

Compelling gold targets identified at Golden Ridge

Field reconnaissance programs underway as ongoing gold prospectivity review of the Company's Projects reveals significant gold targets at Golden Ridge

HIGHLIGHTS

- ⇒ Pioneer's Golden Ridge Project is located 20km southeast of the world-class Kalgoorlie Superpit and 7km along strike from the Boorara Gold Project being developed by Horizon Minerals Limited (ASX: HRZ).
- ⇒ The Project lies within the well-endowed Menzies-Boorara Shear Zone (MBSZ) that hosts the New Boddington, Paddington, Boorara and Golden Ridge Deposits (the latter two are owned by Horizon Minerals Limited – ASX:HRZ).
- ⇒ Historical drilling intercepts¹ at Pioneer's Golden Ridge Project include:
 - 21 metres @ 2.5g/t Au from 59 metres (hole ID: GOC0288 – Flying Ant Prospect); and
 - **19 metres @ 2.21g/t Au** from 51 metres (hole ID: GOC0259 Flying Ant Prospect); and
 - 11 metres @ 4.18g/t Au from 3 metres (hole ID: GOC0274 – Flying Squirrel Prospect).
 - ¹ Refer to Table 1 for more detailed information.
- ⇒ The ongoing Gold Prospectivity Review has identified other Company Projects with emerging gold potential and information on these is expected to be released during the September Quarter.



Figure 1 – A birds-eye view from the Company's Golden Ridge Project (the red line is the boundary) looking NNW to:

- Golden Ridge Gold Mine (2.5km distance)
- Boorara Gold Project (9km distance).

Pioneer Resources Managing Director, Tim Spencer, said: "In recent years, the focus at our Blair-Golden Ridge Project has been on nickel, however this has not always been the case – particularly for previous holders of the ground, including WMC Resources.

"The thick historical gold intercepts outlined above were probably not as interesting for a company looking for big deposits in a sub-A\$600/oz gold price environment, but they are certainly interesting with gold over A\$2,500/oz.

"This ground has been intermittently explored and drilled for over 40 years so there is much work to be done in pulling together and interpreting all the historical data as one dataset. We are encouraged that compelling targets have been identified early in this work."



Pioneer Resources Limited (ASX: **PIO**) (**Pioneer** or **the Company**) is pleased to advise that it has made encouraging early progress with a recently commenced Gold Prospectivity Review of its key projects, with a review of historical data identifying a number of exciting exploration targets at its 100%-owned **Blair-Golden Ridge Project** near Kalgoorlie.

The targets will be further evaluated over the coming weeks with a view to finalising an exploration program to be undertaken during the September Quarter.

GOLDEN RIDGE – REGIONAL SETTING AND GEOLOGY

Pioneer's Golden Ridge Project lies within the highly prospective Menzies – Boorara Shear Zone (MBSZ) that hosts six significant gold mines. At the north end of the MBSZ, the Paddington Gold Mine has produced over 3.5Moz in the past 20 years while the Golden Ridge Gold Mine is located towards the southern zone of the MBSZ.

The north-west portion of the tenements represents the southern-most extension of the Golden Ridge trend which hosts the Golden Ridge Gold Mine (reported historic production of 253,000 ounces at 10g/t) currently held by Horizon Minerals Ltd. The gold mine is located on the eastern margin of the Boorara-Woolibar Fault which continues south, through Pioneer's Project. It is a north-trending, fault-bounded, corridor of fragmental felsic volcanics inter-bedded between metasediments to the west and ultramafic rocks to the east.

Gold mineralisation has been identified within Pioneer's Golden Ridge Project area and occurs along strike to the south of the Golden Ridge Gold Mine. It is associated with two lines of historical workings at the 18 Footer (600m strike length) and Flying Ant Prospects (400m strike length).

Mineralisation occurs within the Boorara Domain and is related to NNW trending, parallel shear zones up to 100m wide and is hosted by a complex stratigraphy including ultramafics, chloritic sediments, volcanogenic sediments and foliated basalts.

The mineralisation is controlled by a stockwork of quartz veinlets characterised by pervasive sericite-sulphide alteration showing strong similarities to other gold deposits within the MBSZ.

Additional gold prospects where significant gold mineralisation has been intersected in historical drilling are Flying Squirrel, Duplex Hill and Gold Star located in the southeast of the project area adjacent to the Mount Monger Fault.

No deep drilling has been conducted at any of the gold prospects and drilling has rarely tested below 100m depth from surface with the average hole depth being 80 metres.





This highlighted area is shown in more detail in Figure 4.

Figure 2 – Regional scale geology map showing the Menzies – Boorara Shear Zone (MBSZ) as a white dashed line and six major gold mines located along it. (Source: Witt 1993; re-produced Morey 2004 – Boorara Mine added 2020)



Background

Most of the land package that makes up the Golden Ridge Project was put together by WMC Resources Ltd in the early 1980s. The initial work covered both gold and nickel but, given the presence of the Blair Nickel Deposit (Figure 4) which was discovered in the late 1960s and developed in 1989, much of the exploration focus was on nickel.



Figure 3 – An aerial image with the Project tenement boundaries outlined. Tenement M26/222, highlighted in yellow, contains the Flying Ant and 18 Footer Prospects. The Blair Nickel Mine is circled.

