



## Corporate Details

### Ordinary Shares:

780,917,069

### Market Capitalisation:

~\$120 million

### Cash and bullion at 30 June 2017:

~\$27.7 million

### Debt:

NIL

ASX Code: **MOY**

## Board of Directors

### Greg Bittar

Non-Executive Chairman

### Michael Chye

Non-Executive Director

### Tim Kennedy

Non-Executive Director

### Peter Lester

Non-Executive Director

## Management

### Peter Cash

Chief Executive Officer

### Dean Will

Chief Operating Officer

### Stacey Apostolou

Chief Financial Officer and  
Company Secretary

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4 October 2017

# More outstanding exploration results highlight strong future for Nullagine gold project in WA

***Wide high-grade intercepts at Shearers; New high-priority target at Yates with rock chip results of up to 16.4g/t within 2.5km trend; Positive results from AU81 West deposit***

- Ongoing exploration at the Shearers deposit has delivered broad, high-grade mineralised intercepts including:
  - 20m @ 3.60g/t Au from 124m incl. 3m @ 14.42g/t Au (SHRD0013)
  - 8m @ 5.69g/t Au from 123m incl. 4m @ 10.07g/t Au (SHRD0011)
- Results support plans for a cutback at the Shearers pit and confirm the presence of deeper high grade mineralisation – assessment of underground potential to be fast-tracked
- New high-priority exploration target identified at the Yates prospect, where rock chip sampling has returned results of up to 16.4g/t within a 2.5km-long trend
- Yates trend includes an outcropping quartz veined shear zone that has been mapped over a 280m strike length and widths of up to 5m, with rock chip results of +5g/t along the 280m outcropping strike
- Program of Works (POW) has been submitted for Yates, with drilling expected to commence later this month
- Positive results received from AU81 West prospect, with potential to extend the existing resource
- Ongoing exploration at Nullagine aimed at identifying and drilling new prospects as well as reviewing near-mine opportunities, with four RC rigs and one diamond rig currently on site.

**Millennium Minerals Limited (Millennium or Company – ASX: MOY)** is pleased to report that exploration at the Company's Nullagine Gold Project (**Nullagine or Project**) in WA's Pilbara Region has delivered more strong results, supporting the Company's plans to increase production and mine life.

The latest results, which come from the Shearers, Yates and AU81 West prospects, span the Nullagine mineralised corridor from the south-west to the north-east of the project area (Figure 1), demonstrating the entire region's outstanding growth potential.

