

29 July 2020

# Maiden diamond drill program at the Pyramid Hill Gold Project confirms a large gold system at the Karri Prospect

Primary gold and favourable structural geology intersected at the Karri, Ironbark North and Ironbark South Prospects, providing new drill targets for the next phase of exploration in Victoria

# Highlights

Maiden 10-hole diamond drill program completed at the Karri, Ironbark North and Ironbark South Prospects at the **Pyramid Hill Gold Project, Victoria**.

Wide-spaced geological drilling to define underlying geological and structural setting is a key initial step in Chalice's **systematic under cover exploration approach**.

All six initial diamond drill holes at the Karri Prospect intersected tightly folded, upright stratigraphy and primary gold mineralisation.

- Several **strike extensive anticlinal structures** identified (the typical geological setting for highgrade gold deposits in the region) – the targets for the next phase of drilling;
- Anomalous **gold intersected in all holes** confirming the presence of a large-scale primary gold system at depth below the **>4km long gold trend**;
- Several **high-grade gold zones** intersected **~1-2km apart** (which is promising given that it was a geological drill program), including:
  - 4m @ 3.3g/t Au including 1m @ 12.1g/t Au (PHD007);
  - 1m @ 6.2g/t Au (PHD005);
  - 1m @ 5.4g/t Au (PHD007);
  - 1m @ 3.1g/t Au (PHD003);
  - 11.45m @ 1.0g/t Au including 2.55m @ 2.3g/t Au (PHD001 reported previously);

Results indicate that the Karri Prospect has the **potential for a tier-1 scale gold system**.

The geological drill program has achieved its objectives and the next round of targeted **diamond drilling** is planned to commence in **late Q3 2020**.

Chalice is a key player in the exciting Victorian Goldfields region with a 100%-owned, >5,000km<sup>2</sup> land position and remains fully-funded with >\$50 million in cash and investments.

Chalice Gold Mines Limited ("Chalice" or "the Company", ASX: CHN | OTCQB: CGMLF) is pleased to report results from its maiden diamond drill program at the 100%-owned **Pyramid Hill Gold Project** in the Bendigo Region of Victoria.

The maiden 10-hole diamond drill program was designed as a first-pass geological assessment of three key under cover targets generated from the Company's initial phases of shallow air-core (AC) drilling – Karri, Ironbark North and Ironbark South. All three greenfield targets were generated by Chalice and are located under ~40-80m of Murray Basin cover.

Geological logging and assay results have now been finalised for all 10 holes, confirming the presence of prospective structural settings for orogenic gold deposits and, as such, further exploration is planned. In the

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case of the Karri Prospect, the combination of tightly folded Castlemaine Group sediments, quartz veining and a large-scale gold footprint with primary high-grade gold make it a compelling opportunity.

### Diamond drill results – Karri Prospect

Wide-spaced, reconnaissance diamond holes (6 holes for ~2,000m) were designed to assess the prospective structural setting at the Karri Prospect where AC drilling has defined a strong and extensive gold trend at the weathered top of the Castlemaine Group basement over >4km of strike length.

Drilling was undertaken on ~500m spaced offset drill lines, with one hole completed per line, to provide initial geological and structural information (as opposed to direct targeting of primary gold lodes). All six drill holes intersected strongly anomalous primary gold mineralisation including several significant high-grade gold zones (**Figure 1**). All significant gold intersections are listed in **Appendix 1**.

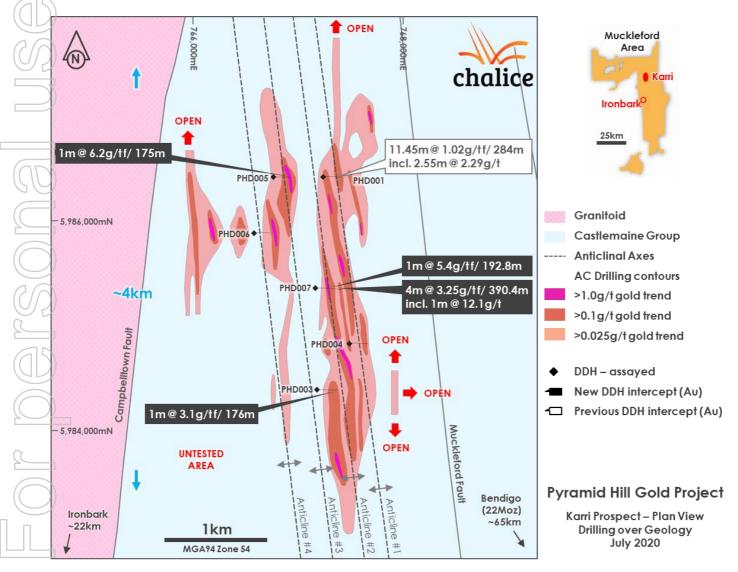


Figure 1. Karri Prospect - Plan View of diamond drill results and AC gold trends over geology