The tenements comprising the core of the Golden Ridge Project were sold to Gold Fields Ltd in 2002, which in turn sold them onto Australian Mines Limited (ASX: AUZ) in 2003. In 2006, Pioneer entered into a nickel joint venture with Australian Mines, with the latter keeping the gold rights notwithstanding their focus on restarting the Blair Nickel Mine.

In 2012, Pioneer acquired 100% of the Project including the gold rights. Based on work completed by Pioneer and previous operators, five advanced gold prospects have been identified with significant drilling intersections of >1g/t Au (refer Table 1) within the Golden Ridge Project.

Gold was intersected by Pioneer at the Flying Squirrel and Gold Star prospects with best drilling results of 15m at 1.6 g/t Au from 39m, including 6m at 3.49 g/t Au from 48m (GRB0205) and 3m at 1.22 g/t Au (GRB0287) respectively (ASX announcement 13 January – Quarterly Activities Report December 2012). The north-western area of the Project containing the Flying Ant and 18 Footer prospects was drilled by previous operators and returned intersections including 21m at 2.5 g/t from 59m. This area is the interpreted southern extension of the MBSZ-hosted Golden Ridge Gold Mine, located only 2.5km to the north.





Figure 4 – The Golden Ridge Project tenement boundaries are shown in blue and the highly prospective Boorara Domain is identified between the Boorara Shear Zone to the west and the Mount Monger Fault to the east. Identified gold prospects are highlighted in yellow with selected gold drill intersections and nickel prospects are highlighted in green.

The historic Golden Ridge Gold Mine, owned by Horizon Minerals Limited (ASX: HRZ), and the Mt Martin Gold Mine owned by Northern Star Resources Limited (ASX: NST) are also shown.



PREVIOUS DRILLING PROGRAMMES

The Project area has been the subject of extensive drilling over selected areas of interest. Approximately 20% of holes drilled contained an intersection of at least 1m at 0.5 g/t Au, notwithstanding that many holes were targeting nickel and not gold. Plans showing the extent of previous drilling at the advanced prospects are shown in Figure 5 and Figure 6.



Figure 5 – Geology and drilling at the Flying Ant and 18 Footer Prospects and surrounding areas located in the north western area of the Project.



Major Shear / Fault Ultramafic Unit

DH Historic-Highlighted

Gold Prospect Nickel Prospect

Intersections DH Historic



Figure 6 – Geology and drilling at the Flying Squirrel Prospect and surrounding areas located in the south eastern area of the Project.

GOC0355

GRB0205

E 2600186

GRB0287

AMBR0336

MAN PROPERTY

AMBR0332

1

AMBR0318

250

500

750

70 . 37A

GOC0274

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The significant drilling intersections are shown in Table 1 below.

	TABLE 1 - Significant Drill Results from Historic Drilling								
Hole ID	East (m)	North (m)	Total Depth	From	То	Metres	Au (g/t)	Prospect	
GOC0274	379,852	6,574,643	80	2	13	11	4.18	Flying Squirrel	
			including	8	9	1	24.00		
			and	12	13	1	7.70		
GOC0355	379,824	6,574,672	63	61	63	2	2.86	Flying Squirrel	
			including	62	63 EOH	1	5.10		
AMBR0318	38,1225	6,573,481	98	95	98	3	1.31	Duplex Hill	
			including	95	96	1	3.23		
AMBR0332	380,544	6,573,617	88	70	85	15	1.48	Gold Star	
AMBR0336	380,509	6,573,704	60	34	36	2	2.17	Gold Star	
AMRC026	374560	6583103	100	65	74	9	2.44	18 Footer	
AMRC026			Including	65	69	4	4.11		
GOC0264	374624.8	6583077	80	0	7	7	2.81	18 Footer	
GOC0264			Including	0	3	3	4.27		
GOC0314	374579.2	6583106	60	47	50	3	4.86	18 Footer	
			including	47	49	2	6.89		
GOC0324	374644.1	6582957	80	30	39	9	1.95	18 Footer	
GOC0324			Including	30	32	2	4.90		
GOC0276	374418.9	6583330	80	54	60	6	3.05	18 Footer	
GOC0259	374021.6	6582808	80	51	70	19	2.21	Flying Ant	
GOC0259			Including	59	62	3	8.00		
GOC0278	373999.5	6582902	80	70	78	8	2.6	Flying Ant	
GOC0288	374047.3	6582794	80	59	80 EOH	21	2.50	Flying Ant	
GOC0288			Including	67	76	9	3.98		
GOC0291	374076.9	6582758	80	61	68	7	1.77	Flying Ant	
GOD0094	374047.5	6582751	120	26	35	9	3.87	Flying Ant	
GOD0094			Including	31	33	2	13.95		

Gold intersections calculated using minimum cut-off grade 0.5 g/t Au, maximum 4m internal dilution and no external dilution.

GOC prefix drill holes: WMC Resources Limited exploration division reverse circulation drilling 1988.

GOD prefix drill holes: WMC Resources Limited exploration division diamond core drilling 1994. .

AMBR prefix drill holes: Australian Mines Limited RAB drilling 2004, 2005.

EOH: The drill hole terminated in mineralisation.



