

## HORIZON TO ADVANCE NIMBUS SILVER – ZINC PROJECT

### HIGHLIGHTS

- Strategic review completed on the 100% owned Nimbus silver-zinc project, located 15km east of Kalgoorlie-Boulder, adjacent to the Boorara gold mine in Western Australia
- The current global Mineral Resource estimate stands at:
  - 12.1Mt grading 52g/t Ag for 20.2Moz of silver and 0.9% Zn for 104kt zinc <sup>1</sup>
- A high-grade lode exists within this resource immediately below the historic Discovery pit and has a Mineral Resource estimate of:
  - **260kt grading 774g/t Ag for 6.4Moz silver and 12.8% Zn for 33kt zinc <sup>1</sup>**
- Past production (2003 to 2007) recovered 3.6Moz silver from the processing of 320kt grading 352g/t Ag with the plant now decommissioned, removed and the site rehabilitated
- Extensive geological, metallurgical and engineering feasibility work already completed on Nimbus before activities were put on hold in 2017 due to depressed silver prices
- Several acquisition and earn-in proposals were received for Nimbus and carefully considered
- **Horizon Board has elected to retain the project and engage an independent technical team to complete the Definitive Feasibility Study with scope of works including <sup>2</sup>:**
  - Geological and mineralogical review of the primary high-grade lodes below the historic Discovery and East pits
  - Metallurgical test work focused on flotation response and flow sheet design to produce a silver-zinc concentrate
  - Update of capital and operating costs for a concentrate plant utilising synergies with the proposed Boorara gold plant
  - Review of existing open cut and underground optimisation and design studies and updating of capital and operating costs
  - Seek expressions of interest and indicative terms for silver/zinc concentrate offtake
- Completion of fully funded Definitive Feasibility Study in the December Quarter 2021 <sup>2</sup>

Commenting on the Nimbus silver-zinc project, Horizon Managing Director Mr Jon Price said:

*“While the Company’s focus remains firmly on gold, the strategic review has confirmed the potential for significant long-term shareholder value creation by retaining the asset at a time of sustained improvements in silver and zinc prices. The independent DFS team will now focus on the technical aspects and economic evaluation of mining the high-grade lodes and producing a high precious metal (silver) and zinc concentrate at site for sale to potential offtake partners.”*

<sup>1</sup> As announced to the ASX by subsidiary MRP on 26 February 2015, 30 April 2015 and 10 May 2016, see also Tables, Competent Persons Statement and Confirmation on Pages 5 and 10. <sup>2</sup> see Forward Looking and Cautionary Statements on Page 11

Overview

Horizon Minerals Limited (ASX: HRZ) (“Horizon” or the “Company”) is pleased to provide an update on the Nimbus silver-zinc project, adjacent to the Boorara gold mine, 15km east of Kalgoorlie-Boulder in the goldfields of Western Australia (Figure 1).