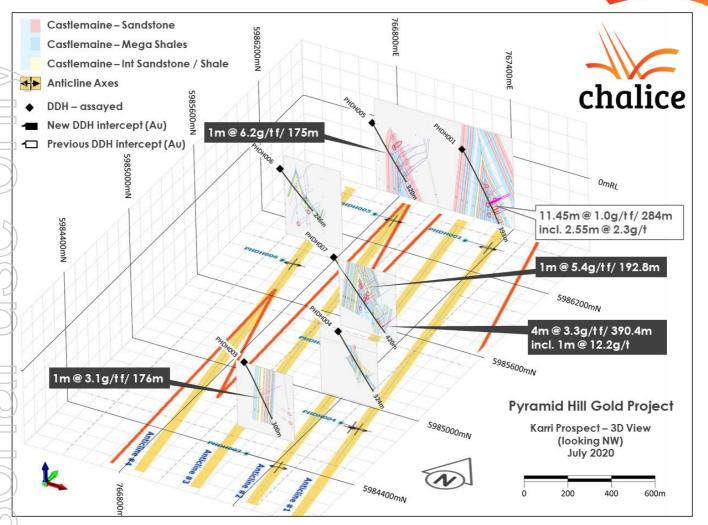


Figure 2. Karri Prospect – 3D perspective view (looking north-west) of diamond drill results, sectional interpretations over anticlinal axes

Detailed geological and structural analysis of the diamond core has identified four discrete and tightly folded anticlines developed over a 1km width which have a gentle northerly plunge. The anticlinal folds have been confirmed along a ~2km strike length however, based on the >4km long gold trend in AC drilling, these fold hinges are expected to continue beyond the limits of drilling (**Figure 2**).

Tightly folded / upright Castlemaine Group sediments with gently plunging anticlinal fold hinges are a characteristic feature of all large high-grade gold deposits in the Bendigo Zone including Bendigo (>22Moz Au), Fosterville (>9Moz Au) and Ballarat (>14Moz Au).

High-grade gold lodes in Fosterville / Bendigo style gold deposits generally occur where faults (interpreted limb thrusts) propagate and cross-cut anticlinal fold hinges. This is exemplified by the Swan Zone (~2.3Moz @ 49.6g/t Mineral Reserve at 31 Dec 2018<sup>1</sup>) at the Fosterville Gold Mine, owned by Kirkland Lake Gold (NYSE / TSX: KL | ASX: KLA) (**Figure 3**). The gold lodes are typically narrow (up to 10m wide) but can extend along many kilometres of strike length and host high gold grades.

<sup>&</sup>lt;sup>1</sup> Fosterville Gold Mine NI 43-101 Technical Report 1 April 2019, Kirkland Lake Gold



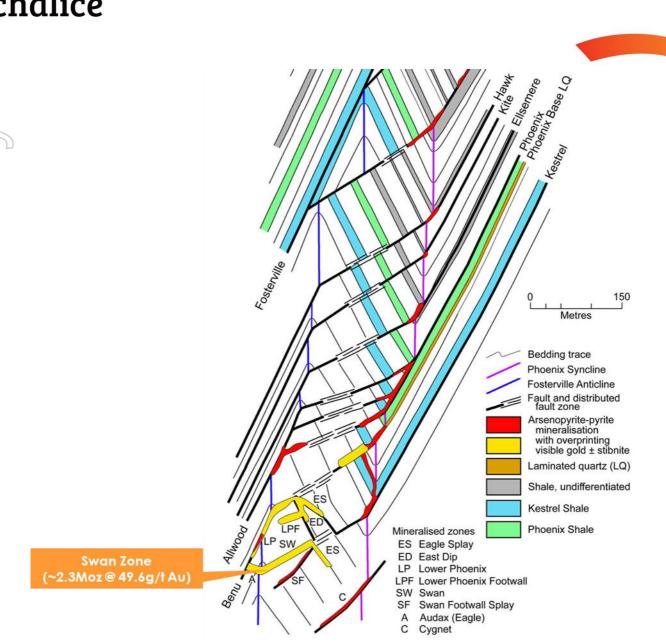


Figure 3. Composite schematic cross-section through the Fosterville Fault System (Kirkland Lake Gold)<sup>2</sup>

Several cross-cutting structures have been identified at Karri which, together with the interpreted anticlinal fold hinges, provide exciting new targets for the next phase of drilling.

A prospective structural setting is evident up-dip of diamond hole PHD007 where interpreted limb thrusts propagate through a thick coarse channel sandstone unit and cross-cut a major anticline (**Figure 4**).