PROJECT WORK PROGRAMMES

The review of the Golden Ridge Project has included field reconnaissance, detailed prospect-scale mapping, surface sampling and, where possible, identification of the locations of historic drill collars and workings. A compilation and review of drilling data, surface geochemistry and geophysics is also in progress and, combined with geological mapping, will assist in defining further drill targets at the Project. These are expected to include currently untested anomalies as well as follow-up of partially defined gold prospects.

In addition to the Golden Ridge Project, historical data reviews and a systematic approach to reviewing the gold potential at other Pioneer-owned projects considered to be either prospective or under-explored will continue during the September Quarter.

This ASX release has been approved by the Board of Directors

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COMPETENT PERSON

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr Paul Payne.

Mr Payne is an independent non-executive director of the Company and holds shares in Pioneer Resources Limited. Mr Payne is a Fellow of the Australian Institute of Geoscientists and has 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 a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



About Pioneer Resources Limited

Following successful completion of the Sinclair Caesium Mine, Pioneer is now a well-funded and active explorer focused on key global demand-driven commodities, looking for its next opportunity to create shareholder wealth through exploration and project development. The Company operates a portfolio of strategically located lithium, caesium, gold, nickel and cobalt projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada.

Lithium:

- The *Pioneer Dome LCT Project* is highly prospective for lithium, evidenced by the discovery of multiple spodumene bearing pegmatites in the Dome North area. It includes the Cade Deposit, on which a maiden JORC Inferred Resource of 8.2 million tonnes @ 1.23% Li₂O was estimated in November 2019.
- The Company holds a 51% Project interest in the *Mavis Lake Lithium Project*, Canada where Company drilling has intersected spodumene.

Gold:

- The *Golden Ridge Project* is 100% owned by the Company. Exploration over the past 40 years has identified multiple gold prospects but the effort and focus has been on nickel. The gold potential is being reappraised and existing and newly identified prospects will be actively explored.
- **Other Projects** in the Company's portfolio have historically been considered prospective for gold and a detailed review is being undertaken.

Gold Farmin/Joint Ventures: Pioneer has three free-carried interests with well credentialed JV partners:

- **Acra JV Project** near Kalgoorlie W.A.: Northern Star Resources Limited (ASX:NST) has earned a 75% Project Interest and continues to fully fund exploration programmes until a decision to mine with Pioneer retaining a 25% interest.
- **Kangan Project** in the West Pilbara W.A: A farmin & JV agreement with Novo Resources Corp (TSXV.NVO) and Sumitomo Corporation will fully fund gold exploration programmes until a decision to mine is made, with Pioneer retaining a 30% interest.
- **Balagundi Project**: A farmin & JV agreement with where Black Cat Syndicate Limited (ASX:BC8) is earning a 75% interest in the Project located at Bulong, near Kalgoorlie, W.A. Black Cat will then fully fund gold exploration programmes until a decision to mine is made, with Pioneer retaining a 25% interest.

Nickel: The *Blair-Golden Ridge Project* includes the suspended Blair Nickel Sulphide Mine, located between Kalgoorlie and Kambalda, WA. Near-mine target generation is continuing, with the Company announcing a new disseminated nickel sulphide drilling discovery at the Leo Dam Prospect in 2018, highlighting the prospectivity of the greater project area and this work has now been progressed by recent drilling.

Cobalt: Also found as a wide-spread hydromorphic layer throughout the eastern Golden Ridge Project, cobalt is another commodity with demand expanding in response to its requirement in the manufacture of cobalt-based batteries in certain electric vehicles and electricity stabilisation systems (powerwalls). Other uses for cobalt include in the manufacture of super-alloys, including jet engine turbine blades, and for corrosion resistant metal applications.



