**12 JANUARY 2021** 



# QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2020

#### **HIGHLIGHTS**

- Trial mining completed and results of two toll milling campaigns released from the Boorara gold mine, 10km east of Kalgoorlie - Boulder in the Western Australian Goldfields
- Total open pit material movement of 513,000 BCM with total ore mined (high and low grade) of 267,000t at a mine claimed grade of 1.23g/t Au for 10,560 ounces mined 1
- Second toll milling campaign produced 1,845 ounces from the processing of 46,700t at a reconciled feed grade of 1.30g/t Au and gold recovery of 95.1% 1
- Third toll milling campaign produced 2,491 ounces from the processing of 50,270t at a reconciled feed grade of 1.62g/t Au and gold recovery of 95.0% <sup>2</sup>
- Gold sales for the Quarter of 3,374 ounces raising \$8.47 million in revenue at an average sale price of \$2,512 per ounce generating \$4.36 million in net cash flow
- Excellent drilling results received from Binduli and Rose Hill as part of the 70,000m reserve conversion, resource growth and new discovery drilling program <sup>3</sup>
- Updated Mineral Resource estimate for the Rose Hill gold project demonstrating high grade open cut and underground potential 4
- Acquisition of the Kalpini gold project completed for \$2.75 million in cash <sup>5</sup>
- Agreement reached for the acquisition of 50% of the high grade Penny's Find underground gold project for \$1.5 million in cash 6
- Positive Pre-Feasibility Study released for the Richmond-Julia Creek vanadium JV 7
- Finance and technical team strengthened ahead of a significant growth phase
- Cash on hand at Quarter end of \$15.9 million and listed investments totalling \$5.4 million

#### MARCH QUARTER ACTIVITIES 8

- Completion of the final toll milling campaign and release of reconciliation results
- Continuation of the large scale exploration program and release of further drilling results
- Release of resource updates for the Boorara, Teal and Binduli gold projects
- Advancing the open pit and underground optimisation and design studies as part of the consolidated Feasibility Study due for completion in the June Quarter 2021
- Update on the Nimbus silver-zinc project and Richmond vanadium JV project

<sup>1</sup> As announced to the ASX on 6 October 2020.2 As announced to the ASX on 15 December 2020.3 As announced to the ASX on 4, 10 and 24 November 2020.4 As announced to the ASX on 9 December 2020.5 As announced to the ASX on 12 October 2020.6 As announced to the ASX on 30 November 2020. 7 As announced to the ASX on 27 October 2020. 8 See Forward Looking and Cautionary Statement on Page 35.



Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to provide the December 2020 Quarterly Activities Report. Horizon is a gold production, development and exploration company with a key focus in the Kalgoorlie and Coolgardie regions of Western Australia (Figure 1). A key focus for the Company is on exploration upside within our tenement package of 890 km² with up to four drill rigs currently operating as part of the largest ever 70,000m exploration program. Horizon holds numerous non-core assets including royalties, listed investments and a joint venture in place covering the 1.8Bt Richmond-Julia Creek Vanadium Project in North Queensland (Figure 16).

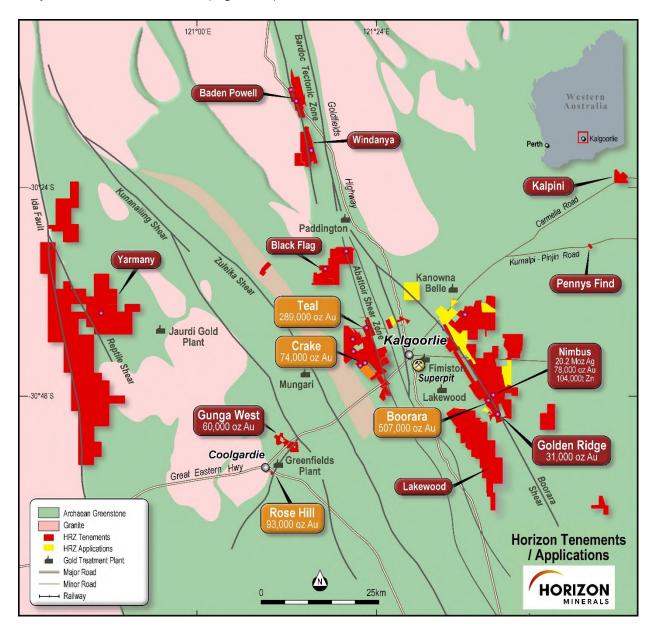


Figure 1: Horizon's project locations, regional geology and surrounding infrastructure

Primary activities during the Quarter included trial mining and toll milling at Boorara, continuation of a 70,000m reserve conversion, resource growth and new discovery drilling program, resource modelling and mine optimisation studies as part of the consolidated Feasibility Study, release of the Richmond vanadium PFS, review of further regional consolidation, joint venture and divestment opportunities and strengthening of the team ahead of significant growth phase.



#### MINE DEVELOPMENT AND OPERATIONS

During the December Quarter, haulage of the remaining high grade ore from the Boorara gold mine, 10km east of Kalgoorlie – Boulder was completed and results released from two toll milling campaigns. Three trial pits were completed at each of the Regal East, Regal West and Crown Jewel deposits with total volume mined of 513,000 BCM.

Ore mined, including both high grade and low grade, totalled 267,000t at a mine claimed grade of 1.23g/t Au, 25% above the global resource grade of 0.97g/t Au <sup>1</sup>. 150,000t has been hauled to the Lakewood toll milling facility with 120,000t treated to date. The remaining low grade stockpiles will remain at site for treatment at the proposed Boorara Mill in the future <sup>1</sup>.



Figure 2: Mining the good bye cut from the Crown Jewel Pit

The second milling campaign commenced on 31 August 2020 and ran for 24 days to 23 September 2020 with two ore parcels totalling 46,700t processed back to back from Regal West and Regal East pits. Milling performance was excellent with throughput averaging 90tph, high gravity recovery and an overall calculated gold recovery of 95.1%.

Reconciled mill grade for the upper oxide zones of the Regal West pit were below expectations at 1.21g/t Au while improved grades were reconciled for the deeper ore zones in the Regal East pit with a mill grade of 1.40g/t Au.

Gold produced from the campaign totalled 1,845 fine ounces with all gold sold at an average price of A\$2,654 per ounce generating revenue of A\$4.9 million with \$2.3 million received in the December Quarter.

<sup>&</sup>lt;sup>1</sup> See Confirmation and Forward Looking Statements on Pages 34 and 35.



The third milling campaign commenced on 5 November 2020 and ran for 25 days to 29 November 2020 comprising ore from the Crown Jewel, Regal west and Regal east trial pits. Milling performance was again excellent with throughput averaging 87tph, high gravity recovery and reagent consumptions within expectations.

Mill reconciliations have now been completed with a total of 50,274 dry tonnes processed at a reconciled mill grade increasing with mine depth to 1.62g/t Au.

Overall gold recoveries exceeded expectations with a calculated recovery of 95.0%, above the modelled recoveries of 91.0%.

Gold produced from the campaign totalled 2,491 fine ounces with all gold sold at an average price of A\$2,466 per ounce generating revenue of A\$6.1 million. All mining and site costs were expended in the September Quarter with the third campaign generating \$3.7 million in net cash after haulage and toll milling costs.



Figure 3: Horizon staff with the first gold from the Crown Jewel trial pit

The final milling campaign treating the remaining high grade ore and a test parcel of low grade material is scheduled to commence in mid-January 2021. On completion, a mine to mill reconciliation will be completed and used to compile an updated Mineral Resource estimate due for completion in the March Quarter 2021.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> See Confirmation and Forward Looking Statements on Pages 34 and 35.