A previous AC hole, PA547, located ~20m to the west of the interpreted anticlinal position, intersected 30m @ 1.12g/t Au to the end-of-hole, including 2m @ 11.54g/t Au and is considered to be proximal to a primary gold lode.

<sup>2</sup> Porter GeoConsultancy Pty Ltd, <u>http://www.portergeo.com.au/database/mineinfo.asp?mineid=mn230</u>



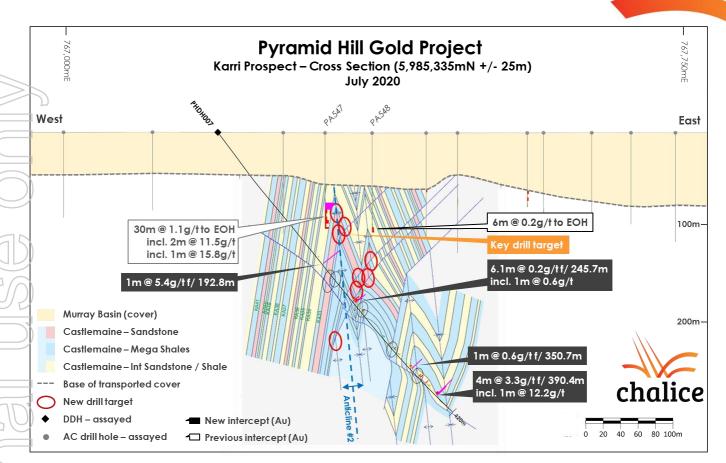


Figure 4. Karri Prospect - Cross Section of PHD007 (5,985,335mN +/- 25m)

The presence of high-grade gold mineralisation, in proximity to structures that cross-cut anticlinal fold hinges, intersected across a multi-kilometre footprint, confirms that Karri has a similar geological setting to the large scale, high grade gold deposits in the region.

# Diamond drill results – Ironbark Prospects

The maiden diamond drill program at the Ironbark North Prospect (2 holes for ~660m) was designed to provide a first-pass geological assessment of the ~750m x ~600m northern diorite intrusion and in particular its margins with Castlemaine Group Sediments.

The diorite margins returned highly anomalous gold, arsenic and antimony in previous shallow AC drilling in late 2019, including 8m @ 2.02g/t Au and 8m @ 0.45g/t Au. New anomalous gold zones were intersected in close proximity to both the western and eastern contacts, with all significant gold intersections open along strike to the north and south (**Figure 5**). All new significant gold intersections are listed in **Appendix 1**.

The drill results confirm that the contact zones between the diorite and Castlemaine Group Sediments host primary gold mineralisation and further diamond drilling is planned to test the prospective diorite-sediment contacts.

The maiden diamond drill program at the Ironbark South Prospect (2 holes for ~790m) was designed to provide a first-pass geological assessment of the ~600m x ~500m southern diorite intrusion, which was also confirmed as gold-bearing from previous shallow AC drilling.

Diamond drilling was completed internal to the intrusion to test a predominantly east-north-east orientated gold and pathfinder metal trend defined from AC drilling.



Two holes were drilled with opposing azimuths, as the dip of any potentially significant structures was unknown. The drilling confirmed the presence of primary gold within quartz veining both in the diorite and the adjacent Castlemaine Group Sediments (**Figure 6**).

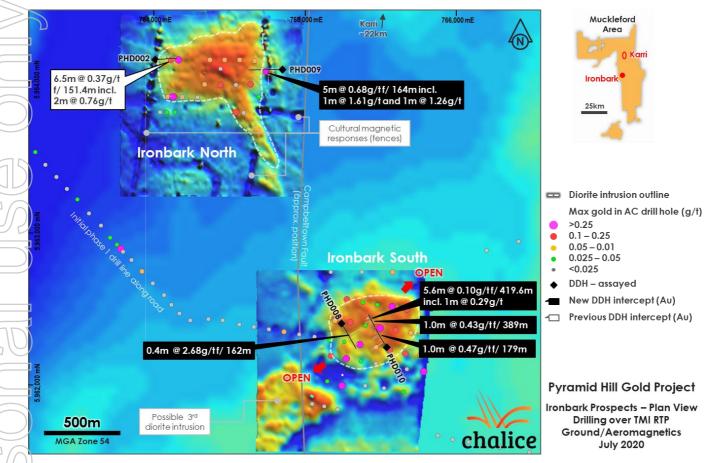


Figure 5. Ironbark Prospects - Plan View of AC/diamond drill results over TMI-RTP magnetics.



