

## **QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 MARCH 2017**

### **Key Points**

- Horizon owns 100% of the Gum Creek Project near Wiluna in WA which hosts JORC 2012 Resources of 17.3 million tonnes averaging 2.25g/t gold for 1.25 million ozs gold
- **Geophysical testing of previously identified priority exploration targets successfully completed**
- **Drill programs commenced in April after delays due to unseasonal heavy rainfall**
- **Engineering Options Study demonstrates lower cost options for processing refractory ores by utilising either mild pressure oxidation or the Albion™ process**
- Metallurgical testwork of refractory material demonstrated an **improvement in flotation recovery** by using a finer grind size
- Cash of \$12.54 million at 31 March 2017

### **Details**

Horizon Gold Limited (ASX Code: HRN) (Horizon or the Company) is a new independent gold company focussed on exploration and development activities at the 100% owned Gum Creek Project in Western Australia. Gum Creek has historically produced over one million ounces of gold. The funds raised from the IPO in December 2016 is being used to fund an aggressive exploration program and development studies at Gum Creek.

### **Gum Creek Project**

Gum Creek provides an exciting gold exploration and potential development opportunity. The Project covers approximately 724 square kilometres and hosts JORC 2012 Mineral Resources of **17.3 million tonnes averaging 2.25g/t gold for 1.25 million ounces of gold** (refer to *Panoramic Resources Limited's ASX announcement of 14 October 2016*). It is located within a well-endowed gold region that hosts multi-million ounce deposits including Big Bell, Wiluna, Mt Magnet, Meekatharra and Agnew/Lawlers (*Figure 1*).

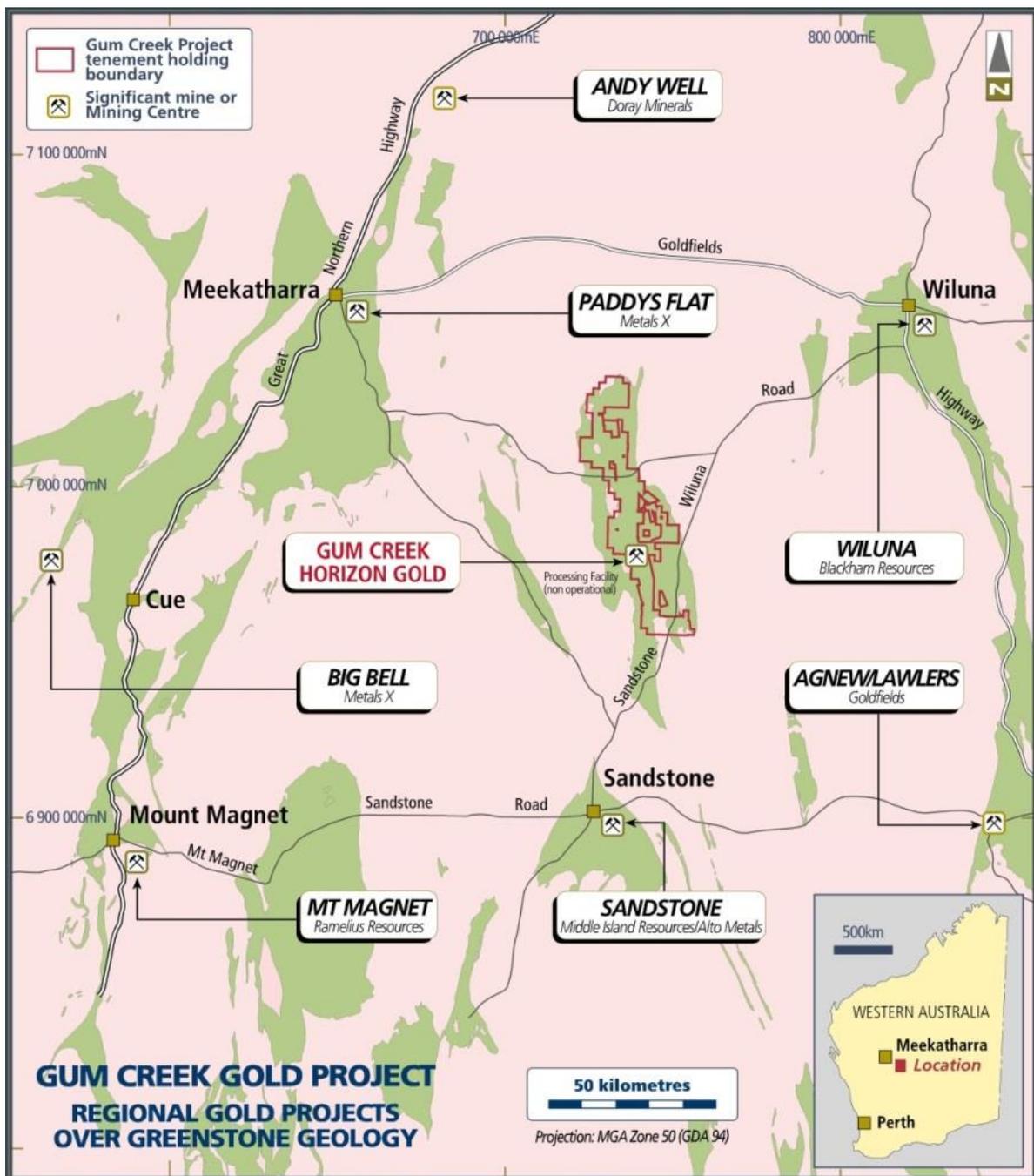
Existing infrastructure at the site includes a 110 person camp, operational airstrip, tailings storage facilities, and an extensive road network. A 600,000tpa processing plant is also on site, however due to its age and condition significant capital investment would be required to return the plant to operating status. **The Company has identified multiple high priority drill targets and possible resource extension opportunities at the Project which are the focus of exploration activities.**