#### **EXPLORATION AND EVALUATION**

During the Quarter, the Company commenced its largest ever exploration program with the first rig commencing in September 2020. The fully funded program totals over 70,000m of planned drilling within a +\$7 million budget and comprises reserve conversion, resource growth and new discovery drilling throughout the 890km<sup>2</sup> of the Company's 100% owned tenure. The drilling will be completed systematically with up to four aircore, RC and diamond rigs cycling through the program with the results from each round collated, reviewed and informing the next round of drilling. With the reserve drilling complete, the focus of the 2021 exploration program will turn to new discovery and new resource drilling across the entire portfolio.

#### Boorara gold project area

The core baseload Boorara gold project is located 10km east of Kalgoorlie-Boulder (Figure 1) adjacent to the Superpit and 1km southwest of the Nimbus silver zinc project site where established offices are connected to mains power and existing production water supplies.

The deposit is hosted in a typical quartz dolerite comprising a sheeted quartz vein array system with bounding shear zones and late stage cross faults. Mineralisation occurs as northwest dipping sheeted and stockwork quartz-carbonate vein arrays within the quartz dolerite host rocks and steeply dipping zones along sheared geological contacts trending to the north-northwest.

During the Quarter, pit mapping from the trial pits and mine to mill reconciliation data was reviewed and incorporated into the geological model. On completion of the final toll milling campaign in February, all data will be used to compile an updated Mineral Resource estimate due for completion in March 2021. The new model will then be used to generate maiden Ore Reserves for Boorara as part of the consolidated Feasibility Study due for completion in the June Quarter 2021.<sup>1</sup>

Further infill drilling is not required for the Royal, Crown Jewel and Regal deposits (Figure 4) with the focus now shifting to extensional and new discovery drilling across the entire Boorara gold project area from Golden Ridge in the south to Kanowna in the north. RC and diamond drilling is planned at several high priority targets and will commence in the March Quarter 2021.<sup>1</sup>

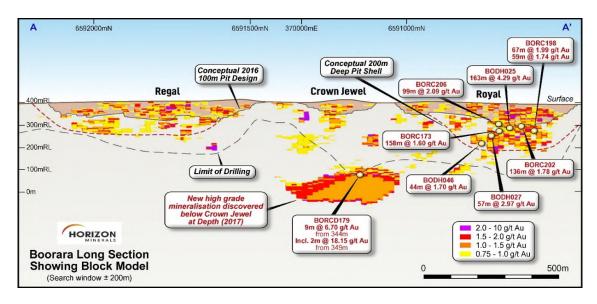


Figure 4: Boorara long section with pit outlines and depth potential at Crown Jewel

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## **ASX ANNOUNCEMENT**

## Binduli gold project area

The Binduli area is located 9km west of Kalgoorlie - Boulder and is accessible by existing sealed and unsealed roads within easy trucking distance from Boorara 20km to the east (Figure 1 and 5). The project area contains the core satellite Crake and Coote projects in the south of the tenement package and Darter and Honeyeater prospects to the north (Figure 5).

The geology at Crake and Coote 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. 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 cross cutting structures. Mineralisation sits within variably altered pink porphyry with minor amounts of pyrite and magnetite. Higher grades usually coincide with stronger pyrite mineralisation (up to 3% by volume).

During the Quarter, a total of 30 RC holes for 2,967m to 140m depth were completed at Crake exploring beyond the current mineralised envelope and infilling some areas for improved geological confidence and JORC classification. In addition, 5 diamond holes were completed for 522m for geotechnical and metallurgical testing to enable reserve generation to be completed.

Exploration drilling at Crake delivered excellent results (Figures 5, 6 and 7) along strike with follow up step out drilling completed and demonstrating continuous mineralisation across a 500m strike length. Mineralisation remains open to the northwest and at depth. Final results for the RC drilling have not yet been received due to the backlog of samples at the assay labs.

New shallow high grade drilling results received from Crake include 1:

- 12m @ 6.68g/t Au from 6m including 3m @ 14.85g/t Au from 9m (BRC20018)
- 4m @ 19.20g/t Au from 12m (BRC20020)
- 4m @ 5.78g/t Au from 24m (BRC20001)
- 2m @ 2.17g/t Au from 46m, 2m @ 3.22g/t Au from 60m and 31m @ 1.81g/t Au from 71m including 3m @ 7.06g/t Au from 99m (BRC20014)
- 1m @ 2.95g/t Au from 39m, 8m @ 2.41g/t Au from 72m, 8m @ 1.02g/t Au from 88m and 6m @ 3.20g/t Au from 104m (BRC20012)
- 28m @ 3.37g/t Au from 32m including 4m @ 12.40g/t Au from 36m (BRC20028)
- 8m @ 1.85g/t Au from 56m (BRC20026)
- 16m @ 1.43g/t Au from 56m and 4m @ 1.27g/t Au from 92m (BRC20025)

Further step out RC drilling is currently underway with results expected in the March Quarter 2021. The new data will be used to compile an updated Mineral Resource estimate for Crake due for release in the current Quarter. Mine optimisation and design studies will then be completed to generate a maiden Ore Reserve due for completion in the June Quarter 2021.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 4 and 24 November 2020. <sup>2</sup>See Confirmation and Forward Looking Statements on Pages 34 and 35.

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## **ASX ANNOUNCEMENT**

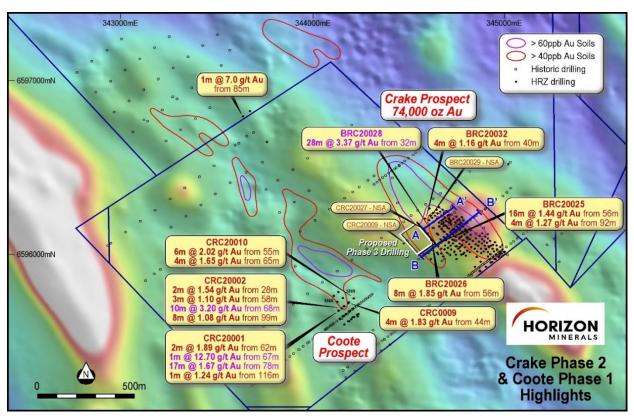


Figure 5: Coote and Crake drilling highlights and open targets for resource extension

At the Coote prospect, 700m to the west (Figure 5), the geology is similar to Crake and Janet Ivy where gold is found within a mineralised pink porphyry. Horizon drilled 20 RC holes for 1830m to a maximum depth of 160m during the quarter. Drilling focussed on expanding the footprint of gold mineralisation at Coote. Final results for the RC drilling have not yet been received.

A maiden Mineral Resource estimate for Coote expected in the current March Quarter 2021.<sup>2</sup>

Significant new results received from Coote include 1:

- 2m @ 1.89g/t Au from 62m, 1m @ 12.70g/t Au from 67m, 17m @ 1.67g/t Au from 78m and 1m @ 1.24g/t Au from 116m (CRC20001)
- 2m @ 1.54g/t Au from 28m, 3m @ 1.10g/t Au from 58m, 10m @ 3.20g/t Au from 68m and 8m @ 1.08g/t Au from 99m (CRC20002)
- 4m @ 2.44g/t Au from 56m (CRC20010)\*

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 4 and 24 November 2020. <sup>2</sup> See Confirmation and Forward Looking Statements on Pages 34 and 35.