Figure 6. Laminated and brecciated quartz-arsenopyrite vein in diorite within 0.4m @ 2.68g/t Au from 162m in PHD008 – Ironbark South Prospect (drill core is ~63mm in diameter)



The historical Walhalla-Woods Point Goldfield in Eastern Victoria hosts several high-grade diorite-associated gold deposits and, as such, the presence of gold in diorite and on the diorite-sediment contacts at Ironbark is viewed as encouraging.

Diamond drill hole PHD010 also intersected 0.6m @ 6.28g/t Au from 81.3m in transported cover, indicating a potential proximal primary gold source that requires further drilling.

# Forward plan

Chalice is continuing its systematic approach to gold exploration under cover in central Victoria, targeting Fosterville / Bendigo style gold discoveries. Exploration continues at Pyramid Hill in parallel with ongoing exploration programs at the Julimar Nickel-Copper-PGE Project and generative projects in Western Australia.

The promising maiden diamond drill results at Karri, Ironbark North and Ironbark South Prospects demonstrate the presence of primary gold systems at relatively shallow depth, paving the way for the next stage of exploration which will be targeted towards the discovery of primary gold lodes.

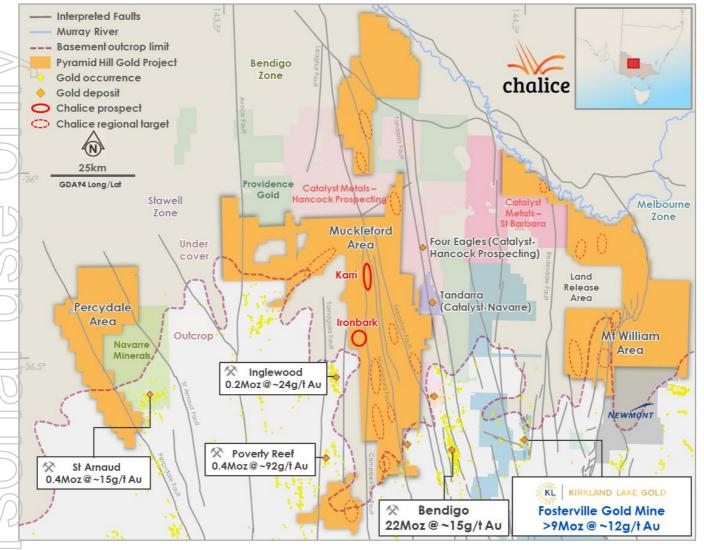
The Company also plans to continue its reconnaissance exploration activities across multiple target areas to systematically explore the southern part of the Muckleford and Mt William Areas. These areas will be tested with a combination of soil geochemical sampling and/or wide-spaced reconnaissance AC drilling (**Figure 7**).

The objective of the next phase of regional exploration (outside of Karri and Ironbark) is both to refine existing targets and to identify any potential new large-scale gold targets.

Ongoing and planned activities at Pyramid Hill include:

- **Geological modelling** an initial structural and stratigraphic model for the Karri Prospect is currently being finalised utilising the results of diamond drill core logging and the Company's recent 2D seismic survey.
- **Diamond drilling** Phase 2 diamond drill program at the Karri Prospect to commence in late Q3 2020.
- Follow-up AC drilling Phase 3 reconnaissance drill program is planned at the Ironbark Prospects to extend coverage between the diorite intrusions and to the south-west of the Ironbark South diorite, where anomalous primary gold remains open along strike. AC drilling is planned to commence in late Q3 2020.
- **Regional AC drilling** a regional reconnaissance AC drill program is planned at new targets within the Muckleford and Mt William Areas, on 3-5km spaced drill lines. This program will commence once AC drilling at Ironbark is completed.





**Figure 7.** Pyramid Hill Gold Project tenure, regional licence holders and gold occurrences / deposits uthorised for release on behalf of the Company by:

Alex Dorsch Managing Director

For further information, please visit <u>www.chalicegold.com</u> to view our latest corporate presentation, or contact:

#### Corporate Enquiries

Alex Dorsch Managing Director Chalice Gold Mines Limited

#### Media Enquiries

Nicholas Read Principal and Managing Director Read Corporate Investor Relations



+61 8 9322 3960 info@chalicegold.com

+61 8 9388 1474 info@readcorporate.com.au

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# About the Pyramid Hill Gold Project, Victoria, Australia

The 100%-owned Pyramid Hill Gold Project was staked in late 2017 and now covers an area of >5,000km<sup>2</sup> in the Bendigo region of Victoria. The Project comprises three key districts within the Murray Basin covered North Bendigo Zone: Muckleford, Mt William and Percydale.

The central Muckleford Area extends to the north-west of the high-grade historic >22Moz Bendigo Goldfield. The Mt William Area extends to the north-east of one of the world's highest-grade producing gold mines, the >9Moz Fosterville Gold Mine owned by Kirkland Lake Gold (NYSE / TSX: KL | ASX: KLA).

