CRAKE GOLD PROJECT CONTINUES TO GROW

HIGHLIGHTS

- Highly successful infill and extensional drilling completed at the Crake gold project, part of the Binduli project area 9km west of Kalgoorlie-Boulder in the Western Australian goldfields
- A total of 43 RC holes for 3,534m of resource drilling was completed at Crake in 2019
- Significant results received included [1]:
  - 3m @ 7.41g/t Au from 81m and 10m @ 1.78g/t Au from 102m (BRC19021)
  - 5m @ 4.91g/t Au from 36m and 9m @ 1.58g/t Au from 65m (BRC19025)
  - 3m @ 3.18g/t Au from 14m and 4m @ 2.47g/t Au from 55m (BRC19031)
  - 3m @ 1.28g/t Au from 10m, 1m @ 2.91g/t Au from 17m, 1m @ 2.13g/t Au from 25m, 1m @ 5.19g/t Au from 32m and 14m @ 1.75g/t Au from 44m (BRC19012)
  - 12m @ 1.65g/t Au from 32m (BRC19010)
  - 10m @ 1.46g/t Au from 77m (BRC19029)
  - 1m @ 3.00g/t Au from 57m and 7m @ 2.78g/t Au from 97m (BRC19027)
- Results demonstrated both width and grade continuity across a 450m strike length with the mineralisation open along strike to the north and east and to the west at depth
- Updated independent Mineral Resource estimate now compiled and stands at:
  - **1.27Mt grading 1.81g/t Au for 74,000oz at a 1g/t Au lower grade cut-off [2]**
- Over 67% now in the Measured and Indicated Resource category [2]
- Internal mine optimisation results delivered positive results with further extensional and infill RC and diamond drilling planned for the March Quarter 2020 [3]
- Initial metallurgical test work results indicated gold recoveries of 98.6% and 96.5% for the oxide and fresh composites respectively with high (>50%) gravity recoveries [2]

Commenting on the resource upgrade, Horizon Managing Director Mr Jon Price said:

“Crake and the Binduli area in general is certainly shaping up to be a significant contributor to our future production profile providing high grade satellite feed to complement the base load Boorara project 25km to the east. We look forward to growing this project area further in 2020 and testing the high priority Coote, Darter and Honeyeater prospects in close proximity. ”

[1] As announced to the ASX on 20 August 2019 [2] See Tables 1-3 and Competent Persons Statement on page 4 and JORC Tables on Page 13.
[3] See Forward Looking and Cautionary Statements on Page 12

163 Stirling Hwy
Nedlands WA 6009

PO Box 1104
Nedlands WA 6909

T: +61 8 9386 9534
F: +61 8 8389 1597
E: info@horizonminerals.com.au

horizonminerals.com.au
ACN 007 761 186
ABN 88 007 761 186

Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to announce an updated Mineral Resource estimate for the Crake project located within the 100% owned Binduli gold project, located 9km west of Kalgoorlie-Boulder in the heart of the Western Australian goldfields (Figure 1).

