

# GRUYERE JV ORE RESERVE INCREASES BY 1.07 MILLION OUNCES TO 4.54 MILLION OUNCES<sup>1</sup>

Gold Road Resources Limited (**Gold Road**), presents an updated Ore Reserve Statement as at 30 September 2021<sup>1</sup> (**September 2021 Ore Reserve**) for the Gruyere Joint Venture (**Gruyere JV**). The Gruyere JV is a 50:50 joint venture with Gruyere Mining Company Pty Ltd, a member of the Gold Fields Ltd Group (**Gold Fields**), who manage and operate the Gruyere Gold Mine.

This Ore Reserve update is estimated and reported by Gold Road based on comprehensive studies prepared by the manager of the Gruyere JV.

## Highlights

As at 30 September 2021, the **Gruyere JV Open Pit Ore Reserve<sup>1</sup> totals 110.4 million tonnes at 1.28 g/t Au for 4.54 million ounces**, a substantial 31% increase of 1.07 million ounces after depletion of 0.21 million ounces during 2021.

The Ore Reserve includes:

- **Updated Gruyere Open Pit Ore Reserve of 103.3 million tonnes at 1.28 g/t Au for 4.24 million ounces.**
- Golden Highway Ore Reserve<sup>2</sup> remains unchanged from the December 2020 estimate at **7.1 million tonnes at 1.35 g/t Au for 0.31 million ounces.**

Gruyere JV Open Pit Mineral Resources<sup>2</sup> remain unchanged from the December 2020 estimate at 155.8 million tonnes at 1.34 g/t Au for 6.71 million ounces. The previously reported Gruyere open pit Mineral Resource included 1.2 million ounces of Indicated Mineral Resources below the Ore Reserve pit design reported as at 31 December 2020<sup>3</sup>.

The increase in the Ore Reserve is based on the inclusion of these Indicated Mineral Resources below the previous Ore Reserve, and the completion of comprehensive studies between 2019 and 2021.

The Ore Reserve pit design is derived from an optimisation at a gold price of A\$1,750 per ounce and incorporates steeper (up to 4 degrees) geotechnical slopes within fresh rock.

- **The Gruyere Project's open pit mine life has been extended<sup>4</sup>** taking Gruyere production out to 2032 at a scheduled future average annual production rate of approximately 350,000 ounce per annum.
- **Gold Road's attributable Ore Reserve has increased by 31%** from 1.74 million ounces<sup>2</sup> to 2.27 million ounces of gold (after mining depletion).

**Duncan Gibbs, Managing Director and CEO said:** "This is a material increase in Ore Reserves that further establishes Gruyere as a Tier One Gold Mine. Very few gold producers can reliably claim such a long-life production outlook with confidence. The update is the culmination of multiple comprehensive high-quality studies undertaken by the Gruyere Joint Venture. Gruyere will be amongst the deepest Australian open cut gold mines achieving a final depth of approximately 500 metres."

<sup>1</sup> Ore Reserves are reported on a 100% basis unless otherwise specified, the Gruyere JV is 50% attributable to Gold Road and 50% attributable to Gold Fields. The updated Ore Reserve was finalised by Gold Road. Gold Road and Gold Fields Ltd expect to update Ore Reserve and Mineral Resource statements in early 2022 as part of the annual cycle. Mineral Resources are reported inclusive of Ore Reserves.

<sup>2</sup> Refer ASX announcement dated 15 February 2020 - Gold Road Updates Mineral Resource and Ore Reserve Statements

<sup>3</sup> Refer ASX announcement dated 15 February 2020 - Gruyere 3-Year Outlook, 2021 Guidance and Growth Strategy

<sup>4</sup> Refer ASX announcement dated 6 December 2018 - Gruyere Project - Updated Mine Plan

ASX Code GOR

ABN 13 109 289 527

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## Gruyere JV Ore Reserve Update – September 2021

The Gruyere JV Ore Reserve, at 30 September 2021, is derived for the Gruyere and the Golden Highway Deposits (which include Attila, Argos, Montagne and Alaric), all of which are in the Gruyere JV (Figure 1).

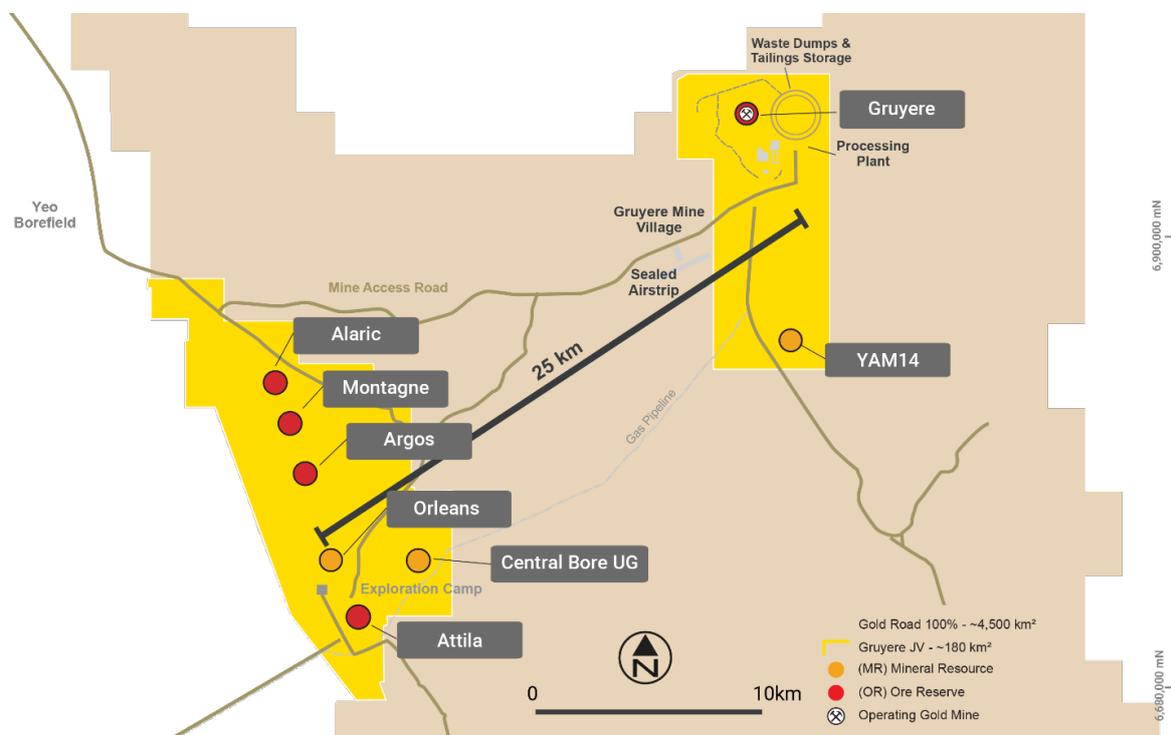


Figure 1: Gruyere JV (50%) Ore Reserve and Mineral Resource location map

The September 2021 Ore Reserve is based on the previously reported 2020 Mineral Resource model<sup>5</sup> and is depleted as at 30 September 2021.

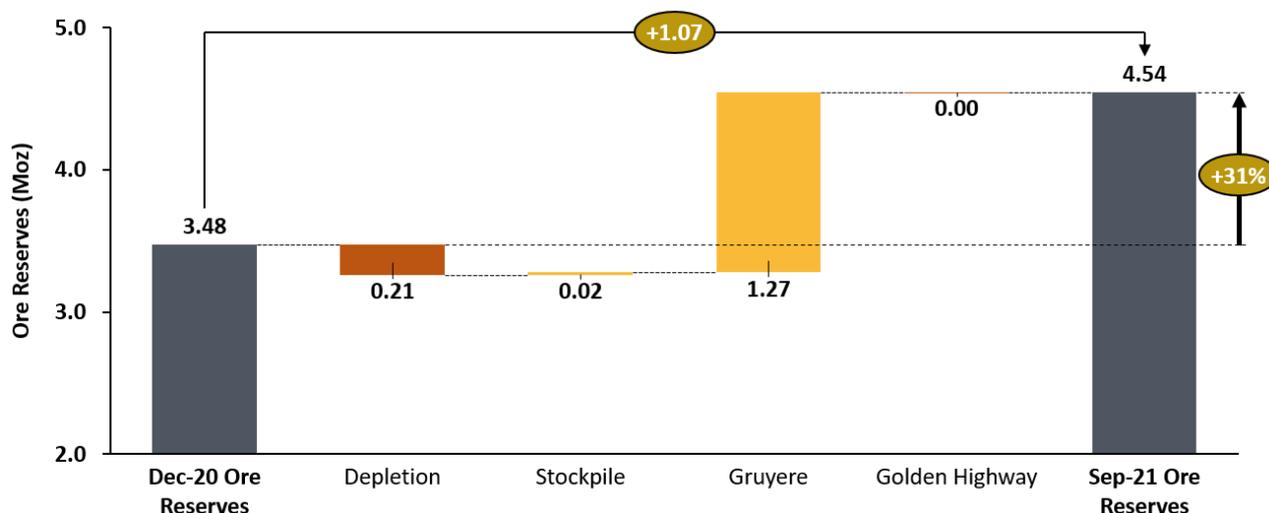
The September 2021 Ore Reserve incorporates updated mining and processing information based on actual performance, and comprehensive studies undertaken between 2019 and 2021. The studies completed include:

- Geotechnical drilling and analysis, which combined with operational experience and data, support a steepening of the overall fresh rock slope angles by 4 degrees<sup>6</sup>, with a slight reduction on oxide pit slope angles to improve near surface pit wall stability.
- Metallurgical drilling and test work which confirm the consistent nature of the ore body at depth.
- Pit optimisation, at the Gruyere JV partners agreed gold price of A\$1,750 per ounce.
- Design of an open pit with two additional mine stage areas to an ultimate depth of approximately 500 metres below surface.
- Two independent dual lane ramping systems enabling flexibility with scheduling and execution in the open pit design.
- A review of waste landform design and the associated mine closure requirements.
- Options studies on expansions of tailings storage capacity required for the increased mine production, including processing of the Gruyere and Golden Highway Ore Reserves.
- Estimation of mining, processing and other costs based on these studies and operational data.

<sup>5</sup> Refer ASX announcement dated 15 February 2020 - Gold Road Updates Mineral Resource and Ore Reserve Statements

<sup>6</sup> Current Project maximum Inter-Ramp Angle (IRA) is 56 degrees with the updated geotechnical study supporting an increased IRA up to 60 degrees. Please note, IRA is the slope angle measured from toe to toe or crest to crest exclusive of any ramps

The Gruyere JV Ore Reserve totals **110.4 million tonnes at 1.28 g/t Au for 4.54 million ounces of gold** (Figure 2 and Table 1), a **31% increase of approximately 1.07 million ounces of gold**. Ore Reserves are reported on a 100% basis at A\$1,750 per ounce gold price for Gruyere and Golden Highway.

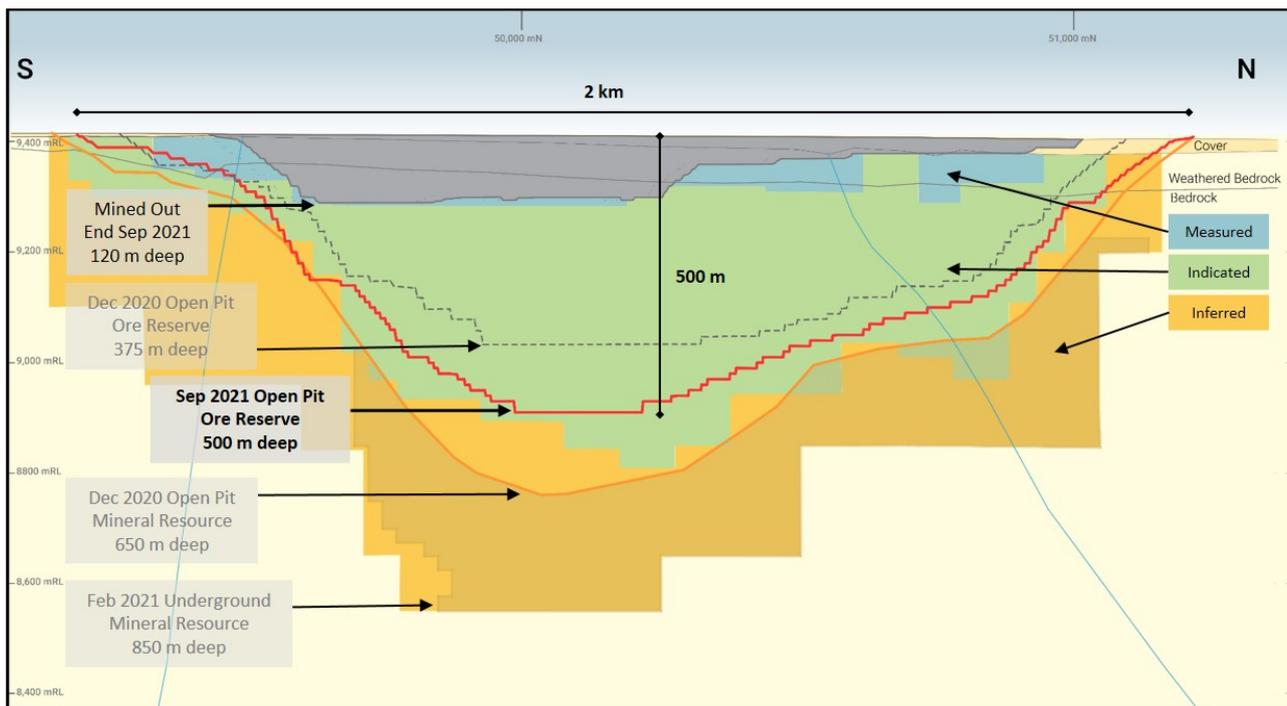


*Figure 2: Waterfall chart illustrating variations from the Gruyere JV 31 December 2020 Ore Reserve estimate and the Gruyere JV 30 September 2021 Ore Reserve estimate - 100% basis of contained gold metal*

Only the Gruyere Open Pit Ore Reserve has been updated at 30 September 2021 (inclusive of stockpiles) with the Golden Highway Ore Reserve<sup>2</sup> estimate remaining unchanged from 31 December 2020. The Golden Highway Ore Reserve will be updated as part of the annual Mineral Resource and Ore Reserve reporting process in the March 2022 quarter.

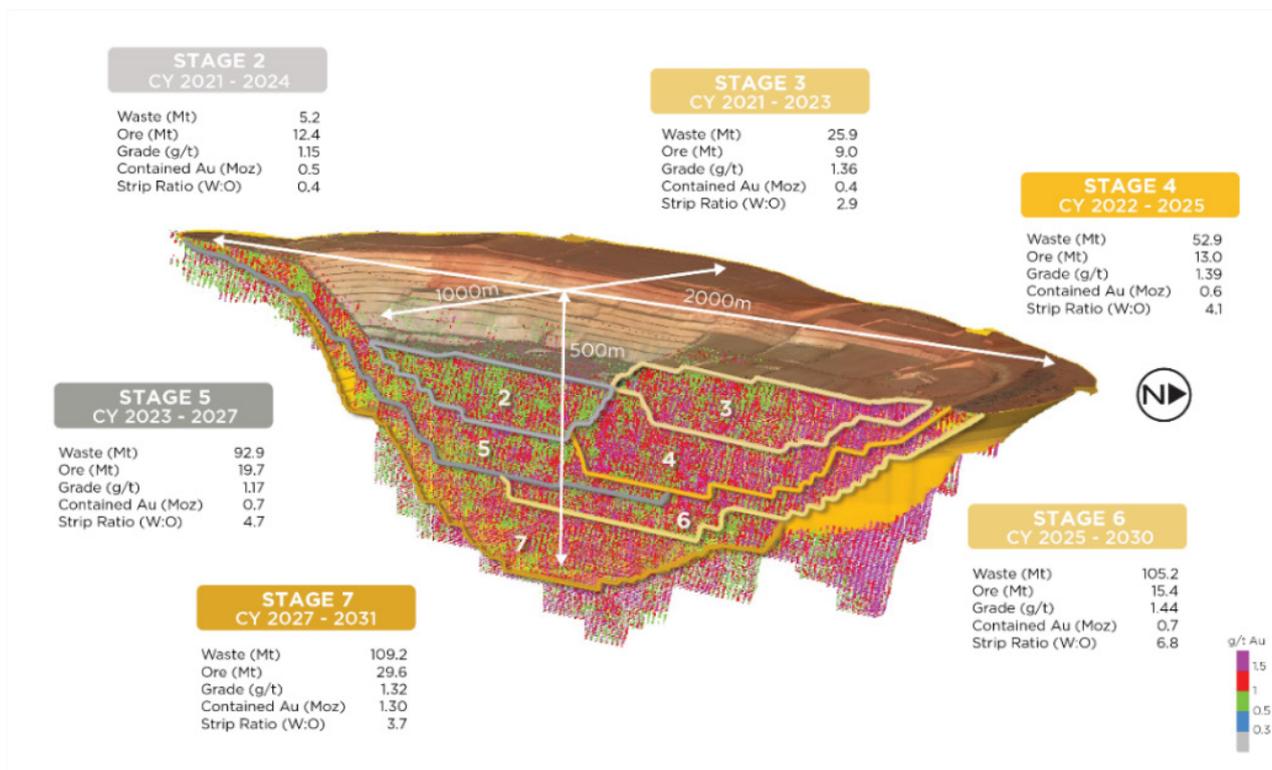
The Gruyere JV Ore Reserve is estimated from the respective Mineral Resources after consideration of the level of confidence and by taking account of material and relevant modifying factors. The Proved Ore Reserve estimate is based on the Measured classified Mineral Resources. The Probable Ore Reserve estimate is based on the Indicated classified Mineral Resources. No Inferred classified Mineral Resources have been included in the Ore Reserve estimate.

Figure 3 illustrates the September 2021 Ore Reserve open pit design comparative to the December 2020 Ore Reserve open pit design, December 2020 Mineral Resource open pit shell and Gold Road’s February 2021 underground Mineral Resource estimate.



**Figure 3:** Gruyere Mine long projection (looking west) illustrating the 2 kilometre long by 500 metre deep 4.24 Moz September 2021 Ore Reserve (inclusive of ore stockpiles) design outline which is 125 metres deeper than the previous 3.17 Moz December 2020 Ore Reserve design. Mineral Resource outlines remain unchanged from December 2020

The September 2021 Ore Reserve incorporates seven pit stages as shown in Figure 4. The Gruyere JV has mined the Stage 1 pit and is currently mining Stages 2 and 3.