The 'Gold Undercover' initiative by the Victorian Government in 2006-2009 estimated a potential ~32Moz (P50 mid-case) of undiscovered gold beneath Murray Basin cover in the Bendigo Zone. However, the vast majority of the covered area remains sparsely explored. Given there is highly variable, shallow cover over a large portion of the Project, the Company believes that there is excellent potential for the discovery of new commercially viable gold deposits.

Chalice is targeting tier-1 scale (>US\$1bn NPV), high-grade gold discoveries and is currently conducting a systematic, regional-scale greenfield exploration program. The Company is utilising all available targeting tools at its disposal, including the substantial pre-existing regional geophysics database (including crustal scale 2D seismic), regional-scale soil sampling and ground geophysics.

Low-cost reconnaissance air-core (AC) drilling to the top of the target basement on wide-spaced lines has been used effectively to narrow the target search space over the very large Project area. Over 700 AC holes have been completed by Chalice to date, identifying the Karri and Ironbark Prospects as well as several other secondary targets.

The Company's first phase of geological diamond drilling (10 holes for ~3,500m) was completed in H1 2020, which confirmed prospective geology and fertile gold systems at each of the Karri, Ironbark North and Ironbark South Prospects.

# Competent Persons and Qualifying Persons Statement

The information in this announcement that relates to Exploration Results in relation to the Pyramid Hill Gold Project is based on information compiled by Dr. Kevin Frost BSc (Hons), PhD, a Competent Person, who is a Member of the Australian Institute of Geoscientists. Dr. Frost is a full-time employee of the company and has sufficient experience that is relevant 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, Minerals Resources and Ore Reserves, and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Dr. Frost consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements

This report may contain forward-looking information within the meaning of Canadian securities legislation and forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, forward-looking statements). These forward-looking statements are made as of the date of this report and Chalice



Gold Mines Limited (the Company) does not intend, and does not assume any obligation, to update these forward-looking statements.

Forward-looking statements relate to future events or future performance and reflect Company management's expectations or beliefs regarding future events and include, but are not limited to, the Company's strategy, the price of O3 Mining securities, the estimation of mineral reserve and mineral resources, the realisation of mineral resource estimates, the likelihood of exploration success at the Company's projects, the prospectivity of the Company's exploration projects, the timing of future exploration activities on the Company's exploration projects, planned expenditures and budgets and the execution thereof, the timing and availability of drill results, potential sites for additional drilling, the timing and amount of estimated future production, costs of production, capital expenditures, success of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims and limitations on insurance coverage.

In certain cases, forward-looking statements can be identified by the use of words such as "can", "plans", "planning" "promising", "prospective", "expects" or "does not expect", "is expected", "will", "may", "would", "potential", "estimates", "anticipates" or "does not anticipate", "believes", "occur", "suggests" or "be achieved" or variations of such words and phrases or statements that certain actions, events or results may, could, would, might or will be taken, occur or be achieved or the negative of these terms or comparable terminology. By their very nature forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

Such factors may include, among others, risks related to actual results of current or planned exploration activities; changes in project parameters as plans continue to be refined; changes in exploration programs based upon the results of exploration; future prices of mineral resources; possible variations in mineral resources or ore reserves, grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; movements in the share price of O3 Mining securities and future proceeds and timing of potential sale of O3 Mining securities, as well as those factors detailed from time to time in the Company's interim and annual financial statements, all of which are filed and available for review on SEDAR at sedar.com, ASX at asx.com.au and OTC Markets at otcmarkets.com.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.