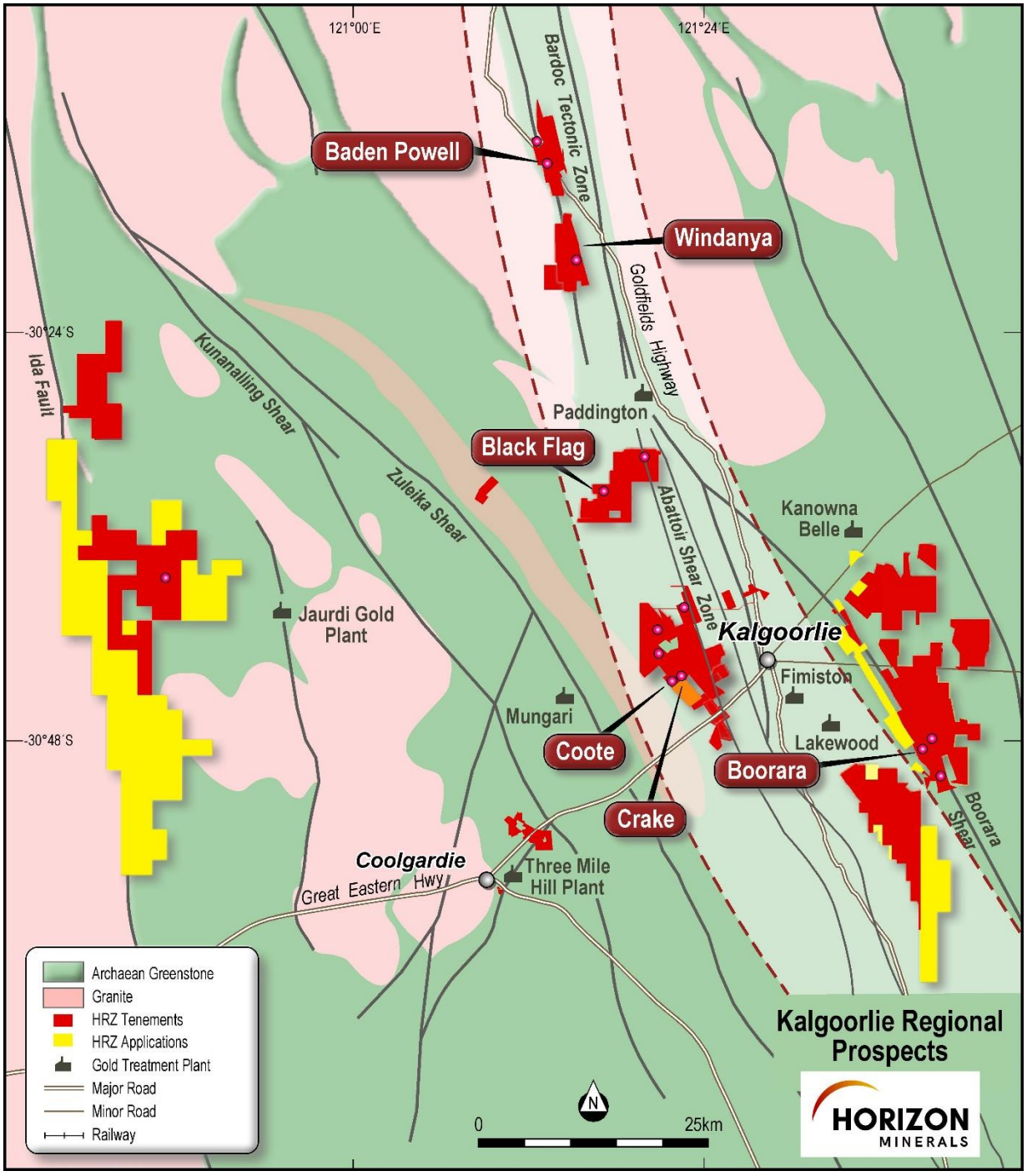

Figure 1: Kalgoorlie Regional Project area location and surrounding infrastructure

Project Geology

The geology at Crake is similar to the 390,000oz Janet Ivy open pit, located approximately 1,500m to the south, where the gold is hosted in a structurally controlled feldspar porphyry. At the nearby Fort William and Fort Scott open pits, where over 100,000oz have been produced to date, gold is hosted within sheared units of volcanics and clastic sediments.

At Crake, the gold mineralisation strikes NW and dips shallowly to the SW. A poorly developed southern plunge is tentatively interpreted. The gold lodes are often tabular shaped and 20m thick but can blow out to >60m width. High grade shoots appear to result from intersecting structures. The Crake drilling focussed on a mineralised, variably altered pink porphyry with minor amounts of pyrite and magnetite. Higher grades usually coincide with stronger pyrite mineralisation (up to 3% by volume). There is little correlation between gold and magnetite. Higher grades usually coincide with stronger pyrite mineralisation (up to 3% by volume).

Resource Update

As announced to the ASX on 12 March 2019, a total of 85 RC holes for 8,096m were drilled at Crake in 2018. The RC drilling was completed on an approximate 20m pattern, spanned 450m and covered mineralisation from 10m to 170m vertical depth.

Significant downhole RC intercepts reported in 2018 included[1]:

- 23m @ 4.16 g/t Au from 61m including 3m @ 20.73g/t Au from 66m (BRC18020)
- 13m @ 4.10g/t Au from 65m including 2m @ 18.53g/t Au from 75m (BRC18036)
- 18m @ 3.13 g/t Au from 70m (BRC18043)
- 15m @ 2.75 g/t Au from 27m (BRC18069)
- 9m @ 4.38 g/t Au from 39m (BRC18079)
- 15m @ 1.96 g/t Au from 75m (BRC18029)
- 12m @ 1.75 g/t Au from 45m (BRC18057)
- 8m @ 2.51 g/t Au from 106m (BRC18018)

The 2018 drilling was compiled to generate a maiden independent Mineral Resource estimate compliant with the 2012 JORC Code of 1.12Mt grading 1.59g/t Au for 57,700oz at a 1g/t Au lower grade cut-off [1].

The 2019 follow up drilling program was designed to extend the mineralised envelope along strike and at depth and to infill to improve geological confidence within the block model.

The results (Figure 2) had good alignment with the current mineralisation model with several eastern holes intersecting shallower, up dip, mineralisation largely outside the resource area. On the western side, several deeper holes returned encouraging levels of well-developed and consistent mineralisation that highlight the deeper resource potential.

[1] As announced to the ASX on 12 March 2019.