**Figure 4:** Gruyere Mine Stages 2 to 7, as per September 2021 Ore Reserves (100% basis)

**Table 1: Year on year Ore Reserve comparison (total Proved and Probable), closing stocks and mined depletion at 30 September 2021**

Deposit	Ore Reserve – September 2021			Ore Reserve - December 2020		
	Tonnes	Grade	Metal	Tonnes	Grade	Metal
	Mt	g/t Au	Moz Au	Mt	g/t Au	Moz Au
<b>Gruyere JV</b>						
Gruyere OP	103.33	1.28	4.24	79.78	1.24	3.17
Golden Highway OP Total	7.07	1.35	0.31	7.07	1.35	0.31
<i>Attila OP</i>	3.74	1.42	0.17	3.74	1.42	0.17
<i>Argos OP</i>	0.49	1.20	0.02	0.49	1.20	0.02
<i>Montagne OP</i>	2.01	1.23	0.08	2.01	1.23	0.08
<i>Alaric OP</i>	0.84	1.42	0.04	0.84	1.42	0.04
<b>Total (100% Basis)</b>	<b>110.41</b>	<b>1.28</b>	<b>4.54</b>	<b>86.85</b>	<b>1.24</b>	<b>3.48</b>
<b>Gold Road 50% Attributable</b>	<b>55.20</b>	<b>1.28</b>	<b>2.27</b>	<b>43.43</b>	<b>1.24</b>	<b>1.74</b>

**Note:** OP = Open pit, UG = Underground

Category	Tonnes Mt	Grade g/t Au	Contained Metal koz Au
Surface Stockpiles 30 September 2021	4.26	0.70	96
Mined Depletion 9 months to 30 September 2021	7.14	0.93	213

**Notes:**

- All Ore Reserves are completed in accordance with the 2012 JORC Code Edition
- All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding. All dollar amounts are in Australian dollars unless otherwise stated
- The Gruyere JV is a 50:50 joint venture between Gold Road and Gruyere Mining Company Pty Limited, a wholly owned Australian subsidiary of Gold Fields Ltd. Figures are reported on a 100% basis unless otherwise specified, 50% is attributable to Gold Road
- Gold Road holds an uncapped 1.5% net smelter return royalty on Gold Fields' share of production from the Gruyere JV once total gold production exceeds 2 million ounces
- The pit design for reporting the Gruyere Ore Reserve is derived from mining, processing and geotechnical parameters as defined by operational studies, PFS level studies completed between 2019 and 2021 and the 2016 FS. The Ore Reserve is reported using the 2020 Mineral Resource model constrained within the pit design (which is derived from a A\$1,750 per ounce optimisation) and with Ore Reserves reported at A\$1,750 per ounce gold price
- The Ore Reserve for the Golden Highway Deposits which include Attila, Argos, Montagne, and Alaric is constrained within an A\$1,750 per ounce mine design derived from mining, processing and geotechnical parameters as defined by 2020 PFS and operational studies
- The Ore Reserve is evaluated using variable cut-off grades: Gruyere - 0.5 g/t Au (oxide, transitional and fresh). Attila - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Argos - 0.6 g/t Au (fresh and transition), 0.5 g/t Au (oxide). Montagne - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Alaric - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition)
- Ore block tonnage dilution and mining recovery estimates: Gruyere – 4.2% and 99.6%. Attila - 16% and 96%. Argos - 9% and 88%. Montagne - 9% and 93%. Alaric - 21% and 94%
- Gruyere Proved Reserve category includes Surface Stockpiles. Ore Reserves are depleted for mining

# Gruyere JV Ore Reserve Material Change Summary

## Basis of the Ore Reserve Update

The Ore Reserve estimate has been completed on the basis of the October 2016 Feasibility Study<sup>7</sup> (2016 FS), operational performance and costs, and studies completed between 2019 and 2021 including further optimisation of the mine operation, process plant and non-plant infrastructure. These studies were prepared by Gold Fields, the manager of the Gruyere JV, and independent external consultants to pre-feasibility level standards. The Ore Reserve estimate incorporated the 2020 Open Pit Mineral Resource<sup>2</sup> estimate which included 1.2 million ounces of gold in the Indicated Resource category defined beneath the pit and several comprehensive studies undertaken between 2019 and 2021 including geotechnical, metallurgical, and processing. The Ore Reserve described in this announcement is the first major upgrade of the Gruyere Ore Reserve since the 2016 FS.

## Material Changes

The open pit design for Gruyere in the 2020 Ore Reserve estimate was essentially unchanged from the 2016 FS, consequently, the pit design was not fully optimised to the 2020 Mineral Resource model and economic parameters.

Comprehensive studies and actual mine performance data and costs demonstrate that mining at depth beyond the 2016 FS design is achievable and proved favourable with converting Indicated classified Mineral Resources to Probable Ore Reserves. The Golden Highway pits (Attila, Argos, Montagne and Alaric) remain unchanged from the December 2020 Ore Reserve<sup>8</sup> estimate.

The material changes are illustrated in Figure 5 and summarised in Table 2. Comparable to the 2020 Ore Reserve estimate, the September 2021 Ore Reserve estimate has increased by approximately 1.07 million ounces of gold, representing a 31% increase.

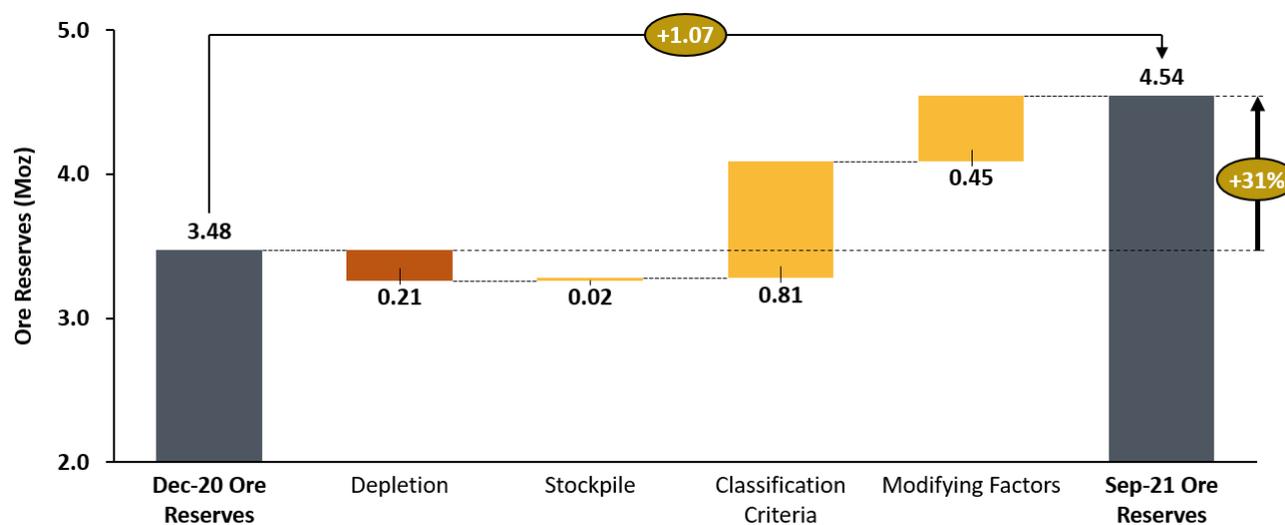


Figure 5: Waterfall of the material changes for the Gruyere JV 2020 Ore Reserve versus 2021 Ore Reserve estimates.

<sup>7</sup> Refer to ASX announcement dated 19 October 2016 - Gruyere Feasibility Study Approved

<sup>8</sup> Refer ASX announcement – dated 15 February 2020 - Gold Road Updates Mineral Resource and Ore Reserve Statements

**Table 2:** Summary of material changes for the Gruyere JV 2020 Ore Reserve versus 2021 Ore Reserve estimates

Deposit	Criteria	Change	Material Impact
<b>GRUYERE OPEN PIT</b>	Geology and Interpretation	No change from the December 2020 Mineral Resource model	Not applicable
	Drilling, Sampling, Analysis	No change from the December 2020 Mineral Resource model	Not applicable
	Estimation Method	No change from the December 2020 Mineral Resource model	Not applicable
	Classification Criteria	<ul style="list-style-type: none"> <li>▪ Conversion of Indicated classified resources at depth allows for conversion to Probable Ore Reserve</li> </ul>	+0.81 Moz
	Mining Depletion	<ul style="list-style-type: none"> <li>▪ Mining depletion of 0.21 Moz of the Ore Reserve for the period 31 December 2020 to 30 September 2021</li> <li>▪ Increase in stockpiled material of 0.02 Moz because of additional ore mined</li> </ul>	-0.19 Moz
	Cut-off Grade	<ul style="list-style-type: none"> <li>▪ Oxide and transitional cut-off increased marginally from 0.4 g/t Au 2020 to 0.5 g/t Au 2021. Fresh cut-off remains unchanged at 0.5 g/t Au</li> <li>▪ Amendment to cut-off based on operational performance</li> </ul>	No significant impact
	Modifying Factors	<ul style="list-style-type: none"> <li>▪ Addition of 0.59 Moz as an outcome of steepening the overall slopes in fresh rock by approximately 4 degrees</li> <li>▪ Minor decrease of 0.13 Moz as an outcome of updated operational costs and open pit design. This is inclusive of minor variability for metallurgical recovery based on Gruyere operational performance and gold price</li> </ul>	+0.45 Moz
	Gold Price Assumption	No change	Not applicable

## JORC Code 2012 Edition and ASX Listing Rules Requirement

The Company governs its activities in accordance with industry best practice. The Ore Reserve and Mineral Resource is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code 2012 Edition), Chapter 5 of the ASX Listing Rules and ASX Guidance Note 31.

Material Information Summary for the Gruyere Open Pit Ore Reserve is provided in accordance with ASX Listing Rule 5.9 and the Assessment and Reporting Criteria, and JORC Code 2012 Edition requirements. The summary can be found proceeding this section.

The December 2020 Mineral Resources and the Golden Highway Ore Reserves remain unchanged.

The Gruyere Open Pit Ore Reserve estimates were compiled by Gold Road Competent Persons based on comprehensive studies, actual mine performance data and costs that were prepared by Gold Fields, the manager of the Gruyere JV, and independent external consultants to prefeasibility level standards.

### Trading Halt

Gold Road requests that following the release of this announcement, trading in its securities be reinstated.

This release is authorised by the Board of Directors.

For further information, please visit [www.goldroad.com.au](http://www.goldroad.com.au) or contact:

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## Mineral Resource Estimate – December 2020 and February 2021<sup>9</sup>

**Table 3:** Gold Road Attributable Mineral Resource Estimate – December 2020 and February 2021

Project Name / Category	Gold Road Attributable			Gruyere JV - 100% basis		
	Tonnes	Grade	Contained Metal	Tonnes	Grade	Contained Metal
	Mt	g/t Au	Moz Au	Mt	g/t Au	Moz Au
<b>Gruyere JV Mineral Resources</b>						
Gruyere OP Total	67.77	1.31	2.86	135.54	1.31	5.73
Measured	7.95	1.06	0.27	15.90	1.06	0.54
Indicated	55.53	1.35	2.40	111.07	1.35	4.81
Measured and Indicated	63.49	1.31	2.67	126.97	1.31	5.35
Inferred	4.28	1.37	0.19	8.56	1.37	0.38
Golden Highway + YAM14 OP Total	10.02	1.37	0.44	20.03	1.37	0.89
Measured	-	-	-	-	-	-
Indicated	6.83	1.42	0.31	13.66	1.42	0.62
Measured and Indicated	6.83	1.42	0.31	13.66	1.42	0.62
Inferred	3.19	1.28	0.13	6.37	1.28	0.26
Central Bore UG Total	0.12	13.05	0.05	0.24	13.05	0.10
Inferred	0.12	13.05	0.05	0.24	13.05	0.10
<b>Total Gruyere JV</b>	<b>77.90</b>	<b>1.34</b>	<b>3.36</b>	<b>155.81</b>	<b>1.34</b>	<b>6.71</b>
Measured	7.95	1.06	0.27	15.90	1.06	0.54
Indicated	62.36	1.35	2.71	124.73	1.35	5.43
<b>Measured and Indicated</b>	<b>70.32</b>	<b>1.32</b>	<b>2.98</b>	<b>140.63</b>	<b>1.32</b>	<b>5.97</b>
Inferred	7.59	1.52	0.37	15.18	1.52	0.74

<b>Gruyere Underground Mineral Resources</b>			
<b>Gruyere UG Total</b>	<b>18.47</b>	<b>1.47</b>	<b>0.87</b>
Inferred	18.47	1.47	0.87

<b>Gold Road Yamarna 100% Mineral Resources</b>			
Renegade OP	0.93	1.30	0.04
Inferred	0.93	1.30	0.04
Gilmour OP	1.82	2.21	0.13
Measured	-	-	-
Indicated	0.42	5.81	0.08
Measured and Indicated	0.42	5.81	0.08
Inferred	1.40	1.13	0.05
Gilmour UG	0.78	5.13	0.13
Measured	-	-	-
Indicated	0.30	4.34	0.04
Measured and Indicated	0.30	4.34	0.04
Inferred	0.49	5.62	0.09
<b>Total Gold Road Yamarna 100% Owned</b>	<b>3.53</b>	<b>2.62</b>	<b>0.30</b>
Measured	-	-	-
Indicated	0.72	5.20	0.12
<b>Measured and Indicated</b>	<b>0.72</b>	<b>5.20</b>	<b>0.12</b>
Inferred	2.82	1.96	0.18

<b>Total Gold Road Attributable Mineral Resources</b>			
<b>Total Gold Road Attributable</b>	<b>99.91</b>	<b>1.41</b>	<b>4.53</b>
Measured	7.95	1.06	0.27
Indicated	63.08	1.40	2.83
<b>Measured and Indicated</b>	<b>71.03</b>	<b>1.36</b>	<b>3.10</b>
Inferred	28.87	1.53	1.42

OP = open pit, UG = Underground

<sup>9</sup> Mineral Resources estimated have not been updated for mined depletion. Mined depletion of 9 months to the 30 September 2021 is estimated at 7.1 million tonnes at 0.93 g/t Au for 2.13,000 ounces of gold

#### Mineral Resource Notes:

- All Mineral Resources are completed in accordance with the JORC Code 2012 Edition
- All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding
- Mineral Resources are inclusive of Ore Reserves. Gruyere Measured category includes Surface Stockpiles. Mineral Resources are depleted for mining
- The Gruyere JV is a 50:50 joint venture between Gold Road and Gruyere Mining Company Pty Ltd, a wholly owned Australian subsidiary of Gold Fields Ltd. Figures are reported on a 100% basis unless otherwise specified, 50% is attributable to Gold Road. Gold Road's 50% attributable Mineral Resource for Gruyere Underground is reported independently of the Gruyere JV
- All Open Pit Mineral Resources are reported at various cut-off grades allowing for processing costs, recovery and haulage to the Gruyere Mill. Gruyere and YAM14 - 0.4 g/t Au. Attila, Orleans, Argos, Montagne and Alaric - 0.5 g/t Au. Gilmour - 0.5 g/t Au. Renegade - 0.5 g/t Au
- All Open Pit Mineral Resources are constrained within a A\$2,000 per ounce or A\$1,850 per ounce optimised pit shell derived from mining, processing and geotechnical parameters from the Golden Highway PFS, the Gruyere FS and current Gruyere JV operational cost data. Gilmour and Renegade at A\$1,850 per ounce gold price
- The Underground Mineral Resource at Gruyere was evaluated by Gold Road in February 2021 based on the same estimation model used to estimate the Open Pit Mineral Resource reported as at 31 December 2020. The model was evaluated exclusively below the A\$2,000 per ounce pit optimisation shell utilised to constrain the Open Pit Mineral Resource and is reported as 100% in the Inferred category
- Underground Mineral Resources at Gruyere are constrained by Mineable Shape Optimiser (MSO) shapes of dimensions consistent with underground mass mining methods. The MSO shapes are optimised at cut-off grades based on benchmarked mining costs, current Gruyere operating costs and processing recoveries at a A\$2,000 per ounce gold price.
- Underground Mineral Resources at Gruyere considered appropriate for potential mass mining exploitation in the Central Zone are constrained within MSO shapes of 25 metre minimum mining width in a transverse orientation and 25 metre sub-level interval, and are optimised to a cut-off grade of 1.0 g/t Au
- Underground Mineral Resources at Gruyere considered appropriate for potential mass mining exploitation in the Northern Zone are constrained within MSO shapes of 5 metre minimum mining width in longitudinal orientation and 25 metre sub-level interval and are optimised to a cut-off grade of 1.5g/t Au
- Underground Mineral Resources at Central Bore and Gilmour are constrained by 1.5 metre and 2.5 metre minimum stope widths respectively that are optimised to a 3.5 g/t Au cut-off reflective of an A\$1,850 per ounce gold price
- Diluted tonnages and grades are reported based on minimum stope widths

## Ore Reserve Estimate – September 2021

Table 4: Gold Road Attributable and Gruyere JV Ore Reserve Estimate – September 2021

Project Name / Category	Gruyere JV – 100% Basis			Gold Road Attributable		
	Tonnes Mt	Grade g/t Au	Contained Metal Moz Au	Tonnes Mt	Grade g/t Au	Contained Metal Moz Au
<b>Gruyere OP Total</b>	<b>103.33</b>	<b>1.28</b>	<b>4.24</b>	<b>51.67</b>	<b>1.28</b>	<b>2.12</b>
Proved	10.80	0.98	0.34	5.40	0.98	0.17
Probable	92.53	1.31	3.90	46.26	1.31	1.95
<b>Golden Highway Total</b>	<b>7.07</b>	<b>1.35</b>	<b>0.31</b>	<b>3.54</b>	<b>1.35</b>	<b>0.15</b>
Proved	0.00	0.00	0.00	0.00	0.00	0.00
Probable	7.07	1.35	0.31	3.54	1.35	0.15
<b>Total Gruyere JV</b>	<b>110.41</b>	<b>1.28</b>	<b>4.54</b>	<b>55.20</b>	<b>1.28</b>	<b>2.27</b>
Proved	10.80	0.98	0.34	5.40	0.98	0.17
Probable	99.60	1.31	4.20	49.80	1.31	2.10

OP = open pit, UG = Underground

#### Ore Reserve Notes:

- All Ore Reserves are completed in accordance with the 2012 JORC Code Edition
- All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding. All dollar amounts are in Australian dollars unless otherwise stated
- The Gruyere JV is a 50:50 joint venture between Gold Road and Gruyere Mining Company Pty Limited, a wholly owned Australian subsidiary of Gold Fields Ltd. Figures are reported on a 100% basis unless otherwise specified, 50% is attributable to Gold Road
- Gold Road holds an uncapped 1.5% net smelter return royalty on Gold Fields' share of production from the Gruyere JV once total gold production exceeds 2 million ounces
- The pit design for reporting the Gruyere Ore Reserve is derived from mining, processing and geotechnical parameters as defined by operational studies, PFS level studies completed between 2019 and 2021 and the 2016 FS. The Ore Reserve is reported using the 2020 Mineral Resource model constrained within the pit design (which is derived from a A\$1,750 per ounce optimisation) and with Ore Reserves reported at A\$1,750 per ounce gold price
- The Ore Reserve for the Golden Highway Deposits which include Attila, Argos, Montagne, and Alaric is constrained within an A\$1,750 per ounce mine design derived from mining, processing and geotechnical parameters as defined by 2020 PFS and operational studies
- The Ore Reserve is evaluated using variable cut off grades: Gruyere - 0.5 g/t Au (oxide, transitional and fresh). Attila - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Argos - 0.6 g/t Au (fresh and transition), 0.5 g/t Au (oxide). Montagne - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Alaric - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition)
- Ore block tonnage dilution and mining recovery estimates: Gruyere - 4.2% and 99.6%. Attila - 16% and 96%. Argos - 9% and 88%. Montagne - 9% and 93%. Alaric - 21% and 94%
- Gruyere Proved category includes Surface Stockpiles. Ore Reserves are depleted for mining