Prospect	Hole ID	From (m)	To (m)	Interval (m	n) Gol	d (g/t)
Karri	PHD003	136	137	1	0.13	
Karri	PHD003	176	177	1	3.08	
Karri	PHD003	230	231	1	0.21	
Karri	PHD004	315.2	316.2	1	0.22	
Karri	PHD005	175	176	1	6.21	
Karri	PHD005	317.05	318.05	1	0.17	
Karri	PHD006	152.6	153.6	1	0.17	
Karri	PHD007	192.8	193.8	1	5.40	
Karri	PHD007	245.7	251.8	6.1	0.22	
Karri	PHD007	320.1	321.1	1	0.11	
Karri	PHD007	347.5	351.7	4.2	0.23	
Karri	PHD007	362.9	365.85	2.95	0.10	
Karri	PHD007	390.4	394.4	4	3.25	
Karri	incl.			1	12.1	
Ironbark		292	296	4	0.12	
Ironbark		164	169	5	0.68	
Ironbark		127	128	1	0.14	
Ironbark		179	180	1	0.47	
Ironbark		234	238	4	0.14	
Ironbark		241	242	1	0.11	
Ironbark		350	351	1	0.18	
Ironbark		373	374	1	0.15	
Ironbark		375	376	1	0.16	
Ironbark		385	390	5	0.12	
Ironbark	South PHD010	419.9	425.5	5.6	0.10	
Hole ID PHD003	x 2: Diamond and AC Northing (m) 5984397	Easting (m)	<b>RL (m)</b>	Azimuth UTM (		Depti 300.3
	370437/	/0/240	1104			
PHD004		767245		090	-60	
PHD004 PHD005	5984820 5986410	767500	104 103 102	090 090	-60	324.1
PHD005	5984820 5986410	767500 766775	103 102	090	-60	324.1 319.5
	5984820	767500	103			324.1 319.5 246.1
PHD005 PHD006	5984820 5986410 5985880 5985350	767500 766775 766590 767175	103 102 102	090 090	-60 -50	324.1 319.5 246.1 420.1
PHD005 PHD006 PHD007	5984820 5986410 5985880	767500 766775 766590 767175 765250	103 102 102 103	090 090 090	-60 -50 -55	324.1 319.5 246.1 420.1 331.6
PHD005 PHD006 PHD007 PHD008	5984820 5986410 5985880 5985350 5962420	767500 766775 766590 767175	103 102 102 103 119	090 090 090 150	-60 -50 -55 -55	324.1 319.5 246.1 420.1 331.6 365.5
PHD005 PHD006 PHD007 PHD008 PHD009	5984820 5986410 5985880 5985350 5962420 5964075	767500 766775 766590 767175 765250 764865	103 102 102 103 119 120	090 090 090 150 270	-60 -50 -55 -55 -60	324.1 319.5 246.1 420.1 331.6 365.5
PHD005           PHD006           PHD007           PHD008           PHD009           PHD010	5984820         5986410         5985880         5985350         5962420         5964075         5962265	767500 766775 766590 767175 765250 764865 765545	103           102           102           103           103           119           120           120           104	090 090 090 150 270 330	-60 -50 -55 -55 -60 -60	324.1 319.5 246.1 420.1 331.6 365.5 459.6
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660	767500 766775 766590 767175 765250 764865 765545 767502	103 102 102 103 119 120 120	090 090 150 270 330 360	-60 -50 -55 -55 -60 -60 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712 PA713	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660         5986166	767500 766775 766590 767175 765250 764865 765545 767502 767214	103           102           102           103           103           119           120           104	090           090           090           150           270           330           360	-60 -50 -55 -55 -60 -60 -90 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120 114
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712 PA713 PA714	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660         5986166         5986165	767500 766775 766590 767175 765250 764865 765545 767502 767214 767265	103           102           102           103           103           119           120           104           103           103	090           090           090           150           270           330           360           360	-60 -50 -55 -55 -60 -60 -90 -90 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120 114 130
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712 PA713 PA714 PA715	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660         5986166         5986165         5986696	767500 766775 766590 767175 765250 764865 765545 767502 767214 767265 767260	103           102           102           103           103           119           120           120           104           103           103	090           090           090           150           270           330           360           360           360           360	-60 -50 -55 -55 -60 -60 -90 -90 -90 -90 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120 1114 130 135
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712 PA713 PA714 PA715 PA716	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660         5986166         5986165         5986696         5986696	767500 766775 766590 767175 765250 764865 765545 767502 767214 767265 767260 767311	103           102           102           103           103           119           120           120           104           103           103           103           104           103           102	090           090           090           150           270           330           360           360           360           360           360           360	-60 -50 -55 -55 -60 -60 -90 -90 -90 -90 -90 -90 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120 114 130 135 77
PHD005 PHD006 PHD007 PHD008 PHD009 PHD010 PA712 PA713 PA714 PA715 PA716 PA717	5984820         5986410         5985880         5985350         5962420         5964075         5962265         5983660         5986166         5986165         5986696         5986697	767500 766775 766590 767175 765250 764865 765545 767502 767214 767265 767265 767260 767311 767315	103           102           102           103           103           119           120           120           104           103           103           103           104           103           102           102           102	090           090           090           150           270           330           360           360           360           360           360           360           360           360	-60 -50 -55 -55 -60 -60 -90 -90 -90 -90 -90 -90 -90 -90 -90	324.1 319.5 246.1 420.1 331.6 365.5 459.6 120 114 130 135 77 96
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/Hole ID	Northing (m)	Easting (m)	RL (m)	Azimuth UTM (°)	Dip (°)	Depth (m)
PHD003	5984397	767245	104	090	-60	300.30
PHD004	5984820	767500	103	090	-60	324.17
PHD005	5986410	766775	102	090	-60	319.55
PHD006	5985880	766590	102	090	-50	246.10
PHD007	5985350	767175	103	090	-55	420.15
PHD008	5962420	765250	119	150	-55	331.60
PHD009	5964075	764865	120	270	-60	365.55
PHD010	5962265	765545	120	330	-60	459.60
PA712	5983660	767502	104	360	-90	120
PA713	5986166	767214	103	360	-90	114
PA714	5986165	767265	103	360	-90	130
PA715	5986696	767260	102	360	-90	135
PA716	5986696	767311	102	360	-90	77
PA717	5986697	767315	102	360	-90	96
PA718	5986696	767610	102	360	-90	108
PA719	5986694	767658	102	360	-90	131
PA720	5986694	767709	102	360	-90	120
PA721	5986696	767760	102	360	-90	126
PA722	5986980	767721	101	360	-90	119
PA723	5987246	767606	101	360	-90	114
PA724	5987248	767651	101	360	-90	107