APPENDIX 1 - DRILL HOLE STATISTICS

	HoleID	Туре	East	North	Elevation	Depth (m)	Dip	Az	From	То	Length (m)	Au (g/t)	Prospect
	ABR0465	RAB	380,548.0	6,573,670.0	386	76	-60	75	60	64	4	0.56	Goldstar
ſ	ABR0465	RAB	380,548.0	6,573,670.0	386		-60	75	72	76	4	0.83	Goldstar
	ABR0515	RAB	380,499.0	6,573,553.0	384	87	-90	0	72	76	4	0.59	Goldstar
	AMBR0011	RAB	379,761.0	6,574,803.0	382	51	-90	0	0	1	1	1.41	Flying Squirrel
\mathbf{b}	AMBR0031	RAB	379,804.0	6,574,201.0	382	71	-90	0	42	43	1	1.56	Flying Squirrel
	AMBR0064	RAB	374,082.0	6,582,785.0	362	81	-60	255	33	37	4	1.82	Flying Ant
	AMBR0066	RAB	374,062.0	6,582,737.0	361	77	-60	255	25	26	1	1.05	Flying Ant
	AMBR0066	RAB	374,062.0	6,582,737.0	361		-60	255	47	52	5	0.83	Flying Ant
	AMBR0067	RAB	374,092.0	6,582,740.0	361	76	-60	255	19	20	1	0.54	Flying Ant
	AMBR0069	RAB	374,069.0	6,582,696.0	361	87	-60	255	56	57	1	2.45	Flying Ant
	AMBR0070	RAB	374,109.0	6,582,704.0	361	80	-60	255	69	70	1	0.65	Flying Ant
	AMBR0070	RAB	374,109.0	6,582,704.0	361		-60	255	77	78	1	0.67	Flying Ant
	AMBR0071	RAB	374,141.0	6,582,715.0	361	97	-60	255	32	33	1	6.58	Flying Ant
	AMBR0071	RAB	374,141.0	6,582,715.0	361		-60	255	96	97	1	0.72	Flying Ant
	AMBR0072	RAB	374,173.0	6,582,725.0	361	111	-60	255	65	67	2	1.25	Flying Ant
	AMBR0072	RAB	374,173.0	6,582,725.0	361		-60	255	76	77	1	1.71	Flying Ant
	AMBR0073	RAB	374,122.0	6,582,664.0	358	100	-60	255	97	98	1	0.63	Flying Ant
	AMBR0074	RAB	374,153.0	6,582,667.0	358	81	-60	255	24	25	1	0.9	Flying Ant
	AMBR0076	RAB	374,219.0	6,582,679.0	358	117	-60	255	68	72	4	0.49	Flying Ant
	AMBR0077	RAB	374,419.0	6,583,332.0	371	117	-60	75	46	50	4	0.42	Goat
	AMBR0079	RAB	374,504.0	6,583,362.0	371	117	-60	75	60	65	5	0.73	Goat
	AMBR0079	RAB	374,504.0	6,583,362.0	371		-60	75	75	80	5	0.68	Goat
	AMBR0095	RAB	374,618.0	6,582,763.0	363	81	-60	75	79	80	1	0.56	18 Footer
	AMBR0314	RAB	381,342.0	6,573,412.0	401	71	-60	75	50	51	1	1.25	Goldstar
	AMBR0318	RAB	381,225.0	6,573,481.0	396	98	-60	75	95	98	3	1.31	Goldstar
	AMBR0319	RAB	381,268.0	6,573,495.0	397	78	-60	75	47	48	1	1.34	Goldstar
	AMBR0320	RAB	381,301.0	6,573,521.0	397	78	-60	75	58	59	1	0.58	Goldstar
	AMBR0320	RAB	381,301.0	6,573,521.0	397		-60	75	68	69	1	0.98	Goldstar
	AMBR0324	RAB	381,266.0	6,573,599.0	395	87	-60	75	67	69	2	0.78	Goldstar
	AMBR0329	RAB	380,470.0	6,573,600.0	394	58	-60	75	31	32	1	1.41	Goldstar
	AMBR0331	RAB	380,519.0	6,573,609.0	395	56	-60	75	42	43	1	0.57	Goldstar
	AMBR0332	RAB	380,544.0	6,573,617.0	395	88	-60	75	70	85	15	1.48	Goldstar
	AMBR0333	RAB	380,584.0	6,573,637.0	395	75	-60	75	65	67	2	1.94	Goldstar
	AMBR0334	RAB	380,618.0	6,573,634.0	393	65	-60	75	53	55	2	0.89	Goldstar
	AMBR0336	RAB	380,509.0	6,573,704.0	393	60	-60	75	34	36	2	2.17	Goldstar
	AMBR0336	RAB	380,509.0	6,573,704.0	393		-60	75	44	45	1	0.98	Goldstar
	AMRC024	RC	374,633.0	6,582,834.0	371	120	-60	75	70	73	3	0.74	18 Footer
	AMRC024	RC	374,633.0	6,582,834.0	371		-60	75	85	86	1	0.95	18 Footer
	AMRC024	RC	374,633.0	6,582,834.0	371		-60	75	92	93	1	1.19	18 Footer
ĺ	AMRC024	RC	374,633.0	6,582,834.0	371		-60	75	111	112	1	0.52	18 Footer
	AMRC025	RC	374,617.0	6,582,972.0	378	100	-60	75	50	51	1	0.66	18 Footer
	AMRC026	RC	374,560.0	6,583,103.0	379	100	-60	75	15	17	2	0.72	18 Footer
ĺ	AMRC026	RC	374,560.0	6,583,103.0	379		-60	75	65	74	9	2.44	18 Footer
ſ	AMRC027	RC	374,525.0	6,583,234.0	378	100	-60	75	89	91	2	0.93	18 Footer
	GOC0018	RC	374,445.2	6,583,306.4	372	40	-60	75	30	35	5	1.5	Goat
ľ	GOC0019	RC	374,440.6	6,583,326.3	372	40	-60	75	33	40	7	1.44	Goat
ſ	GOC0020	RC	374,423.3	6,583,361.9	374	40	-60	75	33	35	2	1.25	Goat
ľ	GOC0021	RC	374,418.0	6,583,483.0	374	40	-60	75	35	36	1	0.6	Goat
ľ	GOC0257	RC	374,049.5	6,582,712.9	361	80	-60	75	56	57	1	1.31	Flying Ant