## **Competent Persons Statements**

### **Mineral Resources**

*The information in this report that relates to the Mineral Resource estimation for Gruyere open pit is based on information compiled by Mr Mark Roux. Mr Roux is an employee of Gold Fields Australia, is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM 324099) and is registered as a Professional Natural Scientist (400136/09) with the South African Council for Natural Scientific Professions. Mr John Donaldson, Principal Resource Geologist for Gold Road has endorsed the Open Pit Mineral Resource for Gruyere on behalf of Gold Road.*

- *Mr Donaldson is an employee of Gold Road and a Member of the Australian Institute of Geoscientists and a Registered Professional Geoscientist (MAIG RPGeo Mining 10147). Mr Donaldson is a shareholder and a holder of Performance Rights.*

*The information in this report that relates to the Mineral Resource estimation for Gruyere Underground is based on information compiled by Mr John Donaldson, Principal Resource Geologist for Gold Road and Mr Steven Hulme, Principal - Corporate Development for Gold Road.*

- *Mr Hulme is an employee of Gold Road and is a Member and a Chartered Professional of the Australasian Institute of Mining and Metallurgy (MAusIMM CP 220946). Mr Hulme is a shareholder and a holder of Performance Rights.*

*The information in this report that relates to the Mineral Resource estimation for Attila, Orleans, Argos, Montagne, Alaric, YAM14, Central Bore, Gilmour and Renegade is based on information compiled by Mr John Donaldson, Principal Resource Geologist for Gold Road and Mrs Jane Levett, previously employed by Gold Road now independent consultant (Little Beach Consulting).*

- *Mrs Levett is a Member of the Australasian Institute of Mining and Metallurgy and a Chartered Professional (MAusIMM CP 112232).*

*Messrs Roux and Donaldson and Mrs Levett have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Messrs Roux and Donaldson and Mrs Levett consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.*

### **Ore Reserves**

*The information in this report that relates to the Ore Reserve estimation for Gruyere is based on information compiled by Mr Steven Hulme, Principal - Corporate Development for Gold Road.*

- *Mr Hulme is an employee of Gold Road and is a Member and a Chartered Professional of the Australasian Institute of Mining and Metallurgy (MAusIMM CP 220946). Mr Hulme is a shareholder and a holder of Performance Rights.*

*The information in this report that relates to the Ore Reserve estimation for Attila, Argos, Montagne, and Alaric, is based on information compiled by Mr Steven Hulme, Principal - Corporate Development for Gold Road.*

*Mr Hulme has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity currently 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 Hulme consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.*

### **New Information or Data**

*Gold Road confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources and Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.*

*The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.*

## Appendix 1 - Material Information Summary

### Gruyere Ore Reserves Update as of 30 September 2021

Note: Pursuant to ASX Listing Rule 5.9 and in addition to the information contained in Appendix 1 and 2, Gold Road provides the following in respect of the updated Ore Reserve for the Gruyere Gold Mine.

#### Project History

In 2012 Gold Road completed detailed aeromagnetic and radiometric surveys across its Yamarna tenement holdings. This dataset was the foundation for a major regional targeting program which combined multiple data sets and multi-scale concepts to identify discrete Camp Scale Targets capable of hosting multi-million-ounce gold systems. A total of 10 Camp Scale Targets were defined. The first target tested in July 2013, the South Dorothy Hills Camp, a combined structural and redox target, defined low level gold anomalism from shallow RAB and auger drilling. Follow-up reverse circulation (RC) drilling completed in September 2013 intersected gold mineralisation in all seven holes at the Gruyere target. Subsequent extensional and resource drilling completed to June 2014 (38,000 metres comprising 26,000 metres RC and 12,000 metres diamond) allowed declaration of a Maiden Mineral Resource estimate (compliant with the guidelines of the JORC Code 2012 Edition) in August 2014, only nine months from discovery.

Successful completion of a Pre-feasibility Study<sup>10</sup> (2016 PFS) in February 2016 and a Feasibility Study<sup>5</sup> (2016 FS) in October 2016, was followed by the 50:50 joint venture agreement with Gold Fields Australia to construct and operate the Gruyere Project. Construction of the Gruyere Project commenced in January 2017.

Gruyere is now an operating mine. Open pit ore mining commenced in January 2019<sup>11</sup>. Process plant commissioning commenced in May 2019 with first gold produced in June 2019<sup>12</sup>, and commercial production was achieved in September 2019<sup>13</sup>. To 30 September 2021, mined ore totals 21.9 million tonnes at 0.95 g/t Au for 0.67 million ounces and production totals 17.6 million tonnes at 1.04 g/t Au for 0.54 million ounces (recovery ~91.9%).

Gold Road instigated two conceptual underground studies with AMC in 2015 and Orelogy in 2019 and used these as a basis for the February 2021 Maiden Underground Mineral Resource<sup>2</sup> estimate.

#### Geology

The Gruyere Deposit is situated at the north end of the Dorothy Hills Camp Scale Target identified by Gold Road during its regional targeting campaign completed in early 2013. The Gruyere Deposit comprises coincident structural and geochemical features within a major regional-scale structural corridor associated with the Dorothy Hills Shear Zone. This zone occurs within the Dorothy Hills Greenstone Belt at Yamarna in the eastern part of the Archaean Yilgarn Craton. The Dorothy Hills Greenstone Belt is the most easterly known occurrence of outcropping to sub-cropping greenstone in the Yilgarn province of Western Australia.

The Gruyere Deposit (Figures 6 and 7) comprises a wide porphyry intrusive dyke (Gruyere Porphyry – a Quartz Monzonite) within the Dorothy Hill Shear Zone. The Gruyere Porphyry is between 5 to 10 metres, at its northern and southern extremities, to a maximum 190 metres in width, a mineralised strike over a current known length of 2,200 metres and a vertical extent of over 1,100 metres below surface. The Gruyere Porphyry dips steeply (65-80 degrees) to the east.

A sequence of intermediate to mafic volcanoclastic rocks defines the stratigraphy to the west of the intrusive, while intermediate to mafic volcanics and a tholeiitic basalt unit occur to the east.

<sup>10</sup> Refer ASX announcement dated 8 February 2016 - Gruyere Pre-Feasibility Study Confirms Long Life Gold Mine

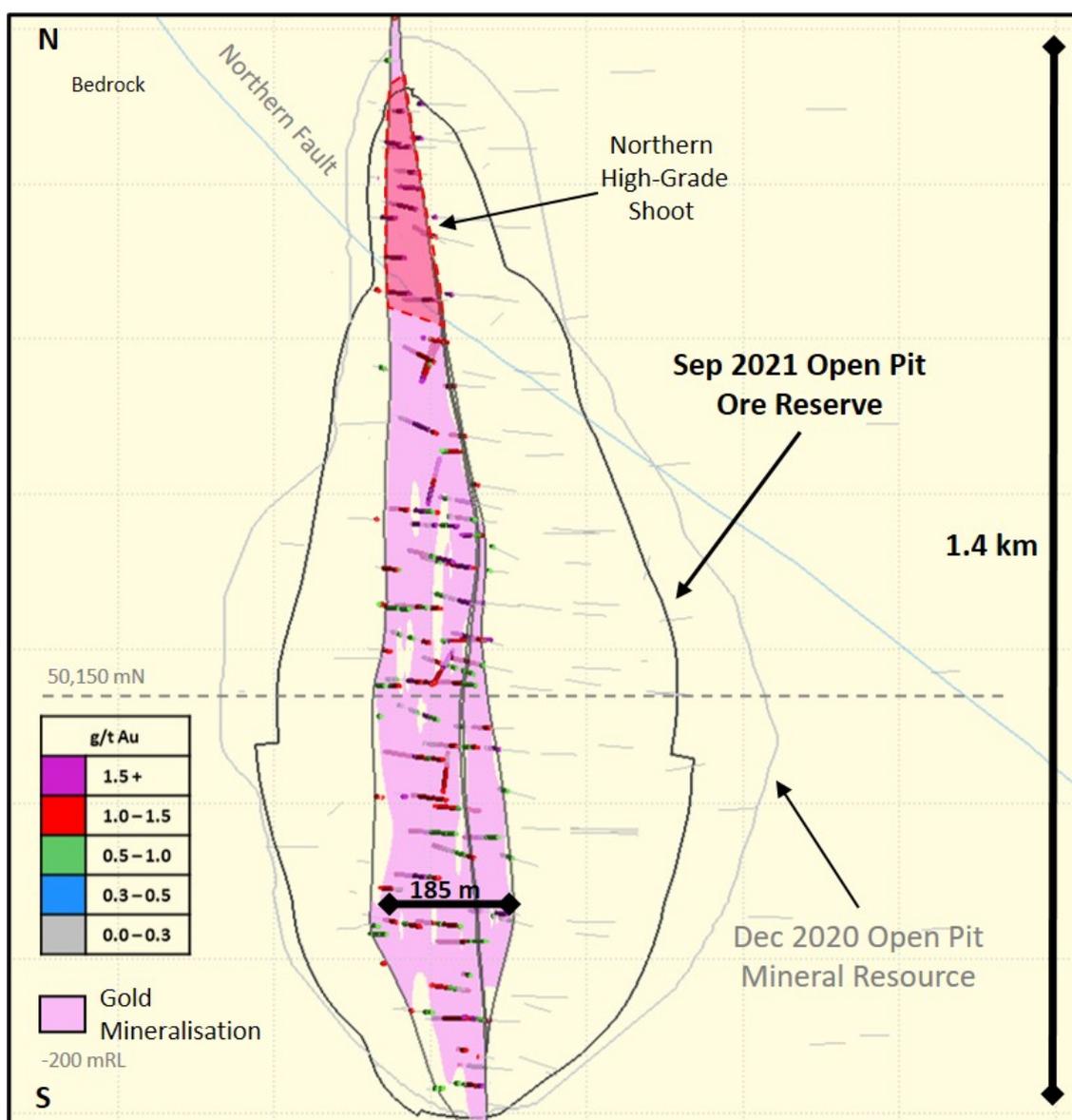
<sup>11</sup> Refer ASX announcement dated 29 January 2019 - Gruyere Project Update

<sup>12</sup> Refer ASX announcement dated 1 July 2019 - Gruyere Pours First CIL Gold Bar

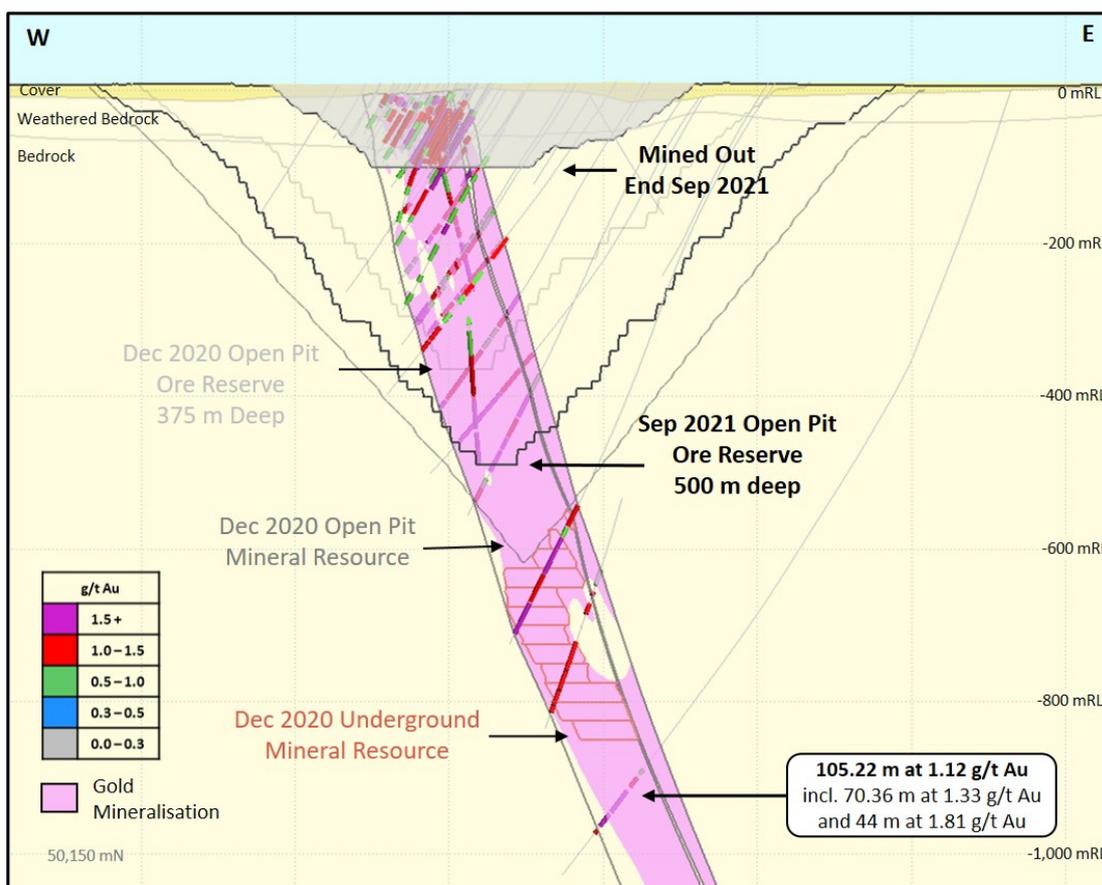
<sup>13</sup> Refer ASX announcement dated 9 October 2019 - Gruyere Attains Commercial Production

Gold mineralisation is confined to the Gruyere Porphyry which is mineralised almost ubiquitously at greater than 0.3 g/t Au with pervasive overprinting albite-sericite-chlorite-pyrite ( $\pm$ pyrrhotite  $\pm$ arsenopyrite) alteration associated with quartz veining and increased deformation which has obliterated the primary texture of the rock. Higher grade zones occur in alteration packages characterised by albite-pyrrhotite-arsenopyrite alteration and quartz and quartz-carbonate veining. These vein packages dip at approximately  $-45^\circ$  to the south-southeast, with strike extents of over 100 metres. Lower grade zones are associated with hematite alteration and pyrite. Barren to very weakly mineralised porphyry less than 0.3 g/t Au is associated hematite-magnetite alteration. Minor fine quartz-carbonate veining occurs throughout. Pyrite is the primary sulphide mineral. Some visible gold has been observed in logged diamond drill core. Geological mapping of open pit exposures and RC grade control drilling continues to confirm and refine the geological model.

Quaternary aeolian sands 1 to 3 metres thick, with localised dunes up to 10 metres in height cover the area of the Deposit. Semi-consolidated Cenozoic channel sediments lie beneath the sand and are absent in the southern part of the Deposit and gradually increase in thickness to 25 to 30 metres at the northern end. The depth of weathering in the Archaean bedrock increases from 45 metres in the south to 85 metres in the north.



**Figure 6:** Gruyere plan illustrating the September 2021 Ore Reserve and December 2020 Mineral Resource outlines, simplified geology, and drilling. Plan details: 9,200 mRL, 100 m clipping, northern most horizontal grid line = 51,000 mN, eastern most vertical grid line = 19,600 mE. Details: 0 m = 9,400 mRL (surface approximately 9,410 mRL), downhole drill intersection > 0.3 g/tAu cut-off with up to 4 m of material < 0.3 g/tAu and gram.metres > 5.0



**Figure 7:** Gruyere cross-section illustrating the September 2021 Ore Reserve and December 2020 Mineral Resource outlines, simplified geology, and drilling. Cross section details: 50,150 mN, 100 m clipping, eastern most vertical grid line at 19,600 mE. Details: 0 m = 9,400 mRL (surface approximately 9,410 mRL), downhole drill intersection > 0.3 g/t Au cut-off with up to 4 m of material < 0.3 g/t Au and gram.metres > 5.0

## Mineral Resource

The Mineral Resource estimate used to derive the September 2021 Ore Reserve estimate is unchanged from the December 2020 Mineral Resource<sup>2</sup> reported in February 2021 and has not been depleted for mining since its publication.

Table 3 summarises the 2020 Mineral Resource estimate on a 100% and attributable Project basis.

Sections 1 to 3 of the JORC Code Table 1 Report from the February 2021 publication are included in Appendix 2 in accordance with ASX Listing Rule 5.9.

## Gruyere Ore Reserve

The Ore Reserve for Gruyere is reported in accordance with the guidelines set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition). The Mineral Resource is converted to Ore Reserve in consideration of the level of confidence in the Mineral Resource estimates and reflecting appropriate modifying factors. Mineral Resource estimates are reported inclusive of those Mineral Resources converted to Ore Reserves. The Proved Ore Reserve estimate is based on Mineral Resources classified as Measured. The Probable Ore Reserve estimate is based on Mineral Resources classified as Indicated. Table 5 presents a summary of the Ore Reserves on a 100% Project basis at a A\$1,750 per ounce gold price. Table 6 summarises the Proved Ore Reserve and Probable Ore Reserve on an attributable and 100% basis.

The Gruyere Ore Reserve has been updated for mining depletion to 30 September 2021 from that reported in the annual 2020 Mineral Resource and Ore Reserve<sup>2</sup> at 31 December 2020.

Section 4 of the JORC Code Table 1 Report is included in Appendix 2 in accordance with ASX Listing Rule 5.9.