PA725	5987248	767702	101	360	-90	117
PA726	5987246	767749	101	360	-90	130
PA727	5984803	766048	103	360	-90	83
PA728	5984801	766101	103	360	-90	65
FA729	5984801	766146	103	360	-90	90
PA730	5984800	766198	103	360	-90	79
PA731	5984801	766249	103	360	-90	71
PA732	5989033	766199	100	360	-90	113
PA733	5989037	766303	100	360	-90	108
PA734	5989035	766401	100	360	-90	100
PA735	5988749	766500	101	360	-90	102
PA736	5988747	766700	101	360	-90	104
PA737	5988750	766900	101	360	-90	118
PA738	5983660	767502	104	360	-90	120

# Appendix 3: JORC Table 1 – Pyramid Hill Gold Project

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg. '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 (eg. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Aircore (AC) drilling samples were collected via 2-4m composite samples from 1m bulk samples using a PVC spear with each combined composite sample weighing approximately 3kg. 1m samples were taken where applicable at EOH. Additional 1m re-splits were collected from 1m bulk samples using a PVC spear. Diamond drill core samples were taken over selected intervals ranging from 0.2m – 1.3m, cut and sampled via half core.</li> <li>All composites were pulverised to nominal 85% passing 75 microns before being analysed.</li> <li>Qualitative care was taken to ensure representative sample weights were consistent when sampling on a metre by metre basis. Care was taken when sampling the diamond core to sample the same half side of the core as standard practice.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg. 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).</li> </ul>	<ul> <li>Drilling was undertaken by either Air-core or diamond techniques. Air-core (AC) drilling used predominately blade and/or face sampling hammer with a diameter of 102-104mm. Diamond drill core is HQ size (63.5mm diameter) or NQ2 size (50.6mm diameter).</li> </ul>
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</li> </ul>	Individual recoveries of both composite and core samples were recorded on a qualitative basis. Generally sample



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	<ul> <li>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>weights are comparable and any bias is considered negligible.</li> <li>No relationships have been noticed between sample grade and recoveries.</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>All drill holes were logged geologically including but not limited to; weathering, regolith, lithology, structure, texture, alteration and mineralisation. Logging was at an appropriate quantitative standard to support future geological, engineering and metallurgical studies.</li> <li>Logging is considered quantitative in nature.</li> <li>All holes were geologically logged in full.</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> <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>For AC drilling, 1 metre samples were collected in bulk form from the rig cyclone. 2-4m composite samples and 1m re-splits of the 1m bulk samples were collected using a spear method. The majority of the samples were dry in nature. For diamond drilling, the core was cut in half and selectively sampled at 0.2-1.3m intervals.</li> <li>For AC drilling, field duplicate samples were collected every 20<sup>th</sup> sample to check for assay repeatability. Results of duplicate samples were considered acceptable and within precision and accuracy limits for the style of mineralisation. Duplicate samples were not taken for the diamond samples.</li> <li>Sample sizes are considered appropriate for the style mineralisation sought and the initial reconnaissance nature of the drilling programme.</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 (eg. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.</li> </ul>	<ul> <li>All assay samples were sent to ALS Adelaide for sample preparation then on- sent to ALS Perth for geochemical analysis.</li> <li>For all composite aircore samples, 40 elements (including gold) were analysed using up to a 25g aqua regia method with an ICPAES and ICPMS finish depending on the elements (ALS method code – TL43- MEPKG). Aqua Regia techniques are not considered total in nature. Should refractory mineralisation be encountered (not expected) this can affect the nature of final results. Any 1m re-splits are analysed using 50g fire assay with ICP-AES finish. Diamond samples were assayed for both 50g fire assay (Au) and a 48 element 4 acid suite (ALS method Codes – Au- ICP22 and ME-MS61). These techniques are considered total in nature.</li> <li>Chalice has its own internal QAQC</li> </ul>