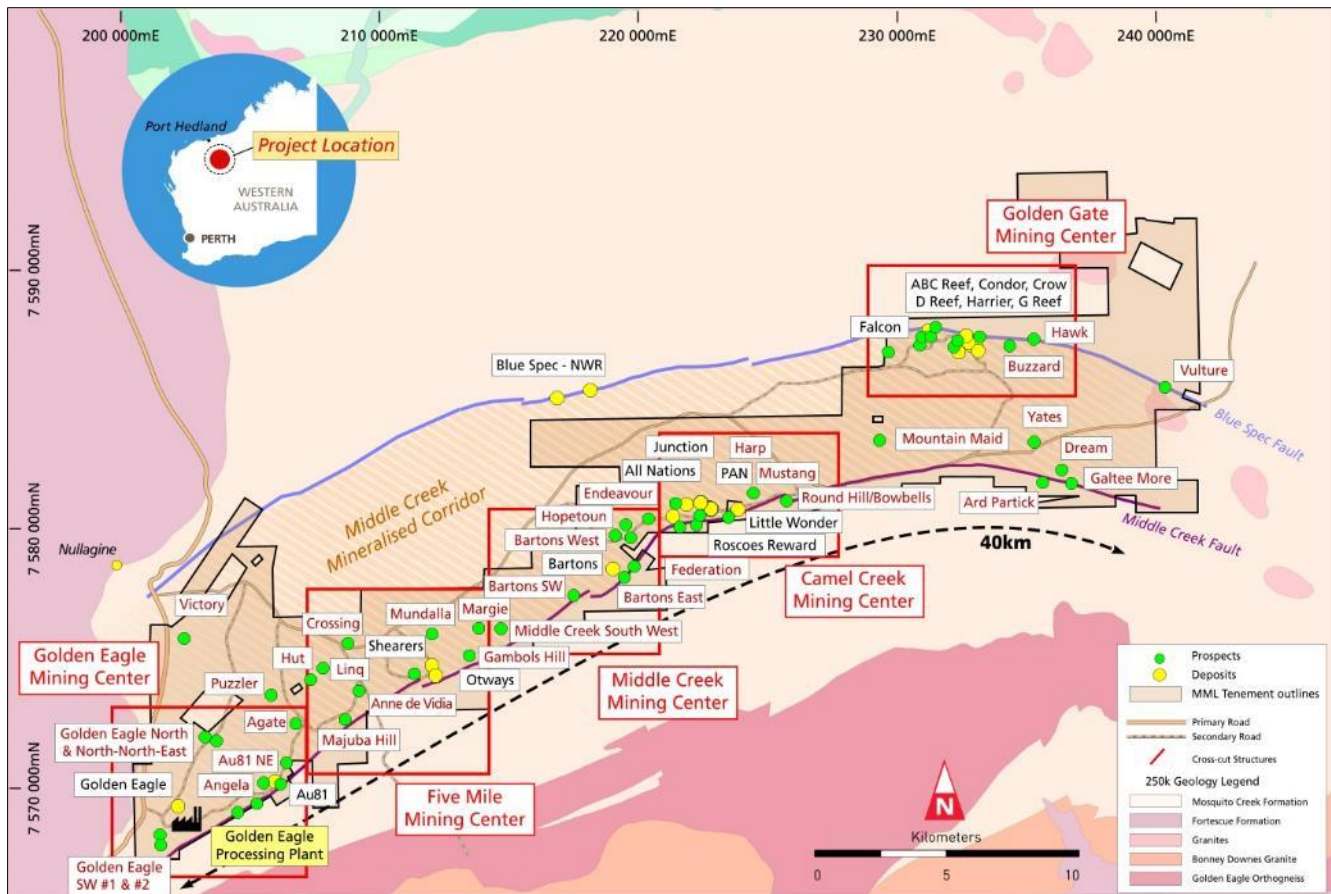


Figure 1: Nullagine Gold Project Location Plan over regional geology

## Shearers

At the Shearers deposit, drilling was undertaken to assess the potential for a cutback to the existing open pit, as well as to define deeper gold mineralisation (see ASX Announcement 27 September 2017).

This drilling was completed in September, with initial results including:

- **20m @ 3.60g/t Au** from 124m incl. **3m @ 14.42g/t Au** (SHRD0013); and
- **8m @ 5.69g/t Au** from 123m incl. **4m @ 10.07g/t Au** (SHRD0011).

The broad, mineralised intercepts returned from both these holes support Millennium's plan to cutback the Shearers pit.

Importantly, the latest results confirm Nullagine's immense potential at depth.

Nullagine has been subjected to very little deep drilling. However, where deeper drilling has occurred in recent times, the results have highlighted the potential to establish underground operations, increasing production and mine life in the process.

This has been the case at the Bartons deposit, where Millennium is on track to finalise a maiden underground Ore Reserve this month.

Given these latest results, Millennium will fast-track exploration at Shearers to assess its underground potential.



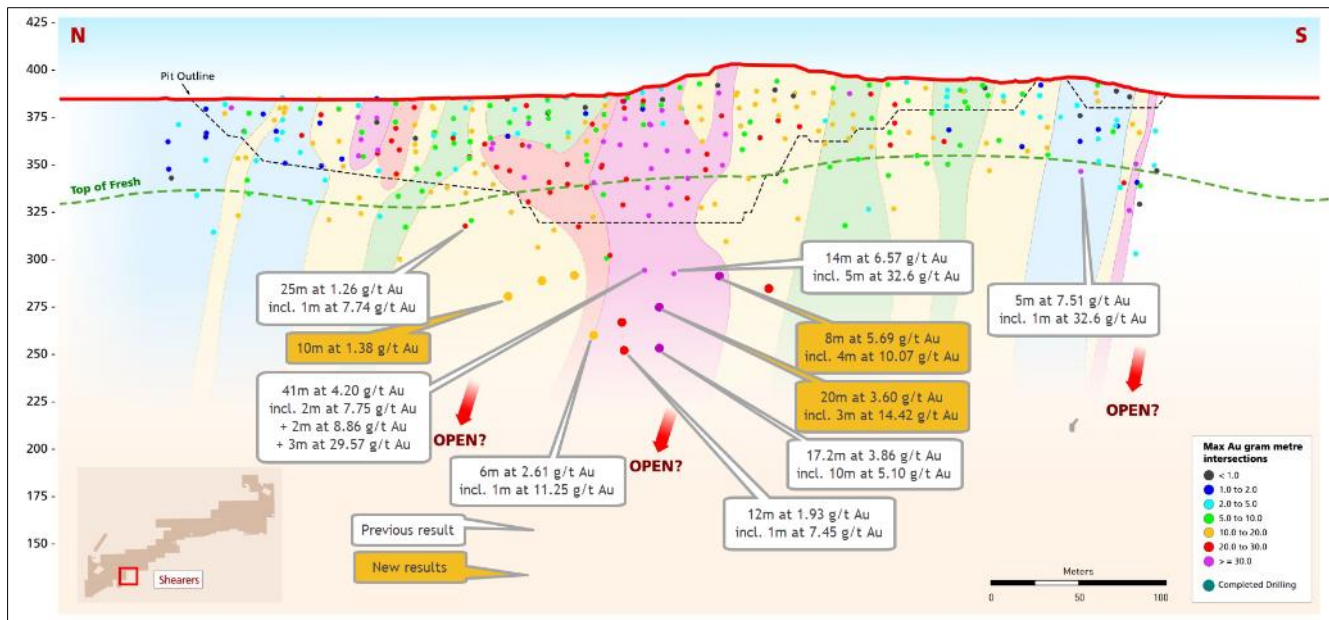


Figure 2: Shearers pit long section showing completed drilling and latest results

## Yates

The Yates prospect is located in the Mosquito Creek region in the north-eastern part of the Nullagine Project area, approximately 40km north-east of the Nullagine processing plant (Figure 1). The target was identified through Millennium's regional soil sampling programme and is a coincident Au-As-Sb anomaly.

Follow-up geological mapping defined a 2.5km-long anomalous trend, with rock chip sampling returning high-grade results of up to 16.4g/t Au. The broader 2.5km anomalous Yates trend includes a 280m long, 1-5m wide outcropping quartz-veined shear zone. Rock chip sampling along this zone has returned assay results of +5g/t Au along the entire strike length, with a maximum result of 15.4g/t Au. Figure 3 shows the geochemical anomaly and trend of the structure.