**Table 5:** Year on year Ore Reserve comparison (total Proved and Probable), closing stocks and mined depletion at 30 September 2021

Deposit	Ore Reserve – September 2021			Ore Reserve - December 2020		
	Tonnes Mt	Grade g/t Au	Metal Moz Au	Tonnes Mt	Grade g/t Au	Metal Moz Au
<b>Gruyere JV</b>						
Gruyere OP	103.33	1.28	4.24	79.78	1.24	3.17
Golden Highway OP Total	7.07	1.35	0.31	7.07	1.35	0.31
Attila OP	3.74	1.42	0.17	3.74	1.42	0.17
Argos OP	0.49	1.20	0.02	0.49	1.20	0.02
Montagne OP	2.01	1.23	0.08	2.01	1.23	0.08
Alaric OP	0.84	1.42	0.04	0.84	1.42	0.04
<b>Total (100% Basis)</b>	<b>110.41</b>	<b>1.28</b>	<b>4.54</b>	<b>86.85</b>	<b>1.24</b>	<b>3.48</b>
<b>Gold Road 50% Attributable</b>	<b>55.20</b>	<b>1.28</b>	<b>2.27</b>	<b>43.43</b>	<b>1.24</b>	<b>1.74</b>

Notes: OP = Open pit, UG = Underground

Category	Tonnes	Grade	Contained Metal
	Mt	g/t Au	koz Au
Surface Stockpiles 30 September 2021	4.26	0.70	96
Mined Depletion 9 months to 30 September 2021	7.14	0.93	213

**Table 6:** Gold Road Attributable and Gruyere JV Ore Reserve Estimate – September 2021

Project Name / Category	Gruyere JV – 100% Basis			Gold Road Attributable		
	Tonnes Mt	Grade g/t Au	Contained Metal Moz Au	Tonnes Mt	Grade g/t Au	Contained Metal Moz Au
<b>Gruyere OP Total</b>	<b>103.33</b>	<b>1.28</b>	<b>4.24</b>	<b>51.67</b>	<b>1.28</b>	<b>2.12</b>
Proved	10.80	0.98	0.34	5.40	0.98	0.17
Probable	92.53	1.31	3.90	46.26	1.31	1.95
<b>Golden Highway Total</b>	<b>7.07</b>	<b>1.35</b>	<b>0.31</b>	<b>3.54</b>	<b>1.35</b>	<b>0.15</b>
Proved	0.00	0.00	0.00	0.00	0.00	0.00
Probable	7.07	1.35	0.31	3.54	1.35	0.15
<b>Total Gruyere JV</b>	<b>110.41</b>	<b>1.28</b>	<b>4.54</b>	<b>55.20</b>	<b>1.28</b>	<b>2.27</b>
Proved	10.80	0.98	0.34	5.40	0.98	0.17
Probable	99.60	1.31	4.20	49.80	1.31	2.10

**Notes:**

- All Ore Reserves are completed in accordance with the 2012 JORC Code Edition
- All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding. All dollar amounts are in Australian dollars unless otherwise stated
- The Gruyere JV is a 50:50 joint venture between Gold Road and Gruyere Mining Company Pty Limited, a wholly owned Australian subsidiary of Gold Fields Ltd. Figures are reported on a 100% basis unless otherwise specified, 50% is attributable to Gold Road
- Gold Road holds an uncapped 1.5% net smelter return royalty on Gold Fields' share of production from the Gruyere JV once total gold production exceeds 2 million ounces
- The pit design for reporting the Gruyere Ore Reserve is derived from mining, processing and geotechnical parameters as defined by operational studies, PFS level studies completed between 2019 and 2021 and the 2016 FS. The Ore Reserve is reported using the 2020 Mineral Resource model constrained within the pit design (which is derived from a A\$1,750 per ounce optimisation) and with Ore Reserves reported at A\$1,750 per ounce gold price
- The Ore Reserve for the Golden Highway Deposits which include Attila, Argos, Montagne, and Alaric is constrained within an A\$1,750 per ounce mine design derived from mining, processing and geotechnical parameters as defined by 2020 PFS and operational studies
- The Ore Reserve is evaluated using variable cut off grades: Gruyere - 0.5 g/t Au (oxide, transitional and fresh). Attila - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Argos - 0.6 g/t Au (fresh and transition), 0.5 g/t Au (oxide). Montagne - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition). Alaric - 0.6 g/t Au (fresh), 0.5 g/t Au (oxide and transition)
- Ore block tonnage dilution and mining recovery estimates: Gruyere - 4.2% and 99.6%. Attila - 16% and 96%. Argos - 9% and 88%. Montagne - 9% and 93%. Alaric - 21% and 94%
- Gruyere Proved category includes Surface Stockpiles. Ore Reserves are depleted for mining

## Material Assumption for Ore Reserves

Gruyere is an operating open pit mine in Western Australia, and the September 2021 Ore Reserve incorporates learnings from operational execution and comprehensive studies to date.

Circuit optimisation, mine to mill enhancements and technical studies have enabled debottlenecking learnings to assist with increased throughput rates. The process plant was designed to treat 7.5 Mtpa, however, subsequent work shows this can be increased to 8.8 Mtpa and then increased to 10.0 Mtpa by calendar year 2024. Process and infrastructure costs have been estimated based on operational performance by the Gruyere JV and contractual arrangements, including the contract for a party to build, own and operate a 13MW solar farm and 4.4MW battery energy storage solution (BESS) to support the process plant throughput of 10.0 Mtpa and lowering of the Project's carbon footprint.

With the increase in ore material to be mined and processed, additional Tailings Storage Facility (TSF) and Waste Rock Landform (WRL) capacity is required. Comprehensive TSF studies completed by external consultants in 2021 generated several options for addressing the capacity requirement, two options remain pending further investigation and consultation with key stakeholders as to the preferred application either by increasing the height of the existing TSF or by an additional standalone TSF.

Gold Road believes there are reasonable grounds to expect all approvals and permits will be received within standard timeframes following lodgement of requisite applications.

## Ore Reserve Classification

The Probable Ore Reserve is based on Indicated classified Mineral Resources. The Proved Ore Reserve is based on Measured classified Mineral Resources and for known and quantified stockpiles. The Mineral Resource classification is based on an assessment of geological confidence as a function of geological and mineralisation continuity and drill spacing.

## Mining Method

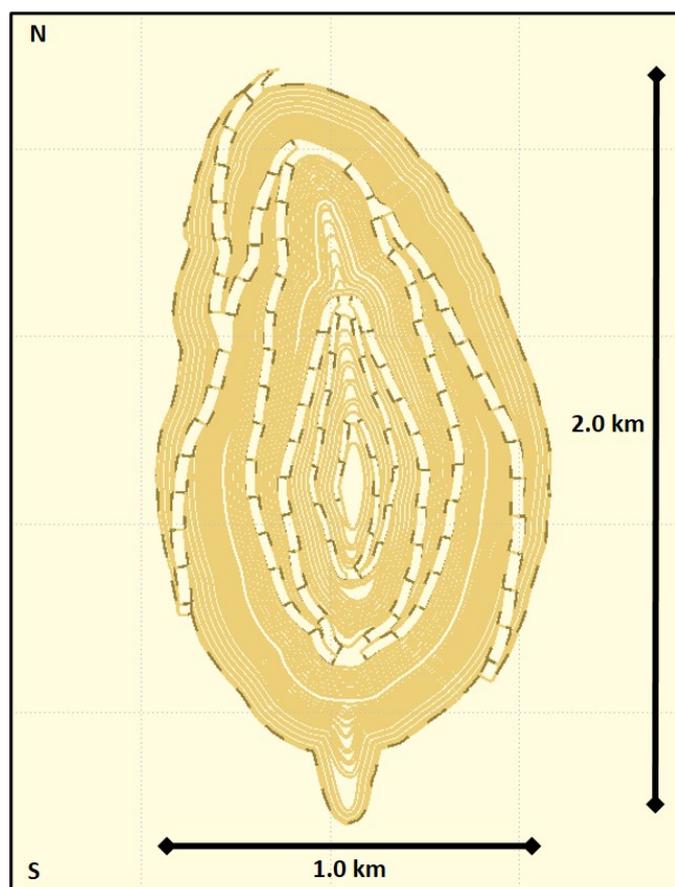
Gruyere is an operating open pit mine in Western Australia with current mining activities performed via conventional truck and excavator operation by an experienced open pit mining contractor.

The September 2021 Ore Reserve estimate supports a mine life beyond 2030. Mining operations commenced in November 2018<sup>14</sup>, with first ore mining occurring in January 2019.

The Gruyere Deposit is an open pit that is designed in stages (Figure 4) to optimise ore supply and to reduce significant fluctuations in ore, waste, and total material movements. The Ore Reserve estimate demonstrates that the staged open pits will support an ore processing rate of 10.0 Mtpa by 2024 at an average strip ratio (waste: ore) of 3.9x over an 11-year period<sup>15</sup>. As an outcome of pit depth and the geometry of the orebody, the mine design (Figure 8) includes a second means of egress with two independent dual lane ramping systems allowing for flexibility in mine scheduling, extraction, and emergency preparedness.

<sup>14</sup> Refer ASX announcement dated 6 December 2018 - Gruyere Project – Updated Mine Plan

<sup>15</sup> Mining operating life based on Proved and Probable Ore Reserves for the Gruyere open pit only, excludes the Golden Highway pits (Attila, Argos, Montagne, and Alaric)



**Figure 8:** Gruyere open pit design plan view section illustrating the two independent dual lane ramping system.  
Plan details: northern most horizontal grid line = 51,000 mN, eastern most vertical grid line = 19,500 mE.

Mine extraction will use a top-down bench by bench sequence within each of the designed stage areas. The number of overall stages has increased from five stages (2016 FS) to seven stages which offers increased flexibility in mine scheduling and operational execution.

All ore from the Gruyere mine is trucked to the Gruyere Mill for processing. Topsoil cover will be removed from the new stage areas requiring disturbance and, when possible, immediately used for rehabilitation of final landforms. Final stockpile locations will be determined during operations based on quantities recovered and the ultimate site layout. Waste rock from the pit will be disposed of at designated WRL's located on surface and adjacent to the pit. Waste rock will also be utilised to construct the external walls of the Integrated Tailings Storage Facility (ITSF).

Mining activities in operation use a 400-tonne class excavator and 240-tonne rigid dump truck combination with drill and blast practices on 10 metre benches using 203 mm or 229 mm diameter blast holes.

Mine production rates will increase from a maximum of 44.0 Mtpa (2016 FS) to an estimated 56.0 Mtpa as an outcome of increasing the existing mine-fleet.

Further optimisation studies of the mining fleet and combination remains ongoing to assess the potential of larger 500 to 600-tonne shovel class units as the site progresses towards bulk mining practices.

As an outcome of the September 2021 Ore Reserve estimate, Gruyere will be amongst Australia's deepest open cut gold mines achieving a final depth of approximately 500 metres (Figure 4).

### Cut-Off Grade

Due to the relatively small volumes of some of the material types, for cut-off grade estimation purposes and to align with Gruyere operations, three material groups are considered, these are, oxide (includes saprolite and saprock), transitional and fresh.

The September 2021 Ore Reserve for Gruyere is determined using variable cut-off grades and is reported at a cut-off grade of 0.5 g/t Au for oxide, transitional and fresh material.

Key cut-off grade parameters consider:

- A gold price of A\$1,750 per ounce is assumed for Ore Reserve estimation
- Gold metallurgical recoveries from the treatment plant
- Operating costs derived from budgeted mining unit costs obtained from mining contractors, ore haulage contractors, current ore processing, maintenance, general and administrative costs, transport and refining costs and miner-owner costs
- Government and other Royalties.

An increase in processing and maintenance costs based on operational performance has been incorporated into the September 2021 Ore Reserve estimate.

## Ore Processing

Gruyere’s mineral processing facility consists of a primary gyratory crusher, ore stockpiling, a Semi-Autogenous Grinding (SAG) mill, ball mill and pebble crusher (SABC) milling circuit, pre-leach thickening, standard carbon-in-leach (CIL) circuit, elution, and gravity recovery circuit (Figure 9).

Key metallurgical parameters of the Gruyere treatment plant include:

- Average recovery since the commencement of gold production in June 2019 is 91.9%
- Design grind size is 125 microns
- No deleterious elements are present in the ores at Gruyere. No allowance is made for deleterious elements since test work to date on ore from Gruyere has not shown the presence of deleterious elements

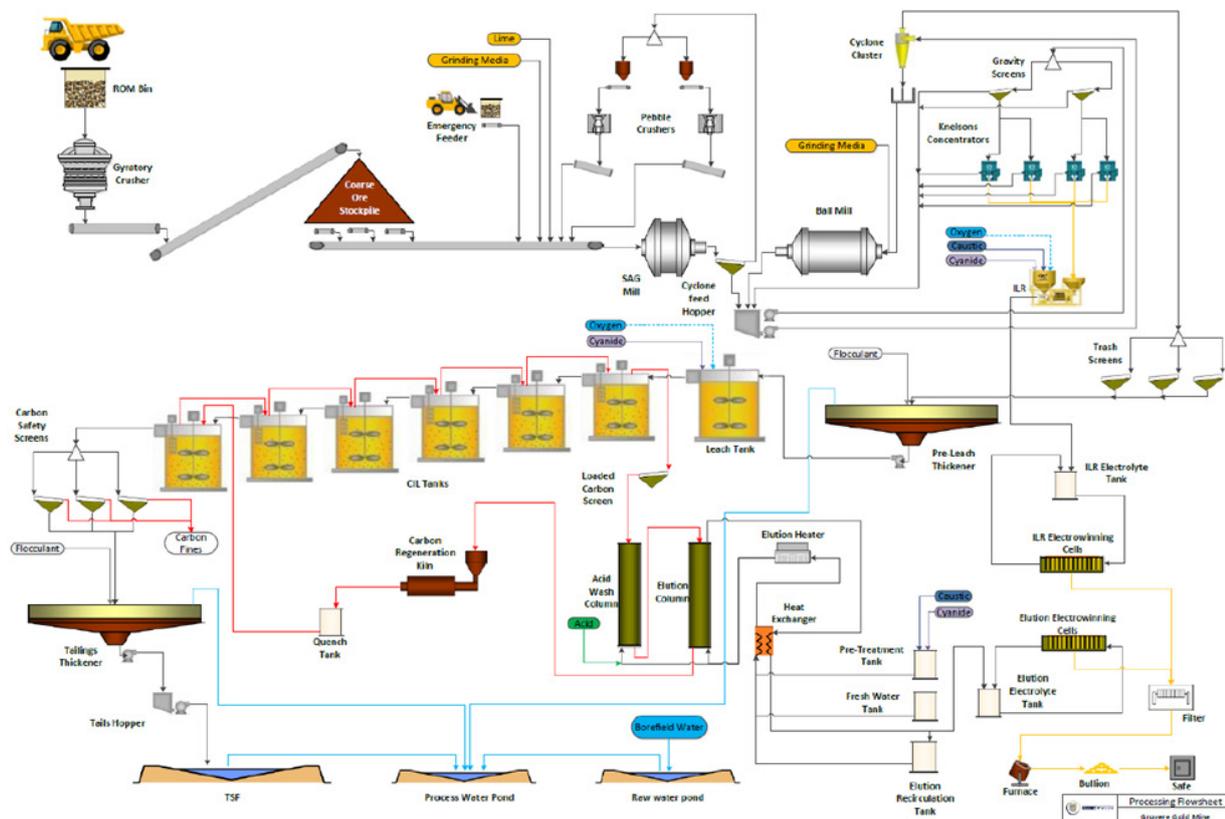


Figure 9: Gruyere Processing Plant Flowsheet

As an outcome of comprehensive studies completed by the Gruyere JV, the metallurgical test work and throughput modelling indicate that the additional ore material converted to Ore Reserve at depth can be processed at the Gruyere Mill. The additional ore material does not require any major changes to plant infrastructure to achieve safe, environmentally sound, and financially viable recovery of gold.

A diamond drill program was implemented in 2019 to carry out metallurgical testing to a depth of approximately 500 metres. Core from three drill holes was logged, assayed, and composited to yield three composite samples representing likely fresh rock metallurgical domains. The geology represented in the September 2021 Ore Reserve estimate mine plan in the additional stage mining areas does not fundamentally differ from the December 2020 Ore Reserve<sup>2</sup> estimate mine plan. The oxide and transitional ore recoveries used for the September 2021 Ore Reserve estimate have been updated based on plant operational performance. Fresh ore recovery has been updated using the additional three samples and remains in line with previous recovery estimates.

Metallurgical test work completed on the Gruyere Deposit mineralisation as part of the September 2021 Ore Reserve estimate showed gold recoveries between 89% for fresh and 96% for oxide materials; these recoveries remain relatively consistent with the 2016 FS and operational performance.

Consistent with the 2021 business plan, the September 2021 Ore Reserve is based on a ramp-up in annual plant throughput to 10.0 Mtpa by 2024.

## Tailings Disposal

A TSF has been constructed immediately east of the Gruyere open pit and north-east of the process plant. The TSF forms part of an Integrated Waste Landform (IWL) which is based on a conventional downstream embankment configuration and determined the most appropriate and safe for a potentially seismic environment.

## Infrastructure

The September 2021 Ore Reserve is supported by existing infrastructure for the mine operation and the processing of ore, through the provision of power, water, logistics, administration, and other necessary support services.

A support facilities complex is located proximal to the main administration office and warehouse and is designed to accommodate the site administrative and logistics operations.

## Estimation Methodology

Estimation of the September 2021 Ore Reserve involved standard steps of mine optimisation, mine design, production scheduling and financial modelling. Factors and assumptions have been based on operating experience, studies, and performance at the Gruyere operation. The September 2021 Ore Reserve has been evaluated through a financial model. All operating and capital costs as well as Ore Reserve revenue factors stated in this document were included in the financial model. A discount factor of 5.0% real was applied. This process demonstrated that the September 2021 Ore Reserve has a positive Net-Present-Value. Sensitivities were conducted on the key input parameters including commodity prices, capital and operating costs, ore grade, discount rate, exchange rate and recovery which confirmed the estimate to be robust.

Financial modelling completed confirms that the project is economically viable under current assumptions. In the opinion of the Competent Person, cost assumptions and Modifying Factors applied in the process of estimating Ore Reserves are reasonable. The Ore Reserve is considered to provide the basis of a technically and economically viable project. The proposed mine plan is technically achievable. All proposals for the operational phase involve the application of conventional technology which is widely utilised in Western Australia.

## Material Modifying Factors

The mining model used for the September 2021 Ore Reserve estimate was compiled by the Gold Fields Competent Person(s) utilising relevant data.

A configuration of 5.0 mE x 12.5 mN x 5.0 mRL is used to simulate the Selective Mining Unit (SMU) as the block size represents the capability of the selected mining fleet. The SMU selection took into consideration the available loading equipment sizes that can meet total material movement targets and the likely operating conditions such as grade control practices, mining methods, the direction of mining and the style and behaviour of the mineralisation. To better simulate operational mining practices, mining dilution and recovery modifying factors were simulated by modelling Mineable Stope Shapes (MSO) within the framework of the SMU. By assessing the geometry of the ore and waste contact, a 0.5 metre skin width was selected to represent the selectivity that should be achievable by the excavator (approximately 20% of the excavation height). The dilution skin was applied to identified edge blocks defined on the ore and waste contact as an outcome of cut-off grade and MSO. This process is performed using varying cut-off grades defined by Gruyere operations for defining higher grade ore down to lower grade mineralised waste material (>0.3 g/t Au). The modelling generates an overall mining dilution factor of 4.2% and a mining recovery factor of 99.6% (gold loss of 0.4%). These factors are estimated using a cut-off grade of 0.5 g/t Au within the depleted (as of 30 September 2021) ultimate pit design for the basis of the September 2021 Ore Reserve estimate.