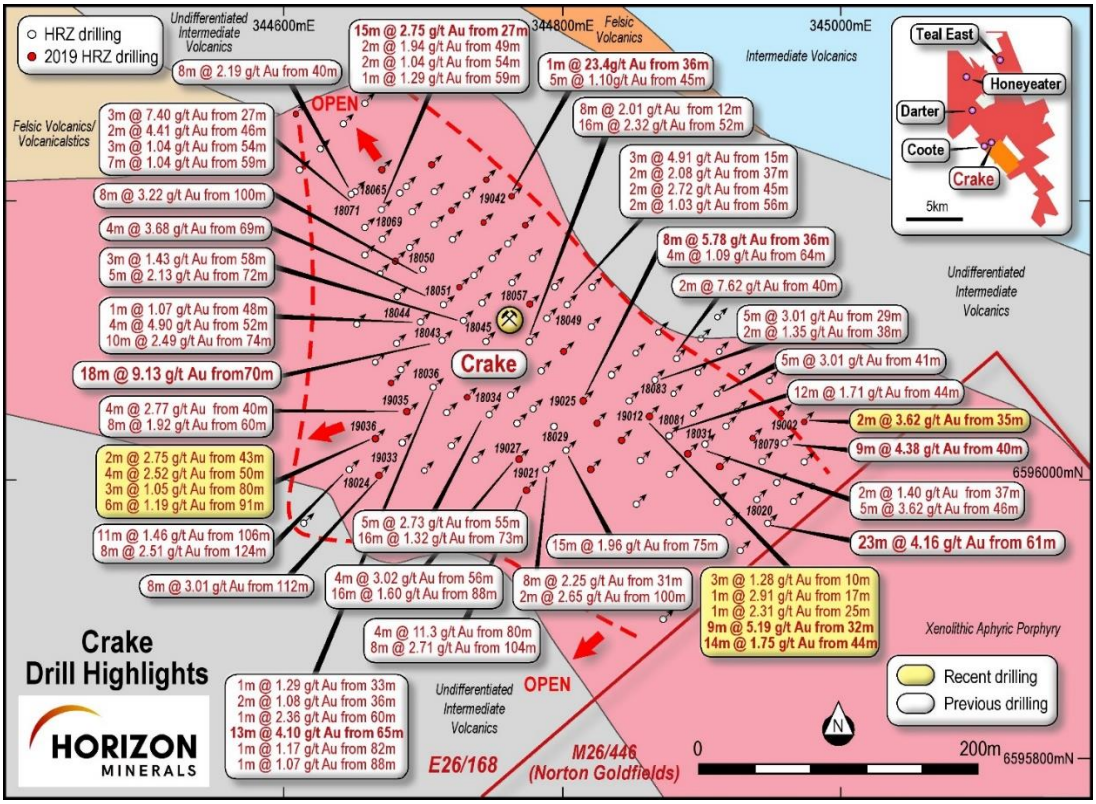

Figure 2: Crake project drilling results to date

The new data has been used to compile an updated independent Mineral Resource Estimate compliant with the JORC 2012 Code. The Mineral Resource for Crake stands at:

- **1.27Mt @ 1.81 g/t Au for 74,000 ounces at a 1.0 g/t Au lower grade cut-off ***

Further breakdowns of ore types and categories are shown in Table 1 – 3.

Table 1: Crake Project – Resource Summary Comparison at different cut-off grades *

	Total Ordinary Kriged Uncut			Total ID2 Cut		
cutoff	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces
0	5,906,413	0.75	142,517	5,906,413	0.74	140,003
0.1	5,754,921	0.77	142,191	5,804,530	0.75	139,774
0.2	5,263,669	0.83	139,711	5,409,100	0.79	137,765
0.3	4,580,188	0.91	134,240	4,716,122	0.87	132,217
0.4	3,868,176	1.02	126,251	3,896,562	0.98	122,916
0.5	3,115,421	1.15	115,360	3,223,626	1.09	113,180
0.6	2,516,754	1.30	104,831	2,601,391	1.22	102,237
0.7	2,097,213	1.42	96,077	2,196,175	1.33	93,847
0.8	1,763,975	1.55	88,063	1,877,803	1.43	86,180
0.9	1,484,349	1.69	80,449	1,538,924	1.55	76,909
1	1,267,194	1.81	73,830	1,216,276	1.71	67,043
1.5	497,632	2.72	43,571	473,550	2.51	38,245
2	248,961	3.76	30,083	196,012	3.72	23,433
2.5	161,035	4.60	23,824	133,660	4.42	18,983
3	116,766	5.32	19,964	101,342	4.96	16,154

Table 2: Crake Project – Comparison of Measured Indicated and Inferred Resources *

	Measured			Indicated			Inferred		
cutoff	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces
0	2164553	0.77	53,309	2,345,144	0.68	50,901	1,396,715	0.85	38,334
0.1	2096224	0.79	53,161	2,308,021	0.68	50,812	1,350,674	0.88	38,246
0.2	1914660	0.85	52,251	2,148,082	0.72	50,009	1,200,926	0.97	37,476
0.3	1646532	0.95	50,104	1,891,460	0.79	47,930	1,042,194	1.08	36,221
0.4	1419027	1.04	47,551	1,561,277	0.88	44,225	887,869	1.21	34,484
0.5	1199828	1.15	44,380	1,231,123	1.00	39,459	684,467	1.43	31,528
0.6	1002942	1.27	40,911	966,598	1.12	34,807	547,211	1.66	29,128
0.7	831060	1.40	37,325	789,593	1.23	31,120	476,557	1.81	27,656
0.8	678278	1.54	33,651	659,839	1.32	28,016	425,856	1.93	26,418
0.9	559563	1.69	30,414	553,271	1.41	25,114	371,513	2.09	24,937
1	462512	1.85	27,459	470,757	1.49	22,596	333,923	2.22	23,792
1.5	200246	2.69	17,298	138,229	2.09	9,297	159,154	3.32	16,977
2	110,898	3.48	12,401	44,514	3.02	4,322	93547	4	13359.05
2.5	67699	4.28	9,310	22,402	3.83	2,760	70,932	5.15	11,754
3	46636	4.98	7,468	14,377	4.47	2,067	55,752	5.82	10,429

Table 3: Crake Project – Comparison of Oxide, Transitional and Fresh Ore Types *

	Oxide OK-Uncut			Transition OK-Uncut			Fresh OK-uncut		
cutoff	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces
0	437,096	0.66	9,291	948,001	0.66	20,196	4,521,312	0.78	113,043
0.1	418,546	0.69	9,249	925,492	0.68	20,144	4,410,879	0.80	112,812
0.2	361,482	0.77	8,972	840,285	0.73	19,711	4,061,899	0.85	111,039
0.3	305,257	0.87	8,527	711,564	0.82	18,677	3,563,364	0.93	107,032
0.4	254,489	0.97	7,954	569,330	0.93	17,076	3,044,354	1.03	101,208
0.5	205,588	1.10	7,245	447,733	1.06	15,329	2,462,097	1.17	92,784
0.6	156,742	1.27	6,380	354,792	1.20	13,694	2,005,218	1.31	84,764
0.7	126,220	1.42	5,746	286,098	1.33	12,265	1,684,893	1.44	78,080
0.8	104,688	1.55	5,230	231,934	1.47	10,964	1,427,351	1.57	71,887
0.9	89,185	1.68	4,807	189,962	1.61	9,822	1,205,200	1.70	65,837
1	72,905	1.84	4,311	156,893	1.75	8,814	1,037,394	1.82	60,728
1.5	35,137	2.53	2,860	64,557	2.51	5,213	397,936	2.77	35,502
2	19,031	3.23	1,975	32,884	3.29	3,482	197045	4	24625.60
2.5	11,028	3.96	1,404	20,416	3.95	2,591	129,590	4.76	19,831
3	7,053	4.65	1,055	14,121	4.49	2,038	95,592	5.49	16,873