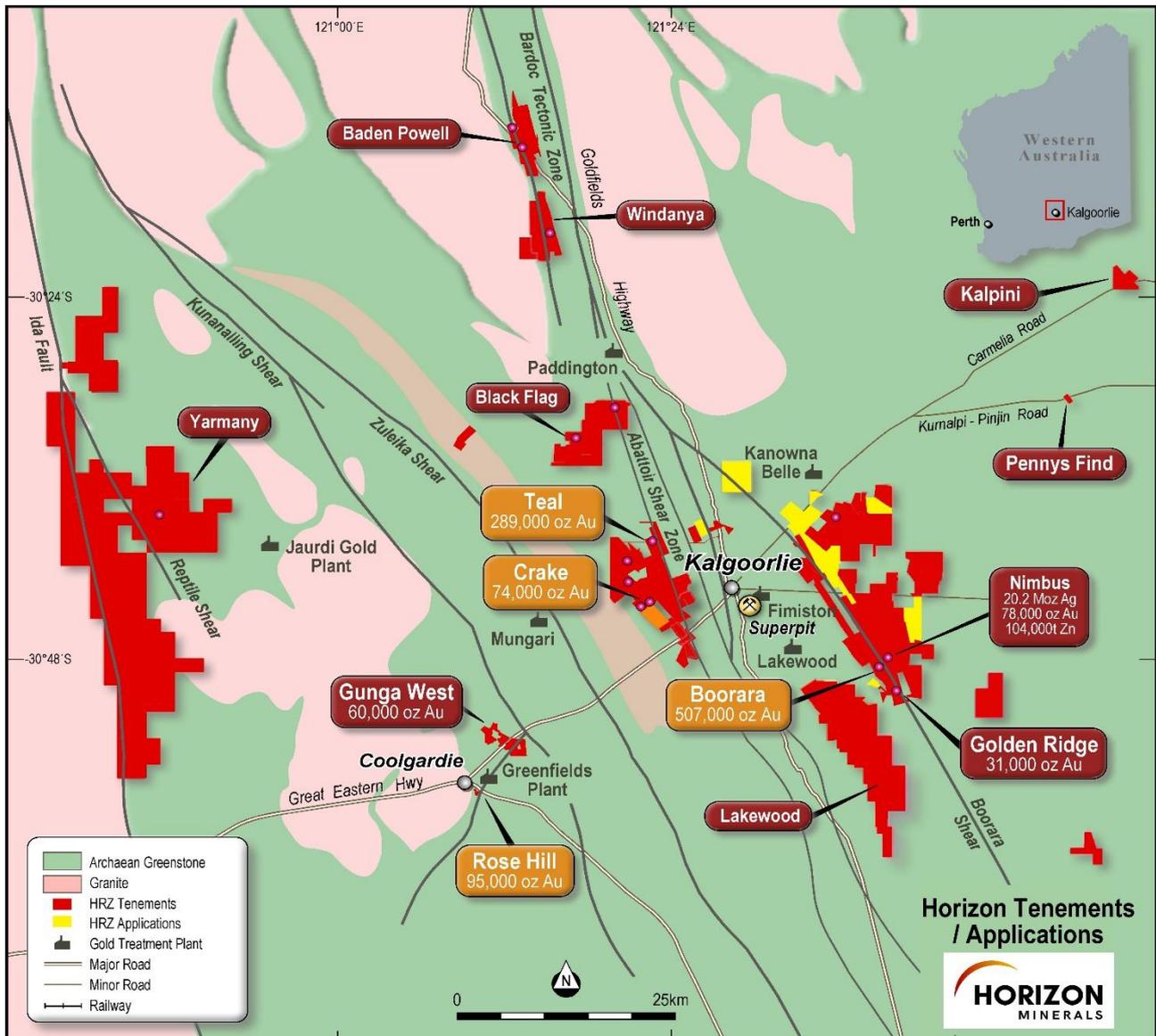


Figure 1: Horizon’s Project area location, resources and surrounding infrastructure

The Company has now completed a strategic review of the Nimbus silver-zinc project, inclusive of a detailed assessment of all previous Feasibility Study work completed to 2017. Several expressions of interest were received to acquire or earn-in to the project, however the **Horizon board has now elected to retain the project** on a 100% basis with a view to **update and complete the Definitive Feasibility Study (DFS)** with a fully funded dedicated independent technical team.

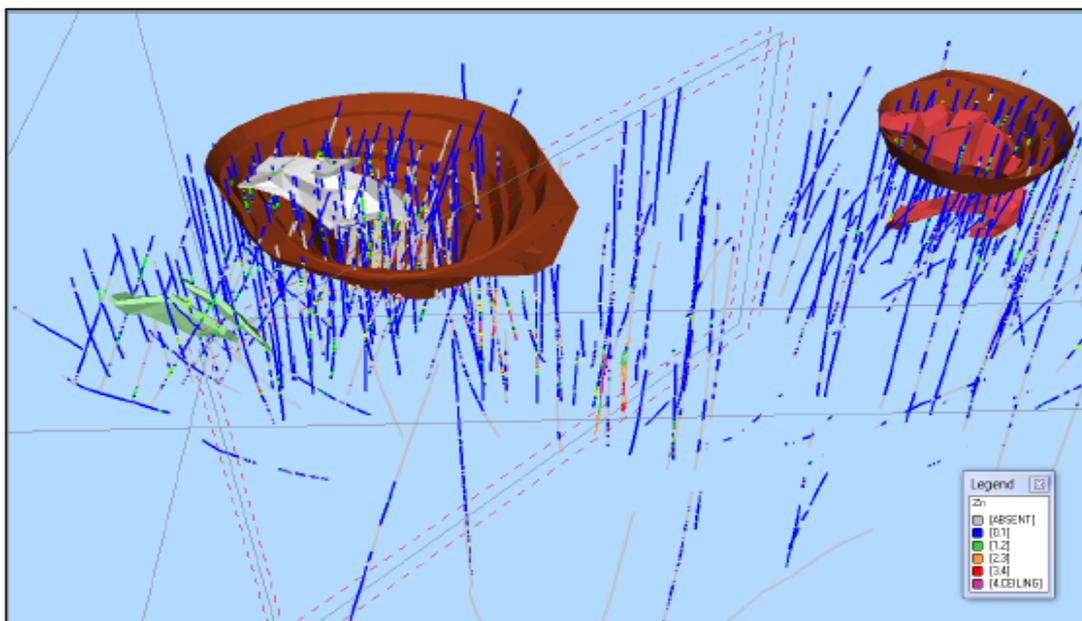
**Nimbus Definitive Feasibility Study Update**