This assumption is supported by actual reconciliation between the resource model and mill performance at Gruyere to date being within an acceptable uncertainty range for the style of mineralisation under consideration.

In 2021, a comprehensive geotechnical study was completed by Gold Fields on behalf of the Gruyere JV to assess slope stability at increased depths. The geotechnical study incorporated additional drilling information, operational performance, and geo-mechanical analysis. The geotechnical study determined six geotechnical design sectors compared to the December 2020 Ore Reserve estimate of eleven for pit slope stability based on weathering front, pit wall geology and pit wall orientations. These sectors were further defined to differentiate the weathered zones from oxide to fresh rock. The overall slopes defined as an outcome of this work achieved overall slope angles (inclusive of open pit ramps) shallower in the oxide and transitional material by approximately 9 degrees and steeper in fresh material by approximately 4 degrees. The overall outcome proved favourable for additional ore to be extracted at depth.

For further geotechnical information please see Section 4 of the JORC Code Table 1 Report included in Appendix 2.

The pit optimisation for which the mine design is derived does not consider Inferred classified Mineral Resources, only Measured, and Indicated classified Mineral Resources. However, the Inferred Mineral Resource represents a small portion (approximately 0.6% on a tonnage basis) of the material within the ultimate pit design. Both the design and financial model are insensitive to the exclusion of this material.

A series of open pit optimisation sensitivities were assessed at varying gold prices during the evaluation process for selection of the optimal shell for which the mine design is derived. Taking into consideration future cutback potential in conjunction with underground interface determination, strategic, operational, and financial metrics, the selected shell used for the basis of the ultimate pit design is equivalent to a gold price of A\$1,575 per ounce (revenue factor 0.90).

Gold bullion transportation charges are derived on the basis of a quote provided by a leading industry bullion shipment organisation. Treatment and refining charges are estimated on the basis of a quote from a leading Perth Gold Refinery.

## Other Modifying Factors

### Legal Aspects and Tenure

Gruyere is located within the Yamarna Pastoral Lease (LA3114/854) which is wholly owned and managed by Gold Road. The Yamarna Pastoral Lease is located approximately 150 kilometres east of Laverton and covers an area of 149,000 ha. The lease renewal was granted on 1 July 2015 with the expiry date being 14 July 2062.

### Mining Lease

The Gruyere mine and infrastructure is located on granted mining tenements and the Gruyere JV is the holder of all tenements required for the Gruyere Project.

### Native Title

Gold Road entered into the Gruyere Central Bore Native Title Agreement (**GCBNTA**) in May 2016 with the Yilka people and Cosmo Newberry Aboriginal Corporation (**CNAC**) over their respective claim area following community consultation and negotiation meetings. As part of the formation of Gruyere JV, Gold Road assigned 50% of its rights under the GCBNTA to Gruyere Mining Company Pty Ltd, a member of the Gold Fields Limited group, and Gruyere Mining Company Pty Ltd agreed to assume 50% of the obligations under the GCBNTA. This agreement includes all the Gruyere JV tenements.

The GCBNTA includes obligations on the Gruyere JV regarding heritage and the conduct of heritage surveys, pursuant to a Cultural Heritage Management Plan.

### Royalty

The tenements are subject to the Mining Act 1978 (WA) and as part of this legislation annual rental payments for each tenement and a 2.5% royalty on gold sold is payable to the Government of Western Australia and appropriate allowance for other royalties payable to private parties.

### Environment

Gruyere is entitled to mine all declared material falling within its respective mineral rights and/or mining rights.

Environmental approvals for all aspects of the development of the current project based on the December 2020 Ore Reserve estimate are in place. However, based on the September 2021 Ore Reserve estimate, the current environmental approvals will need to be amended to incorporate additional capacities required for the development of Stages 6 and 7 of the mine plan.

Gold Road believes there are reasonable grounds to expect all approvals and permits will be received within standard timeframes following lodgement of applications. Currently, there are no legal, NGO, or stakeholder issues that will impact the operation. Mining operations on tenements in Western Australia must be developed and operated in compliance with the Commonwealth and State environmental legislative requirements.

### Community

The Gruyere Project is located within the land on which the Yilka (WAD297/2008) and Sullivan Edwards (WAD498/2011) native title rights were recognised by the Federal Court in September 2017. Native title rights are held by the Yilka Talintji Aboriginal Corporation RNTBC, the registered native title body corporate, in trust for the native title holders, the Yilka Talintji people.

The common law of Australia recognises a form of Native Title which reflects the entitlement of indigenous people, in accordance with their laws or customs, to enjoy their traditional lands. The GCBNTA allows the Gruyere JV to operate on the relevant lands for which Native Title has been determined with certain obligations and restrictions.

Cosmo Newberry is a small indigenous community located approximately 100 kilometres by road west of the Gruyere Project area. The community is managed through its corporate body, CNAC, incorporated under the Aboriginal Councils and Associations Act 1976 in 1991.

The Gruyere JV values the relationship which has been established with the traditional owners of the Land on which the Gruyere JV projects are located and has formed good working relations with the Yilka Talintji people.

The Gruyere JV is committed to maintaining a long-term partnership with the Yilka Talintji people to ensure Gruyere JV projects can bring a range of benefits to the traditional owners including direct and indirect employment.

The Gruyere JV recognises the positive impacts that mining operations such as the Gruyere Project can bring to remote communities, including possible business opportunities and economic benefits through rates, charges, and community investment.

## Appendix 2 – JORC Code 2012 Edition Table 1 Report

### GRUYERE

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria and JORC Code explanation	Commentary
<p><b>Sampling techniques</b>  <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p>	<p>The sampling has been carried out using a combination of Reverse Circulation (RC) and diamond drilling (DDH).  RC drill samples are collected through a rig-mounted cone splitter designed to capture a one metre sample with optimum 2-3 kg sample weight.  Drill core is logged geologically and marked up for assay at approximate 1 metre intervals based on geological observation. Drill core is cut in half by a diamond saw and half core samples submitted for assay analysis.  Detailed descriptions of drilling orientation relative to deposit geometries, and full sample nature and quality are given below.</p>
<p><i>Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.</i></p>	<p>Sampling was carried out under Gold Road or Gruyere JV protocols and QAQC procedures as per industry best practice. See further details below.  RC grade control sampling was carried under the Gruyere JV protocols and QAQC procedures as per industry best practice.</p>
<p><i>Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>RC holes were drilled with a 5.25 inch face-sampling bit, 1 m samples were collected through a cyclone and cone splitter to produce a 2-3 kg sample. All holes with reported assays from RC drilling are from the original 1 m samples collected from the splitter except for 1% of RC samples, which were 4 m composite samples collected through logged waste zones.  The 4 m composite samples were produced by spear sampling of the combined composite length. The samples were collected in large plastic bags at the drill rig and deposited into separate numbered calico bags for sample despatch. Assays generated by the 4 m composite sampling were not applied to the Mineral Resource Estimation.  Diamond drilling was completed using an HQ or NQ drill bit for all holes. Core is cut in half for sampling, with a half core sample sent for assay at measured intervals.  Both RC and diamond samples were fully pulverised at the laboratory to - 75 um to produce a 50 g charge for Fire Assay with an AAS finish up until May 2014 and ICPES finish post this date.</p>
<p><b>Drilling techniques</b>  <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>RC drilling rigs operated by Raglan (exploration and definition), Ranger (definition), Orlando (definition and grade control) and Strike (grade control) were used to collect the chip samples. The face-sampling RC bit has a diameter of 5.25 inches (13.3 cm).  Diamond drilling rigs operated by Terra, DDH1 and Orlando collected the diamond core as NQ or HQ size. Some of the diamond holes used RC pre-collars to drill through barren hanging-wall zones to specified depth, followed by diamond coring at NQ size from the end of the pre-collar to the end of hole. This ensured diamond core recovery through the mineralised zones within the Gruyere Porphyry.  Core is oriented using downhole Reflex surveying tools, with orientation marks provided after each drill run.</p>
<p><b>Drill sample recovery</b>  <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>	<p>Most RC samples were dry. Ground water egress occurred in some holes at variable depths between 100 and 400 m. Drill operators ensured that water was lifted from the face of the hole at each rod change to ensure that water did not interfere with drilling and that all samples were collected dry. When water was not able to be isolated from the sample stream the drill hole was stopped and drilling was completed with a diamond tail.  RC recoveries were visually estimated, and recoveries were recorded in the log as a percentage. Recovery of the samples was good, generally estimated to be close to 100%, except for some sample loss at the top of the hole.  All diamond core collected is dry. Drill operators measure core recoveries for every drill run completed using a 3 m core barrel. The core recovered is physically measured by tape measure and the length recovered is recorded for every 3 m "run". Core recovery is calculated as a percentage recovery. Close to 100% recoveries were achieved for most of the diamond drilling completed at Gruyere.</p>

Criteria and JORC Code explanation	Commentary
<p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>	<p>RC face sampling bits and dust suppression were used to minimise sample loss. Drilling air pressure lifted the water column above the bottom of the hole to ensure dry sampling. RC samples were collected through a cyclone and static cone splitter. The rejects were deposited in a large plastic bag and retained for potential future use prior to 2020. Only rejects from selected holes (eg. for metallurgical testing) are now deposited in large plastic bags. The sample required for assay is collected directly into a calico sample bag at a designed 2 - 3 kg sample mass which is optimal for whole-of-sample pulverisation at the assay laboratory.</p> <p>Diamond drilling results in uncontaminated fresh core samples which are cleaned at the drill site to remove drilling fluids and cuttings to present clean core for logging and sampling.</p>
<p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>Except for a small sample population (&lt;5%) all RC samples were collected dry. The minority wet samples were reported as slightly damp to the end of the hole.</p> <p>Apart from the upper portions of the holes which drilled through the sand dune cover, there is no evidence of excessive loss of material and at this stage no information is available regarding possible bias due to sample loss.</p> <p>There is no significant loss of material reported in any of the diamond core.</p>
<p><b>Logging</b></p> <p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p>	<p>All chips and drill core have been geologically logged by Gold Road or Gruyere JV geologists, applying the Gold Road logging scheme, which provides data to a level of detail adequate to support Mineral Resource Estimation activities. Approximately 30% of resource definition holes have been surveyed using downhole optical (OTV) and/or acoustic (ATV) televiewer tools which provide additional information suitable for geotechnical and specific geological studies.</p> <p>A full set (49,425 to 50,950 mN) of 25 m spaced manually interpreted cross-sections were geo-referenced and used to guide digital construction of material type wireframes which are now being refined with open pit mapping. A weathering profile guide was developed as part of the process to document the features and provide a guide for further logging and open pit mapping.</p> <p>An alteration assemblage guide was developed to document the features that control gold mineralisation and provide a guide for further logging and open pit mapping. This is being refined now that fresh rock has been intersected in the open pit.</p> <p>Nine specific geotechnical diamond holes were drilled to support the PFS and a further 12 drilled to support the FS. The holes were designed and logged in geotechnical detail by Dempers &amp; Seymour Pty Ltd Geotechnical Mining Consultants. Collaboration between the geological and geotechnical groups has resulted in refinement of the geological interpretation, particularly the understanding of significant faults and shear zones.</p> <p>Several of the 2019 DDH holes were geotechnically logged and are included in ongoing operational geotechnical studies.</p> <p>Metallurgical composite samples selected over the life of the project have been based on the detailed logging information, gold grades and geological interpretation.</p>
<p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p>	<p>Logging of RC chips records lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. All samples are wet-sieved and stored in a chip tray.</p> <p>Logging of drill core records lithology, mineralogy, mineralisation, weathering, colour and other features of the samples, along with structural information from oriented drill core. All samples are stored in core trays.</p> <p>All core is photographed in the trays, with individual photographs taken of each tray both dry, and wet; all photos are uploaded to and stored on the Gold Road server database.</p>
<p><i>The total length and percentage of the relevant intersections logged</i></p>	<p>All RC and diamond holes were logged in full.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p> <p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p>	<p>Core samples were cut in half using an automated Corewise diamond saw. Half core samples were collected for assay, and the remaining half core samples are stored in the core trays. Samples are collected consistently from the same side.</p>
<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p>	<p>1 m RC drill samples are collected via a static cone-splitter, installed directly below a rig mounted cyclone, and an average 2-3 kg sample is collected in a numbered calico bag. &gt;95% of samples were collected dry (dry to slightly damp).</p>

<b>Criteria and JORC Code explanation</b>	<b>Commentary</b>
<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Exploration and definition samples were prepared at the Intertek laboratory in Kalgoorlie. Grade control samples were prepared by ALS in Perth. Samples were dried, and the whole sample (both RC and DDH) was pulverised to 80% passing 75 um, and a sub-sample of approx. 200 g was retained. A nominal 50 g was used for the analysis. The procedure is better than industry standard for this type of sample as most labs split the 2-3 kg prior to pulverising.
<i>Quality control procedures adopted for all sub-sampling stages to maximise representation of samples.</i>	A duplicate RC field sample is taken from the cone splitter at the same time as the primary sample a rate of approximately 1 in 40 samples. A twinned half core sample is taken at a frequency of 1 in 40 samples, with one half representing the primary result and the second half representing a twinned result. At the laboratory, regular laboratory-generated repeats and check samples are assayed, along with laboratory insertion of its own standards and blanks.
<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Duplicate samples were collected at a frequency of 1 in 40 for all RC drill holes. RC duplicate samples are collected directly from the rig-mounted cone splitter. Some twin core samples (utilising the second half of core) have been taken.
<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate to give an indication of mineralisation given the particle size and the preference to keep the sample weight below a targeted 3 kg mass which is the optimal weight to ensure the requisite grind size in the LMS sample mills used by Intertek in sample preparation.
<b>Quality of assay data and laboratory tests</b> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Exploration and definition samples were analysed at the Intertek laboratory in Perth. Grade control samples were analysed at the ALS laboratory in Perth. Fire Assay with either AAS or ICPEs finish for gold is total and appropriate for the Gruyere material and mineralisation. ICPEs provides improved quality compared to AAS and all fire assay protocols for Gold Road samples were changed to this finish during May 2014.
<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Calibration of the hand-held XRF tools is applied at start-up. XRF results are only used for indicative assessment of litho geochemistry and alteration to aid logging and subsequent interpretation. Downhole survey of rock property information for selected holes reported has been completed. ABIMS is the contractor which compiled this work. This involved downhole surveying using a variety of tools with real time data capture and validation. The tools were calibrated on a regular basis. This data was partially used to help establish the specific gravity (SG) data for the Resource Model and for geotechnical analysis.
Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	The Gold Road protocol for RC programs is for Field Standards (Certified Reference Materials) and Blanks to be inserted at a rate of 3 Standards and 3 Blanks per 100 samples. RC Field Duplicates and DDH Field Twins are generally inserted at a rate of approximately 1 in 40. Regular DDH Field Twin sampling was stopped in 2017. Samples are processed at Intertek laboratories, where regular assay Repeats, Laboratory Standards, Checks and Blanks are inserted and analysed in addition to the blind Gold Road QAQC samples. Results of the Field and Laboratory QAQC assays were checked on assay receipt using QAQCR software. All assays passed QAQC protocols, showing acceptable levels of contamination or sample bias, including diamond half core v. half core Field Twins. Previous QAQC reports and audits were completed and reported by Mr David Tullberg (Grassroots Data Services Pty Ltd at time of audit, and a Gold Road employee since 2014), Dr Paul Sauter (in-house consultant Sauter Geological Services Pty Ltd) and by Alex Mennie (Maxwell) responsible for the previous GC program under management of the Gruyere JV company. The 2019 DDH and RC data was reported by Gold Road personnel and gave acceptable results. QAQC protocols for RC grade control are similar to those used in exploration and definition. QAQC reports compiled by Gruyere JV geologists gave acceptable results.
<b>Verification of sampling and assaying</b> <i>The verification of significant intersections by either independent or alternative company personnel.</i>	Significant results were compiled by the Database Manager and reported for release by the Exploration Manager/Executive Director. Data was routinely checked by the Senior Exploration and Project Geologist, Principal Resource Geologist or Consulting Geologists during drilling programs. All results, except for the 25 by 25 m and 12.5 m spaced RC data, which is considered operational, have been reported in previous ASX announcements. This data has however been verified by both Gold Road and Gruyere JV geologists.