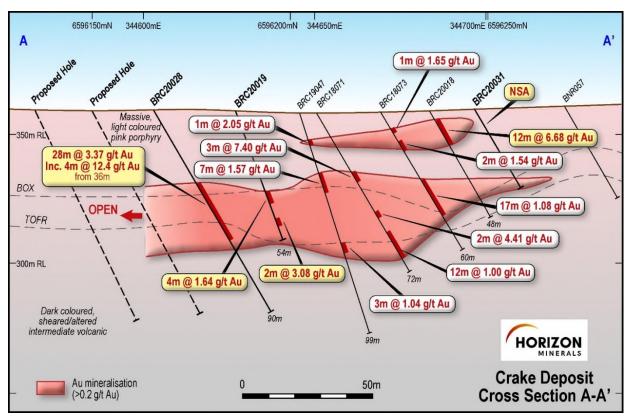


Figure 6: Crake cross section AA' highlights with proposed step back drilling

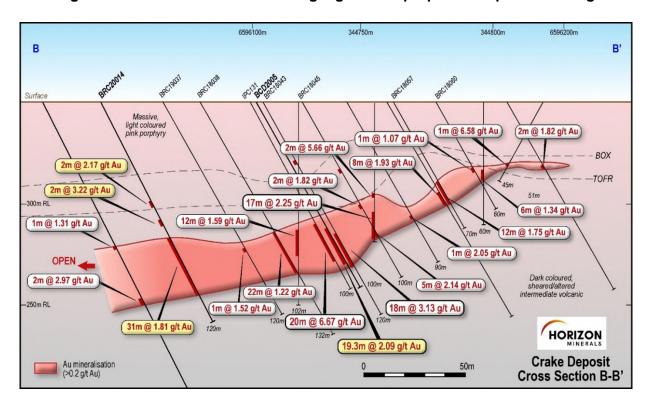


Figure 7: Crake cross section BB' showing location of BRC20014 and BCD2005



# Teal gold project area

At the Teal Project area, 12 km northwest of Kalgoorlie, reserve conversion drilling will focus on the oxide and transitional ore (30-70m depth) at Jacques Find and Peyes Farm. Similar ore from Teal was proven to be highly amenable to conventional CIP/CIL treatment in 2017.

At Teal East, 10 holes for 991m were completed to a maximum depth of 132m. At Yolande 5 RC holes for 336m were completed with no significant gold returned. The Peyes project was infilled drilled by 29 holes for 2326m whilst the nearby Jacques deposit was drilled with 31 RC holes for 2561m. 7 additional HQ diamond core holes for 615.3 were also completed at Jacques, Peyes and Teal East. Results are still being received from the labs.

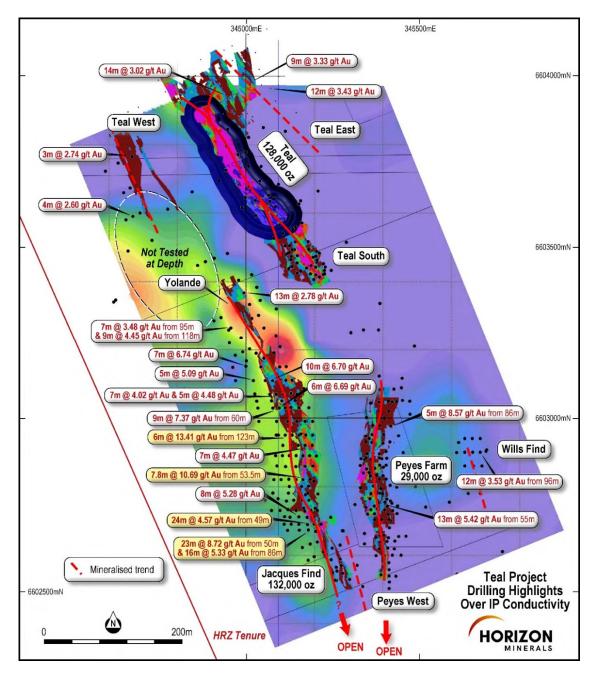


Figure 8: Teal project area, underlying geology and follow up drill targets

# HORIZON MINERALS LTD

## **ASX ANNOUNCEMENT**

## Rose Hill gold project area

Rose Hill is located 0.5km southeast of Coolgardie and lies on the western margin of the Archean Norseman-Menzies Greenstone Belt (Figure 1). Mineralisation is hosted within the main Rose Hill diorite (porphyry), adjacent to the hanging wall ultramafic and an eastern porphyry unit alongside the Greenmount Sill (Figure 9). It is part of the same mafic-ultramafic package that includes Brilliant, Tindals and Dreadnought to the south and Queen of Sheba immediately to the north.

During the previous quarter, further infill drilling was completed to improve geological confidence and JORC classification following significant RC and diamond programs completed in 2020 enabling the compilation of a new open pit and underground Mineral Resource estimate (Figures 9-13).

In total, 45 holes for 2,500m were completed to a maximum depth of 200m with significant high grade intercepts received include <sup>1</sup>:

- 11m @ 8.79g/t Au from 43m (RC20039) and 10m @ 6.28g/t Au from 28m (RC20001)
- 16m @ 4.10g/t Au from 93m (RC20012) and 7m @ 7.26g/t Au from 27m (RC20009)
- 3.4m @ 17.92g/t Au from 79m (RCD20015) and 4m @ 9.77g/t Au from 84m (RC200014)
- 5m @ 4.79g/t Au from 4m and 2m @ 3.12g/t Au from 24m (RC20031)
- 7m @ 1.15g/t Au from 0m and 3m @ 6.63g/t Au from 10m (RC20013)
- 7m @ 2.36g/t Au from 2m (RC20020) and 10m @ 1.94g/t Au from 10m (RC20040)

In addition, a review in 2019 of historical information highlighted a significant amount of additional drilling, mine optimisation and open pit and underground mine design work had been completed by previous owners. This mining information has now been retrieved with the assistance of Northern Star, through WAMEX and discussions with previous mine operators and consultants.

Significant downhole RC intercepts reported supporting open pit mining included 1:

- 17m @ 3.08g/t Au from 0m (RH1000/5)
- 4m @ 11.07 g/t Au from 8m (RH1060/5)
- 14m @ 4.11g/t Au from 21m (RH1210/3)
- 15m @ 3.46g/t Au from 22m (RH1070/2)
- 7m @ 7.26g/t Au from 27m (RHRC20009)
- 10m @ 6.28g/t Au from 28m (RHRC20001)

Significant true width intercepts supporting underground mining include 1:

- 20m @ 8.94g/t Au from 77m (RH1110/4)
- 3.5m @ 10.52g/t Au from 170.5m (RH960/3)
- 7.5m @ 5.40g/t Au from 242.3m (RH1110/5)
- 5m @ 3.66g/t Au from 281m and 5m @ 5.93g/t Au from 289.5m (RH1070/6)
- 3m @ 9.25g/t Au from 407m (RH1000/4a)

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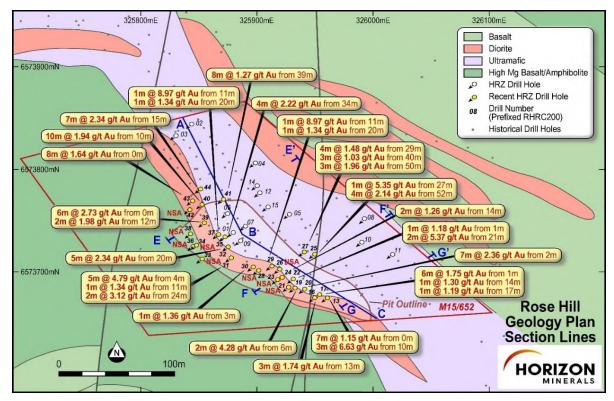