## Strategy

The Company's strategy for the Gum Creek Project is as follows:

1. undertake extensional and infill drilling to grow the known resources and lift defined resources into higher-confidence JORC categories;
2. undertake regional exploration targeting new gold discoveries outside of the known resources; and
3. carry out development studies (including but not limited to metallurgical and processing investigations) on the free milling and refractory mineralisation.

**Figure 1: Gum Creek Project Location**

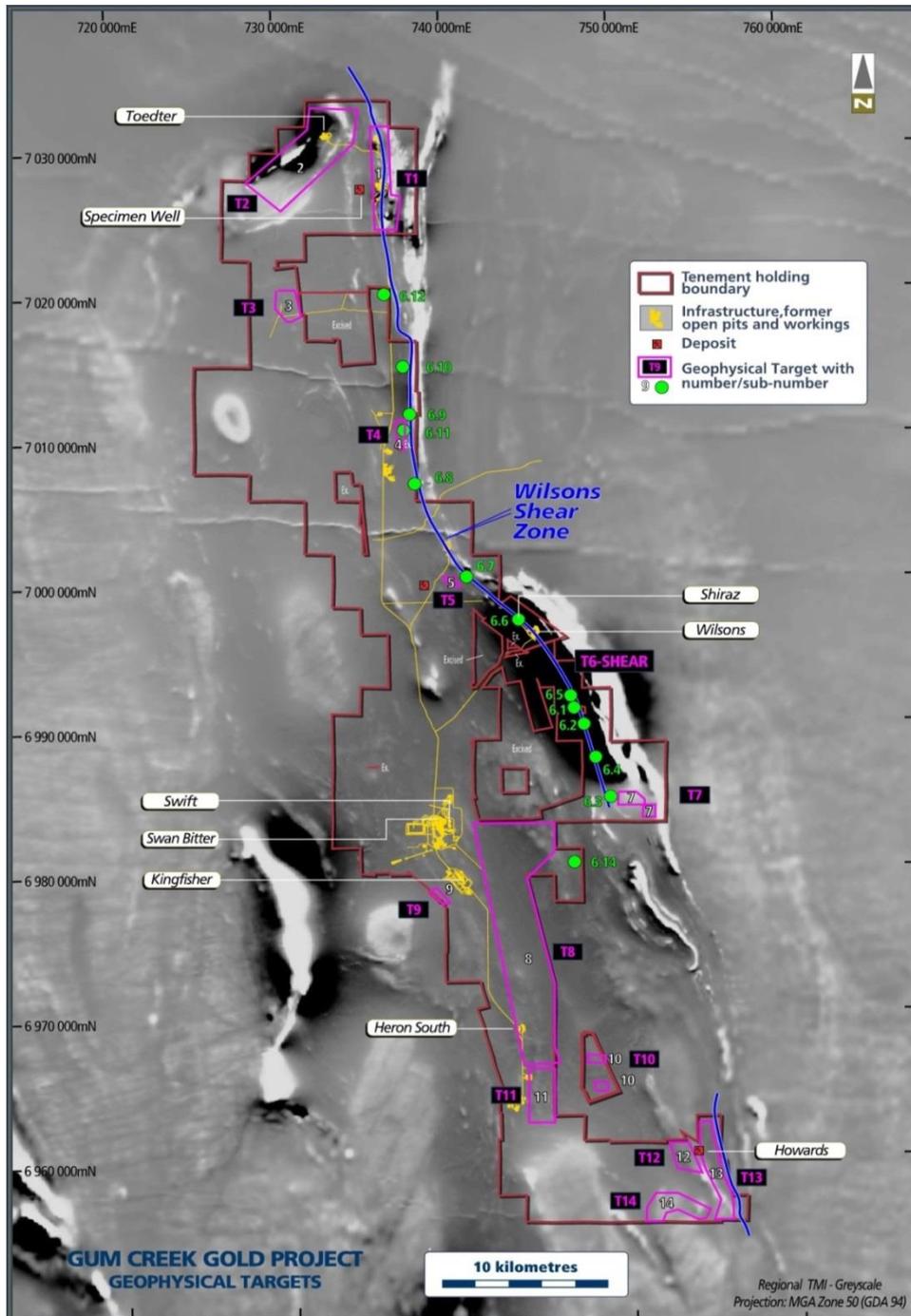


## High Priority Regional Gold Targets

The previous owner of the Gum Creek Project, Panoramic Resources Limited (ASX Code: PAN) (**Panoramic**), assembled fully integrated, high quality, belt scale geological, geophysical and geochemical datasets. These datasets were used to generate high priority gold targets, which form the basis of Horizon's exploration program over the next two years.

The integration of geophysical data collected from ground gravity and airborne electromagnetic (EM) surveys with existing magnetic surveys, geological mapping and the drill-hole database led to **14 high priority regional targets identified for follow-up exploration**, labelled T1 to T14 in Figure 2 (also refer to the Company's IPO Prospectus submitted to ASIC on 21 October 2016).

**Figure 2: Grey-scale magnetic (total magnetic intensity) image of the Gum Creek Greenstone Belt, showing priority exploration targets and project tenure as at the date of the Prospectus.**