Up until 2017, a significant amount of geological, metallurgical and engineering work had been completed on the Nimbus project with the completion of the comprehensive DFS put on hold due to depressed commodity prices.

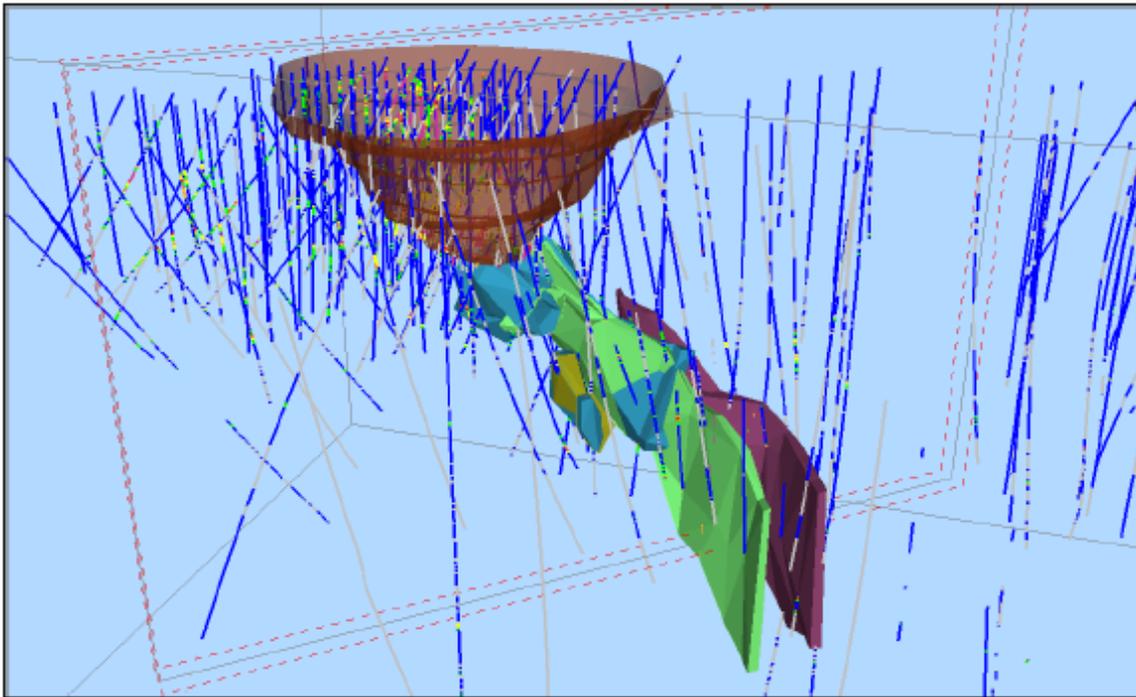
This included a partial DFS completed by Sedgman in 2015 when the Nimbus Project was held by MacPhersons Resources Limited. The focus of this study was on capital and operating costs only, including plant design and flow sheets. Several ore processing options were reviewed based on extensive laboratory testwork.

The original strategy included a process to leach the silver to produce silver bars. Horizon’s strategic review considered an alternative strategy to produce a high precious metal (silver) and zinc concentrate instead of silver bars. The production of a concentrate has potential benefits of a simplified processing circuit resulting in reduced capex and opex and to that end the Company will undertake an offtake process to obtain expressions of interest, indicative terms and potentially an offtake agreement for the sale of silver-zinc concentrate. Preliminary soundings have shown immediate interest from some traders, particularly due to the high silver content. On the basis of achieving commercially viable terms, the Company will then move to complete the DFS. Nimbus is located adjacent to the Boorara Gold Project which creates potential synergies in a complementary development scenario.