Criteria and JORC Code explanation	Commentary
<p><i>The use of twinned holes.</i></p>	<p>Three twin RC holes were completed, and data analysed in the reported resource, with their collars being less than 5 m distant from the parent collar.            14GYRC0026A (twin pair with hole 13GYRC0026)            14GYRC0033A (twin pair with hole 14GYRC0033)            14GYRC0060A (twin pair with hole 13GYRC0060)            Two twin RC vs DDH sub-parallel holes were completed and data analysed in the reported resource, with their collars being less than 10 m distant from the parent collar.            13GYDD0003 (twin pair with hole 13GYRC0027)            13GYDD0002 (twin pair with hole 13GYRC0049)            One diamond pair (14GYDD0012A and 14GYDD0012B) provide a twin data set over a length of 120 m at a spacing of less than less than 4 m apart. This twinned data provided accurate data for validating the nugget effect at Gruyere.            As part of the Maiden Mineral Resource reported in August 2014 a detailed drill program was completed which included several holes on an approximate 12.5 by 12.5 m to 25 by 25 m drill spacing. The data derived from this drilling confirmed the short scale mineralisation continuity and refine statistical and geostatistical relationships in the data which are useful in resource estimation. The ongoing 25 by 25 m grade control drilling and open pit mapping confirms the continuity.</p>
<p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p>	<p>All field logging is carried out on Tough books using LogChief data capture software. Logging data is submitted electronically to the Database Geologist in the Perth office. Assay files are received electronically from the Laboratory. All data is stored in a Datashed/SQL database system and maintained by the Gold Road Database Manager.            The grade control database is also Datashed/SQL and is managed by the Gruyere JV and maintained by Maxgeo.</p>
<p><i>Discuss any adjustment to assay data.</i></p>	<p>No assay data was adjusted. The laboratory's primary Au field is the one used for plotting and resource purposes. No averaging is employed.</p>
<p><b>Location of data points</b>  <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p>	<p>Exploration and definition drill hole locations were initially picked up by handheld GPS, with an accuracy of 5 m in northing and easting. All holes were later picked using DGPS to a level of accuracy of 1 cm in elevation and position. For angled drill holes, the drill rig mast is set up using a clinometer, and rigs aligned by surveyed positions and/or compass.            Drillers use an electronic single-shot camera to take dip and azimuth readings inside the stainless-steel rods, at 50 m intervals, prior to August 2014, and 30 m interval, post August 2014 and every 10 m for 2019. Downhole directional surveying using north-seeking gyroscopic tool was completed on site and live (down drill rod string) or after the rod string had been removed from the hole. Most diamond drill holes were surveyed live whereas most RC holes were surveyed upon exiting the hole.</p>
<p><i>Specification of the grid system used.</i></p>	<p>A local grid (Gruyere Grid) was established by contract surveying group Land Surveys. The purpose of the local grid is to have an accurate and practical co-ordinate system along strike of the deposit. A high-density survey control network and an accurate transformation between Gruyere Grid and MGA94-51 has been established. All ongoing studies, geological, resource and mining activities are now conducted in Gruyere Grid.</p>
<p><i>Quality and adequacy of topographic control.</i></p>	<p>Land and aerial based topographic surveys proximal to the site are completed and managed by the Gruyere JV with high accuracy. An Aerial Lidar and Imagery Survey completed in 2016 is used for distal areas to the site.            All drill holes used in the resource grade estimate have a final collars survey by DGPS which has a 1 cm elevation accuracy.            A mine based surveying team now provides accurate survey information such as open pit end of month surveys.</p>
<p><b>Data spacing and distribution</b>  <i>Data spacing for reporting of Exploration Results.</i></p>	<p>In the upper leached portion of the deposit, the drill spacing is at 25 m section interval and 12.5 m on section. In the portion below the leached zone to a depth of up to approximately 100 m the spacing is at 25 m section and 25 m on section, while below this to a maximum depth of 500-600 m the section interval increases to 100 m with 50 m on section spacing. Finally, below this to a depth of 800 m the spacing on section increases to 100 m while maintaining the 100 m section spacing.            Drill spacing in relation to Resource Classification is discussed further in Section 3 below.</p>
<p><i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p>	<p>Spacing of the reported drill holes is sufficient to demonstrate the geological and grade continuity of the deposit and is appropriate for resource estimation procedures. Detailed description of the relationship between drill spacing and Resource classification is provided in Section 3 below.</p>

Criteria and JORC Code explanation	Commentary
<i>Whether sample compositing has been applied.</i>	Samples have been composited to 1 m intervals for estimation. This is to ensure no bias related to volume variance. 1 m represents the most common primary sample interval.
<p><b>Orientation of data in relation to geological structure</b>  <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p>	Drill sections are oriented west to east (270° to 090° Gruyere Grid) with the majority of holes oriented approximately perpendicular to dip and strike at -60° to 270°, 14 holes in this orientation are shallow to dip and four are steep to dip. A small component of drilling has been drilled in a northward orientation, five of these are deep diamond drill holes drilled along the strike of the deposit (-60 towards 010°) to specifically test along strike continuity. Twenty-six holes are drilled to the northeast and east, and six are drilled to the south.
<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Drilling angled at either -60 to the east or west does not introduce any directional bias given the current understanding of the structural orientations and the dip and strike of mineralisation.
<p><b>Sample security</b>  <i>The measures taken to ensure sample security.</i></p>	For all RC drilling and diamond drilling pre-numbered calico sample bags were collected in plastic bags (five calico bags per single plastic bag), sealed, and transported by company transport to the Intertek laboratory in Kalgoorlie. Prepared pulps were then despatched by Intertek to its laboratory in Perth for assaying. A similar system was used to transport the grade control samples to ALS in Perth.
<p><b>Audits or reviews</b>  <i>The results of any audits or reviews of sampling techniques and data.</i></p>	Sampling and assaying techniques are industry-standard. Internal and Consultant reviews of QAQC have been completed and documented. Company laboratory audits have been complete at the Intertek laboratory in Perth. No independent laboratory or sample audits have been completed.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria and JORC Code explanation	Commentary
<p><b>Mineral tenement and land tenure status</b>  <i>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.</i></p>	<p>The Mineral Resource is situated within tenement M38/1267, which is owned by the Gruyere JV a 50:50 joint venture between Gold Road and Gold Fields. The tenement is located on the Yamarna Pastoral Lease, which is owned and managed by Gold Road.</p> <p>Tenement M38/1267 is located on tenements granted in respect of land in which non-exclusive native title has been determined to exist and to be held by a group of native title holders which includes the persons on whose behalf the Yilka (WAD297/2008) and Sullivan Edwards (WAD498/2011) native title claims were brought. The determination was made by the Federal Court on 27 September 2017. The native title holders nominated the Yilka Talintji Aboriginal Corporation RNTBC to act as trustee of, or as their agent in future dealings relating to, their native title rights. Exploration activities in the specified "Gruyere and Central Bore Project Areas" within the Pastoral Lease are conducted in accordance with the 2016 "Gruyere and Central Bore Native Title Agreement" between Gold Road, the Yilka native title claim group and Cosmo Newberry Aboriginal Corporation.</p>
<p><i>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.</i></p>	<p>The tenement is in good standing with the Western Australia Department of Mines, Infrastructure, Resource and Safety.</p>
<p><b>Exploration done by other parties</b>  <i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>No previous exploration has been completed on the Gruyere Deposit by other parties.</p>
<p><b>Geology</b>  <i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The Gruyere Deposit is situated at the north end of the Dorothy Hills Camp Scale Target identified by Gold Road during its regional targeting campaign completed in early 2013. The Gruyere Deposit comprises coincident structural and geochemical features within a major regional-scale structural corridor associated with the Dorothy Hills Shear Zone. This zone occurs within the Dorothy Hills Greenstone Belt at Yamarna in the eastern part of the Archaean Yilgarn Craton. The Dorothy Hills Greenstone is the most easterly known occurrence of outcropping to sub-cropping greenstone in the Yilgarn province of Western Australia.</p> <p>The Gruyere Deposit comprises a wide porphyry intrusive dyke (Gruyere Porphyry – a Quartz Monzonite) within the Dorothy Hill Shear Zone. The Gruyere Porphyry is between 5 to 10 m, at its northern and southern extremities, to a maximum 190 m in width and with a mineralised strike over a current known length of 2,200 m. The Gruyere Porphyry dips steeply (65-80 degrees) to the east. A sequence of intermediate to mafic volcanoclastic rocks defines the stratigraphy to the west of the intrusive, while intermediate to mafic volcanics and a tholeiitic basalt unit occur to the east.</p> <p>Gold mineralisation is confined ubiquitously to the Gruyere Porphyry and is associated with pervasive overprinting albite-sericite-chlorite-pyrite (<math>\pm</math>pyrrhotite <math>\pm</math>arsenopyrite) alteration associated with quartz veining and increased deformation which has obliterated the primary texture of the rock. Minor fine quartz-carbonate veining occurs throughout. Pyrite is the primary sulphide mineral and some visible gold has been observed in logged diamond drill core.</p> <p>Quaternary aeolian sands 1 to 3 m thick, with localised dunes up to 10 m in height cover the area of the deposit. Semi-consolidated Cenozoic channel sediments lie beneath the sand and are absent in the southern part of the deposit and gradually increase in thickness to 25 to 30 m at the northern end. The depth of weathering in the Archaean bedrock increases from 45 m in the south to 85 m in the north. The weathering profile is similar to those observed across the Eastern Goldfields, other than a lack of significant supergene enrichment.</p>

Criteria and JORC Code explanation	Commentary
<p><b>Drill hole Information</b>  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:</p> <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> <p>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.</p>	<p>All relevant RC and Diamond holes included in the reported resource estimation have been previously reported in ASX announcements. The 25 by 25 m and 12.5 m spaced RC grade control data has not been reported in detail as it is operational.</p>
<p><b>Data aggregation methods</b>  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.</p>	<p>No top cuts have been applied to the reporting of the assay results. Intersections lengths and grades are reported as down-hole length-weighted averages of grades above a cut-off and may include 1 to 2 m or more of grades below that cut-off. Cut-offs of 0.1, 0.3, 0.5, 1.0 and/or 5.0 g/t Au are used depending on the drill type and results.</p>
<p>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.</p>	<p>Reported drill hole intersections at a cut-off include 1 to 2 m or more of grades below the reported cut-off. Geologically selected intervals are used in more advanced stage projects. They are selected to honour interpreted thickness and grade from the currently established geological interpretation of mineralisation and may include varying grade lengths below the cut-off.</p>
<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No metal equivalent values are used.</p>
<p><b>Relationship between mineralisation widths and intercept lengths</b>  These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	<p>Mineralisation is hosted within a steep east-dipping, north-south striking porphyry. The porphyry is mineralised almost ubiquitously at greater than 0.3 g/t Au and is characterised by pervasive sub-vertical shear fabrics and sericite-chlorite-biotite-albite alteration with accessory sulphides dominated by pyrite-pyrrhotite-arsenopyrite. Higher grade zones occur in alteration packages characterised by albite-pyrrhotite-arsenopyrite alteration and quartz and quartz-carbonate veining. These vein packages dip at approximately -45° to the SSE, with strike extents of over 100 m. The general drill direction of 60° to 270° is approximately perpendicular to the main alteration packages and is a suitable drilling direction to avoid directional biases.</p>
<p><b>Diagrams</b>  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.</p>	<p>Refer to Figures and Tables in the body of this and previous ASX announcements.</p>
<p><b>Balanced reporting</b>  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.</p>	<p>All drill assay results (except for the previously mentioned 25 by 25 m and 12.5 m RC grade control drill holes) used in this estimation of this resource have been published in previous ASX releases.</p>
<p><b>Other substantive exploration data</b>  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.</p>	<p>In addition to the drilling activity, several geophysical surveys have been conducted, some in collaboration with Gold Fields, on the Gruyere JV tenements. These surveys aim to identify the geophysical signatures of known mineralisation styles to aid further targeting and potentially directly detect mineralisation along the Golden Highway and Gruyere-YAM14 Trends. Other exploration activities have included re-processing of aeromagnetic and the collection and re-processing of gravity data over the entire Yamarna Belt to allow more detailed interpretation of geology and further target definition. The Yamarna Terrane Tectonostratigraphic, or Geological Map has been updated with detailed understanding of age-constrained stratigraphic units. The compilation of this map provides direct stratigraphic correlation of major rock units at Yamarna with similar stratigraphic sequences in the other major gold-hosting greenstone belts (Kalgoorlie-Kambalda, Agnew, Laverton) of the Yilgarn in Western Australia. This understanding greatly improves the ability to effectively target for gold mineralisation in the Yamarna Terrane.</p>
<p><b>Further work</b>  The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Further exploration activity will be guided by economic assessment of potential extensions to the existing resource and reserve. Current focus is on the underground potential.</p>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria and JORC Code explanation	Commentary
<p><b>Database integrity</b> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</p>	<p>Geological metadata is stored centrally in a relational SQL database with a Datashed front end. Gold Road employs a Database Manager who is responsible for the integrity and efficient use of the system. Only the Database Manager or their Data Entry Clerk has permission to modify the data.</p> <p>The Gruyere JV mining company has employed Maxwell Geoservices to manage the integrity of the database for the Gruyere JV tenement which is derived from the greater Gold Road database. It has been thoroughly checked by both Gruyere JV and Gold Road for consistency. Both databases employ identical Datashed front ends.</p> <p>Sampling and geological logging data is collected in the field using LogChief software and uploaded digitally. The software utilises lookup tables, fixed formatting and validation routines to ensure data integrity prior to upload to the central database.</p> <p>Sampling data is sent to, and received from, the assay laboratory in digital format.</p> <p>Drill hole collars are picked up by differential GPS (DGPS) and delivered to the database in digital format.</p> <p>Down hole surveys are delivered to the database in digital format.</p> <p>The Mineral Resource estimate only uses Gold Road RC and DDH and Gruyere JV RC assay data. There is no historical data.</p>
<p><b>Data validation procedures used</b></p>	<p>DataShed software has validation procedures that include constraints, library tables, triggers and stored procedures. Data that does not pass validation tests must be corrected before upload.</p> <p>The LogChief software utilises lookup tables, fixed formatting and validation routines to ensure data integrity prior to upload to the central database.</p> <p>Geological logging data is checked visually in three dimensions against the existing data and geological interpretation.</p> <p>Assay data must pass laboratory QAQC before database upload. Gold Road and Gruyere JV utilises QAQR software to further analyse QAQC data, and batches which do not meet pass criteria are requested to be re-assayed.</p> <p>Sample grades are checked visually in three dimensions against the logged geology and geological interpretation.</p> <p>Drill hole collar pickups are checked against planned and/or actual collar locations.</p> <p>A hierarchical system is used to identify the most reliable down hole survey data. Drill hole traces are checked visually in three dimensions. The project geologist and resource geologist are responsible for interpreting the down hole surveys to produce accurate drill hole traces.</p>
<p><b>Site Visits</b> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.</p>	<p>John Donaldson is one of the Competent Persons and is Gold Road's Principal Resource Geologist. He conducts regular site visits and is responsible for all geological aspects of the project. Mr Donaldson was on site extensively throughout the resource development stage of the Gruyere Project and has visited the operating open pit several times.</p> <p>Steven Hulme is one of the Competent Persons and is Gold Road's Principal Corporate Development. Mr Hulme has visited the operating open pit several times.</p> <p>Mark Roux is one of Gold Fields Limited's Competent Persons and has conducted site visits to view the diamond drill core and RC chips and open pit exposures.</p> <p>All Competent Persons contribute to the continuous improvement of sampling and logging practices and procedures.</p>

Criteria and JORC Code explanation	Commentary
<p><b>Geological interpretation</b>  Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</p>	<p>The predominance of diamond drilling at Gruyere has allowed a robust geological interpretation to be developed, tested and refined over time. Early establishment of lithology and alteration coding and detailed structural logging has given insight into geological and grade trends that have been confirmed with geostatistical analysis (including variography). Other sources of data (see next commentary) have also added confidence to the geological interpretation.</p> <p>The type and thickness of host lithology and main hangingwall mafic dyke is predictable. Other non-mineralised mafic and intermediate dykes are less predictable.</p> <p>The footwall and hangingwall lithologies are less well known due to the focus of drilling on mineralised units. However, the hangingwall lithologies are understood better as holes are collared on this side of the deposit. Results from the EIS hole (ASX announcement dated 8 September 2015) have improved the understanding of hangingwall lithologies and this will improve with further study and open pit mapping.</p> <p>Continued exploration drilling has shown that the approximate tenor and thickness of mineralisation is also predictable.</p> <p>Results from grade control drilling data have confirmed the geological interpretation and mineralisation model.</p> <p>As the deposit has good grade and geological continuity, which has been confirmed by grade control drilling, the Competent Persons regard the confidence in the geological interpretation as high.</p>
<p><i>Nature of the data used and of any assumptions made.</i></p>	<p>All available data has been used to help build the geological interpretation. This includes geological mapping and logging data (lithology and structure), gold assay data (RC and DDH), portable XRF multi-element data (Niton and laboratory), geophysics (airborne magnetics and gravity), down hole Televiwer data (optical images and structural measurements, specific gravity, resistivity and natural gamma), mineral mapping and multi-element data from research conducted in partnership with the CSIRO and open pit mapping.</p> <p>An assumption regarding some gold remobilisation has been made at the more deeply weathered northern end of the deposit where a small flat lying gold dispersion blanket has been interpreted near the saprolite/saprock boundary. This is believed to represent dispersion of gold due to weathering processes. Justification for this interpretation lies in the lack of visual control to the mineralisation and its position in the weathering profile.</p>
<p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p>	<p>In previous updates, a model constrained only by lithology (Gruyere Porphyry) was run to compare against the implicitly (and lithologically) constrained at 0.3 g/t model (actual model). Results showed that at 0 g/t cut-off the estimate of ounces was within 2%, and, as expected the lithologically constrained model had higher tonnage at lower grade. At 0.5 g/t, grade is 10% less and ounces are 7% less, and at 1.0 g/t grade is 1% less and ounces are 19% less in the lithologically constrained model.</p> <p>In previous updates, one other potential mineralised trend, keeping all other constraints constant, was been modelled and showed little effect on the global estimate of volume.</p> <p>Recent work was done on the sensitivity of interpretation of the leached mineralisation. The model was previously modelled with a flat orientation, but the geology supports a steeper orientation. Comparison at a global scale showed no material difference between the results.</p>
<p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p>	<p>Regionally the deposit is hosted in an Archaean basin to the East of the crustal scale Yamarna Shear Zone. The Gruyere Deposit is located on an inflection of the NW (MGA) striking Dorothy Hills Shear Zone which transects the basin. The Dorothy Hills Shear Zone is the first order control into which the host Gruyere Porphyry has intruded.</p> <p>The bulk of the mineralisation has been constrained to the host intrusive below the base of Quaternary and Cainozoic cover.</p> <p>Several NNE dipping cross-cutting arcuate and linear faults have been interpreted from airborne magnetics. The Alpenhorn Fault and the Northern Fault have been used to constrain the distribution of mineralisation.</p> <p>1. Mineralisation within the leached zone has been interpreted as steeply orientated and modelled by a defined interval selection. Most of this material has been grade control drilled and the criteria used to determine the interval selected has been based upon a combination of logged lithology supported by grade continuity. In addition, intervals were selected applying the following general economic criteria:</p> <ul style="list-style-type: none"> <li>▪ a minimum 3 m compositing to &gt;0.3 g/t Au</li> <li>▪ the inclusion of up to 2 m internal waste (Au &lt; 0.15 g/t Au)</li> </ul>

Criteria and JORC Code explanation	Commentary
	<p>2. Mineralisation within the intrusive host below the leached zone has been implicitly modelled to the mineralisation trends discussed below at a constraining 0.3 g/t Au cut-off. The cut-off was established using two lines of reasoning:</p> <ol style="list-style-type: none"> <li>Previous work plotted all the assay data internal to the host rock was plotted on a log probability plot; a value of 0.3 g/t Au was recognised as an inflection point subdividing the non-mineralised and mineralised populations. This is further supported through a reduction in the CV in the unconstrained case from 1.0 to 0.9 in the constrained case i.e. a reduction in stationarity supporting the domaining.</li> <li>0.3 g/t Au corresponds to the approximate grade cut-off between barren to very weakly mineralised hematite-magnetite alteration and weak to strongly mineralised albite-sericite-carbonate ± pyrite, pyrrhotite, arsenopyrite alteration.</li> </ol> <p>Seven mineralisation Domains have been modelled; Primary (Main), Primary (South Plunge), Primary (North), Weathered (leached), Dispersion Blanket, SW Porphyry and background mineralisation (within host).</p> <ol style="list-style-type: none"> <li>The Primary Domain (Main) corresponds to mineralisation hosted in fresh, transitional and saprock Gruyere Porphyry south of the north fault. The mineralisation trend is along strike and steeply down dip and supported by geological observations of alteration, sulphide, together with the following structural observations from diamond core: <ul style="list-style-type: none"> <li>The along strike component corresponds to the main foliation within the intrusive host.</li> <li>The steep down dip component corresponds to a strong down-dip lineation parallel to the axes of tight to isoclinal folds of the pre-existing foliation within the intrusive host.</li> </ul> <p>The strike and dip components for this Domain are supported by modelled variography.</p> </li> <li>The Primary Domain (South Plunge) corresponds to higher-grade mineralisation internal to the Main domain. The mineralisation trend is along strike and steeply down dip with a southerly plunge and supported by geological observations of alteration, sulphide, quartz veining and structure. <p>The strike and dip components for this Domain are supported by modelled variography.</p> </li> <li>The Primary Domain (North) corresponds to mineralisation hosted in fresh, transitional and saprock Gruyere Porphyry associated with and north of the Northern Fault. The tenor of the gold mineralisation increases in this region supported by elevated As values and reduced Rb. The mineralisation trend is along strike and steeply down dip and supported by geological observations of alteration and sulphides. The strike and dip components for this Domain are supported by modelled variography.</li> <li>A secondary Domain corresponds to mineralisation hosted in deeply weathered (leached saprolite) Gruyere Porphyry. The mineralisation trend is steep, reflecting the underlying primary mineralisation with the weathering processes associated with a leaching event. Domain are supported by modelled variography.</li> <li>A minor third Domain corresponds to a flat lying, 4 to 5 m thick, gold dispersion blanket interpreted near the saprolite boundary and hosted within hangingwall and footwall lithologies.</li> <li>Background mineralisation – very weakly mineralised Gruyere Porphyry.</li> <li>Mineralisation within the adjacent SW Porphyry. Limited drilling has identified mineralisation associated with an adjacent porphyry intrusion.</li> </ol>
<p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>Continuity of grade and geology at Gruyere is considered exceptional. Apart from the controls discussed previously, one narrow (1 to 5 m wide), steeply dipping non-mineralised internal mafic dyke has been modelled as barren within the intrusive host.</p> <p>Other narrow (generally less than 1 m wide) mafic and intermediate intrusives/ dykes occur but have shorter scale continuity and are insignificant to the scale of mineralisation. Open pit mapping and grade control data will be used to refine the interpretation of these dykes.</p>
<p><b>Dimensions</b>  <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>Length along strike: 1,800 m  Horizontal Width: 7 to 190 m with an average of 90 m.  The vertical depth of Mineral Resource from surface to the upper limit is 2 m and to the lower limit is 800 m. The deposit has been intersected in drilling at &gt;1,100 m vertical depth.</p>