***** The information in these table that relates to Mineral Resources is based on information compiled by Messrs David O'Farrell and Andrew Hawker. Both are Members of the Australasian Institute of Mining and Metallurgy, Mr O'Farrell is a full time employee of Intermin Resources Ltd and Mr Hawker is an independent consultant to Intermin Resources Ltd. The information was prepared under the JORC Code 2012. Messrs O'Farrell and Hawker have sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity that they are undertaking 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'. Messrs O'Farrell and Hawker consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Preliminary internal optimisation work has delivered positive results and identified where further drilling is required to increase the mineralised envelope and improve geological confidence. On completion of further drilling, the project will be optimised by an independent mining consultant.

Composite RC samples were submitted to Independent Metallurgical Operations for initial metallurgical testwork. Overall gold recoveries were 98.6% and 96.5% for the oxide and fresh composites respectively. Gravity recoveries were 60.3% for the oxide composite and 52.9% for the fresh composite with low reagent consumption observed for both gravity/leach tests.

Next Steps

Further infill and extensional RC is planned in the March Quarter 2020 to test along strike to the north and east and at depth to the west. Diamond drilling will also be conducted to improve the structural knowledge of the orebody, provide geotechnical information for mine design and additional samples for the next phase of metallurgical testwork.

Listing Rule 5.8.1 Disclosures

Geology and Geological Interpretation

The Archean Crake gold deposit comprises a well-defined mineralised porphyry with associated oxide and/or minor palaeochannel hosted gold in the near surface area. The porphyry strikes NW and dips shallowly to the SW. A poorly developed southern plunge is tentatively interpreted. Mineralisation is strongly influenced by several NNW striking shears (Janet Ivy and White Flag Shear Zones) and interpreted intersecting cross cutting (east-west) structure. The sequence has been folded. The mineralisation currently spans approximately 440m in strike length.

Sampling and Sub-sampling

The current Crake deposit has been sampled using reverse circulation (RC) on a nominal 20m by 20m initial grid spacing to a maximum depth of 170 metres. Historical drilling at Crake totalled 50 drill holes with most of these being exploration RC/AC/RAB holes. There have been no diamond holes drilled in the Crake resource. For the 2018/2019 resource, 1m RC samples were obtained by cone splitter and were utilised for lithology logging and assaying. Duplicates were routinely taken with the rig cyclone/splitter.

Sample Analysis Method

All drilling samples were fire assayed using a 50g charge at SGS Laboratories in Kalgoorlie. Sample weights were recorded and averaged 2-3 kg. For historical drilling the samples were analysed in a similar way, but with some samples being tested using the aqua-regia method. Comparison of the two methods in historical reports were satisfactory.

Drilling Techniques

In the resource area RC drilling with a $4^{3/4}$ inch face sampling hammer was used for all the holes. Samples were mostly dry, wet samples were usually restricted to barren zones. Good sample recoveries were observed and noted.

Estimation Methodology

Horizon provided the updated mineralisation interpretation that was based on the 2018 model, which was then slightly modified by Hawker Geological Services (HGS) to conform from section to section and snap onto drill holes. The wireframes were reviewed by Horizon before being finalised. The mineralisation consists of 6 parallel lodes dipping approximately 50^0 to the SW. An evaluation of the statistical background was used for identifying the lower cut-off in the interpretation. A histogram of the lower values was used in determining a background of 0.2ppm.

Although a statistical background identified a 0.2ppm Au value (Figure 3), there was flexibility in altering the lower cut-off based on geological interpretation to maintain lode continuity. Criteria used in the interpretations were:

- Interpretations were based on data supplied by Intermin.
- A nominal 0.2ppm lower cut-off grade with flexibility for geological continuity.
- Sections extended 10m beyond the last interpreted section.
- Maintain geological and regolith continuity to conform with the lode style: laterite, supergene, hypergene etc.