CSA Global has completed various due diligence, geological and mining studies between 2011 and 2015, and concluded in their August 2011 report that “...there is potential for future development of both oxide silver and primary sulphide zinc-silver projects, from the known mineralised zones around and below the existing pits and their extensions, and from discovery of new zones.”



**Figure 2. Silver - oxide domain (white) inside Discovery Pit, Western Zone domain (green) and East Pit domain (red)**



**Figure 3. Discovery Primary Zone silver (blue) and zinc (green and purple) domains, plunging SE from below the Discovery Pit**

**Prescribed Premise Licence and Works Approval**

The Nimbus project already has a prescribed premise licence in place to treat 120,000 ore tonnes per annum and an existing works approval to expand to 480,000 tonnes per annum. The Company has recently completed an application for renewal to extend the current licence.

The Company has now commenced an independent technical and economic study of all previous work undertaken to evaluate options for the next steps in advancing the project. As part of the study, the high-grade lodes will be evaluated for potential early-stage development and concentrate production.<sup>2</sup>

The Study is expected to be completed in the December Quarter 2021.

**About the Nimbus silver-zinc project**

The Nimbus silver-zinc project is located 15km east of the City of Kalgoorlie-Boulder, Western Australia, covers approximately 170km<sup>2</sup> and is situated on Mining Leases, Exploration Licences and Prospecting Licences and include the Boorara gold project area.

<sup>2</sup>see Forward Looking and Cautionary Statements on Page 11

## ASX ANNOUNCEMENT

Project highlights include:

- High grade silver resource of 260kt @ 774g/t Ag and 12.8% Zn contained in JORC 2012 Resources of 12.1Mt @ 52g/t Ag, 0.9% Zn and 0.2g/t Au <sup>1</sup>
- Deposit remains open at depth and along strike with significant potential to increase existing silver-zinc resources with further drilling <sup>2</sup>
- Significant regional exploration potential to find additional silver and other base metal deposits <sup>2</sup>
- Close proximity to Kalgoorlie-Boulder and existing infrastructure
- Historical production of 3.6Moz of high-grade silver (352g/t)

### Mineral Resource summary

Nimbus All Lodes (bottom cuts 12 g/t Ag, 0.5% Zn, 0.3g/t Au)

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz)	Au (k'000)	Zn (k'000)
<b>Measured Resource</b>	<b>3.62</b>	<b>102</b>	<b>0.09</b>	<b>1.2</b>	<b>11.9</b>	<b>10</b>	<b>45</b>
<b>Indicated Resource</b>	<b>3.18</b>	<b>48</b>	<b>0.21</b>	<b>1.0</b>	<b>4.9</b>	<b>21</b>	<b>30</b>
<b>Inferred Resource</b>	<b>5.28</b>	<b>20</b>	<b>0.27</b>	<b>0.5</b>	<b>3.4</b>	<b>46</b>	<b>29</b>
<b>Total Resource</b>	<b>12.08</b>	<b>52</b>	<b>0.20</b>	<b>0.9</b>	<b>20.2</b>	<b>77</b>	<b>104</b>

Nimbus high grade silver zinc resource (500g/t Ag bottom cut and 2,800g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz's)	Zn (k'000)
<b>Measured Resource</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Indicated Resource</b>	<b>0.17</b>	<b>762</b>	<b>12.8</b>	<b>4.2</b>	<b>22</b>
<b>Inferred Resource</b>	<b>0.09</b>	<b>797</b>	<b>13.0</b>	<b>2.2</b>	<b>11</b>
<b>Total Resource</b>	<b>0.26</b>	<b>774</b>	<b>12.8</b>	<b>6.4</b>	<b>33</b>

#### \*Competent Person Statement

The information in this table that relates to Mineral Resources is based on information compiled by Mr David O'Farrell. Mr O'Farrell is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employees of Horizon Minerals Ltd. The information was prepared under the JORC Code 2012. Mr O'Farrell has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves'. Mr O'Farrell consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.