Criteria and JORC Code explanation	Commentary
<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p>	<p>Software used:            Dashed – frontend to SQL database            Leapfrog Geo – Drill hole validation, material type, lithology, alteration and faulting wireframes, domaining and mineralisation wireframes, geophysics and regional geology            Snowden Supervisor - Geostatistics, variography, declustering, kriging neighbourhood analysis (KNA), validation            Datamine Studio RM Pro – Drill hole validation, cross-section, plan and long-section plotting, block modelling, block model validation, classification, reporting, mineable shape optimiser            Isatis – grade estimation and Geostatistics            Deswik and Maptrek Vulcan – open pit optimisation            Grade Estimation – Ordinary Kriging (Leached Domain and SW Porphyry) and Localisation of a Conditional Simulation technique (Primary Domains):            The Gold grade within the GC drilled portion is estimated using Ordinary Kriging. The drill density is at sufficient spacing that this technique is considered appropriate to inform a local estimate. The SW porphyry is informed by a relatively small data set and grade estimate applied broad assumptions related to the more informed Gruyere Porphyry mineralisation. Given the level of uncertainty, an Ordinary Kriging estimate was produced, and all the material is undclassified.            Outside of the SW Porphyry and GC drilling, the gold grade is estimated using a conditional simulation approach. 50 realisations are produced at 2 m node spacing and then sampled to represent planned Grade control drilling. Thereafter 50 ordinary kriged estimates are generated for each SMU block (5 mE x 12.5 mN x 5 mRL) which inform the Grade distribution of larger Panels (25 mE x 25 mN x 20 mRL). Finally, by applying a background grade distribution, a final single SMU grade is localised and used for reporting. This process addresses two areas; firstly, it produces a recoverable resource estimate and applies an information effect associated with the final GC spacing.</p> <p>Block model and estimation parameters:            Treatment of extreme grade values are necessary for two reasons. For the linear estimated portions, they serve the traditional role of limiting the impact of extreme high grades to the overall estimate. For the conditional simulation portion, they serve as limiting a potential bias when modelling the Gaussian anamorphosis function. These top-cuts produced for these purposes are slightly different but are in both cases applied to 1 m composite selected within mineralisation wireframes.            The Ordinary Kriging top-cut selection is a combination of interrogating disintegration points on the histogram and the cumulative distribution plots. The Gaussian Anamorphosis top-cut selection is focussed on reducing the impact of extreme outliers to ensure no bias is introduced during the transformation and back transformation a combination of interrogating disintegration points on the histogram and the cumulative distribution plots.            Top cut range – 20 - 23 g/t Au            Model rotation – none required – local Gruyere Grid used.            Outside of the linear estimated domains, the Gruyere model applies a localisation of a conditional simulation technique. The broad process is briefed below:</p> <ul style="list-style-type: none"> <li>▪ A discrete Gaussian model (Gaussian anamorphosis) is applied to transform the data into Gaussian space.</li> <li>▪ This transformed data is using to produce 50 simulations at node support using Isatis. Thereafter the points are sampled at proposed GC support.</li> <li>▪ The “produced” drill holes are ordinary kriged to produce 50 estimates at SMU support</li> <li>▪ The SMU realisation results are reblocked into panels to produce the grade (Q), tonnage (T) and metal (M) against a set of cut-off grades.</li> <li>▪ The Panel QTM outputs are localised into SMU support applying a background index ranking to determine final spatial position.</li> <li>▪ Maximum distance of extrapolation from data points – 50 m from sample data to Inferred boundary</li> </ul> <p>Domain boundary conditions – Hard boundaries are applied at all domain boundaries.</p>

Criteria and JORC Code explanation	Commentary																		
<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i>	Several internal models and numerous public models were produced prior to the publication of this Mineral Resource. These were used to plan drilling programs, manage performance and expectation and test geological interpretation on an ongoing basis during and after the various drilling campaigns. Analysis shows that this model has performed well globally and locally against the previously released model.																		
<b>The assumptions made regarding recovery of by-products.</b> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i>	There are no economic by-products. No deleterious elements of significance have been determined from metallurgical test work and mineralogical investigations. Waste rock characterisation work has been completed and all waste types and tailings are non-acid forming and have limited metal leachate potential.																		
<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	Panel and SMU sizes per Domain: <table border="1" data-bbox="774 566 1391 723"> <thead> <tr> <th>Domain</th> <th>SMU</th> <th>Panel</th> </tr> </thead> <tbody> <tr> <td>Leached</td> <td>5mN x 12.5mE x 5mRL</td> <td>N/A (linear estimate)</td> </tr> <tr> <td>Primary North</td> <td>5mN x 12.5mE x 5mRL</td> <td>25mN x 25mE x 20mRL</td> </tr> <tr> <td>Primary South</td> <td>5mN x 12.5mE x 5mRL</td> <td>25mN x 25mE x 20mRL</td> </tr> <tr> <td>Dispersion blanket</td> <td>5mN x 12.5mE x 5mRL</td> <td>25mN x 25mE x 20mRL</td> </tr> <tr> <td>Background mineralisation</td> <td>5mN x 12.5mE x 5mRL</td> <td>25mN x 25mE x 20mRL</td> </tr> </tbody> </table> <p>Sample spacing discussed below.</p>	Domain	SMU	Panel	Leached	5mN x 12.5mE x 5mRL	N/A (linear estimate)	Primary North	5mN x 12.5mE x 5mRL	25mN x 25mE x 20mRL	Primary South	5mN x 12.5mE x 5mRL	25mN x 25mE x 20mRL	Dispersion blanket	5mN x 12.5mE x 5mRL	25mN x 25mE x 20mRL	Background mineralisation	5mN x 12.5mE x 5mRL	25mN x 25mE x 20mRL
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<i>Any assumptions behind modelling of selective mining units.</i>	The selective mining unit (SMU) of 5 m X by 12.5 m Y by 5 m Z was chosen for grade estimation as it corresponds well with currently utilised open pit mining equipment. It is also an appropriate SMU for underground evaluation.																		
<i>Any assumptions about correlation between variables.</i>	No correlation between variables was analysed or made with respect to grade estimation.																		
<i>Description of how the geological interpretation was used to control the resource estimates.</i>	The geological interpretation was used at all stages to control the estimation. If Geostatistics, variography and/or visual checks of the model were difficult to interpret then the geological interpretation was questioned and refined.																		
<i>Discussion of basis for using or not using grade cutting or capping.</i>	Top-cuts were used in the estimate as this is the most appropriate way to control outliers when estimating block grades from assay data.																		
<i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	The following validation checks were performed: <ul style="list-style-type: none"> <li>Reproduction of the input variogram model against the point simulation output.</li> <li>Comparison of the point simulations against the point anamorphosis model.</li> <li>Comparison of the GC support corrected model against the GC support realisations and the final localised model.</li> <li>On-screen visual inspection comparison of drill hole composite grade to block grade estimates.</li> <li>Mean data grade against block grade by domain</li> <li>'Swath plot' moving window grade comparisons of composites compared to estimated block grades by domain. All validation checks gave suitable results. There has been no mining so no reconciliation data available.</li> </ul>																		
<b>Moisture</b> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Average bulk density values have been modified by a moisture percentage so that dry tonnage is reported. These are: overburden and saprolite 5%, saprock 3%, transition 2% and fresh 1%.																		
<b>Cut-off parameters</b> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The Mineral Resource for the Gruyere open pit is reported using an 0.4 g/t Au cut-off grade. This cut-off grade is based on a gold price of A\$2,000/oz and mine costs derived from mining, processing and geotechnical parameters from the Gruyere BFS and current Gruyere JV operational cost data. The Mineral Resource for the Gruyere underground deposit is reported using a 1.0 and 1.5 g/t Au cut-off grade. This cut-off grade is based on a gold price of A\$2,000/oz and mine costs using Australian industry benchmarking, delivering an overall mining, processing, and G&A operating cost estimate of about A\$60/t and A\$90/t, respectively.																		

Criteria and JORC Code explanation	Commentary
<p><b>Mining factors or assumptions</b>  <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<p>The open pit mining method is conventional with a contract mining fleet appropriately scaled to the size of the deposit. A configuration of 5.0 mE x 12.5 mN x 5.0 mRL is used to simulate the Selective Mining Unit (SMU) as the block size represents the capability of the selected mining fleet.</p> <p>For underground, the stope optimisation was completed using Alford Mining Systems Mineable Shape Optimiser (MSO), which is an industry recognised package for producing a stope wireframe. The estimate assumes that a mass mining method (sub-level cave and open stoping) with no internal selectivity would be used. Stope dimensions were controlled using the Gruyere Porphyry wireframe to control dip and strike of the stope shapes. The Gruyere Porphyry wireframe hangingwall and footwall contacts are sub-parallel to the overall dip and strike of the mineralisation. Areas of the resource model considered appropriate for potential mass mining exploitation in the Central Zone are constrained within MSO shapes of 25 metre minimum mining width in a transverse orientation and 25 metre sub-level interval, and are optimised to a cut-off grade of 1.0 g/t Au. Areas of the resource model considered appropriate for potential mass mining exploitation in the Northern Zone are constrained within MSO shapes of 5 metre minimum mining width in longitudinal orientation and 25 metre sub-level interval, and are optimised to a cut-off grade of 1.5g/t Au.</p>
<p><b>Metallurgical factors or assumptions</b>  <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>The Gruyere processing facility consists of a single stage primary crush, Semi Autogenous Grinding Mill and Ball Milling with Pebble Crushing (SABC) comminution circuit followed by a conventional gravity and carbon in leach (CIL) process. This process is appropriate for the Gruyere ore, which has been classified as free-milling.</p> <p>The metallurgical process is commonly used in the Australian and international gold mining industry and is a well-tested technology. Metallurgical recovery is applied to the resource model by material type and grind size (106µm, 125µm and 150µm) according to test work values for weathered material and grade recovery curves for fresh rock. 106µm was selected for input to optimisation. No recovery factors are applied to the Mineral Resource numbers themselves.</p> <p>Significant comminution, extraction, and materials handling testing has been carried out on over 4,500 kg of half-core diamond drilling core samples (NQ core diameter = 47.6mm). The testing has been carried out on saprolite (oxide), saprock, transitional and fresh ore types which were selected to represent different grade ranges along the strike length of the deposit and to a depth of around 410 m. For the fresh rock samples, 62 composites representing four major mineralised zones (South, Central, North and High-Grade North) were subjected to gold extractive test work by gravity separation and direct cyanidation of gravity tails. In total, 183 individual gravity-leach tests were completed at various grind size P80 ranging from 106 µm to 150 µm. Gravity gold recoveries are estimated at 35%.</p> <p>Estimated plant gold recovery ranges from 87% to 96% depending on head grade, plant throughput, grind size and ore type and are summarised in the table below. Since commissioning of the Gruyere processing facility, gold recovery averages between 92 and 93%.</p> <p>The metallurgical recovery used in the underground evaluation is assumed to be between 90% and 92%.</p>
<p><b>Environmental factors or assumptions</b>  <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<p>No deleterious elements of significance have been determined from metallurgical test work and mineralogical investigations.</p> <p>Surface waste dumps and infrastructure (e.g. tailings dam) will be used to store waste material from open pit mining.</p> <p>Conventional storage facilities will be used for the process plant tailings.</p> <p>Test work has been completed for potential acid mine drainage material types. Results show that all material types are non-acid forming and are unlikely to require any special treatment.</p> <p>Baseline environmental studies of flora, vegetation, vertebrate fauna, short-range endemic invertebrates and subterranean fauna are completed.</p>

Criteria and JORC Code explanation	Commentary
<p><b>Bulk density</b> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</p>	<p>Bulk density has been determined using 2 main methods and cross checked with data from recent metallurgical test work:</p> <ol style="list-style-type: none"> <li>1. DDH drilling – weight in air / weight in water – measurements every 1 m in weathered every 10 m in fresh rock, using approximate 0.1 m core lengths.</li> <li>2. Selected RC drilling – downhole rock property surveys completed by ABIMS Pty Ltd which provide a density measurement every 0.1 m downhole.</li> <li>3. In pit sampling</li> </ol> <p>The physical measurements derived from the air/water method were compared to the down hole tool measurements and metallurgical test work. Good correlation was observed between methods for saprolite, saprock and transitional. The down-hole tool values for fresh rock did not match the other two methods and so were set aside.</p>
<p>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</p>	<p>Vacuum sealed bags were used where required to account for void spaces in the core. Bulk density has been applied by lithology and weathering type.</p>
<p>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</p>	<p>Data was coded by method, lithology (including mineralisation and cover) and weathering type. The three methods were compared and found to be in agreement except for the down hole tools values for fresh rock. Averages were derived both by lithology and weathering type. Assumptions for moisture percentages were made and accounted for in the final value used for bulk density.</p> <p>Approximately 100 grab samples are taken from the pit each month and tested for moisture and density using wax clog SG method. The results confirm existing assumptions.</p>
<p><b>Classification</b> The basis for the classification of the Mineral Resources into varying confidence categories.</p>	<p>The Mineral Resource has been constrained within MSO wireframes. Blocks in the geological model within those wireframes are classified as Inferred. Several factors have been used in combination to aid the classification;</p> <ul style="list-style-type: none"> <li>▪ Drill hole spacing;</li> <li>▪ Level of geological continuity</li> <li>▪ Level of grade continuity.</li> </ul>
<p>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</p>	<p>All relevant factors have been taken into account in the classification of the Mineral Resource.</p>
<p>Whether the result appropriately reflects the Competent Person's view of the deposit.</p>	<p>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.</p>
<p><b>Audits or reviews</b> The results of any audits or reviews of Mineral Resource estimates.</p>	<p>The Mineral Resource estimate has been reviewed internally by Gold Road Competent Persons and board members.</p> <p>An assessment of the JORC 2012 criteria for RPEEE regarding the Gruyere Underground Mineral Resource was completed and endorsed by an independent leading industry expert.</p>
<p><b>Discussion of relative accuracy/confidence</b> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</p>	<p>Variances to the tonnage, grade and metal of the Mineral Resource estimate are expected with further definition drilling. It is the opinion of the Competent Persons that these variances will not significantly affect economic extraction of the deposit.</p> <p>A key aspect supporting this declaration is the likelihood of the Mineral Resource converting from Inferred to a higher level of classification. It is expected pending further studies and drilling that most of the material classed as Inferred will upgrade to an Indicated level of confidence. The selected mass mining methods and associated assumptions are considered plausible to extract the underground portion of the Inferred Mineral Resource.</p>
<p>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p>	<p>The Inferred volumes provide support for global resource evaluation only.</p>
<p>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</p>	<p>The open pit reconciliation process reviews operational planning parameters against actual performance considering model performance and dilution. Reconciliation performance is comprehensively tracked and managed via the mine reconciliation system with revision of modifying factors as necessary. Reconciliation data indicates that dilution is currently within acceptable levels, and the mine call factors for tonnes, grade and ounces are also within acceptable levels.</p> <p>No factoring has been applied to the tonnes, grade or metal in the resource model.</p>

## Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in Section 4, and where relevant in Sections 1, 2 and 3, also apply to this section.)