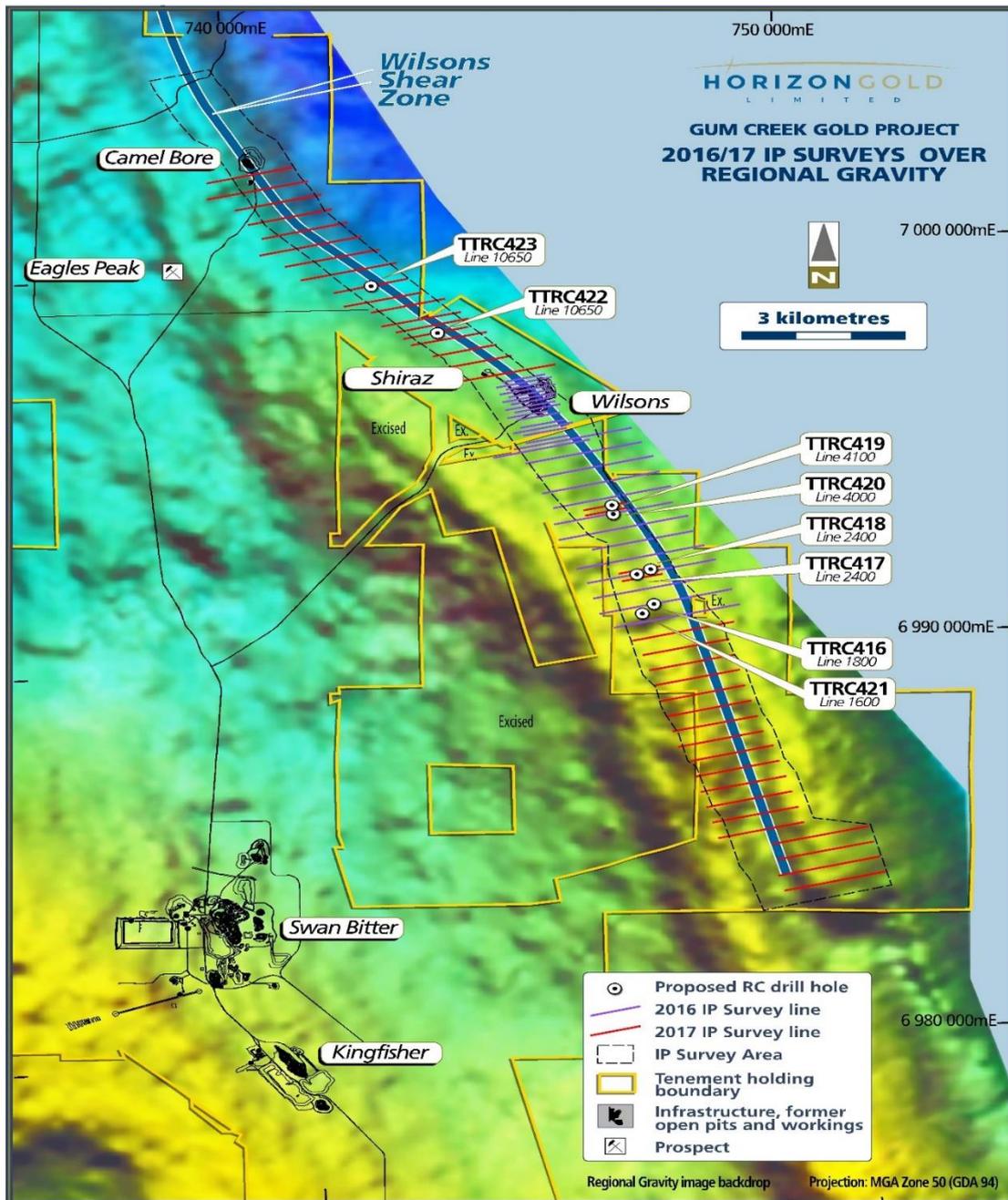


## March 2017 Quarter Update

### Exploration Activities

The 2017 Horizon Gold exploration program for Gum Creek commenced in January with the initial focus on extending the Induced Polarisation (IP) survey along the Wilsons Shear zone to the north and south of the Wilsons deposit. Merlin Geophysical Solutions Pty Ltd completed a total of 51 IP profiles using a 100m dipole dipole array on 400m spaced lines. **The initial 20km reconnaissance program of the Wilsons Shear from Camel Bore to the southern tenement boundary of E57/676 has now been completed (Figure 3).**