Figure 9: Rose Hill drill hole 2020 collar plan and cross section locations

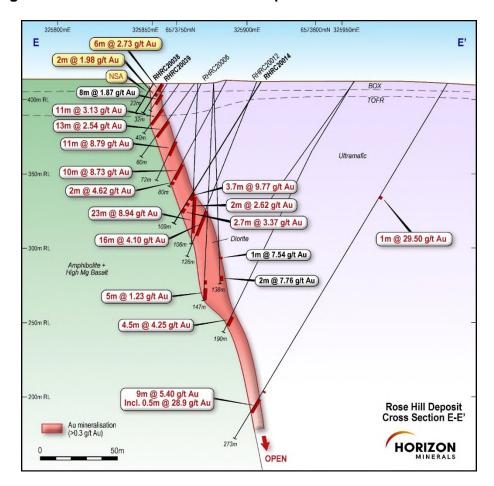


Figure 10: Rose Hill deposit cross section E - E' (see Figure 9 for location)



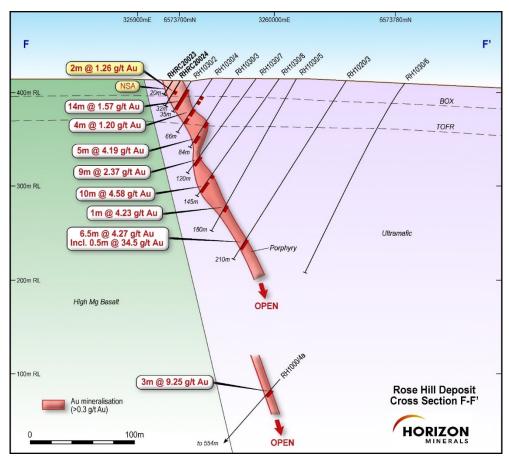


Figure 11: Rose Hill deposit cross section F - F' (see Figure 9 for location)

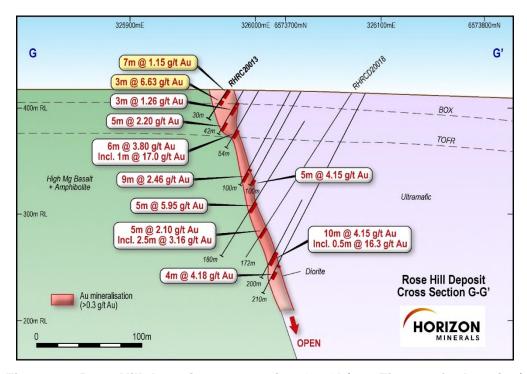


Figure 12: Rose Hill deposit cross section G - G' (see Figure 9 for location)



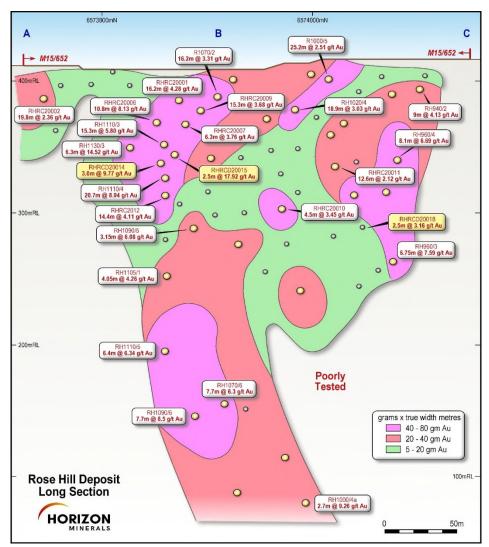


Figure 13: Rose Hill deposit long section A – B – C (See Figure 9 for location)

This drilling data has now been reviewed, validated and incorporated into the drilling data base and used to compile an updated independent Mineral Resource Estimate compliant with the JORC 2012 Code as announced to the ASX on 9 December 2020.

The updated open cut and underground Mineral Resource estimates are shown below: 1,2

Project Cut-off		Measured		Indicated		Inferred		Total Resource					
	Grade	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz
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
TOTAL		0.19	1.97	12,300	0.42	3.96	53,200	0.18	4.78	27,800	0.79	3.65	93,200

<sup>&</sup>lt;sup>1</sup> The information in this table that relates to the Estimation and Reporting of Gold Mineral Resources at the Rose Hill Deposit is based upon information compiled by Ms Christine Shore BSc., a Competent Person who is a current Fellow of the Australian Institute of Mining and Metallurgy (FAusIMM 207999). Ms Shore is a Principal Geological Consultant at Entech Pty Ltd. and an independent consultant to Horizon Minerals Ltd (HRZ). Ms Shore has sufficient experience relevant to the style of mineralisation and deposit type under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Ms Shore consents to the inclusion in the report of matters based on her information in the form and context in which it appears.

<sup>&</sup>lt;sup>2</sup> Open pit resource defined as surface (~412m RL) to 367.5m RL, UG resource defined by <367.5m RL



The updated resource models show a reduction in tonnage offset by a **47% increase in grade** as the focus of the project moves to underground mining with a higher cut-off grade and more tightly constrained model parameters. Figures 9-13 provide an updated picture of the project demonstrating the high grade open pit and underground potential. Consistent width and grade starting at surface enables an open pit to be assessed to reach the primary hard rock zone at depth for a potential portal location to enable decline development and underground mining.<sup>1</sup>

#### New discovery drilling

In support of the above Reserve conversion programs on the core baseload and satellite projects and to ensure a strong pipeline of growth projects to replace reserves over time, a large scale exploration program has been planned across the entire 890km<sup>2</sup> tenement package with over 15 high priority brownfields and greenfields projects to be tested (Figure 14).<sup>1</sup>

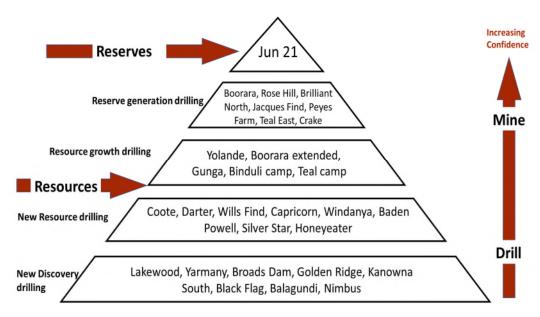


Figure 14: Target generation and production pipeline

During the Quarter, drilling commenced at the Windanya and Baden Powell prospect areas, located north of Kalgoorlie-Boulder (Figure 1) with first results expected in the current March Quarter 2021.

At the Windanya project area, in the Bardoc Tectonic Zone, 50 km northwest of Kalgoorlie, deeper drilling by Horizon during 2019 at the historic Capricorn prospect returned highly encouraging results from 20m depth. Since then, Capricorn has been drilled along 400m of strike on a 40m grid pattern with mineralisation open in all directions and requiring follow up. Air core drilling at Windanya totalled 18 holes for 751m. Final results are still pending.

The Baden Powell prospect is located about 60km north of Kalgoorlie also located in the Bardoc Tectonic Zone. Scout drilling by Horizon approximately 200m north of Baden Powell returned significant results amongst some unreported RAB and RC holes during 2019. This new mineralisation appears to be along strike of Baden Powell but separate to it. This porphyry contact will be investigated in more detail along strike to the north and south.

<sup>&</sup>lt;sup>1</sup> See Resource Tables and Confirmation Statements on Pages 33 and 34.



During the Quarter, 16 mostly vertical holes for 822m were drilled within the pit confines by a track mounted rig to assist with the resource modelling. Final results are still pending. At the Honeyeater prospect and surrounds, 9 holes for approximately 990m were completed following up the 2019 drill intercepts. Results are still pending.

A detailed summary of the 2021 new discovery program will be provided early in the March Quarter 2021.

### Nimbus Silver-Zinc project

The Nimbus project lies immediately adjacent to the Boorara gold mine (Figures 1 and 15) and was placed on care and maintenance in 2007 after producing 3.6Moz from 318kt processed at a grade of 353g/t Ag. The old milling circuit has since been removed and the area rehabilitated.