Criteria including JORC Code (2012) explanation	Commentary
<p><b>Mineral Resource estimate for conversion to Ore Reserves</b>  <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.  Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<p>The Mineral Resource estimate for the Gruyere Deposit which formed the basis of this Ore Reserve estimate was compiled by the Gold Fields Competent Person(s) utilising relevant data. The Mineral Resource is described in detail in sections 1 to 3 of this Table.  The Mineral Resource is unchanged and not depleted for mining since its publication on the ASX dated, 15<sup>th</sup> February 2021 - 2020 Annual Mineral Resource and Ore Reserve Statement.  The Mineral Resources are reported inclusive of the Ore Reserve.</p>
<p><b>Site visits</b>  <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The Competent Person has conducted several site visits to Gruyere and is a member of the Gruyere JV Technical Committee which provides monthly periodic updates on the sites operational progress.  Key areas observed during site visits include:</p> <ul style="list-style-type: none"> <li>▪ General familiarisation with the site including mining activities, waste landform, site drainage, processing and power infrastructure and site access observations.</li> <li>▪ Assessed proposed locations of the mining related infrastructure relative to the expansion of the open pit.</li> <li>▪ Inspected diamond drill core to get an understanding of the variations in weathering profiles and geotechnical considerations across the deposit.</li> </ul>
<p><b>Study status</b>  <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.  The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<p>The Ore Reserve estimate has been completed on the basis of the October 2016 Feasibility Study (2016 FS) and updated by subsequent operational studies and other studies completed to a PFS level as part of the detailed Business Plan (BP) completed by a team consisting of Gruyere JV personnel and independent external consultants.  This Ore Reserve estimate is an update of a previous estimate (Refer ASX announcement dated 15 February 2021). The significant change from the previous Ore Reserve estimate is due to an unconstrained higher gold price design that encapsulates Indicated classified Mineral Resource material at depth in conjunction with steeper slopes achievable in fresh rock as an outcome from both site operational performance and geotechnical studies resulting in the conversion to Probable Ore Reserve as it is economically mineable.  The proposed mine plan supporting the Ore Reserve estimate is technically achievable. All technical proposals made for the operational phase involve the application of conventional open pit mining, gold processing and tailings disposal technology which is widely utilised in the goldfields of Western Australia.  Financial modelling completed as part of the Ore Reserve estimate shows that the project is economically viable under current assumptions.  Material Modifying Factors (mining, processing, infrastructure, environmental, legal, social, and commercial) have been considered during the Ore Reserve estimation process.</p>
<p><b>Cut-off parameters</b>  <i>The basis of the cut-off grade(s) or quality parameters applied.</i></p>	<p>Variable economic cut-off grades have been applied in estimating the Ore Reserve. Cut-off grade is calculated in consideration of the following parameters:</p> <ul style="list-style-type: none"> <li>▪ Gold price</li> <li>▪ Operating costs</li> <li>▪ Process recovery</li> <li>▪ Transport and refining costs</li> <li>▪ General and administrative cost</li> <li>▪ Royalty costs</li> </ul> <p>The Ore Reserve for Gruyere is determined using variable cut-off grades and is reported at a cut-off grade of 0.5 g/t Au for oxide, transitional and fresh material.</p>
<p><b>Mining factors or assumptions</b>  <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e., either by application of appropriate factors by optimisation or by preliminary or detailed design).  The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></p>	<p>Gruyere is an operating open pit mine in Western Australia and the additional Ore Reserve estimate material identified will be mined by the same open pit mining methods utilising conventional mining equipment. Final pit and interim stage designs were completed as part of the Ore Reserve estimate. The final pit design is the basis of the Ore Reserve estimate.  The selected mining method, design and extraction sequence are tailored to suit orebody characteristics, minimise dilution and ore loss, defer waste movement and capital expenditure, utilise proposed process plant capacity and expedite free cash generation in a safe and environmentally sustainable manner.  Mining operating and capital costs were estimated as part of the Ore Reserve estimate derived from executed mine contractor costs.</p>

Criteria including JORC Code (2012) explanation	Commentary
<p><i>The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></p>	<p>Geotechnical modelling has been completed by a team consisting of Gruyere JV personnel and independent external consultants based on field logging and laboratory testing of selected dedicated diamond drill core samples, and project to date operational performance. The Gruyere JV identified the application of narrowing ramp widths which has been integrated into the pit design. As part of a risk mitigation strategy, the pit design uses two independent ramping systems from surface to final pit depth. The recommended pit slope design angles are technically achievable which assume low damage wall blasting practices and dry slopes requiring adequate dewatering practices (i.e., water depressurisation measures) to be implemented ahead of mining. Six geotechnical domains were identified, these are:</p> <ul style="list-style-type: none"> <li>▪ Sector Northeast (Domain A); with weathered material (i.e., oxide and transitional) batter height of 10m, batter angles of 45° to 55° and berm widths of 5m; to deliver an Inter-Ramp Angle (IRA) of approximately 34° to 40°. Fresh material batter height of 20m, batter angles of 60° to 85° and berm widths between 6m to 10m; to deliver an IRA of approximately 49° to 60°.</li> <li>▪ Sector East (Domain B1); with weathered material batter height of 10m, batter angles of 45° to 55° and berm widths of 5m; to deliver an IRA of approximately 34° to 40°. Fresh material batter height of 10m to 20m, batter angles of 60° to 85° and berm widths between 6m to 10m; to deliver an IRA of approximately 40° to 60°.</li> <li>▪ Sector Southeast (Domain B2); with weathered material batter height of 10m, batter angles of 45° to 55° and berm widths of 5m; to deliver an IRA of approximately 34° to 40°. Fresh material batter height of 10m to 20m, batter angles of 65° to 80° and berm widths between 5m to 8m; to deliver an IRA of approximately 46° to 60°.</li> <li>▪ Sector Southwest (Domain C1); with weathered material batter height of 10m, batter angles of 45° to 60° and berm widths of 5m; to deliver an IRA of approximately 34° to 43°. Fresh material batter height of 20m, batter angles of 75° to 80° and berm widths of 8m; to deliver an IRA of approximately 56° to 60°.</li> <li>▪ Sector West (Domain C2); with weathered material batter height of 10m, batter angles of 45° to 55° and berm widths of 5m; to deliver an IRA of approximately 34° to 40°. Fresh material batter height of 10m to 20m, batter angles of 65° to 85° and berm widths between 5m to 10m; to deliver an IRA of approximately 46° to 60°.</li> <li>▪ Sector Northwest (Domain D); with weathered material batter height of 10m, batter angles of 45° to 55° and berm widths of 5m; to deliver an IRA of approximately 34° to 40°. Fresh material batter height of 10m to 20m, batter angles of 65° to 80° and berm widths between 6m to 8m; to deliver an IRA of approximately 43° to 60°.</li> </ul> <p>All IRA stated above is exclusive of ramp allowances.</p>
<p><i>The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></p>	<p>A separate hydrogeological report was prepared by independent consultants which considered the infrastructure required to effectively dewater the open pit and pit slopes. This study was supported by the development of test bores and field test pumping analysis.</p> <p>The 2020 Mineral Resource model has been used as the basis for subsequent Ore Reserve's and is described in detail in sections 1 to 3 of this Table (ASX announcement dated 15 February 2021 - 2020 Annual Mineral Resource and Ore Reserve Statement).</p>

Criteria including JORC Code (2012) explanation	Commentary
<p><i>The mining dilution factors used.</i>  <i>The mining recovery factors used</i>  <i>Any minimum mining widths used</i>  <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion</i>  <i>The infrastructure requirements of the selected mining methods</i></p>	<p>The mining model used for the Ore Reserve estimate was compiled by the Gold Fields Competent Person(s) utilising relevant data.</p> <p>A configuration of 5.0 mE x 12.5 mN x 5.0 mRL is used to simulate the Selective Mining Unit (SMU) as the block size represents the capability of the selected mining fleet. The SMU selection took into consideration the available loading equipment sizes that can meet total material movement targets and the likely operating conditions such as grade control practices, mining methods, the direction of mining and the style and behaviour of the mineralisation. To better simulate operational mining practices, mining dilution and recovery modifying factors were simulated by modelling Mineable Stope Shapes (MSO) within the framework of the SMU. By assessing the geometry of the ore and waste contact, a 0.5 m skin width was selected to represent the selectivity that should be achievable by the excavator (approximately 20% of the excavation height). The dilution skin was applied to identified edge blocks defined on the ore and waste contact as an outcome of cut-off grade and MSO. This process is performed using varying cut-off grades defined by site operations for defining higher grade ore down to lower grade mineralised waste material (&gt;0.3 g/t Au). The modelling generates an overall mining dilution factor of 4.2% and a mining recovery factor of 99.6% (gold loss of 0.4%). These factors are estimated using a cut-off grade of 0.5 g/t Au within the final depleted (as of 30<sup>th</sup> September 2021) pit design for the basis of the Ore Reserve estimate.</p> <p>This assumption is supported by actual reconciliation between the resource model and mill performance at Gruyere to date being within an acceptable uncertainty range for the style of mineralisation under consideration. Gruyere is a relatively simple continuous orebody with individual ore block designs of hundreds of metres along strike and 20 to 50 m wide.</p> <p>The mining schedule is based on supplying throughput rates to a processing plant with a capacity of 8.8 Mtpa ore material and the capability to treat up to 10.0 Mtpa.</p> <p>The mining schedule is based on realistic mining productivity and equipment utilisation estimates and considered the vertical rate of mining development. Inferred Mineral Resources were considered as waste during the pit optimisation and production scheduling process.</p> <p>Waste material from mining activities will be disposed of as follows:</p> <ul style="list-style-type: none"> <li>▪ Topsoil will be disposed of at designated stockpiles for application in on-going rehabilitation activities</li> <li>▪ Some waste rock will be utilised to construct the Run of Mine (ROM) pad</li> <li>▪ Some waste rock will be utilised to construct on-going TSF lifts</li> <li>▪ Excess waste rock will be disposed of at designated waste rock landforms</li> </ul>
<p><b>Metallurgical factors or assumptions</b></p> <p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i>  <i>Whether the metallurgical process is well-tested technology or novel in nature.</i>  <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i>  <i>Any assumptions or allowances made for deleterious elements.</i>  <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i>  <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>A processing flowsheet, materials balance, water balance, equipment identification, mechanical and electrical layouts were all developed to FS standard.</p> <p>The Gruyere processing facility consists of a single stage primary crusher, Semi Autogenous Grinding Mill and Ball Milling with Pebble Crushing (SABC) comminution circuit followed by a conventional gravity and carbon in leach (CIL) process and is in operation. This process is considered appropriate for the Gruyere ore, which is classified as free milling.</p> <p>The proposed metallurgical process is commonly used in the Australian and international gold mining industry and is considered to be well-tested and proven technology.</p> <p>Significant comminution, extraction and materials handling testing has been carried out on diamond drill core and RC chip samples. These tests have been carried out on oxide, transitional, and fresh ore types which were obtained across the Gruyere deposit (South to North) and to a depth of up to approximately 500m. These comminution parameters have been applied to process design and equipment selection. Estimated plant gold recovery ranges from 89% to 96% depending on head grade, plant throughput, grind size and ore type.</p> <p>No deleterious elements of significance have been determined from metallurgical test work and mineralogy investigations.</p>

Criteria including JORC Code (2012) explanation	Commentary
<p><b>Environmental</b></p> <p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>Baseline environmental studies of flora, vegetation, vertebrate fauna, short-range endemic invertebrates and subterranean fauna are all completed. Environmental approvals for all aspects of the development of the current project (Stage 5 Mine Plan, 2020 Ore Reserve) are in place, however, these will require amendment for the additional capacities required for ore and waste movement as an outcome of this Ore Reserve estimate (Stage 6 and 7 Mine Plan).</p> <p>Gold Road believes there are reasonable grounds to expect all approvals and permits will be received within standard timeframes following lodgement of applications.</p> <p>Waste rock and tailings characterisation work has been completed and all waste types and tailings with the majority being Non-acid forming (NAF) and have limited metal leachate potential. Operations to date have not produced any Potential Acid Forming (PAF) materials. One recent composite sample has however returned a weak PAF result within the Gruyere Cutback. Should any PAF material be produced through Stage 6 and 7, it will be suitably managed by encapsulation or co-mingle disposal in the existing NAF waste landforms. Waste rock and tailings storage locations have been selected based on suitable geographical characteristics and proximity to the pit and plant.</p>
<p><b>Infrastructure</b></p> <p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.</i></p>	<p>The project site is within economic distances of existing infrastructure of the Eastern Goldfields region. Services and consumable supplies will be delivered by existing roads from Laverton some 150 km to the west. A gas supply lateral from the Eastern Goldfields Pipeline has been constructed from Laverton to site to supply gas to a purpose-built gas-fired power station.</p> <p>The Gruyere JV is committed towards progressing to carbon neutral strategies, as such, a contract for a party to build, own and operate a 13MW solar farm and 4.4MW battery energystorage solution (BESS) to service a proportion of the energy required for site infrastructure.</p> <p>The workforce is Fly In-Fly Out (FIFO) and based at a camp on site during rostered days on. A sealed on-site airstrip has been constructed as part of the project.</p> <p>A borefield has been constructed within the 65 km of tested aquifer at the Yeo and Anne Beadell paleochannels, and will serve as the primary source of water for the project. In addition to the tested paleochannel length, approximately 100 km of paleochannel is available for potential development on tenements with granted miscellaneous water search licences. Operational reviews of the existing bore field indicate it is adequate to meet the increase in plant production rate and life of mine extension without deleterious impacts to the environment or communities.</p>
<p><b>Costs</b></p> <p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p> <p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government and private.</i></p>	<p>Significant project infrastructure has been constructed in-line with the 2016 FS budget capital estimates that were based on executed construction contracts. All mining equipment required for the project will be supplied by a mining contractor.</p> <p>Mine development costs were developed from currently executed contracts including:</p> <ul style="list-style-type: none"> <li>▪ Contract mining</li> <li>▪ Mobilisation of mining equipment and personnel from Perth</li> <li>▪ Earthwork's quantities determined from detailed site inspections by a competent civil engineer and geological modelling</li> <li>▪ Mine dewatering requirements developed from FS level hydrogeological modelling</li> <li>▪ A mining schedule developed as part of the BP</li> <li>▪ A contingency allowance on capital cost items calculated to reflect the relevant level of confidence in the estimate</li> <li>▪ Budget pricing from local and international suppliers</li> </ul> <p>Contingency allowances are calculated on a line-by-line basis relevant to the source and confidence in market rates.</p> <p>Operating costs assume a FIFO scenario with various rosters on site.</p> <p>Mining operating costs have been estimated for the Ore Reserve with reference to a currently executed mining contract with technical services supplied by Gruyere JV employees. Mine design and scheduling were prepared by competent Gruyere JV mining engineers.</p> <p>Process and infrastructure operating costs have been estimated based on operational performance by the Gruyere JV on the assumption that:</p> <ul style="list-style-type: none"> <li>▪ A conventional SABC circuit will be utilised to treat ore at a rate of 8.8 Mtpa with the capability to treat up to 10.0 Mtpa.</li> <li>▪ Comminution grind sizes will be in the range of 102µm to 125µm for all material types.</li> </ul>

Criteria including JORC Code (2012) explanation	Commentary
	<ul style="list-style-type: none"> <li>▪ Power will be generated on site utilising a gas-fired facility with gas delivered by a pipeline via the White Cliffs road to site. A 13MW solar farm and 4.4MW battery energy storage solution (BESS) to service a proportion of the energy required for site infrastructure.</li> <li>▪ The process plant will be operated by Gruyere JV employees.</li> <li>▪ The operating cost estimate is considered to be appropriate for the current market in the eastern goldfields of Western Australia.</li> <li>▪ No allowance is made for deleterious elements since test work to date on ore from Gruyere has not shown the presence of deleterious elements.</li> <li>▪ Capital and Operating Costs are estimated in 2021 Australian dollars.</li> <li>▪ Gold bullion transportation charges are derived on the basis of a quote provided by a leading industry bullion shipment organisation.</li> <li>▪ Treatment and refining charges are estimated on the basis of a quote from a leading Perth Gold Refinery.</li> <li>▪ An allowance has been made for all royalties, including an allowance of 2.5% of revenue for royalties payable to the Western Australian State Government and an allowance for other royalties payable to private parties (these royalties being commercially sensitive and covered by confidentiality).</li> </ul>
<p><b>Revenue factors</b>  <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i>  <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>The mined ore head grades are estimated utilising industry accepted geostatistical techniques with the application of relevant mining modifying factors.  Gold price has been determined by agreement between Gruyere JV Partners. A Life-of-mine (LOM) gold price forecast of A\$1,750/oz (Real 2021) is applied in the financial modelling for the Ore Reserve calculation process. This price forecast was established on the basis of historical Australia dollar (A\$) gold price trends over the last 5 years and approved by the Gruyere JV.  The open pit design is derived from a A\$1,575/oz (i.e., Revenue Factor 0.90) gold equivalent optimisation. Selection of this shell took into consideration future cutback potential in conjunction with underground interface determination, strategic, operational, and financial metrics.</p>
<p><b>Market assessment</b></p> <ul style="list-style-type: none"> <li>• <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></li> <li>• <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></li> <li>• <i>Price and volume forecasts and the basis for these forecasts.</i></li> <li>• <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></li> </ul>	<p>There is a transparent market for the sale of gold.</p>
<p><b>Economic</b>  <i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>Discounted cash flow modelling and sensitivity analysis has been completed to evaluate the economic performance of the Ore Reserve.  Key value driver inputs into the financial model included:</p> <ul style="list-style-type: none"> <li>▪ Gold price at A\$1,750/oz based on historical trends over the last 5 years and Gruyere JV investment hurdle thresholds.</li> <li>▪ Discount rate of 5.0% (real) as determined by the Gruyere JV.</li> </ul> <p>The Ore Reserve returns a positive NPV under the assumptions detailed herein. The project retains a suitable profit margin against reasonable future commodity price movements.</p>
<p><b>Social</b>  <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></p>	<p>A Native Title Mining Agreement has been signed for the Project.</p>
<p><b>Other</b>  <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.</i>  <i>The status of material legal agreements and marketing arrangements.</i>  <i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	<p>No material naturally occurring risks have been identified.  No significant species have been identified that would be significantly impacted by the Project in a manner that could not be adequately managed.  Mining and gas pipeline construction contracts have been executed. There are reasonable prospects to anticipate that contract terms as assumed in the Ore Reserves estimate will be achieved.  With the increase in total material movement as an outcome of the Ore Reserve estimate, amendments to existing approvals and permits are required. Gold Road believes there are reasonable grounds to expect all approvals and permits will be received within standard timeframes following lodgement of requisite applications.</p>

Criteria including JORC Code (2012) explanation	Commentary
<p><b>Classification</b></p> <p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<p>The main basis of classification of Ore Reserves is the underlying Mineral Resource classification. All Proved Ore Reserves are derived from Measured classified Mineral Resources and all Probable Ore Reserves are derived from Indicated classified Mineral Resources in accordance with JORC Code (2012) guidelines.</p> <p>The results of the Ore Reserve estimate reflect the Competent Person's view of the deposit.</p> <p>No Probable Ore Reserves are derived from Measured Mineral Resources.</p> <p>No inferred Mineral Resource is included in the Ore Reserves.</p> <p>Approximately 8% of the Gruyere Ore Reserve is in the Proved category with the balance being Probable.</p>
<p><b>Audits or reviews</b></p> <p><i>The results of any audits or reviews of Ore Reserve estimates.</i></p>	<p>Metallurgical test-work completed by Gold Fields and was reviewed by Gold Road employees and confirmed to be adequate for a FS.</p> <p>Geotechnical input completed by Gold Fields and was reviewed by Gold Road employees and confirmed to be adequate for a PFS.</p> <p>Open pit designs, production schedules and mining cost models completed by Gold Fields and was reviewed by Gold Road Competent Persons and confirmed to be adequate for a FS.</p> <p>The construction of the process plant and infrastructure is completed with the Gruyere site in operation.</p> <p>The financial model applied to project valuation completed by Gold Fields was reviewed by Gold Road Competent Persons and was considered to be appropriate for a FS.</p>
<p><b>Discussion of relative accuracy/confidence</b></p> <p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The Gruyere FS and subsequent operational studies and other studies resulted in a technically robust and economically viable business case.</p> <p>This is deemed to be an appropriate basis for a level of confidence in the Ore Reserves estimate.</p> <p>In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.</p> <p>Gold price and exchange rate assumptions were set out by the Gruyere JV and are subject to market forces and present an area of uncertainty.</p> <p>Gruyere is an operating mine with approvals for all aspects of the development of the current project (Stage 5 Mine Plan, 2020 Ore Reserve) in place, however, these will require amendment for the additional capacities required for ore and waste movement as an outcome of this Ore Reserve estimate (Stage 6 and 7 Mine Plan).</p> <p>Gold Road believes there are reasonable grounds to expect all approvals and permits will be received within standard timeframes following lodgement of applications.</p>