The Nimbus project lies within the major belt of greenstones which extends from Norseman to Wiluna in the Eastern Goldfields Province of the Archaean Yilgarn Craton (Figure 4). The Eastern Goldfields Province consists of elongate north-north-west trending greenstone belts and granitic rocks. Major fold axes and faults have a similar overall trend, although in detail the faults are generally anastomosing.

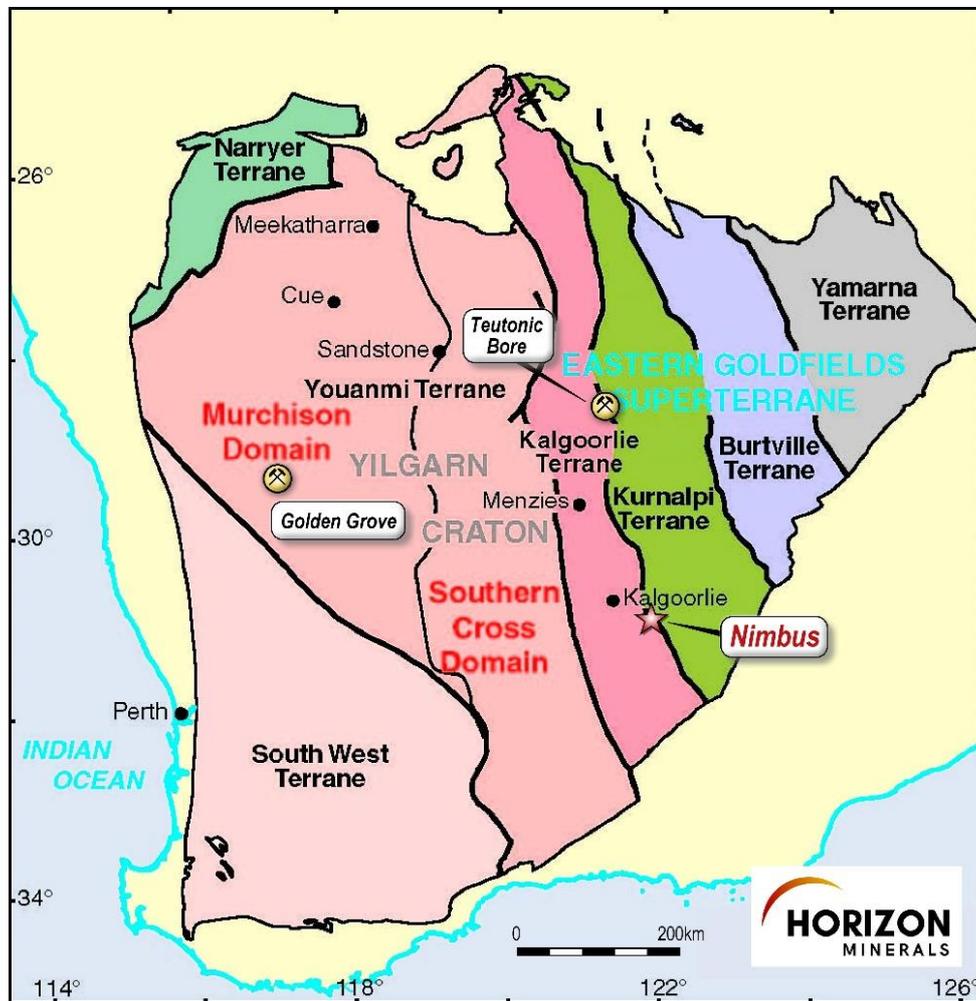
<sup>1</sup> As announced to the ASX by subsidiary MRP on 26 February, 30 April 2015 and 10 May 2016, see also Tables, Competent Persons Statement and Confirmation on Pages 5 and 10. <sup>2</sup> see Forward Looking and Cautionary Statements on Page 11.

**ASX ANNOUNCEMENT**

The project is a shallow-water and low-temperature VHMS deposit and lies in the Kalgoorlie Terrane adjacent to the terrane boundary between the Kalgoorlie and Kurnalpi Terranes (Figure 4). The Kalgoorlie Terrane is approximately coincident with the rift phase of the greenstones of Groves and Batt (1984) and the Kurnalpi Terrane closely coincides with calc-alkaline volcanic arc of Barley et al (1989).