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Verification of sampling and	<ul> <li>The verification of significant intersections by either independent or alternative company</li> </ul>	<ul> <li>procedure involving the use of certified reference materials. For AC drilling, Standards – 4 per 100 samples, blanks – 1 per 100 samples and duplicates 4 per 100 samples which accounts for ~9% of the total submitted samples. For analysis of diamond drill core, standards and blanks are inserted by the field Geologist at random intervals which accounts for between 6-9% of total submitted samples.</li> <li>Significant intersections are checked by the Project Senior Geologist and then by</li> </ul>
assaying	<ul> <li>ennerindependent of difermative company personnel.</li> <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>the Project senior Geologist and memby the General Manager of Exploration. Significant intersections are cross-checked with the logged geology and drill core/AC chips after final assays are received.</li> <li>No twin holes have been drilled for comparative purposes. The Target is still considered to be in an early exploration stage.</li> <li>Primary drill data was collected digitally and entered via a field Toughbook computer using in-house logging codes. The data is sent to Perth where the data is validated and entered into the master database.</li> <li>No adjustments have been made to the assay data received.</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 used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Hole collar locations have been picked up by Chalice employees using a handheld GPS with a +/- 5m error.</li> <li>The grid system used for the location of all drill holes is MGA94 (Zone 54). A grid zone boundary transects the larger project area.</li> <li>RL's have been assigned from 1 sec (30m) satellite data.</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>Nominal drill hole spacing is mostly 50- 500m between AC holes. Spacing between diamond holes in &gt;0.5km</li> <li>The current hole spacing is not considered sufficient to assume any geological or grade continuity.</li> <li>No sample compositing has been applied.</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>Sampling has been routinely completed beneath transported cover with no selective bias to any particular primary geological domain.</li> <li>Intersected anomalism to date in AC drilling is generally flat in nature however exact controls on gold anomalism remain unknown. Structural measurements taken in the diamond drilling suggests a tightly</li> </ul>



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	$\mathcal{D}$		folded succession of Castlemaine Group sediments. As such its relationship to optimal drill direction (perpendicular to anomalism) remains unclear.
	Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Chain of custody is managed by Chalice.</li> <li>Samples are stored on site before being transported by third parties to the laboratories in Adelaide and Perth.</li> </ul>
3	Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	• No review has been carried out to date.

#### Section 2 Reporting of Exploration Results

		of exploration results	
10	Criteria	JORC Code explanation	Commentary
	Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>AC and diamond drilling was carried out within EL6737. All licences are wholly owned by CGM (WA) Pty Ltd, a wholly owned subsidiary of Chalice Gold Mines Limited with no known encumbrances.</li> </ul>
	Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>There has been little effective exploration completed by other parties in the immediate vicinity of the targets identified by Chalice to date.</li> <li>Chalice has compiled historical records dating back to the early 1980's which indicate only sporadic reconnaissance drilling has been completed by various parties over the project area. All known effective drill holes that reached the basement and were assayed for gold have been compiled.</li> <li>Homestake Mining completed initial surface sampling which has been evaluated and used by Chalice for some targeting purposes.</li> </ul>
	Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The mineralisation being explored for is orogenic style similar to that seen within the Bendigo and Fosterville gold deposits of the Bendigo Zone. Gold mineralisation in these deposits is typically hosted by quartz veins within Ordovician age Castlemaine Group sediments.</li> </ul>
	Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul> </li> </ul>	Refer Appendices 1 - 2.



	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>No material information has been excluded</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly</li> </ul>	<ul> <li>A length-weighted averaging technique has been applied where necessary to produce all displayed and tabulated drill intersections. In Appendix 1 and in the figures, results are calculated using a minimum 0.025g/t Au lower cut-off grade and a maximum of 4m internal dilution. Only composite intercepts above &gt;0.1g/t Au and &gt;1m width have been tabulated.</li> <li>Metal equivalent values are not reported</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>stated.</li> <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 (eg. 'down hole length, true width not known').</li> </ul>	<ul> <li>All widths are quoted down-hole.</li> <li>True widths of the diamond drill core intercepts are unknown due to the tightly folded sequence of geological units and the limited amount of deep drilling completed on section (i.e. 1 hole per section).</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Refer to figures in the body of text.
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.	All significant intercepts above 0.1g/t Au have been reported.
Other substantive exploration data	<ul> <li>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</li> </ul>	• Not Applicable.



	substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg. 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>Further reconnaissance diamond drilling is planned to further test the 4km AC gold trend and elevated primary gold mineralisation intersected to date at the Karri Prospect.</li> <li>Coincident anticlinal fold axes and anomalous AC gold trends as defined on the Karri plan figures highlight targets for further drill testing.</li> <li>Further reconnaissance AC drilling at the Ironbark Prospects and several other target areas is also planned.</li> </ul>