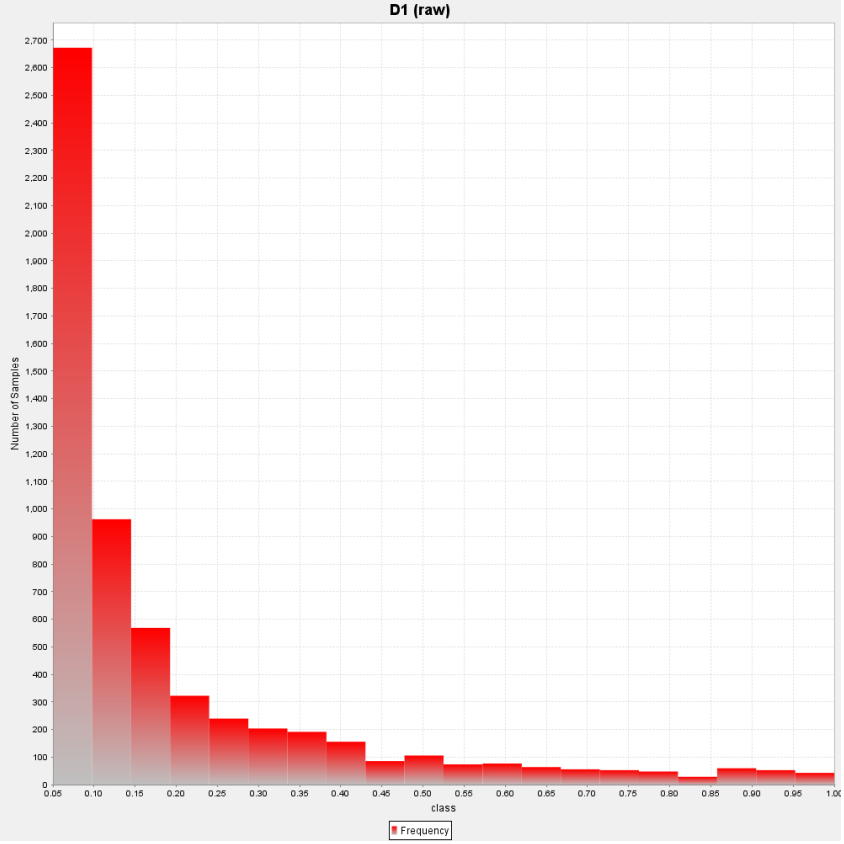

Figure 3: Histogram of all sample data from project area showing a distinct grade variation at 0.1ppm Au

Block Model

A block Model was created by Surpac Software v6.6.2. Details and attributes tabled below.

Dimensions	North	East	RL
Minimum Coordinates	6595740	344730	175
Maximum Coordinates	6596240	345170	375
User Block Size	10	2	1
Min. Block Size	2.5	0.5	0.25
Rotation	-40	0	0

Attribute Name	Type	Decimals	Background	Description
ads	Float	3	-99	average distance to samples
au_id2_cut	Float	3	0	inverse distance squared interpolation using uncut assay data
au_ok	Float	3	0	ordinary Kriged interpolation using uncut data
bv	Float	3	-99	Block Variance
classification	Integer	-	0	0=waste/air, 1-inferred, 2-indicated, 3-measured
dns	Float	3	-99	Distance to nearest sample
ke	Float	3	-99	Kriging efficiency
kv	Float	3	-99	Kriging variance
lode	Integer	-	0	0=waste/air. lodes are numeric based on string/solid number
nos	Integer	-	-99	Number of samples
pass_no	Integer	-	0	OK-Uncut interpolation pass number
sg	Float	2	0	Bulk Densities: Oxide=2.26 trans=2.46 fresh=2.76
weathering	Integer	-	0	0=air, 1-oxide, 2-transition, 3=fresh

Block Optimisation

Surpac macros were created to aid in testing the sample data for optimised block size, maximum number of samples and maximum search. The latter 2 tests are for the first pass interpolations. The test involves comparing the Kriging Efficiency against the Conditional Bias Slope at the point where they are close to 1 and the results become static or flat.

Interpolation

Interpolations were conducted for each lode independently using macros and applied using ordinary Kriging (OK) uncut sample data, and inverse distance squared (ID2). The inverse distance

interpolation were conducted to validate the mathematically complex Kriging method with a simple mathematical method. Separate macros and data orientations were conducted for the flat lying supergene lodes and primary lodes.

The following interpolation protocols were used for each interpolation pass:

- Lodes 1, 2, 3, 4, 5 and 6
    - Pass 1: Min 10 to max 30 samples and a max 20m search. This is normally a good test for measured categorised deposits.
    - Pass 2: Min 4 to max 20 samples and max 40m search.
    - Pass 3: Min 2 to max 20 samples and max 80m search.
    - Pass 4: Min 1 to max 15 samples and max 150m search using isotropic parameters.

Variography

Variography was conducted on major lodes 2, 3 and 4 due to the strike continuity and dataset sizes using data extracted on 1m composites within the lodes. The results identified the anisotropic search ellipse shown below.

Major Lodes 2, 3 & 4

Search Orientation

Bearing	110°
Plunge	0°
Dip	-15°

Anisotropy Parameters

Major/semi-major	1.4
Major/minor	3.5
Nugget	0.2
Sill	0.8
Range	49

Bulk Density

Bulk density data was taken from resources in the area (Peyes, Jacques and Teal) quoting the following:

- Oxide: 1.8g/cm³ used for the material above the BOCO weathering profile.
- Transition: 2.2g/cm³ used for the material between the BOCO and TOFR weathering profiles.
- Fresh Rock: 2.6g/cm³ used for the fresh rock material below the TOFR weathering profile.

HGS has not validated the density data, but due to extensive experience in the Kalgoorlie region the data is considered acceptable.

Resource Classification

Strings were created to define the areas of structural continuity, data density and within the first and second pass interpolation (Figure 4). The lodes had the following classification:

Measured Lodes, 2 and 3

- Indicated: 1, 2, 3 and 4
- Inferred: 1, 3, 4, 5 & 6

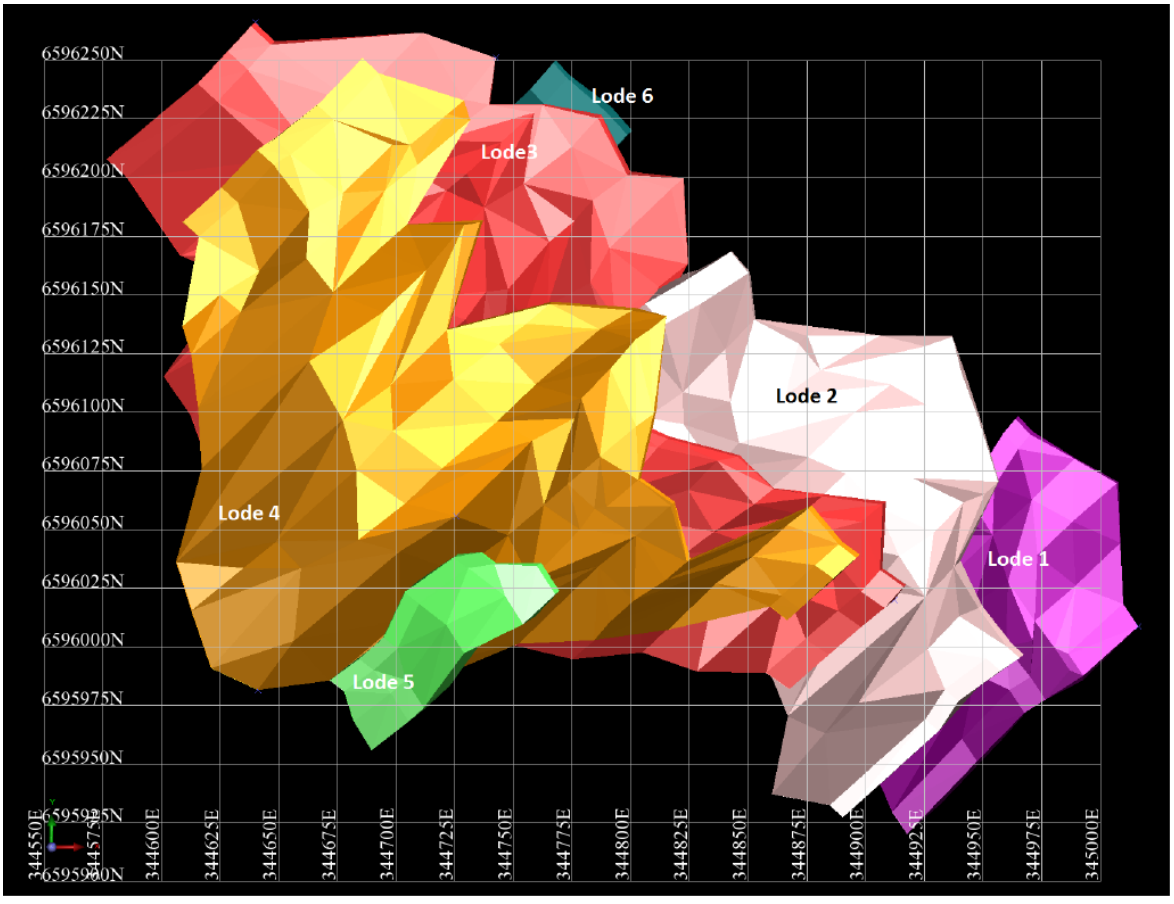

Figure 4: Lode classification showing drill density

Cut-off Grade

No upper cut-off grade was applied as the high grade level of influence was minimal.

Mining and Metallurgical Methods and Parameters and other modifying factors considered

Intermin will undertake optimisation studies, specifically for a potential open cut mine in the future.

Further drilling to increase resources and confidence is planned.

Initial metallurgical work has been undertaken on composite oxide and fresh samples from the RC drilling program representative of the orebody. Further detailed metallurgical testwork is planned including quarter core samples from the planned diamond drilling program.

For further information, please contact:

Jon Price
Managing Director
Tel: +61 8 9386 9534
jon.price@horizonminerals.com.au

Michael Vaughan
Media Relations – Fivemark Partners
Tel: +61 422 602 720
michael.vaughan@fivemark.com.au

Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as “planned”, “expected”, “projected”, “estimated”, “may”, “scheduled”, “intends”, “anticipates”, “believes”, “potential”, “could”, “nominal”, “conceptual” and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company’s actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management’s ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company’s mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.

Appendix 1 – Kalgoorlie (Crake) Regional Gold Projects

JORC Code (2012) Table 1, Section 1, 2 and 3

Exploration results at Crake were reported by Intermin and released to the ASX during 2017, 2018 and 2019. Mr David O'Farrell, Exploration Manager of Intermin compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. Mr Andrew Hawker, an independent consultant to Horizon compiled the information in Section 3 of the following JORC Table 1 and is the Competent Person for that section.

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) requirements for the reporting of Mineral Resources.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• The deposit has been drilled using Rotary Air Blast (RAB), Air Core (AC) and Reverse Circulation (RC) drilling over numerous campaigns by several companies over the past 20 years. The majority of the historic drill holes have a dip of -60° towards the NE. The same orientation was chosen by HRZ. 4m composite samples taken with a 450mm x 50mm PVC spear being thrust to the bottom of the sample bag. 1m single splits taken using riffle splitter. Average sample weights were about 2.0 – 3.0 kg.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Regular air & manual cleaning of cyclone to remove hung up clays. Standards & replicate assays submitted by HRZ and taken by the laboratory. Sample procedures followed by historic operators are assumed to be in line with industry standards at the time. Current QA/QC protocols include the insertion of appropriate commercial standards. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for*	• RC chips were geologically logged over 1m intervals, initially sampled over 4m composite intervals and then specific anomalous intervals were sampled over 1m intervals. Depending on the hole depth, the maximum interval was 4, and minimum was 1m. Samples assayed for Au only. Drilling intersected mainly oxide and transitional mineralisation in shallow areas (<60m vertical depth) and massive, quartz-sulphide hosted gold within leucocratic porphyries at depth. HRZ assays were 50g fire assayed for gold to a detection limit of 0.01 g/t, standards and blanks were routinely inserted and tested with favourable results.

Criteria	JORC Code explanation	Commentary
	fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling with a $4^{3/4}$" face sampling hammer bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC recovery and meterage was assessed by comparing drill chip volumes (sample bags) for individual meters. Estimates of sample recoveries were recorded. Routine check for correct sample depths are undertaken every rod (6m) • RC sample recoveries were visually checked for recovery, moisture and contamination. The cyclone was routinely cleaned ensuring no material build up. • Due to the generally good drilling conditions around the sample interval (dry) the geologist believes the samples are representative, some bias would occur in the advent of poor sample recovery (which was not seen). At depth there were some wet samples and these were recorded on geological logs.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean,*	• Drill chip logging was completed on one metre intervals at the rig by the geologist. The log was made to standard logging descriptive sheets, and transferred into Micromine computer once back at the office. • Logging was qualitative in nature.