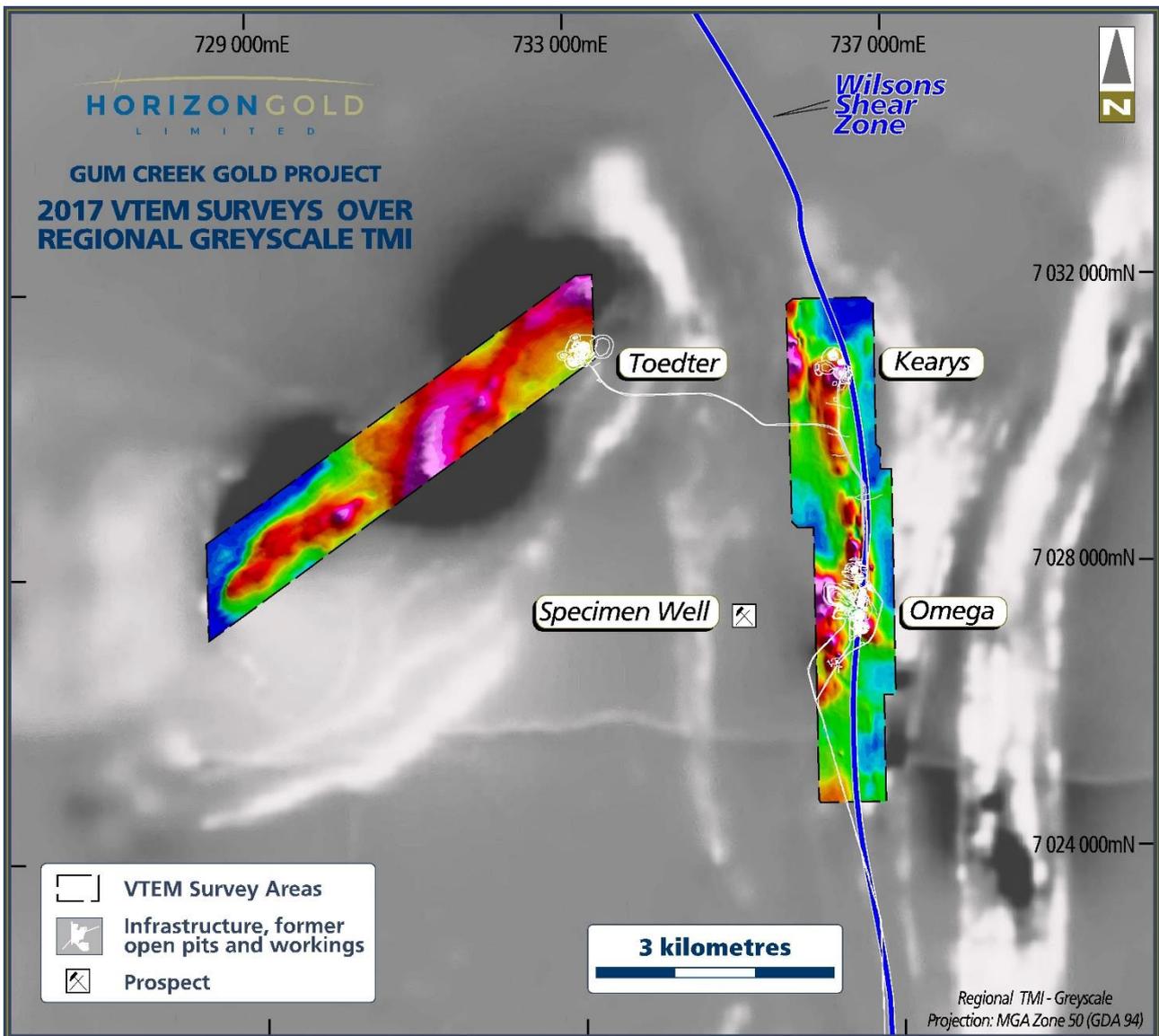
**Figure 3: Plan showing completed IP survey work along the Wilsons Shear**



The processing and interpretation of the Wilsons Shear zone IP survey data by Newexco Services Pty Ltd is ongoing. Newexco recently completed the 2D and 3D inversions of the data, which define chargeability surfaces that are interpreted to represent both stratigraphic and discrete anomalous responses. **These discrete anomalous responses may reflect zones of Wilsons-style mineralisation and will be targeted for further investigation**, including possibly additional infill IP surveying and/or drill testing. To date, **five discrete IP anomalies have been prioritised for drill testing**.

In late March, a 263km air-borne electromagnetic (VTEM) survey was completed, covering the most northern Newexco targets of T1 and T2. This survey was designed to explore for Omega and Toedter style mineralisation associated with BIF units in that area (*Figure 4*). The final processed survey data is scheduled to be received in mid-May 2017. **The first-pass analysis of the survey data suggests that at least four discrete bedrock conductors are present that require further investigation.**

**Figure 4: Plan showing 200m conductivity depth slice of stitched 1D inversion of VTEM data, on greyscale total magnetic intensity background. Warm colours (i.e. pink) represent areas of high conductivity.**



JORC Table 1 section 2 in relation to the IP and EM surveys is included in Appendix 1.

Drilling programs designed to (1) test several Wilsons IP targets and (2) complete additional infill Resource drilling at Heron South (*refer to the Company's ASX announcement of 10 March 2017*) had to be postponed after unseasonal heavy rain fell over the area in mid-March. **These drill programs have now commenced and results will be reported during the June 2017 quarter.**

## Development Studies

Recent magnetic separation testwork on flotation concentrate has shown that greater than 99% of the contained gold can be recovered into approximately 90% of the mass. Magnetic separation resulted in greater than 99% of the gold-bearing arsenopyrite reporting to the non-magnetic fraction, with the magnetic gold-poor pyrrhotite reporting to the magnetic fraction. Removal of pyrrhotite from the feed to the refractory process reduces reagent consumption of the refractory process.