The Kalgoorlie Terrane is characterised by a regional stratigraphy comprising (from the base upwards) of a lower basalt unit, a komatiite unit, an upper basalt unit, a felsic volcanic/sedimentary unit and locally a coarse clastic rock unit. Included are layered and differentiated mafic-ultramafic sills at various stratigraphic levels (Hollis 2016).

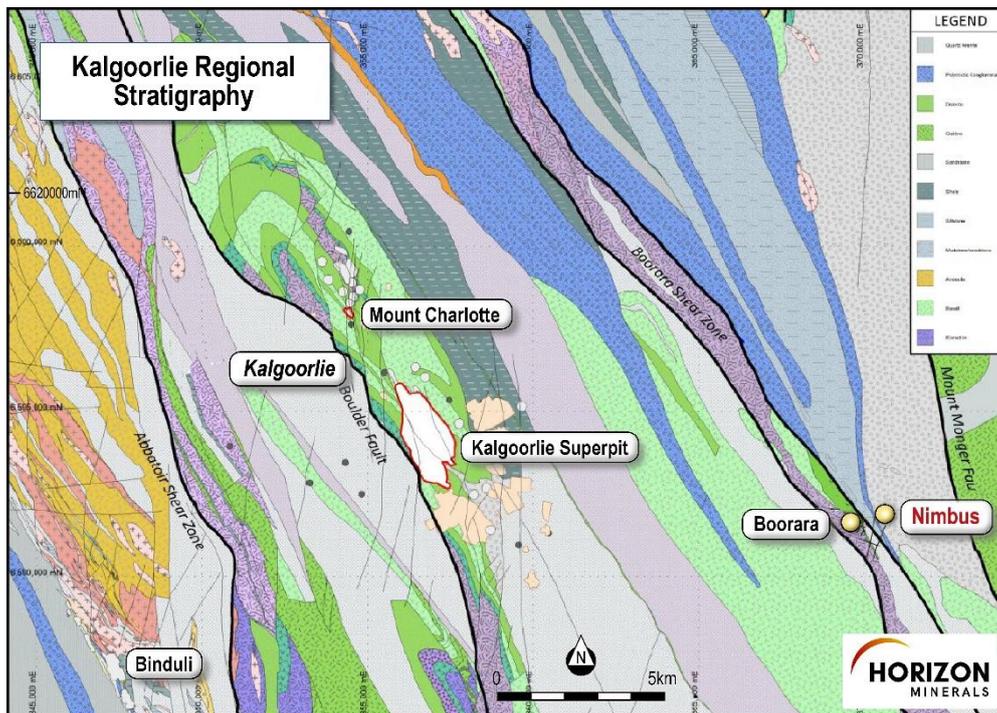
The Kalgoorlie Terrane is divided into two structural-stratigraphic units called the Kambalda and Boorara Domains, separated by the Boorara Shear. The Nimbus Project is found within the Boorara Domain (Figures 2 - 5) (Hollis 2016).



**Figure 4: Nimbus location and underlying geology**

The local stratigraphy (Figure 5) comprises a NW-trending and steeply dipping bimodal-felsic package of volcanic rocks (i.e. quartz-feldspar porphyritic dacite and lesser basalt, plus their autoclastic equivalents) with subordinate carbonaceous mudstone, tuff, polymict conglomerates and volcanic breccias. Komatiite flows, volcanic sandstones/siltstones, carbonaceous mudstone, basalt and dolerite were intersected in a distal drill hole (Hollis 2016).

Economic VHMS mineralisation in the Archaean Yilgarn Craton of Western Australia is largely restricted to two main zones of juvenile crust as revealed through regional (Nd, Pb) isotope variations. One of these zones runs north-south through the central Eastern Goldfields Superterrane and is associated with the high-grade Teutonic Bore, Jaguar and Bentley deposits, plus sub-economic VHMS mineralisation further south at Anaconda and Erayinia (Hollis 2016).



**Figure 5: Nimbus regional and local geology**

Nimbus primary sulfide resources occur as a series of stacked plunging lenses, overlying mined supergene and oxide mineralisation. The mineralogy is complex and includes the presence of mercury in the oxide and transition zones.