A POW has been submitted for the Yates area, and drilling is expected to commence later this month.

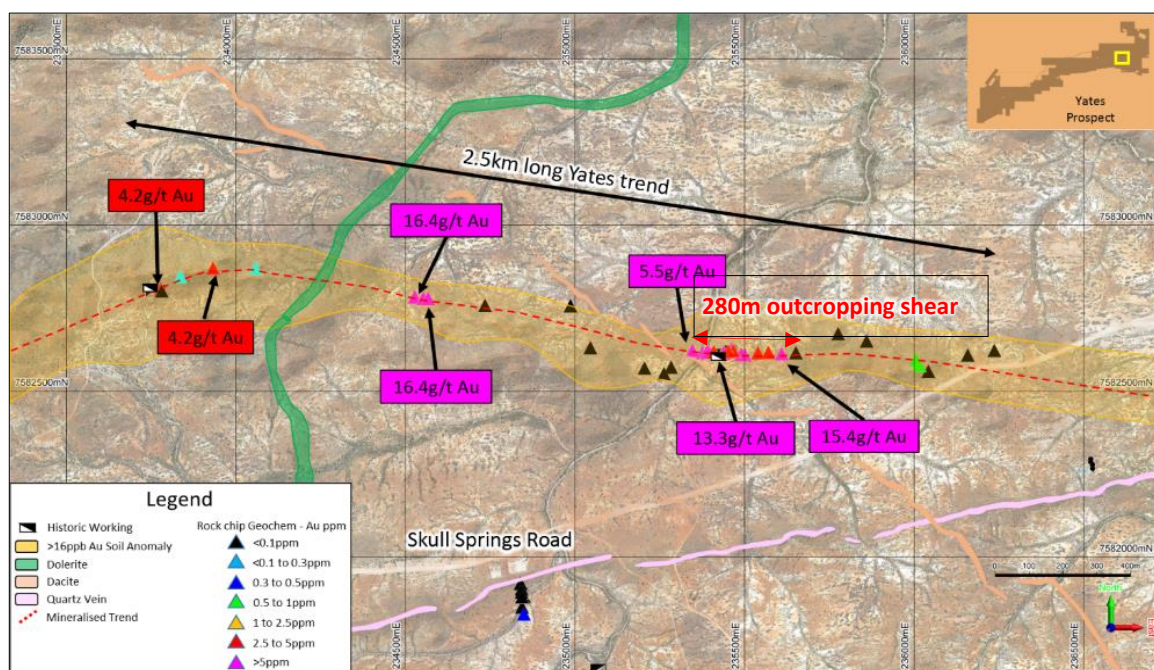


Figure 3: Yates geochemical anomaly and structural trend



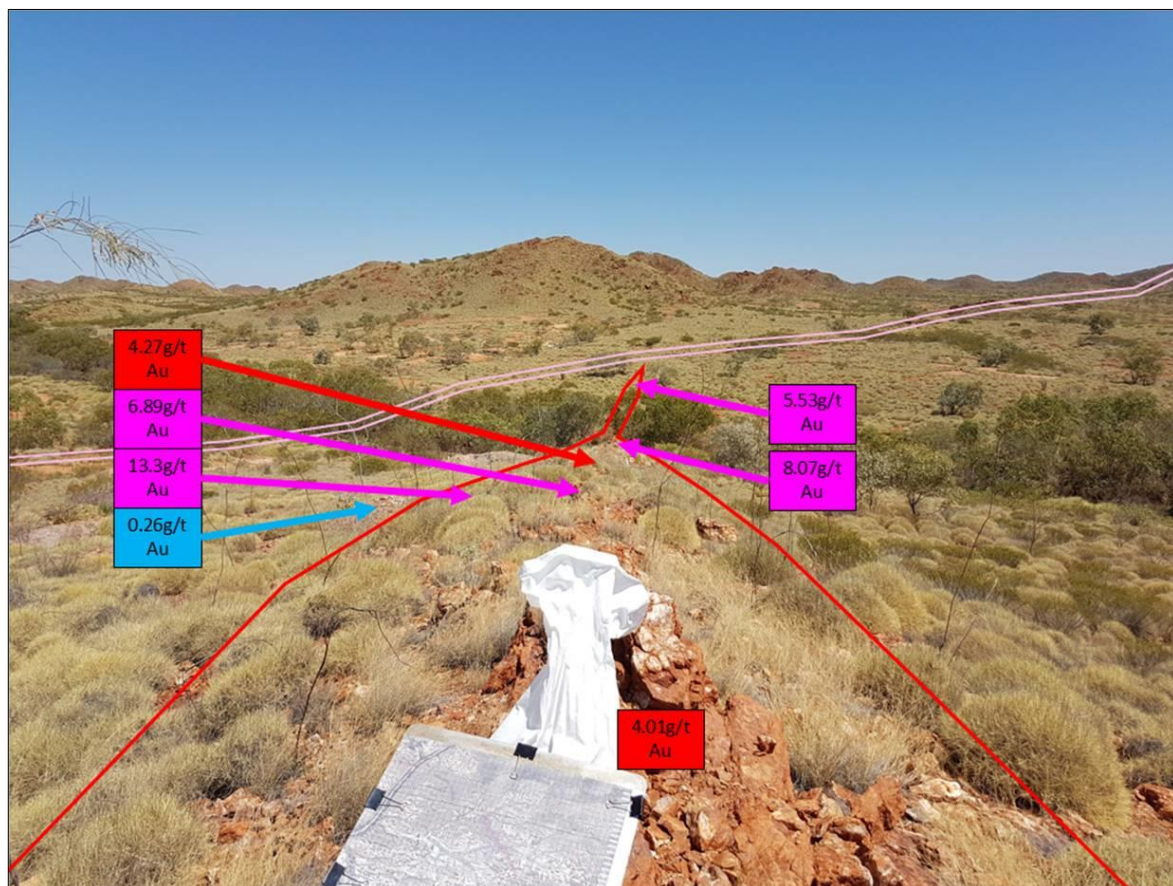
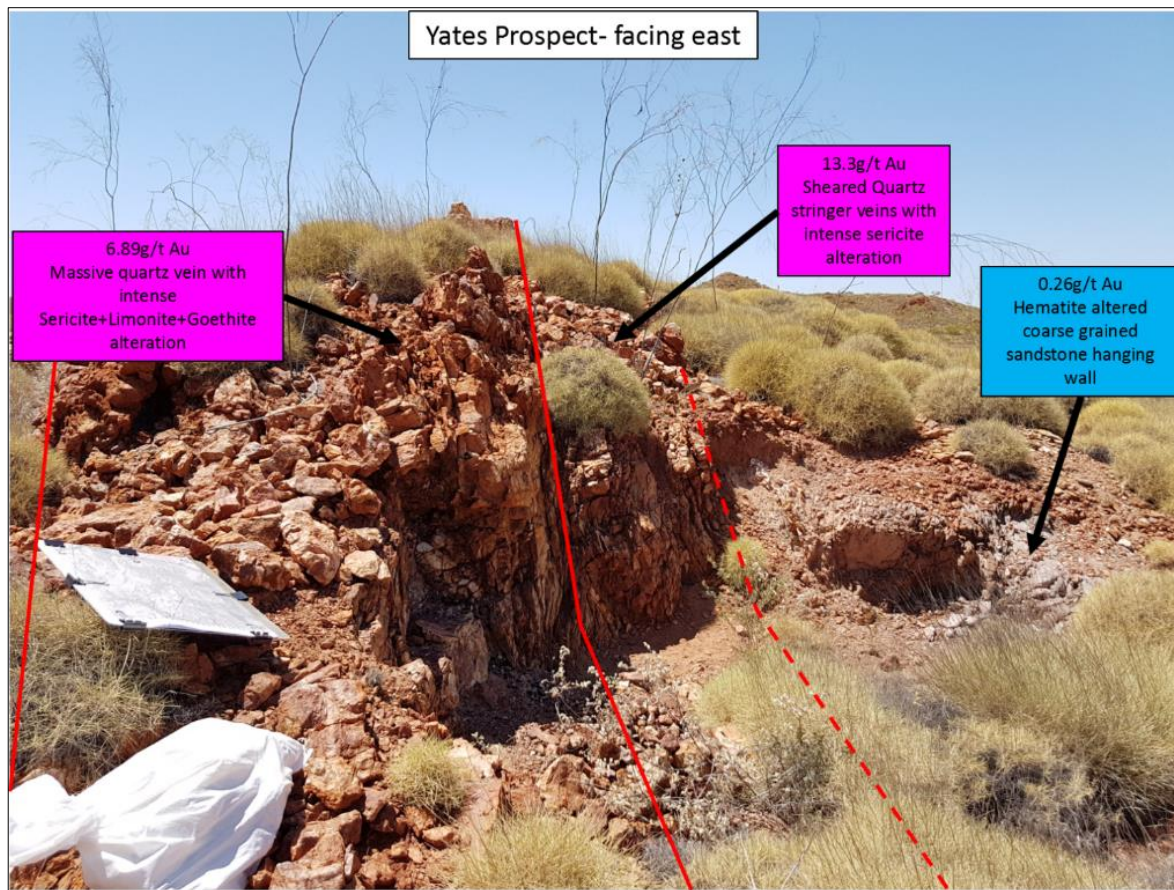


Figure 4: Yates prospect facing east





## **AU81 West**

AU81 West is located within the Golden Eagle Mining Centre approximately 3km from the Nullagine processing plant (Figure 1).

Recent drilling has identified southern and northern extensions to this mineralisation, in areas where surface geochemistry had previously delivered a subdued response due to the presence of 2-4m of alluvial cover.

The mineralised zone at AU81 West has been extended by 1000m to the north and nearly 500m to the south. Figure 5 shows the extensions of the mineralisation to the north and south.

Reconnaissance drilling has also identified other mineralised positions close by, which are now being followed up.