Criteria	JORC Code explanation	Commentary
	channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC samples taken. • RC samples were collected from the drill rig by spearing each 1m collection bag and compiling a 4m composite sample. Single splits were automatically taken by emptying the bulk sample bag into a riffle splitter. Samples collected in mineralisation were nearly all dry. • For Intermin samples, 4m composites were taken for the hole. Composite samples typically >0.2 g/t were then individually picked up and dispatched to SGS. All samples were submitted to SGS Laboratories in Kalgoorlie. • Samples were consistent and weighed approximately 2.0-3.0 kg and it is common practice to review 1m results and then review sampling procedures to suit. • Once samples arrived in Kalgoorlie, further work including duplicates and QC was undertaken at the laboratory. Certified reference material samples and duplicates were also submitted for comparative purposes. • Mineralisation is located in intensely oxidised saprolitic clays, transitional and fresh rock and the sample collection size is standard practice in the WA Goldfields to ensure representivity.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (e.g. standards, blanks,*	• The 1m and 4m composite samples were assayed using Fire Assay check (FA50) technique by SGS Accredited Labs (Kalgoorlie) for gold only. • No geophysical assay tools were used. • Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. QC results (blanks, duplicates, standards) were in line with commercial procedures, reproducibility and accuracy.

Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Work was supervised by senior SGS staff experienced in metal assaying. Internal QC data reports confirming the sample quality were supplied monthly. No assay issues were noted. • No twin holes undertaken. However several HRZ were considered twins to several historic holes. The comparison was considered satisfactory. • Data storage as PDF/XL files on company PC in Perth office. • No data was adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All drill collar locations were initially surveyed using a hand held Garmin GPS, accurate to within 2-4m. These holes were later surveyed more accurately using a RTK-GPS system by a contracted surveyor and data used in the Mineral Resource Estimate. Holes were drilled on a close grid in places and wider in less advanced areas. The grid system used is MGA94 Zone 51. All reported coordinates are referenced to this grid. The topography is extremely flat at the location of the drilling. • Grid MGA94 Zone 51. • Topography is very flat, small differences in elevation between drill holes will have little effect on mineralisation widths on initial interpretation. The topographic surface has been generated by using the hole collar surveys. It is considered to be of sufficient quality to be valid for this stage of exploration.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Holes were variably spaced, but typically around 20m, and were consistent with industry standard resource style drilling. • The hole spacing was determined by Intermin to be sufficient when combined with confirmed historic drilling results to define mineralisation classified as JORC 2012 compliant as stated in the Resource Summary Table 1. The sample spacing and the appropriateness of each hole to be included to make up data points for a Mineral Resource has been determined. These assays are from 1m length sample intervals down hole.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• All HRZ drill holes were angled at 60 degrees to achieve an appropriate intercept. Due to some structural complexities of the orebody some holes appeared to have hit multiple structures. Drill logs and quartz content was also incorporated into the resource models. These issues are routine in the eastern goldfields, true widths are often calculated depending upon the geometry. In this case the intercept width is very close to the true width • The relationship between the drilling orientation and the orientation of mineralised structures is not considered to have introduced a sampling bias. Given the style of mineralisation and drill spacing/method, it is the most common method for delineating gold resources in Australia.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected on site under supervision of the responsible geologist. The work site is on a destocked pastoral station. Visitors need permission to visit site. Once collected samples were cable tied and transported to Kalgoorlie for assaying.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No Audits have been commissioned. Hawker Geological Services Pty Ltd has reviewed the sampling procedure and approved its use.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Exploration Licence E26/168 (WA). No third party JV partners involved. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous workers in the area include Placer-Delta (2002), Intermin (2010) and Evolution (2018).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Archean quartz porphyry stockwork.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
		• Not applicable however Intermin drilling results have all been released and reported to the ASX.

Criteria	JORC Code explanation	Commentary
	• *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	• No information is excluded.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No weighting or averaging calculations were made, assays reported and compiled on the "first assay received" basis. • No upper cut off grade was applied. • No metal equivalent calculations were applied.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a*	• Oxide and Transitional mineralisation is predominantly flat lying (blanket like) while fresher mineralisation at depth is interpreted to be variably dipping to the south west, the individual ore shoot geometry has been captured and modelled accordingly with wireframe interpretations as there is sufficient drilling data in areas. Given the spacing of the holes, it was deemed adequate to portray the interpreted ore zones. • Drill intercepts and true width appear to be very close to each other, or within reason allowing for the minimum intercept width of 1m. Intermin estimates that the true width is variable but probably close to 80-90% of the intercepted width. • Given the nature of RC drilling, the minimum width and assay is 1m. Diamond core is best used to determine cm scale mineralisation widths. Intermin downhole intercepts have been tabulated in previously ASX releases. True intercepts are