Γ	HoleID	Туре	East	North	Elevation	Depth (m)	Dip	Az	From	То	Length (m)	Au (g/t)	Prospect
	GOC0258	RC	374,029.0	6,582,706.3	361	80	-60	75	49	51	2	0.64	Flying Ant
	GOC0259	RC	374,021.6	6,582,807.7	364	80	-60	75	0	1	1	0.88	Flying Ant
	GOC0259	RC	374,021.6	6,582,807.7	364		-60	75	28	30	2	1.76	Flying Ant
	GOC0259	RC	374,021.6	6,582,807.7	364		-60	75	51	70	19	2.21	Flying Ant
	GOC0260	RC	374,001.8	6,582,802.5	364	80	-60	75	54	55	1	1.32	Flying Ant
	GOC0262	RC	374,640.8	6,582,976.9	374	53	-60	75	21	27	6	1.6	18 Footer
	GOC0262	RC	374,640.8	6,582,976.9	374		-60	75	42	43	1	1.58	18 Footer
ιT	GOC0264	RC	374,624.8	6,583,076.5	380	80	-60	75	0	7	7	2.81	18 Footer
	GOC0265	RC	374,607.3	6,583,073.7	381	60	-60	75	20	26	6	1.03	18 Footer
	GOC0267	RC	374,667.1	6,582,881.7	365	80	-60	75	11	17	6	0.36	18 Footer
	GOC0267	RC	374,667.1	6,582,881.7	365		-60	75	65	70	5	0.75	18 Footer
	GOC0272	RC	379,889.0	6,574,656.0	385	80	-60	75	3	4	1	0.53	Flying Squirrel
)	GOC0273	RC	379,872.0	6,574,648.0	384	80	-60	75	56	57	1	0.8	Flying Squirrel
Γ	GOC0274	RC	379,852.0	6,574,643.0	384	80	-60	75	2	13	11	4.18	Flying Squirrel
	GOC0275	RC	374,434.3	6,583,304.1	372	80	-60	75	49	51	2	3.12	Goat
	GOC0276	RC	374,418.9	6,583,329.6	373	80	-60	75	54	60	6	3.05	Goat
)	GOC0278	RC	373,999.5	6,582,902.3	369	80	-60	75	14	18	4	0.58	Flying Ant
	GOC0278	RC	373,999.5	6,582,902.3	369		-60	75	70	78	8	2.6	Flying Ant
) [GOC0279	RC	373,975.6	6,582,899.2	368	80	-60	75	49	50	1	0.64	Flying Ant
/	GOC0279	RC	373,975.6	6,582,899.2	368		-60	75	61	72	11	0.6	Flying Ant
	GOC0280	RC	374,026.8	6,582,869.6	367	80	-60	75	31	35	4	1.03	Flying Ant
)	GOC0281	RC	374,004.3	6,582,864.2	367	80	-60	75	4	10	6	0.4	Flying Ant
	GOC0281	RC	374,004.3	6,582,864.2	367		-60	75	16	17	1	1.03	Flying Ant
	GOC0281	RC	374,004.3	6,582,864.2	367		-60	75	27	28	1	0.95	Flying Ant
	GOC0282	RC	373,986.7	6,582,861.5	366	80	-60	75	7	9	2	2.45	Flying Ant
	GOC0282	RC	373,986.7	6,582,861.5	366		-60	75	47	51	4	1.23	Flying Ant
)	GOC0284	RC	374,016.3	6,582,828.5	365	80	-60	75	2	11	9	0.46	Flying Ant
L	GOC0284	RC	374,016.3	6,582,828.5	365		-60	75	22	30	8	1.38	Flying Ant
Ĺ	GOC0284	RC	374,016.3	6,582,828.5	365		-60	75	59	60	1	1.13	Flying Ant
	GOC0285	RC	373,996.6	6,582,823.3	364	80	-60	75	50	51	1	0.83	Flying Ant
	GOC0288	RC	374,047.3	6,582,793.9	363	80	-60	75	59	80	21	2.5	Flying Ant
)	GOC0289	RC	374,026.5	6,582,793.5	363	80	-60	75	2	3	1	0.58	Flying Ant
	GOC0289	RC	374,026.5	6,582,793.5	363		-60	75	60	69	9	0.49	Flying Ant
	GOC0290	RC	374,007.5	6,582,782.1	363	80	-60	75	51	52	1	0.54	Flying Ant
	GOC0291	RC	374,076.9	6,582,757.9	362	80	-60	75	30	32	2	2.19	Flying Ant
L	GOC0291	RC	374,076.9	6,582,757.9	362		-60	75	49	56	7	1.19	Flying Ant
Ľ	GOC0291	RC	374,076.9	6,582,757.9	362		-60	75	61	68	7	1.77	Flying Ant
	GOC0292	RC	374,056.3	6,582,753.3	362	80	-60	75	13	18	5	0.38	Flying Ant
	GOC0293	RC	374,036.8	6,582,748.9	362	80	-60	75	16	17	1	0.57	Flying Ant
	GOC0295	RC	374,088.2	6,582,724.7	361	80	-60	75	30	31	1	3.65	Flying Ant
)	GOC0295	RC	374,088.2	6,582,724.7	361		-60	75	48	52	4	1.85	Flying Ant
	GOC0295	RC	374,088.2	6,582,724.7	361		-60	75	79	80	1	5	Flying Ant
	GOC0296	RC	374,115.0	6,582,686.1	361	80	-60	75	22	28	6	1.07	Flying Ant
	GOC0296	RC	374,115.0	6,582,686.1	361		-60	75	50	51	1	1.12	Flying Ant
	GOC0297	RC	374,095.0	6,582,680.8	361	80	-60	75	62	66	4	0.69	Flying Ant
	GOC0300	RC	374,035.1	6,582,666.2	360	80	-60	75	55	56	1	0.52	Flying Ant
/	GOC0300	RC	374,035.1	6,582,666.2	360		-60	75	79	80	1	2.96	Flying Ant
	GOC0301	RC	374,017.8	6,582,661.7	360	61	-60	75	2	3	1	0.52	Flying Ant
	GOC0302	RC	374,130.3	6,582,630.6	360	80	-60	75	12	13	1	0.55	Flying Ant