The Company received results of an order of magnitude Refractory Processing Option Study completed by GR Engineering Pty Ltd during the quarter. The battery limits for the study was the oxidation of a non-magnetic fraction from a flotation concentrate, prior to CIL. The Study considered potential flow sheet options for four separate processing methods and corresponding operating and capital costs were derived. These options included bacterial leach, alkaline oxidation, Albion™ Process and mild pressure oxidation.

Compared to previously considered bacterial leach, the Study demonstrated potential **for significantly lower capital and unit operating costs for processing refractory gold concentrate** by utilising either mild pressure oxidation or the Albion™ Process. A key factor in the lower processing capital and operating costs is the significantly shorter oxidation time by these methods compared to bacterial oxidation, resulting in the requirement for a smaller processing plant. Importantly, previous testwork has demonstrated that both the pressure oxidation and the Albion™ Process achieve similar (+/- 2%) metallurgical recoveries compared to bacterial leach.

Previous flotation and magnetic testwork of refractory mineralisation at Gum Creek demonstrated good recoveries to a non-magnetic flotation concentrate of approximately 87% using a 75µm grind. The Company undertook further testwork using a drill core composite sample to assess optimum primary grind size to optimise flotation recoveries. The results demonstrated an **improvement in non-magnetic flotation recovery of approximately 4%** by using a finer primary grind of 45µm compared with 75µm.

The Company plans to use the results of the Options Study and flotation testwork to guide future metallurgical analysis and investigations. This work includes optimisation of thickening and filtration, oxidation and leaching, cyanide speciation and the neutralisation of flotation tails.

## Corporate

### Cash Position

**As at 31 March 2017, the Company's cash position was \$12.54 million.**

The Company made payments during the quarter totalling \$1.09 million, as detailed in the attached Appendix 5B.



## No New Information or Data

This announcement contains references to exploration results and Mineral Resource estimates, which were disclosed in previous market announcements made by Panoramic Resources Limited (ASX: PAN) and/or disclosed by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

## About the Company

Horizon Gold Limited (ASX Code: HRN) is an exploration company focused on its 100% owned Gum Creek Gold Project in Western Australia. The Gum Creek Gold Project covers approximately 724 square kilometres and hosts JORC 2012 Mineral Resources of 17.3 million tonnes averaging 2.25g/t gold for 1.25 million ounces of gold. It is located within a well-endowed gold region that host multi-million ounce deposits including Big Bell, Wiluna, Mt Magnet, Meekatharra and Agnew/Lawlers. Horizon believes there are multiple high priority drill targets and plans to undertake ongoing exploration and development studies with the aim of becoming a stand-alone gold producer. The Company had \$12.54 million in cash as at 31 March 2017.

**For further information contact:  
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## Appendix 1 – 2012 JORC Disclosures

