m intervals. All AC sample intervals are reported to a minimum cutoff grade of 0.1 g/t Au, with 10 m internals waste.</li> <li>Intercepts are length weighted averaged.</li> <li>No maximum cuts have been made.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>The drill holes are interpreted to be approximately perpendicular to the strike of mineralisation.</li> <li>Where drilling is not perpendicular to the dip of mineralisation the true widths are less than down hole widths.</li> </ul>
Diagrams	Appropriate maps and sections     (with scales) and tabulations of     intercepts should be included for     any significant discovery being     reported. These should include, but     not be limited to a plan view of     drill hole collar locations and     appropriate sectional views.	Relevant diagrams are included in this release.
Balanced reporting	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</li> </ul>	<ul> <li>All drill collar locations are shown in figures and all significant results are provided in this report.</li> <li>The report is considered balanced and provided in context.</li> </ul>



Criteria	JORC Code explanation	Commentary
	practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Exploration is at an early stage, and apart from regional aeromagnetic surveys, no geophysical surveys or metallurgical or geotechnical studies have been carried out
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Exploration drilling is ongoing at the Greater Hemi, Hemi Regional and Egina Gold Projects.</li> <li>Infill drilling will be conducted prior to commencement of mining.</li> <li>Refer to diagrams in the body of this and previous ASX releases.</li> </ul>