HoleID	Туре	East	North	Elevation	Depth (m)	Dip	Az	From	То	Length (m)	Au (g/t)	Prospect
GOC0303	RC	374,110.0	6,582,622.9	360	80	-60	75	73	74	1	0.93	Flying Ant
GOC0307	RC	374,559.5	6,583,182.1	373	80	-60	75	40	41	1	2.05	18 Footer
GOC0313	RC	374,599.7	6,583,111.7	378	69	-60	75	14	18	4	1.25	18 Footer
GOC0314	RC	374,579.2	6,583,105.6	377	60	-60	75	47	50	3	4.86	18 Footer
GOC0315	RC	374,591.5	6,583,071.2	379	45	-60	75	24	25	1	0.58	18 Footer
GOC0316	RC	374,571.8	6,583,065.6	377	71	-60	75	24	25	1	1.13	18 Footer
GOC0318	RC	374,621.8	6,583,035.4	380	80	-60	75	11	25	14	0.59	18 Footer
GOC0319	RC	374,604.9	6,583,029.6	378	61	-60	75	9	13	4	0.53	18 Footer
GOC0320	RC	374,652.8	6,583,001.4	377	80	-60	75	2	5	3	0.79	18 Footer
GOC0321	RC	374,633.6	6,582,996.5	376	80	-60	75	17	20	3	1.48	18 Footer
GOC0322	RC	374,614.8	6,582,991.0	374	60	-60	75	23	24	1	0.76	18 Footer
GOC0322	RC	374,614.8	6,582,991.0	374		-60	75	31	32	1	1.48	18 Footer
GOC0322	RC	374,614.8	6,582,991.0	374		-60	75	40	41	1	0.59	18 Footer
GOC0324	RC	374,644.1	6,582,957.2	372	80	-60	75	30	39	9	1.95	18 Footer
GOC0325	RC	374,624.9	6,582,952.0	370	73	-60	75	62	63	1	0.94	18 Footer
GOC0326	RC	374,673.4	6,582,924.6	367	80	-60	75	41	42	1	0.91	18 Footer
GOC0327	RC	374,654.7	6,582,920.2	368	80	-60	75	15	18	3	1.48	18 Footer
GOC0332	RC	374,647.2	6,582,877.2	365	80	-60	75	26	27	1	3.07	18 Footer
GOC0332	RC	374,647.2	6,582,877.2	365		-60	75	62	63	1	1.01	18 Footer
GOC0333	RC	374,714.4	6,582,853.0	363	60	-60	75	0	1	1	0.81	18 Footer
GOC0334	RC	374,693.8	6,582,848.4	363	80	-60	75	2	3	1	0.68	18 Footer
GOC0335	RC	374,673.5	6,582,849.1	364	80	-60	75	41	42	1	1.19	18 Footer
GOC0335	RC	374,673.5	6,582,849.1	364		-60	75	47	54	7	1.64	18 Footer
GOC0335	RC	374,673.5	6,582,849.1	364		-60	75	63	70	7	1.02	18 Footer
GOC0336	RC	374,654.3	6,582,838.8	364	70	-60	75	36	37	1	1.46	18 Footer
GOC0336	RC	374,654.3	6,582,838.8	364		-60	75	53	57	4	1.75	18 Footer
GOC0336	RC	374,654.3	6,582,838.8	364		-60	75	64	70	6	1.6	18 Footer
GOC0338	RC	374,703.8	6,582,810.5	363	80	-60	75	76	77	1	0.76	18 Footer
GOC0341	RC	374,095.6	6,582,618.0	360	60	-60	75	21	22	1	0.5	Flying Ant
GOC0344	RC	374,545.2	6,583,237.8	375	60	-60	75	44	54	10	1.17	18 Footer
GOC0347	RC	374,047.3	6,582,873.9	366	80	-60	75	63	65	2	0.71	Flying Ant
GOC0348	RC	373,969.7	6,582,850.3	366	80	-60	75	70	71	1	0.61	Flying Ant
GOC0350	RC	374,124.4	6,582,807.5	363	100	-60	255	68	69	1	0.53	Flying Ant
GOC0351	RC	374,097.2	6,582,762.9	362	80	-60	75	71	80	9	0.62	Flying Ant
GOC0353	RC	374,135.9	6,582,690.1	361	60	-60	75	51	53	2	3.43	Flying Ant
GOC0355	RC	379,824.0	6,574,672.0	382	63	-60	75	61	63	2	2.86	Flying Squirrel
GOC0356	RC	379,803.0	6,574,666.0	382	80	-60	75	74	75	1	0.91	Flying Squirrel
GOC0358	RC	379,780.0	6,574,745.0	380	80	-60	75	13	14	1	1.5	Flying Squirrel
GOC0358	RC	379,780.0	6,574,745.0	380		-60	75	24	25	1	2.21	Flying Squirrel
GOC0358	RC	379,780.0	6,574,745.0	380		-60	75	63	65	2	1.23	Flying Squirrel
GOC0360	RC	379,741.0	6,574,736.0	380	80	-60	75	72	73	1	0.65	Flying Squirrel
GOC0361	RC	379,903.0	6,574,616.0	386	80	-60	75	27	29	2	0.61	Flying Squirrel
GOC0361	RC	379,903.0	6,574,616.0	386		-60	75	38	39	1	0.54	Flying Squirrel
GOC0362	RC	379,883.0	6,574,607.0	385	80	-60	75	1	2	1	0.58	Flying Squirrel
GOD0091	DDH	373,953.4	6,582,892.5	368	150	-60	90	90	91	1	1.21	Flying Ant
GOD0092	DDH	373,991.3	6,582,800.1	364	130	-60	90	39	40	1	8.4	Flying Ant
GOD0092	DDH	373,991.3	6,582,800.1	364		-60	90	52	53	1	0.55	Flying Ant
GOD0093	DDH	374,013.5	6,582,792.2	363	136	-60	90	58	59	1	0.94	Flying Ant
GOD0094	DDH	374,047.5	6,582,751.0	362	120	-60	75	26	35	9	3.87	Flying Ant