In the primary sulphide zone, early well-developed massive pyrite is underlain by:

- Semi-massive, stringer and breccia-type Ag-Zn±Pb(Cu-Au) sulfides (including: pyrite, low- and high-iron sphalerite, galena, pyrrargyrite, marriite, boulangerite, arsenopyrite, chalcopyrite, Ag-bearing tetrahedrite) associated with the autoclastic facies of thick units of dacite; and
- Stringer and disseminated sulphides (dominated by pyrite and sphalerite) in coherent pseudo-brecciated dacite at depth. Hydrothermal alteration is characterised by intense and pervasive quartz-sericite-carbonate±Cr-V mica, with chlorite predominantly associated with mafic units.

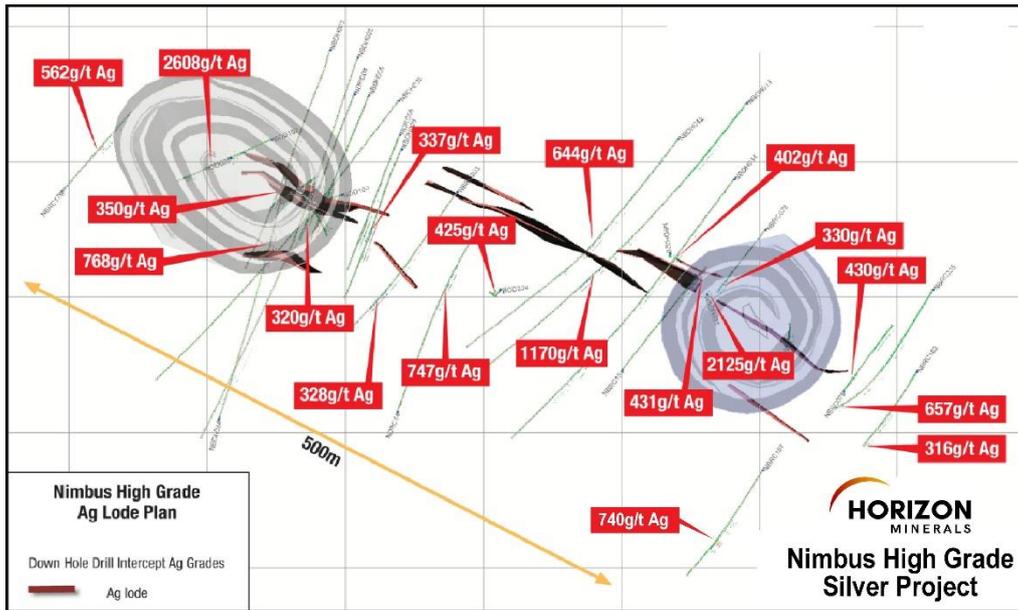


Figure 6: Nimbus high grade silver zinc lodes and historic drilling results

Authorised for release by the Board of Directors

For further information, please contact:

Jon Price  
Managing Director  
Tel: +61 8 9386 9534  
[jon.price@horizonminerals.com.au](mailto:jon.price@horizonminerals.com.au)

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

**Horizon Minerals Limited – Summary of Gold Mineral Resources**

Project	Cut-off Grade	Measured			Indicated			Inferred			Total Resource		
		Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz
Teal	1.0				1.01	1.96	63,681	0.80	2.50	64,458	1.81	2.20	128,000
Jacques Find	1.0				1.60	2.24	114,854	0.32	1.68	17,135	1.91	2.14	131,970
Peyes Farm	1.0				0.31	1.65	16,313	0.22	1.77	12,547	0.53	1.70	28,860
Crake	1.0	0.46	1.85	27,459	0.48	1.49	22,569	0.33	2.22	23,792	1.27	1.82	73,820
Rose Hill OP	0.5	0.19	2.00	12,300	0.09	2.00	6,100				0.29	2.00	18,300
Rose Hill UG	2.0				0.33	4.50	47,100	0.18	4.80	27,800	0.51	4.60	74,900
Gunga west	0.6				0.71	1.60	36,435	0.48	1.50	23,433	1.19	1.56	59,869
Golden Ridge	1.0				0.47	1.83	27,921	0.05	1.71	2,797	0.52	1.82	30,718
<b>TOTAL</b>		<b>0.66</b>	<b>1.88</b>	<b>39,759</b>	<b>4.99</b>	<b>2.09</b>	<b>334,973</b>	<b>2.38</b>	<b>2.24</b>	<b>171,962</b>	<b>8.02</b>	<b>2.12</b>	<b>546,437</b>