Criteria	JORC Code explanation	Commentary
	clear statement to this effect (e.g. 'down hole length, true width not known').	not known however the downhole intercepts appear to represent very close to true width given the orientation of the drilling.
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.*	• Summary maps and figures have been included in this and previous HRZ releases to describe the locations and orientations of the drilling and Mineral Resource Estimates.
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.*	• For compilation of resource estimates all data is evaluated from the database to form the basis of mineralisation outlines which have been determined nominally >0.20g/t Au.
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.*	• See details from previous ASX releases from Horizon Minerals Limited (ASX; HRZ). These can be accessed via the internet.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Scoping or engineering studies have not yet been undertaken. Additional drilling is planned. • Commercially sensitive.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Recent HRZ field data has been collected using Toughbook data entry. Historical drilling data has been captured from historical drill logs where available. • The data is verified by company geologists before the data is transcribed into Micromine software and reviewed for accuracy against the planned details and validated using Micromine programs. The resource is based on a reasonable level of accuracy in the historical work, there have been several reports and independent due diligence and QA/QC studies that have lent credibility to the previous work.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Company geologists have made numerous site visits to the project area to conduct the drilling for numerous drilling programs. David O'Farrell has visited the site numerous times and supervised while drilling programs have been undertaken. Inspections of procedures have been made throughout the Crake exploration history. All procedures are deemed satisfactory. • Not applicable
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is regarded as good, high grade gold mineralisation is associated with narrow quartz veins in 1-5m wide shoots. Lower grade gold is more prominent in the stockwork and oxide zones. The mineralisation zones are typically defined by a 0.2 g/t Au mineralised envelope which was then wire framed. Continuity between sections is considered reasonable and reliable. • The data used to construct the geological model included was based on assay and geological data. This was imported into Micromine. • The deposit consists of a south-west dipping lodes with weak southern plunge. Further structural work is required. Infill drilling has supported and refined the historical model and the current interpretation is considered robust. • Widespread drilling and geological mapping of old drill chips have supported the estimate. • Infill drilling has confirmed geological and grade continuity.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• Crake - The Mineral Resource area extends over a strike length of *450m.* The maximum depth of the model extends to 170 metres below surface. Much of the inferred category ore pertains to deeper portions which typically has lower drill density. The deposit is open at depth with strike potential.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.*	• Grade estimation using Ordinary Kriging (OK) and Inverse Distance squared (ID2) was completed using Surpac 6.6.2 modelling software for the resource interpolation. Drill grid spacing ranges is typically around 20 metres. • Drill hole sample data was flagged using domain codes generated from three dimensional mineralisation domains and then used to create the composite files. 1m assay composites were used. There were no extreme grade outliers, hence top-cutting applied. Wireframe domains were based on a 0.2g/t Au mineralised envelope. Minimum sub block size was 2.5m x 1.0m x 1.0m (x, y, z). • No by-products were considered. • No deleterious elements are present in significant amounts. • There was no correlation between variables (only gold estimated). • Geological interpretations were completed on 20m sections, using resource drilling. 3D wireframes where then constructed around these interpretations, creating 6 domains. In addition to these mineralised domains, a base of oxidation and top of fresh rock dtm was also created and used. • The HGS block model was reviewed by HRZ and deemed satisfactory. • No reconciliation data was available as all the resources are unmined.

Criteria	JORC Code explanation	Commentary
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The resource tonnage is reported using dry bulk density. Intermin used 1.8 for oxidised, 2.2 for transitional and 2.6 for fresh rock. The Specific gravity values are also consistent with industry standards at other mines located in the Eastern Goldfields.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Gold Mineral Resources are reported inside the mineralisation wireframe that was constructed at a 0.2g/t Au cut-off. .
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• An optimisation study is being progressed, but regardless of the outcome, further drilling will take place. Any future mining of the deposit as currently understood would be by conventional open cut mining.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding*	• Initial metallurgical work has been conducted at Crake comprising gravity leach tests to assess amenability to conventional CIL leaching post gravity recovery. The results indicated very high gravity and overall metallurgical recoveries through conventional processing. Further work will be undertaken in due course.

Criteria	JORC Code explanation	Commentary
	metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Ore would be mined from the deposit and transported to a 3rd party processing facility offsite. The deposit is located on an active exploration lease and this would need to be converted to a granted Mining licenses prior to any mining operation. The process of conversion to a Mining Lease has commenced.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces*	• Bulk density has been reviewed and considering the fresh ore is mostly within a fresh porphyry, this compares well with from surrounding deposits such as Janet Ivy and Teal and assigned values assumed. • Values for the ore categories as determined are: Oxide 1.80 t/m3 Transitional 2.20 t/m3 Fresh 2.60 t/m3

Criteria	JORC Code explanation	Commentary
	(vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Mineral Resources have been classified on the basis of confidence in the geological and grade continuity using the drilling density, geological model, pass in which the gold was estimated and the distance to sample selections. Indicated Mineral Resources have been defined generally in areas of 20m by 10-20m drill spacing. Ore outlines that had lower confidence in continuity were ignored and not categorised as inferred. The oxide/supergene zone extends from surface to a maximum depth of approximately 50m. Overall the high drill density and number of holes defining a reasonably consistent ore zone(s), rather than ore type, is the main factor influencing the resource category. • As described above the Mineral Resource classification has been based on the quality of the data collected (geology, survey and assay data) the density of the data, grade estimation quality and geological/ mineralisation model. • The reported resource estimates are consistent with the view of the deposits by the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• A review of the Andrew Hawker model has been carried out by David O'Farrell. The model is regarded sufficiently accurate for JORC guidelines and meets the criteria for Indicated and Inferred categories. The analysis of the sections and wireframe validation, resource estimation methodology and validation is consistent with current day practices.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of*	• The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the Mineral Resource as per the guideline of the 2012 JORC code. The classification is supported by a sound understanding of the geology of the deposit, the drill hole spacing, historic drill data and a reasonable dataset supporting the density used in the resource model. Both competent persons (Andrew Hawker and David O'Farrell) have over 20 years' experience, with several years working in the region. • The statement relates to the local estimate of tonnes and grade. • No historical production has occurred at Crake E26/168.

Criteria	JORC Code explanation	Commentary
	the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	