HoleID	Туре	East	North	Elevation	Depth (m)	Dip	Az	From	То	Length (m)	Au (g/t)	Prospect
GOD0256	DDH	374,349.4	6,583,408.6	380	70	-60	90	32	33	1	0.58	Goat
GOD0257	DDH	374,345.9	6,583,330.2	376	120	-60	90	37	38	1	2.93	Goat
GOR0625	RAB	374,235.2	6,582,554.3	359	80	-60	75	66	68	2	0.72	Flying Ant
GOR0628	RAB	374,119.2	6,582,521.2	359	80	-60	75	12	14	2	1.58	Flying Ant
GRB0205	RAB	379,864.0	6,574,680.0	386	67	-90	0	48	54	6	3.49	Duplex Hill
GRB0206	RAB	379,877.0	6,574,677.0	385	82	-90	0	45	48	3	0.68	Duplex Hill
GRB0287	RAB	380,298.0	6,573,903.0	385	76	-90	0	51	54	3	1.22	Duplex Hill
GRB0288	RAB	380,336.0	6,573,905.0	383	67	-90	0	9	12	3	0.51	Duplex Hill

Notes:

- Gold intersections calculated using minimum cut-off grade 0.5 g/t Au, maximum 4m internal dilution and no external dilution.
- Nominal RL applied from surface DTM.



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Appendix 2 – JORC CODE, 2012 Edition – Table 1 Report

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut Faces, 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 The majority of drilling comprised RC and RAB drilling completed by previous operators in multiple campaigns. A small number of diamond holes were also completed; RC, RAB and diamond drilling was completed by previous holders to industry standard at the time. For historic drilling, sampling in mineralised zones comprised 1m samples however historic sampling methodology was not documented; Pioneer RAB drilling used standard industry face sampling blade bit with samples collected as 3m composites or 1m samples by spear sampling; Pioneer drilling included standards and duplicates inserted at regular intervals to provide assay quality checks. For Pioneer RAB drilling, whole samples were pulverised to produce a 50g charge for fire assay with AAS (atomic absorption spectrometry) finish. Sample preparation procedures were not documented for historic drilling; Historic RAB drilling was assayed by aqua regia digest.
Drilling techniques	• 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).	 Historic drilling includes RC, RAB, air core and diamond techniques. Details on hole diameter and sampling methods are not known. Pioneer RAB drilling used standard 90mm blade bit.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 For Pioneer RAB drilling, sample quality was recorded for each sample and quality was generally regarded as fit for purpose; Measures taken to maximise sample recovery on historic drilling are unknown. Drill core recovery was determined from physical core measurements There is no indication of a relationship between sample recovery and grade.



Criteria	JORC Code explanation	Commentary
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography. The total length and percentage of the relevant intersections logged. 	 Geological logging from historic drilling is being compiled and it is likely that the holes were logged in full; Pioneer RAB holes were logged for geology in full capturing lithology, mineralogy, alteration, sulphide abundance and type, texture, recovery, colour and recovery noted if poor; Pioneer logging is qualitative, and a representative sample is retained in a chip tray for future reference.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 For historic RC and RAB drilling, the sampling technique is unknown other than 1m samples were taken through mineralised zones and 2-5m composite samples outside of mineralised zones common; The method of historic core sampling and size of the core sampled is unknown other than the downhole width of the sample being 1m; Sample preparation was by reputable contract laboratories and is assumed to be satisfactory; In Pioneer RAB holes, samples were collected as 3m composites from 1m intervals. Anomalous intervals were resampled at 1m intervals; Quality control procedures for historic drilling are unknown; In Pioneer RAB holes Standard Reference Material and duplicate samples were included at a rate of 1 per 30 samples to monitor sample preparation and representivity; Due to the industry standard drilling and sampling methods employed in historic drilling, it is assumed that RC sample size is appropriate for samples being analysed; Sample sizes are considered appropriate.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 All samples were submitted to commercial independent laboratories in Western Australia; It is expected that assay procedures were typically aqua regia for RAB samples and fire assay for RC and DD samples; Pioneer RAB holes were assayed by fire assay; Quality control procedures adopted for historic drilling are unknown; Pioneer drilling included duplicates and standards inserted approximately every 30 samples and have returned results with acceptable levels of accuracy and precision.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	 No independent validation of data has been carried out and no twinning of historic holes has yet been carried out; Multiple phases of infill drilling have been completed which have provided confidence in the assay results from different generations of drilling;