**Horizon Minerals Limited – Summary of Vanadium / Molybdenum Mineral Resources (at 0.29% V<sub>2</sub>O<sub>5</sub> cut-off grade)**

Project	Cut-off grade %	Tonnage	Grade			Metal content (Mt)		
		(Mt)	% V <sub>2</sub> O <sub>5</sub>	ppm Mo	ppm Ni	V <sub>2</sub> O <sub>5</sub>	Mo	Ni
Rothbury (Inf)	0.30	1,202	0.31	259	151	3.75	0.31	0.18
Lilyvale (Ind)	0.30	430	0.50	240	291	2.15	0.10	0.10
Lilyvale (Inf)	0.30	130	0.41	213	231	0.53	0.03	0.03
Manfred (Inf)	0.30	76	0.35	369	249	0.26	0.03	0.02
<b>TOTAL</b>		<b>1,838</b>	<b>0.36</b>	<b>256</b>	<b>193</b>	<b>6.65</b>	<b>0.46</b>	<b>0.36</b>

**Confirmation**

The information in this report that relates to Horizon’s Mineral Resources estimates or Ore Reserves estimates is extracted from and was originally reported in Horizon’s ASX announcements “Intermin’s Resources Grow to over 667,000 Ounces” dated 20 March 2018, “Crake Gold Project Continues to Grow” dated 10 December 2019, “High Grade Drill Results and Resource Update for the Rose Hill Gold Project” dated 4 February 2020 and “Richmond – Julia Creek Vanadium Project Resource Update” dated 16 June 2020, each of which is available at [www.asx.com.au](http://www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person’s findings in relation to those Mineral Resources estimates or Ore Reserves estimates have not been materially modified from the original market announcements.

**Macphersons Resources Limited (a 100% subsidiary of Horizon) – Summary of Mineral Resources**

Boorara Gold Resource (at a 0.5 g/t Au cut-off grade)

Category	Tonnes	Grade	Ounces
	Mt	Au (g/t)	(k'000)
<b>Measured Resource</b>	<b>6.11</b>	<b>0.92</b>	<b>181</b>
<b>Indicated Resource</b>	<b>7.26</b>	<b>0.97</b>	<b>227</b>
<b>Inferred Resource</b>	<b>3.08</b>	<b>1.00</b>	<b>99</b>
<b>Total Resource</b>	<b>16.45</b>	<b>0.96</b>	<b>507</b>

Nimbus All Lodes (bottom cuts 12 g/t Ag, 0.5% Zn, 0.3 g/t Au)

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz's)	Au (k'000)	(k'000)
<b>Measured Resource</b>	<b>3.62</b>	<b>102</b>	<b>0.09</b>	<b>1.2</b>	<b>11.9</b>	<b>10</b>	<b>45</b>
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<b>Inferred Resource</b>	<b>5.28</b>	<b>20</b>	<b>0.27</b>	<b>0.5</b>	<b>3.4</b>	<b>46</b>	<b>29</b>
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Nimbus high grade silver zinc resource (500 g/t Ag bottom cut and 2800 g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz's)	(k'000)
<b>Measured Resource</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Indicated Resource</b>	<b>0.17</b>	<b>762</b>	<b>12.8</b>	<b>4.2</b>	<b>22</b>
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<b>Total Resource</b>	<b>0.26</b>	<b>774</b>	<b>12.8</b>	<b>6.4</b>	<b>33</b>

**Confirmation**

The information in this report that relates to MacPhersons' Mineral Resources estimates on the Boorara Gold Project and Nimbus Silver Zinc Project is extracted from and was originally reported in Intermin's and MacPhersons' ASX Announcement "Intermin and MacPhersons Agree to Merge – Creation of a New Gold Company Horizon Minerals Ltd" dated 11 December 2018 and in MacPhersons' ASX announcements "Quarterly Activities Report" dated 25 October 2018, "BOORARA GOLD PROJECT TOTAL GOLD RESOURCE up 118% to 507,000 OUNCES" dated 6th March 2018, "New High Grade Nimbus Silver Core Averaging 968 g/t Ag" dated 10th May 2016, "Boorara Trial Open Pit Produced 1550 Ounces" dated 14 November 2016 and "Nimbus Increases Resources" dated 30th April 2015, each of which is available at [www.asx.com.au](http://www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.

**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.