The Project hosts a high-grade silver zinc resource of 256kt @ 773g/t Ag and 13% Zn that has been estimated from the global Nimbus resource of 12.1Mt @ 52g/t Ag, 0.9% Zn and 0.2g/t Au for a total of 20Moz Ag and 104kt Zn and 78koz Au (JORC 2012). <sup>1</sup>

Nimbus is a shallow-water and low-temperature VHMS deposit with epithermal characteristics (i.e. a hybrid bimodal felsic deposit), which is consistent with its position near the margin of the Kalgoorlie Terrane. The current Discovery and East pits have been subject to extensive drilling highlighting significant potential to extend mineralisation along strike and at depth below 400m. Regional exploration has been limited to the north and south and considered highly prospective for further precious and base metal deposits.

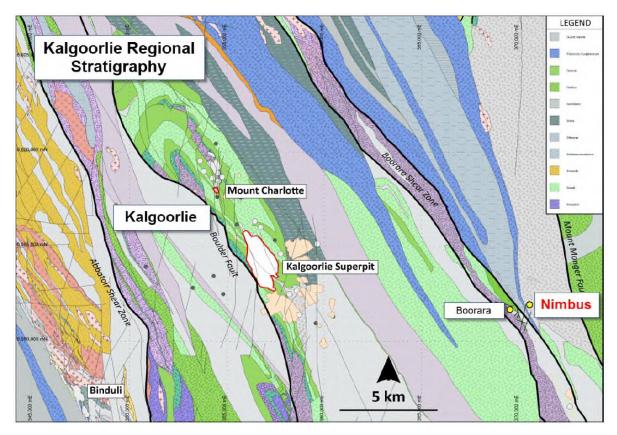


Figure 15: Nimbus project location and regional geology

<sup>&</sup>lt;sup>1</sup> See Resource Tables and Confirmation Statements on Page 34. <sup>2</sup> See Cautionary and Forward Looking Statements on Page 35.



Extensive metallurgical test work has been completed on Nimbus ore with the Feasibility Study put on hold in 2014. In light of increasing silver and zinc prices, the Company continues to review options to create value for shareholders and has received a number of expressions of interest from third parties in Australia and overseas.

The Company is currently conducting a detailed review of all previous work and believes there is significant opportunity to assess a stand-alone silver-zinc concentrate facility in the future in conjunction with the proposed gold plant under evaluation at Boorara.<sup>2</sup>

## **ACQUISITIONS AND DIVESTMENTS**

The Company continues to assess consolidation opportunities within the WA goldfields region to augment the production pipeline and is working with a number of parties for mutual gain.

During the Quarter, the Company acquired 100% interest in the Kalpini project for a total cash consideration of \$2.75 million. The project is located 65km northeast of Kalgoorlie-Boulder (Figure 1) and hosts a historic JORC 2004 resource of 255,600oz (4.6Mt grading 1.71g/t Au).<sup>1</sup>

The Company has completed a geological review and will commence a validation, infill and extensional drilling program in the current March Quarter to enable the compilation of an updated JORC 2012 Mineral Resource estimate schedule for release in the June Quarter 2021. This will include depletion from Stage 1 mining of the Gambia pit in 2019 where approximately 39,000oz was mined at 2.62g/t Au. Please see the ASX announcement dated 12 October 2020 for further information and technical details of the project.

In addition and as announced to the ASX on 30 November 2020, the Company executed a binding agreement with Orminex Ltd (ASX:ONX) to acquire a 50% interest in the Penny's Find high grade underground project for a cash consideration of \$1.5 million and commitment to spend \$1 million in pre-development expenditure. The project is located 50km northeast of Kalgoorlie-Boulder (Figure 1) has a current JORC 2012 Mineral Resource Estimate of 248,000t at 7.04g/t Au for 56,000 ounces with 147,000t at 8.06g/t Au in the Indicated Category.<sup>2</sup>

Diamond drilling will commence in the March Quarter to infill a number of areas enabling conversion of the Inferred material into the Indicated Category for inclusion in underground mine optimisation and design studies and generation of Ore Reserves. First results are expected in the current March Quarter.<sup>3</sup>

The plan forward for Penny's Find is to complete the Feasibility Study for a development decision in H1 2021 for potential underground mining and processing in the H2 with a toll milling agreement in place at the Lakewood Mill.<sup>3</sup>

During the Quarter, the Company divested its 100% interest in Prospecting License P24/5116 to Warriedar Mining Pty Ltd for \$200,000 in shares. As announced to the ASX by TNT Mines Ltd (ASX: TIN) on 23 October 2020, TIN acquired 100% of Warriedar with shareholder approval received on 30 November 2020. As a consequence, Horizon now holds 1.52 million shares in TIN.

The Company has also acquired a number of tenements through pegging and agreement with various local prospectors and syndicates. A more detailed summary of the new tenure will be provided in the March Quarter 2021 when titles are completed.

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 12 October and 5 November 2019. 2 As announced to the ASX on 30 November 2020. 3 See Cautionary and Forward Looking Statements on Page 35.



# **JOINT VENTURES AND ROYALTIES**

## RICHMOND - JULIA CREEK VANADIUM PROJECT (RVT earning up to 75%)

In March 2017, the Company entered a strategic development JV with Richmond Vanadium Technology Pty Ltd ("RVT"). The JV covered Horizon's 100% interest in the Richmond vanadium project in North West Queensland (Figure 16). The project tenements cover 1,520km² of Cretaceous Toolebuc Formation. RVT have now commenced the second stage expenditure commitment of A\$5 million to March 2021 inclusive of a Feasibility Study.

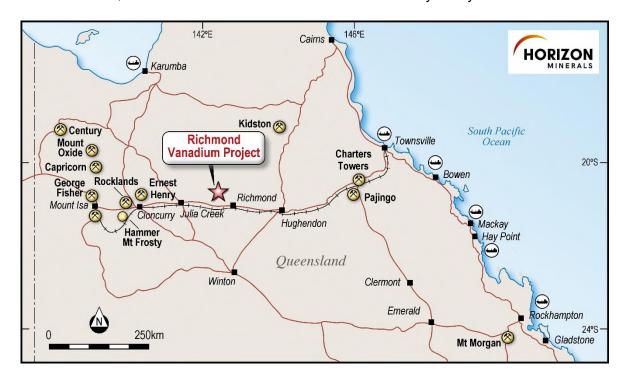


Figure 16: Richmond Vanadium Project location and surrounding infrastructure

During the June Quarter, RVT updated the geological data base with all new drilling data and released an updated Mineral Resource Estimate for Lilyvale (Figure 17) as announced to the ASX on 16 June 2020.

Since commencement of the JV, RVT have conducted extensive metallurgical test work initially focussed on upgrading the run of mine ore prior to downstream processing of the concentrate. Results from the concentration tests using simple screening, gravity and flotation mineral dressing techniques produced excellent results with the concentrate comprising 21% of the original mass at an improved grade of 1.6%  $V_2O_5$  and a 73% recovery <sup>1</sup>. The concentrate produced also had a greatly reduced calcium content enabling a number of downstream processing options to be pursued.

With the success of the pre-concentration and downstream test work, work advanced to simulated production tests. These tests were conducted with semi-industrial scale samples through the entire process flowsheet from samples to final product.

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 18 November 2019.