Results from recent drilling include:

- **14m @ 1.97g/t Au from 23m (AUGC00104)**
- **10m @ 2.23g/t Au from 5m (ARC0422)**

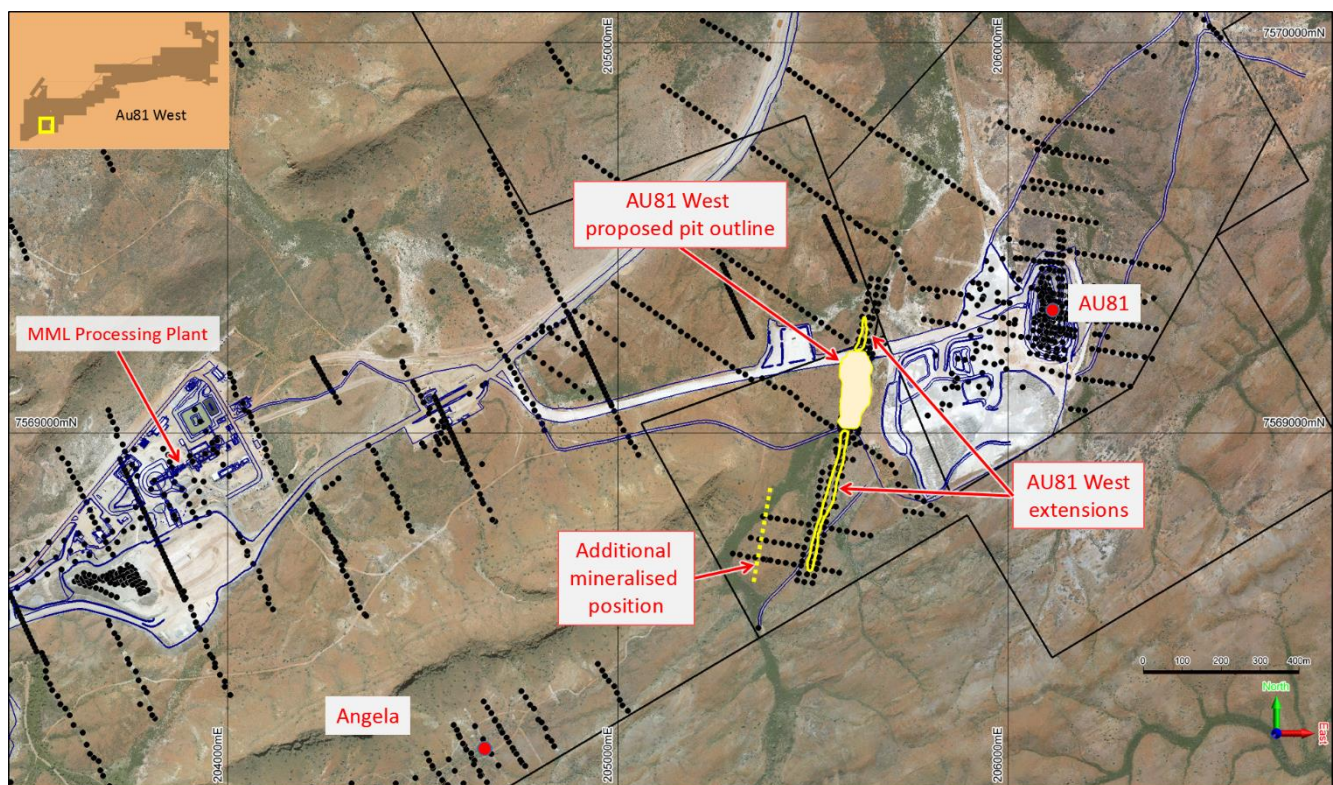


Figure 5: AU81 West Plan View

## **Management Comment**

Millennium Chief Executive Peter Cash said the latest results highlighted the outstanding potential to continue growing the Resource base at Nullagine's existing deposits as well as the scope for more discoveries.

"Our ongoing exploration results continue to reinforce the Nullagine region's significant potential – both in the near-mine environment around our existing open pits and further afield at new exploration targets such as Yates," he said.

"We continue to see strong results from the entire length of the mineralised corridor, providing strong support for our plans to boost production and mine life at Nullagine."



## **ENDS**

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### **Competent Persons Statement – Exploration Results**

*Mr Steven Oxenburgh (MAusIMM (CP), MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this Report. Mr Oxenburgh is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Oxenburgh consents to the inclusion in the report of the matters in the form and context in which it appears*



## Appendix 1

Table 1 - Table of significant results for Shearers

Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
SHRD0010	211697	7573662	386	115	-45	159	Incl.	123	127	4	4.79	19.2
								123	125	2	7.77	15.4
SHRD0011	211691	7573662	386	92	-45	149	Incl.	123	131	8	5.69	45.5
								124	128	4	10.07	40.3
SHRD0013	211683	7573682	385	92	-55	179	Incl.	124	144	20	3.60	72.0
								136	139	3	14.42	43.3
								173	174	1	1.11	1.1
								178	179	1	0.82	0.8
SHRD0014	211691	7573702	385	92	-60	167		101	103	2	0.53	1.1
								112	115	3	0.75	2.3
								119	120	1	3.14	3.1
								126	149	23	0.97	22.3
								153	158	5	0.82	4.1
SHRD0015	211695	7573722	386	92	-58	161		113	126	13	0.59	7.7
								129	130	1	0.90	0.9
								138	139	1	0.59	0.6
SHRD0016	211700	7573742	385	92	-54	158		113	114	1	0.66	0.7
								118	129	11	1.10	12.1
								138	139	1	0.54	0.5
								148	151	3	0.76	2.3
								155	157	2	0.61	1.2
SHRD0017	211707	7573761	385	92	-51	140		42	43	1	1.42	1.4
								78	79	1	0.50	0.5
								111	112	1	0.52	0.5
								115	129	14	1.06	14.8
SHRD0018	211716	7573781	385	92	-55	136		112	118	6	0.78	4.7
								121	131	10	1.38	13.8

AA= Awaiting Assays. NSA = No Significant assays. Intersections are calculated with 0.5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution. Higher grade intersections are calculated with 5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution.