Criteria	JORC Code explanation	Commentary
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Data from historic drilling will have been captured using either hand written logging sheets or electronic capture; Pioneer has a digital SQL drilling database where information is stored. Pioneer has made no adjustment to any assay data.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Historic holes were located either by GPS or total station methods; Holes were located on local grids, AMG-84 or GDA-94 and have now all been transformed to GDA-94; Evidence of the drill holes can be seen on high resolution aerial images such as Google Earth and collars have been cross checked to verify locations; The majority of RC and DD holes have down hole surveys but the method was not documented. RAB drilling was not down hole surveyed; Pioneer holes were picked up by DGPS and all are located on GDA-94 (zone 51). Drill holes with handheld GPS locations are adjusted to a surface DTM.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 RC and DD drilling in the main prospects was drilled at 20m hole spacing on cross sections spaced between 20m and 40m apart; The data is not currently sufficient to establish geology and grade continuity for a Mineral Resource Estimate; Sample compositing has not been applied prior to reporting intersections.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 The drilling is approximately perpendicular to dip and strike of the known mineralisation and no orientation based bias has been observed; There are a number of vertical first pass RAB holes which may not be drilled in an optimal direction;
Sample security	The measures taken to ensure sample security.	 Measures taken to ensure sample security of historic samples are unknown. Pioneer uses standard industry practices when collecting, transporting, and storing samples for analysis. Pulps are retained by Pioneer off site in a designated storage container.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of the sampling techniques and data have been carried out.



Section 2 - Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites 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. 	 The Golden Ridge drilling reported herein is entirely within the Golden Ridge Project on M26/222, M26/284 and E26/186; The tenements are located approximately 25km SE of Kalgoorlie WA; Golden Ridge North Kambalda Pty Ltd, a wholly owned subsidiary of Pioneer Resources Ltd is the registered holder of the tenements and holds a 100% unencumbered interest in all minerals within the tenements; The tenements are on the Mount Monger Pastoral Lease; The Marlinyu Ghoorlie Native Title Claimant Group has a registered Native Title Claim WC2017/007 that covers the Golden Ridge Project; At the time of this Statement, Mining Leases M26/222, M26/284 and Exploration Licence E26/186 are in Good Standing; To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to Pioneer's operations within the tenement.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The majority of work on the project has been completed by previous operators; Previous work by Western Mining Corporation (WMC) began in the 1960's; WMC explored for gold in the mid 1990's and identified most of the gold prospects on the project; Further exploration and gold prospects were followed up by Australian Mines
Geology	Deposit type, geological setting and style of mineralisation.	 Limited (AUZ) in the early 2000's. The Golden Ridge Project is situated within the Menzies-Boorara Shear Zone (MBSZ). There are currently no gold deposits on the Golden Ridge Project, gold occurrences and prospects are typical Archean orogenic lode-gold targets of the Eastern Goldfields Terrain and display styles of mineralisation typical to the nearby Golden Ridge and Boorara deposits (not Pioneer owned); Mineralisation is related to NNW trending, parallel shear zones up to 100m wide and is hosted by a complex stratigraphy including ultramafics, chloritic sediments, volcanogenic sediments and foliated basalts. The mineralisation is controlled by a stockwork of quartz veinlets characterised by pervasive sericite-sulphide alteration showing strong similarities to other gold deposits within the MBSZ.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level	Refer to Table 1 (body of announcement) and Tables 1 and 2 in Appendix 1 of this announcement.



Criteria	JORC Code explanation	Commentary
Data aggregation	 elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	Highlighted intersections noted in the body of the appoundament are from 1m
methods	 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. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 All gold intersections noted in the body of the announcement are norm information samples using 0.5g/t Au minimum cut-off unless stated; All gold intersections within the areas of interest are in Table 3 in Appendix 1 and calculated using a minimum 0.5g/t Au cut off and maximum 4m internal waste and no external dilution; There are no metal equivalent values reported.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 Downhole lengths are reported, true widths are unknown.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Refer to figures and tables in this report.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Comprehensive reporting of a selection of historic Au downhole intersections from 114 holes and drill details has been provided in Table 1 and Appendix 1 respectively of this announcement.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	All meaningful and material exploration data has been reported.
Further work	 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. 	 Planned further work includes compilation of all historic data, geological mapping and surface sampling, re-assaying of soils for Au in areas without gold assays; Twin holes from historic drilling to validate intersections and drill test in areas identified from further mapping and/or surface geochemical anomalies.