# HORIZON MINERALS LTD

## ASX ANNOUNCEMENT

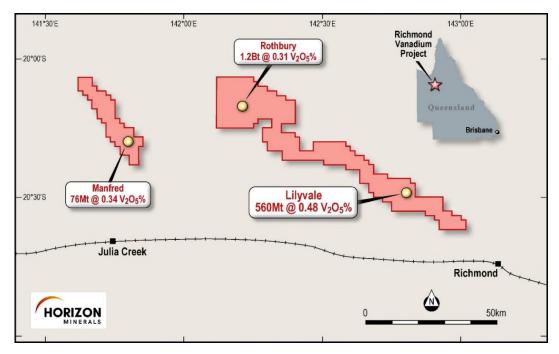


Figure 17: Lilyvale Vanadium project location and Richmond Lease areas

The Richmond-Julia Creek project is located within marine sediments of the Early Cretaceous Toolebuc Formation which is a stratigraphic unit that occurs throughout the Eromanga Basin central-northern Queensland. The Toolebuc sediments consist predominantly of black carbonaceous and bituminous shale and minor siltstone, with limestone lenses and coquinites (mixed limestone and clays). It is composed of two distinct units representing two different facies; an upper coarse limestone-rich-clay-oil shale unit (coquina) and a lower fine grained carbonate-clay-oil shale unit.

The Lilyvale deposit is located 45km northwest of the Richmond Township and in close proximity to the Flinders Highway and Great Northern Railway line (Figures 16 and 17). The deposit is 5-10m thick, up to 4km wide, over 5km long and is open along strike.

## **Mineral Resource Update**

The 2019 drilling was compiled to generate an updated independent Mineral Resource estimate for Lilyvale compliant with the 2012 JORC Code as shown in the table below \*:

JORC Cut-off		Tonnage	Grade			Metal content (Mt)		
Classification	grade %	(Mt)	% V <sub>2</sub> O <sub>5</sub>	ppm Mo	ppm Ni	V <sub>2</sub> O <sub>5</sub>	Мо	Ni
Indicated	0.30	430	0.50	240	291	2.10	0.10	0.13
Inferred	0.30	130	0.41	213	231	0.50	0.03	0.03
TOTAL		560	0.48	234	277	2.60	0.13	0.16

Importantly, over 76% of the resource has been upgraded to the Indicated Category enabling detailed economic evaluation to be completed for reserve generation as part of the Pre-Feasibility Study.

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 20 May 2020



The global Mineral Resource estimate for the Richmond project area is shown in the Table below\*:

Project (Res Cat)	Cut-off	Tonnage	Grade			Metal content (Mt)		
Project (Nes Cat)	grade %	(Mt)	% V <sub>2</sub> O <sub>5</sub>	ppm Mo	ppm Ni	V <sub>2</sub> O <sub>5</sub>	Mo	Ni
Rothbury (Inferred)	0.30	1202	0.312	259	151	3.75	0.31	0.18
Lilyvale (Indicated)	0.30	430	0.50	240	291	2.15	0.10	0.1
Lilyvale (Inferred)	0.30	130	0.41	213	231	0.53	0.03	0.03
Manfred (Inferred)	0.30	76	0.345	369	249	0.26	0.03	0.02
TOTAL		1,838	0.364	256	193	6.65	0.46	0.36

<sup>\*</sup> The Information in this report that relates to Mineral Resources is based on and fairly represents information and supporting documentation prepared by Mr Warwick Nordin, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Nordin is a full-time employee of Richmond Vanadium Technology Pty Ltd. Mr Nordin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Nordin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Lilyvale Pre-Feasibility Study results

During the Quarter and as announced to the ASX on 27 October 2020, a positive Pre-Feasibility Study ("PFS") was released focussed on the development of the Lilyvale vanadium deposit.

The PFS was based on an initial 20 year life at Lilyvale demonstrating a financially viable project with the following key metrics:

- Shallow open pit mining producing 81.2Mt at a fully diluted grade of 0.49% V<sub>2</sub>O<sub>5</sub> for 15.8Mt of 1.82% V<sub>2</sub>O<sub>5</sub> concentrate with concentrate production on site
- Refining overall recovery at 86.1% produces 254,000 tonnes of 98% V<sub>2</sub>O<sub>5</sub> commercial grade flake with average annual production of 12,700t V<sub>2</sub>O<sub>5</sub>
- Modest up-front capital costs of US\$157.4m and operating cash costs of US\$5.53/lb of 98% V<sub>2</sub>O<sub>5</sub> flake
- At current spot price of US\$7.10/lb V<sub>2</sub>O<sub>5</sub>, project generates NPV<sub>8%</sub> of US\$150.0m

The immediate next steps are to finalise the optionality within the PFS to the next level of study where required in areas such as determining the optimal power supply for the project along with progressing environmental studies and preparing the documents for government permitting and approvals.

In parallel, discussions shall continue with potential offtake partners in conjunction with assessing the way forward in relation to the project, including financing or assessing other options for maximising shareholder benefit from the project.

For further information on the Richmond-Julia Creek project and the PFS, please see the ASX announcement dated 27 October 2020 on the Horizon website.



## M26/446 (JANET IVY) PRODUCTION ROYALTY

Horizon owns a \$0.50/t mining royalty that relates to ore mined and treated from Mining Lease M26/446 located approximately 10km west of Kalgoorlie-Boulder in Western Australia (Figure 1). The Company entered into a Deed for the sale of M26/446 in 2001 and it is now owned by Norton Gold Fields Ltd ("NGF") which was delisted from the ASX on 1 July 2015.

Ore treated at the Paddington mill in the December Quarter 2020 was 178,872t and subject to royalty payments of \$89,436 which were received in January 2021. Horizon anticipates further royalty payments on a quarterly basis for material scheduled by NGF to be treated.

## WHITE RANGE GOLD PROJECT (Disposed)

Horizon has disposed of its White Range gold project in the Northern Territory to Red Dingo Corporation Pty Ltd. The Company is currently attending to some remediation issues at the site prior to making application for return of environmental bonds held by the Northern Territory Department of Primary Industry and Resources.

# HORIZON MINERALS LTD

# **ASX ANNOUNCEMENT**

#### **CORPORATE / FINANCE**

Total cash at bank as at 31 December was A\$15.9 million inclusive of the \$4 million working capital facility. In addition, the Company holds investments in ASX listed companies with a current value of approximately A\$5.4 million (See Table below).

During the Quarter, 9.15 million unlisted performance rights were issued to employees under the Company's Employee Incentive Scheme and following approval at a shareholders meeting held on 26 November 2020.

As announced to the ASX on 3 December 2020, a number of key finance and technical appointments were made to strengthen the team ahead of a significant growth phase. This included the appointment of Mr Julian Tambyrajah as CFO and Joint Company Secretary who comes with a wealth of experience in the accounting and corporate finance fields.

In accordance with ASX Listing Rule 5.3.5, \$70,000 was paid to related parties or their associates during the quarter, comprising Executive Director salary, Non-executive Director fees and superannuation.