### ***Gum Creek Gold Project - Table 1, Section 2 - Reporting of Exploration Results***

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The Gum Creek Gold Project (GCGP), formerly the Gidgee Gold Project, is a gold mining centre that has been on care and maintenance since 2005. The GCGP is currently secured by 46 tenements, comprising 7 Exploration Licences (ELs), 21 Mining Leases (MLs), 6 Prospecting Licences (PLs) and 10 Miscellaneous Licences (refer to the “Schedule of Tenements” in the latest PAN Annual Report). If there is production on the tenements, various royalties will be payable to third parties in relation to various tenements.</li> <li>• All tenements and land tenure are current and in good standing. Horizon Gold Limited (HRN), through its wholly owned entity, Panoramic Gold Pty Ltd, has 100% ownership of the tenements and subject, to any necessary approvals, the sole right to explore for and/or mine all commodities within the area of the PLs, ELs and MLs.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>• Horizon Gold Limited acquired control of the GCGP 21 Dec 2016. Previous owners of the Project include: <ul style="list-style-type: none"> <li>○ Australian Resources Limited, 1988 – 1999</li> <li>○ Abelle Limited, 1999 – 2003</li> <li>○ Harmony Gold Mining Co Ltd, 2003</li> <li>○ Legend Mining Limited, 2003 – 2005 (mining ceased)</li> <li>○ Apex Minerals Limited, 2008 - 2011</li> <li>○ Panoramic Resources Ltd 2011 – Dec 2016</li> </ul> </li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The GCGP contains a series of shear and vein host gold deposits of both free milling and refractory character. All deposits are classified as belonging to the Archaean orogenic category of gold deposits.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </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 style="list-style-type: none"> <li>• Exploration at Gum Creek is conducted on the series of historical exploration grids within the Map Grid of Australia (MGA) GDA94 Zone 50.</li>   <li>• The exploration results and information reported in this announcement relate to the undertaking of geophysical Induced Polarisation (IP) and VTEM surveys and did not involve drilling – therefore no drill hole information is applicable to the results.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>• The exploration results and information reported in this announcement relate to the undertaking of geophysical Induced Polarisation (IP) and VTEM surveys and did not involve drilling – therefore no drill hole data aggregation methods</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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 stated.</li> </ul>	are applicable to the results.
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The exploration results and information reported in this announcement relate to the undertaking of geophysical Induced Polarisation (IP) and VTEM surveys and did not involve drilling – therefore relationships between mineralisation widths and intercept lengths are not applicable to the results.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The diagrams and plans in this announcement are deemed to be appropriate for the level of data available and on the information being reported on.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The exploration results and information reported in this announcement are sufficiently detailed in nature for the announcement to be considered sufficiently balanced and not misleading.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 substances.</li> </ul>	<ul style="list-style-type: none"> <li>The exploration results and information reported in this announcement relate to the undertaking of a geophysical Induced Polarisation (IP) and VTEM survey conducted 13 within the GCGP. The Surveys was supervised by Newexco.</li> <li>IP Survey specifications are as follows <ul style="list-style-type: none"> <li>Location – Gum Creek Greenstone Belt</li> <li>Project – Gum Creek Gold Project</li> <li>Prospect – Wilsons South</li> <li>Client – Panoramic Gold Pty Ltd</li> <li>Grid 1 – Mt Townsend</li> <li>Grid 2 – GDA94MGAZ50</li> <li>Survey Configuration – Dipole-Dipole</li> <li>Number of Profiles – 13</li> <li>Line spacing – 400m</li> <li>Target 13 line spacing – 400m</li> <li>Target 13 nos profiles – 11</li> <li>Target 13 length – 2,000m</li> <li>Number of RX dipoles – 180</li> <li>Base Frequency – 0.125 Hz</li> <li>A spacing – 100m</li> <li>N spacing – 8</li> <li>M – 450ms to 1150ms</li> <li>Stacking – As required</li> <li>Readings– Consistent readings</li> <li>Windowing – Semi log</li> <li>Receiver – GDD 32</li> <li>Transmitter – GDD 5000</li> <li>Generator – 10kva</li> <li>Wire – HV Tx</li> <li>Target 13 datum – 755100mE, 6955560mN</li> </ul> </li> <li>VTEM Survey specifications are as follows <b>System VTEMAX</b></li> </ul>

Criteria	JORC Code explanation	Commentary
		<p><b>Transmitter</b>            Loop Diameter 35 m            Loop Area 962 m<sup>2</sup>            # turns 4            Effective TX loop area 3,847 m<sup>2</sup>            Typical Current 180 A            Peak Dipole Moment 690,000 NIA            Pulse Width 7 ms @ 25 Hz</p> <p><b>Receiver</b>            dB/dT components Z &amp; X standard            B Field derived            X coil diameter 0.32 m            # turns X coil 245            Effective X coil loop area 20 m<sup>2</sup>            Z coil diameter 1.20 m            # turns X coil 100            Effective X coil loop area 113 m<sup>2</sup>            Time gate range 18us-11.5ms            # channels recorded 45</p> <p><b>Mechanical</b>            Typical weight ~630 kg            Nominal survey speed 90 km/hr</p> <p>•</p> <p><b>Flight line Specifications</b>            Block Name A1            Line Spacing (m) 50m            Line Direction 52-232</p> <p>Block Name A2            Line Spacing (m) 50m            Line Direction 000-180</p>
<b>Further work</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The exploration results and information reported in this announcement relate to the completion of recent geophysical surveys. Work is ongoing and further results will be reported if and when they become available.</li> </ul>