## **Issued Share Capital**

Class of securities	Issued at 31 Dec 2020
Fully Paid Ordinary Shares (HRZ)	567,975,200
Unlisted Options	24,000,000
Performance Rights (Class H,I,J)*	9,150,000

<sup>\*</sup> See ASX Announcement dated 2 December 2020 for details of Performance Rights

#### **Listed Investments**

Company	Number	Value at 31 Dec 2020
Kingwest Resources Ltd	20,000,000	\$3,400,000
Reward Minerals Ltd	7,151,109	\$1,036,911
Cyprium Metals Ltd	2,509,750	\$514,499
TNT Mines Ltd	1,520,534	\$440,955
TOTAL		\$5,392,365

### JV Notes

Interest to acquire	Commitment	Status						
RVT Pty Ltd – Richmond Vanadium JV 2017								
Year 1	Invest \$0.43M in equity in Horizon	Completed						
Initial 25% interest	Expend \$1M within 1 year (March 2018)	Completed						
Further 50% interest	Expend \$5M within 3 year (March 2021)	Commenced						



# **TENEMENT SCHEDULE – DECEMBER 2020**

Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
BINDULI				
L26/261		100%	-	-
M26/346		100%	-	-
M26/499		100%	-	-
M26/549		100%	-	-
M26/621		100%	-	-
P26/3888		100%	-	-
P26/4014		100%	-	-
P26/4056		100%	-	-
P26/4256		100%	-	-
MLA26/855		100%	-	-
PLA26/4229		100%	-	-
PLA26/4230		100%	-	-
PLA26/4231		100%	-	-
PLA26/4318		100%	-	-
PLA26/4331		100%	-	-
PLA26/4579		100%	-	-
PLA26/4580		100%	-	-
BLACK FLAG				
P24/5143		100%	-	-
P24/5144		100%	-	-
P24/5145		100%	-	-
P24/5146		100%	-	-
P24/5147		100%	-	-
P24/5148		100%	-	-
P24/5149		100%	-	-
P24/5150		100%	-	-
P24/5151		100%	-	-
P24/5152		100%	-	-
P24/5153		100%	-	-
P24/5154		100%	-	-
P24/5155		100%	-	-
P24/5156		100%	-	-
P24/5157		100%	-	-
P24/5158		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
BLACK FLAG				
P24/5159		100%	-	-
P24/5160		100%	-	-
P24/5415		100%	-	-
ELA26/220		100%	-	-
BROAD ARROW				
P24/5348		100%	-	-
BROAD DAM				
P16/2820		100%	-	-
P16/2821		100%	-	-
BURBANKS				
M15/731		100%	-	-
CHADWIN				
P16/3121		100%	-	-
P16/3156		100%	-	-
P16/3157		100%	-	-
COOLGARDIE				
P15/6381		100%	-	-
P15/6382		100%	-	-
COOLGARDIE NORTH				
L15/356		100%	-	-
M15/26		100%	-	-
M15/518		100%	-	-
M15/637		100%	-	-
M15/1272		100%	-	-
M15/1361		100%	-	-
M15/1833		100%	-	-
M15/1834		100%	-	-
P15/5910		100%	-	-
GOLDEN RIDGE				
E25/543		100%	-	-
M26/41		100%	-	-
M26/433		100%	-	-
M26/534		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
KALPINI				
L27/88		100%	100%	-
M27/485		100%	100%	-
KANOWNA BELLE				
P26/4064		100%	-	-
P26/4065		100%	-	-
P26/4156		100%	-	-
P27/2379		100%	-	-
P27/2380		100%	-	-
P27/2381		100%	-	-
P27/2382		100%	-	-
PLA26/4535		100%	-	-
LAKEWOOD				
E26/209		100%	-	-
P26/4316		100%	-	-
P26/4317		100%	-	-
P26/4319		100%	-	-
P26/4320		100%	-	-
P26/4321		100%	-	-
P26/4322		100%	-	-
P26/4323		100%	-	-
P26/4324		100%	-	-
P26/4325		100%	-	-
P26/4326		100%	-	-
P26/4327		100%	-	-
P26/4328		100%	-	-
P26/4329		100%	-	-
P26/4330		100%	-	-
P26/4332		100%	-	-
P26/4333		100%	-	-
P26/4334		100%	-	-
P26/4335		100%	-	-
P26/4336		100%	-	-
P26/4337		100%	-	-
P26/4338		100%	-	-
P26/4339		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
LAKEWOOD				
P26/4340		100%	-	-
P26/4341		100%	-	-
LAKEWOOD				
P26/4342		100%	-	-
P26/4343		100%	-	-
P26/4344		100%	-	-
P26/4345		100%	-	-
P26/4350		100%	-	-
PLA26/4360		100%	-	-
PLA26/4361		100%	-	-
PLA26/4362		100%	-	-
PLA26/4363		100%	-	-
PLA26/4364		100%	-	-
PLA26/4365		100%	-	-
PLA26/4366		100%	-	-
PLA26/4367		100%	-	-
PLA26/4368		100%	-	-
PLA26/4369		100%	-	-
PLA26/4370		100%	-	-
PENFOLDS				
P26/4127		100%	-	-
P26/4129		100%	-	-
P26/4132		100%	-	-
ROSE HILL				
M15/652		100%	-	-
M15/1204		100%	-	-
P15/6380		100%	-	-
WHITE FLAG				
E26/168		100%	-	-
M26/616	1	100%	-	-
P26/3576		100%	-	-
P26/3577		100%	-	-
P26/3922		100%	-	-
P26/3923		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
WHITE FLAG				
P26/3988		100%	-	-
P26/3989		100%	-	-
P26/3990		100%	-	-
P26/4078		100%	-	-
P26/4079		100%	-	-
P26/4080		100%	-	-
P26/4081		-	-	100%
WINDANYA				
M24/919		100%	-	-
M24/959		100%	-	-
P24/4702		100%	-	-
P24/4703		100%	-	-
P24/4817		100%	-	-
P24/4897		100%	-	-
P24/5046		100%	-	-
P24/5047		100%	-	-
P24/5048		100%	-	-
P24/5049		100%	-	-
P24/5050		100%	-	-
P24/5051		100%	-	-
P24/5052		100%	-	-
P24/5053		-	-	100%
P24/5054		-	-	100%
P24/5055		100%	-	-
P24/5056		100%	-	-
P24/5057		100%	-	-
P24/5058		100%	-	-
P24/5059		100%	-	-
P24/5106		100%	-	-
P24/5108		100%	-	-
P24/5165		100%	-	-
P24/5166		100%	-	-
P24/5167		100%	-	-
PLA24/5464		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
YARMANY				
E15/1723		100%	-	-
E16/470		100%	-	-
E16/471		100%	-	-
E16/493		100%	-	-
E16/494		100%	-	-
E16/497		100%	-	-
E16/503		100%	-	-
E16/506		100%	-	-
E16/507		100%	-	-
E16/510		100%	-	-
E16/519		100%	-	-
E16/521		100%	-	-
E16/525		100%	-	-
E16/526		100%	-	-
P16/3212		100%	-	-
P16/3213		100%	-	-
E15/1655		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter	
WESTERN AUSTRALIA					
NIMBUS/BOORARA					
E25/511		100%	-	-	
L25/32		100%	-	-	
L25/35		100%	-	-	
L25/36		100%	-	-	
L26/240		100%	-	-	
L26/252		100%	-	-	
L26/266		100%	-	-	
L26/270		100%	-	-	
L26/274		100%	-	-	
L26/275		100%	-	-	
M25/355		100%	-	-	
M26/29		100%	-	-	
M26/161		100%	-	-	
M26/277		100%	-	-	
M26/318		100%	-	-	
M26/490		100%	-	-	
M26/598		100%	-	-	
P25/2247		-	-	100%	
P25/2261		100%	-	-	
P25/2292		100%	-	-	
P25/2322		100%	-	-	
P25/2393		100%	-	-	
P25/2394		100%	-	-	
P25/2403		100%	-	-	
P25/2404		100%	-	-	
P25/2405		100%	-	-	
P25/2450		100%	-	-	
P25/2467		100%	-	-	
P25/2468		100%	-	-	
P25/2469		100%	-	-	
P25/2470		100%	-	-	
P25/2471		100%	-	-	
P25/2472		100%	-	-	



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter  Percentage interest acquired during the quarter		Percentage interest disposed during the quarter
WESTERN AUSTRALIA				
NIMBUS/BOORARA				
P25/2473		100%	-	-
P25/2474		100%	-	-
P25/2475		100%	-	-
P25/2526		100%	-	-
P25/2545		100%	-	-
P25/2546		100%	-	-
P25/2547		100%	-	-
P25/2548		100%	-	-
P25/2549		100%	-	-
P25/2550		100%	-	-
P25/2551		100%	-	-
P25/2552		100%	-	-
P25/2643		100%	-	-
P25/2644		100%	-	-
P25/2645		100%	-	-
P25/2646		100%	-	-
P25/2647		100%	-	-
P26/4020		100%	-	-
P26/4035		100%	-	-
P26/4036		100%	-	-
P26/4053		100%	-	-
P26/4054		100%	-	-
P26/4055		100%	-	-
P26/4199		100%	-	-
P26/4200		100%	-	-
P26/4201		100%	-	-
P26/4202		100%	-	-
P26/4203		100%	-	-
P26/4204		100%	-	-
P26/4205		100%	-	-
P26/4206		100%	-	-
P26/4207		100%	-	-
P26/4208		100%	-	-



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter  Percentage interest acquired during the quarter		Percentage interest disposed during the quarter
WESTERN AUSTRALIA			•	
NIMBUS/BOORARA				
P26/4297		100%	-	-
P26/4298		100%	-	-
P26/4299		100%	-	-
P26/4300		100%	-	-
P26/4301		100%	-	-
P26/4302		100%	-	-
P26/4381		100%	-	-
P26/4382		100%	-	-
P26/4383		100%	-	-
P26/4384		100%	-	-
P26/4385		100%	-	-
P26/4386		100%	-	-
P26/4405		100%	-	-
P26/4431		100%	-	-
PLA26/4432		100%	-	-
P26/4467		100%	-	-
P26/4468		100%	-	-
PLA26/4478		100%	-	-
PLA26/4479		100%	-	-
P26/4505		100%	100%	-
P26/4509		100%	-	-
P26/4510		100%	-	-
P26/4511		100%	-	-
PLA26/4512		100%	-	-
PLA26/4513		100%	-	-
PLA26/4514		100%	-	-
PLA26/4515		100%	-	-
PLA26/4516		100%	-	-
P26/4517		100%	-	-
P26/4518		100%	-	-
PLA26/4582		100%	-	-
P27/2138		-	-	100%
P27/2139		-	-	100%



Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	rcentage interest dat the end of the quarter Percentage interest acquired during the quarter	
WESTERN AUSTRALIA				quarter
NIMBUS/BOORARA				
P27/2140		-	-	100%
P27/2141		-	-	100%
P27/2142		-	-	100%
P27/2146		-	-	100%
P27/2147		-	-	100%
P27/2148		-	-	100%
P27/2265		100%	-	-
P27/2266		100%	-	-
P27/2267		100%	-	-
P27/2268		100%	-	-
P27/2269		100%	-	-
P27/2270		100%	-	-
P27/2271		100%	-	-
P27/2272		100%	-	-
P27/2273		100%	-	-
P27/2274		100%	-	-
P27/2275		100%	-	-
P27/2276		100%	-	-
P27/2387		100%	-	-
P27/2388		100%	-	-
P27/2389		100%	-	-
P27/2408		100%	-	-
P27/2429		100%	100%	-
P27/2431		100%	-	-
P27/2432		100%	-	-
P27/2433		100%	-	-
P27/2434		100%	-	-
P27/2435		100%	-	-
P27/2436		100%	-	-
P27/2437		100%	-	-
P27/2438		100%	-	-
PLA27/2466		100%	-	-
PLA27/2467		100%	-	-



#### **TENEMENT SCHEDULE - DECEMBER 2020 continued**

Prospect/Tenement	Notes	Percentage interest held at the end of the quarter	Percentage interest acquired during the quarter	Percentage interest disposed during the quarter						
JOINT VENTURES										
WESTERN AUSTRALIA										
YARMANY – GOLD TIGER										
E16/492	2	100%	-	-						
E16/499	2	100%	-	-						
QUEENSLAND										
RICHMOND – AXF RESO	URCES PTY LT	D								
EPM25163	3	75%	-	-						
EPM25164	3	75%	-	-						
EPM25258	3	75%	-	-						
EPM26425	3	75%	-	-						
EPM26426	3	75%	-	-						
ROYALTIES										
WESTERN AUSTRALIA										
JANET IVY (Norton Gold	Fields Limited)	- Royalty Only								
M26/446	4	0%	-	-						
M26/833	4	0%	-	-						
OTTO BORE (Gold Fields	Limited) – Roy	valty Only								
M36/177	5	0%	-	-						

#### Notes

- (1) Royalty of \$1 per tonne of ore mined and treated from M26/616 is payable to Pamela Jean Buchhorn.
- (2) An earn-in JV whereby Gold Tiger Resources (Australia) Limited can earn 90% over 4 stages (4 years) by spending A\$300,000 and paying Horizon \$120,000 non-refundable cash amounts.
- (3) An earn-in JV whereby Richmond Vanadium Technology (RVT) can earn 25% of the project area by spending A\$1M within a 1 year period and maintaining the project in good standing completed February 2018. RVT to solely contribute to further expenditure of \$5m on the projects to earn a further 50% over a 3 year period.
- (4) Royalty of \$0.50 per tonne of ore mined payable to Horizon after the first 2.76 million tonnes (prepaid).
- (5) Horizon is entitled to a royalty of 3% gold recovered from the Otto Bore tenements.



## Horizon Minerals Limited – Summary of Gold Mineral Resources (at a 1g/t Au cut-off grade)

Project	Cut-off		Measured	i		Indicated Inferred			Total Resource				
	Grade	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	0.29	2.00	18,300							0.29	2.00	18,300
Rose Hill UG	2.0	0.05	4.5	6,700	0.28	4.50	40,500	0.18	4.80	27,800	0.51	4.60	75,000
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
TOTAL		0.79	2.05	52,459	4.85	2.07	322,273	2.38	2.24	171,962	8.02	2.12	546,537

# Horizon Minerals Limited – Summary of Vanadium / Molybdenum Mineral Resources (at $0.3\%~V_2O_5$ cut-off grade)

Project (Res Cat)		Tonnage	Grade			Metal content (Mt)		
r roject (nes cat)	grade %	(Mt)	% V <sub>2</sub> O <sub>5</sub>	ppm Mo	ppm Ni	V <sub>2</sub> O <sub>5</sub>	Mo	Ni
Rothbury (Inferred	0.30	1202	0.312	259	151	3.75	0.31	0.18
Lilyvale (Indicated)	0.30	430	0.50	240	291	2.15	0.10	0.1
Lilyvale (Inferred)	0.30	130	0.41	213	231	0.53	0.03	0.03
Manfred (Inferred)	0.30	76	0.345	369	249	0.26	0.03	0.02
TOTAL		1,838	0.364	256	193	6.65	0.46	0.36

#### 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, "Richmond – Julia Creek Vanadium Project Resource Update" dated 16 June 2020 and "Rose Hill firms as quality high grade open pit and underground gold project" dated 8 December 2020, each of which is available at 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)
Measured Resource	6.11	0.92	181
Indicated Resource	7.26	0.97	227
Inferred Resource	3.08	1.00	99
Total Resource	16.45	0.96	507

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)
Measured Resource	3.62	102	0.09	1.2	11.9	10	45
Indicated Resource	3.18	48	0.21	1.0	4.9	21	30
Inferred Resource	5.28	20	0.27	0.5	3.4	46	29
Total Resource	12.08	52	0.20	0.9	20.2	77	104

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)
Measured Resource	0	0	0	0	0
Indicated Resource	0.17	762	12.8	4.2	22
Inferred Resource	0.09	797	13.0	2.2	11
Total Resource	0.26	774	12.8	6.4	33

#### Confirmation

The information is 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. 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.