*Appendix 1*

*Table 2 – Table of significant rock chip results for Yates*

SampleID	GDA_East	GDA_North	GDA_RL	Au_ppm
TMR140	235388	7582617	369	8.62
TMR141	235388	7582618	370	5.51
TMR142	235387	7582618	370	6.61
TMR143	235395	7582617	372	8.07
TMR146	235439	7582617	379	13.30
TMR147	235438	7582617	380	6.89
TMR149	235467	7582623	380	9.78
TMR150	235463	7582627	380	7.84
TMR152	235466	7582621	382	5.03
TMR153	235490	7582611	380	5.28
TMR154	235501	7582609	380	8.29
TMR157	235609	7582613	379	15.45
TMR159	235377	7582616	367	13.00
TMR160	235347	7582623	373	5.53
TMR199	234566	7582780	383	10.45
TMR200	234553	7582780	381	8.70
TMR201	234528	7582783	379	16.45





## Appendix 1

Table 3 – Table of significant results for Au81 West

Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
ARC0403A	205605	7569109	404	100	-60	42		26	29	3	1.40	4.2
ARC0405A	205627	7569189	404	100	-60	42		6	9	3	0.65	1.9
ARC0414	205371	7568786	409	100	-60	66		54	55	1	2.02	2.0
ARC0415	205391	7568783	409	100	-60	54		35	36	1	0.57	0.6
ARC0416	205408	7568779	415	100	-60	54	Incl.	21 26 26 51	23 28 27 52	2 2 1 1	1.34 11.86 23.00 0.54	2.7 23.7 23.0 0.5
ARC0417	205429	7568775	416	100	-60	54				NSA		NSA
ARC0418	205449	7568772	413	100	-60	66		5 58	6 59	1 1	0.54 1.51	0.5 1.5
ARC0419	205470	7568768	409	100	-60	60		53	55	2	0.57	1.1
ARC0420	205489	7568765	409	100	-60	54		26 31 36 48	27 33 38 51	1 2 2 3	0.51 1.74 1.45 0.62	0.5 3.5 2.9 1.9
ARC0421	205508	7568762	409	100	-60	54		2 11 19 29	3 15 20 37	1 4 1 8	0.67 1.21 0.54 1.60	0.7 4.8 0.5 12.8
ARC0422	205528	7568757	409	100	-60	54	Incl. Incl.	5 5 12	15 6 13	10 1 1	2.23 6.87 6.54	22.3 6.9 6.5
ARC0423	205294	7568690	410	100	-60	54		3 27 48	4 28 49	1 1 1	0.76 2.09 0.55	0.8 2.1 0.6
ARC0424	205312	7568687	413	100	-60	54		29	30	1	0.82	0.8
ARC0425	205333	7568682	417	100	-60	54		3	4	1	1.08	1.1
ARC0426	205351	7568680	419	100	-60	54				NSA		NSA
ARC0427	205372	7568677	427	90	-60	39		19	20	1	1.27	1.3
ARC0427A	205379	7568675	426	90	-60	54	Incl.	37 37 47 52	38 38 48 53	1 1 1 1	10.90 10.90 1.60 0.63	10.9 10.9 1.6 0.6
ARC0428	205391	7568673	426	100	-60	54		18	19	1	0.81	0.8
ARC0429	205410	7568669	429	100	-60	54	Incl.	12 14	16 15	4 1	2.16 5.37	8.6 5.4
ARC0430	205430	7568666	423	100	-60	54				NSA		NSA
ARC0431	205451	7568662	414	100	-60	54				NSA		NSA
ARC0432	205470	7568659	411	100	-60	54				NSA		NSA
ARC0433	205489	7568655	413	100	-60	54		0 9 49	1 10 50	1 1 1	1.43 4.33 0.60	1.4 4.3 0.6
ARC0434	205509	7568651	416	100	-60	54		7	10	3	1.81	5.4
ARC0435	205529	7568648	419	100	-60	54				NSA		NSA
ARC0436	205549	7568645	420	100	-60	54				NSA		NSA
ARC0437	205567	7568642	416	100	-60	54				NSA		NSA
ARC0438	205548	7568754	409	100	-60	54		38 45	39 46	1 1	0.82 0.53	0.8 0.5
ARC0439	205568	7568751	410	100	-60	54				NSA		NSA
ARC0440	205587	7568747	410	100	-60	54				NSA		NSA
ARC0441	205607	7568743	412	100	-60	54				AA		AA
ARC0442	205627	7568739	413	100	-60	54				AA		AA
ARC0443	205647	7568736	413	100	-60	54				AA		AA
ARC0447	205639	7568816	411	100	-60	54				AA		AA
ARC0448	205659	7568813	411	100	-60	54				AA		AA



Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
ARC0449	205678	7568810	412	100	-60	54				AA		AA
ARC0450	205698	7568806	413	100	-60	54				AA		AA
ARC0451	205718	7568803	413	100	-60	54				AA		AA
ARC0452	205737	7568799	413	100	-60	54				AA		AA
ARC0453	205757	7568796	413	100	-60	54				AA		AA
ARC0454	205777	7568792	413	100	-60	54				AA		AA
ARC0471	205459	7568710	413	100	-60	54				AA		AA
ARC0472	205439	7568713	413	100	-60	54				AA		AA
ARC0473	205420	7568717	413	100	-60	54				AA		AA
ARC0474	205400	7568720	413	100	-60	54				AA		AA
ARC0475	205380	7568724	413	100	-60	54				AA		AA
ARC0476	205361	7568727	413	100	-60	54				AA		AA
ARC0477	205341	7568731	412	100	-60	54				AA		AA
AU81MET004	205602	7569088	404	100	-60	40		17	23	6	0.86	5.2
								26	30	4	2.08	8.3
AUGC00078	205643	7569296	402	100	-60	48		5	8	3	0.47	1.4
								22	32	10	1.13	11.3
AUGC00079	205626	7569298	403	100	-60	54		13	14	1	0.50	0.5
								23	24	1	1.07	1.1
								44	48	4	0.90	3.6
AUGC00080	205639	7569256	403	100	-60	30		16	18	2	0.78	1.6
AUGC00081	205619	7569260	403	100	-60	54		20	27	7	0.67	4.7
								38	39	1	1.20	1.2
								44	46	2	0.59	1.2
AUGC00082	205605	7569022	405	100	-60	12		5	6	1	0.82	0.8
AUGC00083	205596	7569023	405	100	-60	24		12	17	5	2.41	12.1
							Incl.	15	16	1	5.88	5.9
AUGC00084	205586	7569025	405	100	-60	36		20	21	1	1.41	1.4
								27	31	4	1.71	6.8
AUGC00085	205589	7569015	405	100	-60	30		19	23	4	2.82	11.3
							Incl.	21	22	1	5.68	5.7
AUGC00086	205615	7569000	405	100	-60	54		12	13	1	1.40	1.4
								41	42	1	0.59	0.6
AUGC00087	205595	7569003	406	100	-60	54		6	11	5	3.13	15.7
							Incl.	7	9	2	6.56	13.1
								36	37	1	0.69	0.7
							Incl.	48	49	1	7.35	7.3
AUGC00088	205576	7569007	405	100	-60	54		48	49	1	7.35	7.3
								33	36	3	1.96	5.9
AUGC00089	205610	7568970	406	100	-60	54		49	50	1	0.74	0.7
								5	6	1	2.09	2.1
								16	18	2	0.62	1.2
								32	34	2	1.59	3.2
AUGC00090	205590	7568974	406	100	-60	54		47	48	1	0.77	0.8
AUGC00091	205571	7568977	406	100	-60	54				NSA		NSA
AUGC00092	205590	7568974	406	100	-60	54		26	27	1	2.25	2.3
								32	35	3	2.62	7.9
AUGC00093	205583	7568934	407	100	-60	54				NSA		NSA
AUGC00094	205564	7568938	407	100	-60	54		2	5	3	0.81	2.4
								8	9	1	0.52	0.5
								6	7	1	3.51	3.5
								25	30	5	0.77	3.8
AUGC00096	205594	7568988	406	100	-60	18		37	38	1	0.93	0.9
								41	44	3	0.83	2.5
								4	6	2	0.56	1.1
AUGC00097	205574	7568991	406	100	-60	42		9	10	1	0.54	0.5
								30	34	4	1.29	5.2
AUGC00098	205582	7568975	406	100	-60	36		16	19	3	0.85	2.6
AUGC00099	205559	7568979	406	100	-60	60		44	47	3	0.91	2.7





Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
AUGC00100	205579	7568954	406	100	-60	26		11	14	3	0.80	2.4
AUGC00101	205559	7568958	406	100	-60	60		10 39	11 41	1 2	1.21 1.04	1.2 2.1
AUGC00102	205573	7568910	407	100	-60	24	Incl.	7 13	17 14	10 1	1.85 6.34	18.5 6.3
AUGC00103	205557	7568912	407	100	-60	54		31	37	6	1.05	6.3
AUGC00104	205564	7568891	407	100	-60	42	Incl.	13 23 28	17 37 30	4 14 2	2.24 1.97 5.53	9.0 27.6 11.1
AUGC00105	205545	7568895	407	100	-60	66		38 51 62	48 52 66	10 1 4	1.33 1.17 0.50	13.3 1.2 2.0
AUGC00106	205560	7568871	408	100	-60	42		11 27 37	15 28 42	4 1 5	0.97 0.59 0.87	3.9 0.6 4.3
AUGC00107	205540	7568875	407	100	-60	66	Incl.	27 34 37 46 58	30 40 38 47 59	3 6 1 1 1	0.62 1.31 5.03 1.74 0.51	1.9 7.9 5.0 1.7 0.5
AUGC00116	205641	7569357	402	100	-60	54	Incl.	9 16 31 41 47 48	10 17 32 43 50 49	1 1 1 2 3 1	0.90 0.83 1.31 1.03 2.76 6.70	0.9 0.8 1.3 2.1 8.3 6.7
AUGC00119	205639	7569337	402	100	-60	54		18 37	20 50	2 13	1.33 0.79	2.7 10.3
AUGC00121	205655	7569314	402	100	-60	54		13 20 28	14 25 29	1 5 1	0.51 1.28 0.56	0.5 6.4 0.6
AUGC00122	205635	7569317	402	100	-60	54		9 17 27 33 37	10 18 28 34 45	1 1 1 1 8	0.59 0.77 0.53 0.76 1.64	0.6 0.8 0.5 0.8 13.1
AUGC00123	205654	7569294	402	100	-60	30		12	21	9	1.69	15.2
AUGC00124	205556	7568852	408	100	-60	54		8 24 37	14 25 38	6 1 1	0.82 0.77 0.59	4.9 0.8 0.6
AUGC00125	205536	7568855	408	100	-60	54	Incl.	29 29 35 42	31 30 37 46	2 1 2 4	4.60 8.01 0.63 0.68	9.2 8.0 1.3 2.7
AUGC00126	205553	7568832	408	100	-60	54	Incl.	3 3 22	8 4 25	5 1 3	6.39 23.90 0.63	31.9 23.9 1.9
AUGC00127	205533	7568835	408	100	-60	54		27 45	38 49	11 4	1.48 1.26	16.3 5.0
AUGC00128	205549	7568812	409	100	-60	54		2 12 17 25	7 14 18 30	5 2 1 5	1.00 1.03 0.65 1.31	5.0 2.1 0.6 6.5
AUGC00129	205529	7568816	408	100	-60	54	Incl.	28 28 43 48	40 29 45 51	12 1 2 3	1.70 5.21 1.51 1.02	20.4 5.2 3.0 3.1
AUGC00130	205626	7569278	403	100	-60	54		11 39	30 43	19 4	0.69 0.89	13.1 3.6



Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
								46	47	1	0.55	0.6
AUGC00131	205645	7569275	402	100	-60	30		10	12	2	0.60	1.2
								15	23	8	1.14	9.1
AUGC00132	205595	7569162	402	100	-60	60		37	45	8	0.72	5.8
AUGC00133	205585	7569133	404	100	-60	60		0	1	1	1.19	1.2
								30	31	1	0.54	0.5
								44	47	3	1.22	3.7
AUGC00134	205584	7569123	404	100	-60	54	Incl.	44	50	6	2.49	14.9
								44	45	1	5.18	5.2
AUGC00135	205594	7569121	404	100	-60	48		33	40	7	1.04	7.3
AUGC00136	205583	7569103	405	100	-60	66		5	6	1	0.70	0.7
								41	43	2	0.57	1.1
								64	65	1	6.47	6.5
							Incl.	64	65	1	6.47	6.5
AUGC00137	205586	7569083	405	100	-60	60		33	36	3	0.63	1.9
								56	58	2	1.03	2.1
AUGC00138	205575	7569074	405	100	-60	54		45	46	1	2.40	2.4
AUGC00139	205576	7569061	405	100	-60	66		42	44	2	1.25	2.5
								59	60	1	0.54	0.5
AUGC00140	205575	7569049	405	100	-60	60		42	45	3	1.39	4.2
AUGC00141	205573	7569038	405	100	-60	60				NSA		NSA
AUGC00142	205569	7569018	405	100	-60	54				AA		AA
AUGC00144	205582	7569000	405	100	-60	36				AA		AA
AUGC00145	205545	7568911	407	100	-60	60				AA		AA
AUGC00146	205564	7568908	407	100	-60	54				AA		AA
AUGC00147	205524	7568898	407	100	-60	84				AA		AA
AUGC00148	205574	7568889	408	100	-60	48				AA		AA
AUGC00149	205521	7568878	407	100	-60	84				AA		AA
AUGC00150	205517	7568858	407	100	-60	84				AA		AA
AUGC00151	205514	7568839	408	100	-60	84				AA		AA
AUGC00152	205515	7568815	408	100	-60	66				AA		AA
AUGC00153	205559	7568811	409	100	-60	42				AA		AA
AUGC00154	205507	7568799	408	100	-60	66				AA		AA
AUGC00155	205527	7568796	409	100	-60	48				AA		AA
AUGC00156	205537	7568791	409	100	-60	42				AA		AA
AUGC00157	205504	7568780	408	100	-60	60				AA		AA
AUGC00158	205523	7568776	409	100	-60	42				AA		AA
AUGC00159	205535	7568771	409	100	-60	30				AA		AA
AUGC00160	205492	7568744	409	100	-60	60				AA		AA
AUGC00161	205510	7568741	409	100	-60	42				AA		AA
AUGC00162	205528	7568738	409	100	-60	24				AA		AA
AUGC00163	205484	7568726	410	100	-60	60				AA		AA
AUGC00164	205504	7568722	409	100	-60	42				AA		AA
AUGC00165	205524	7568719	410	100	-60	24				AA		AA
AUGC00166	205479	7568706	410	100	-60	60				AA		AA
AUGC00167	205499	7568703	410	100	-60	48				AA		AA
AUGC00168	205519	7568700	410	100	-60	24				AA		AA
AUGC00169	205476	7568687	411	100	-60	60				AA		AA
AUGC00170	205495	7568683	411	100	-60	42				AA		AA
AUGC00171	205515	7568679	412	100	-60	24				AA		AA
AUGC00172	205473	7568672	411	100	-60	66				AA		AA
AUGC00173	205492	7568668	412	100	-60	48				AA		AA
AUGC00174	205512	7568665	415	100	-60	24				AA		AA
AUGC00175	205465	7568640	412	100	-60	66				AA		AA
AUGC00176	205484	7568636	413	100	-60	54				AA		AA
AUGC00177	205504	7568633	417	100	-60	54				AA		AA
AUGC00178	205459	7568621	413	100	-60	60				AA		AA
AUGC00179	205479	7568617	413	100	-60	54				AA		AA





Hole_ID	GDA East	GDA North	RL	Azi	Dip	Depth (m)		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram-metres
AUGC00180	205498	7568614	416	100	-60	54				AA		AA
AUGC00181	205561	7568949	407	100	-60	48				AA		AA
AUGC00182	205575	7568946	407	100	-60	30				AA		AA
AUGC00183	205565	7568928	407	100	-60	42				AA		AA
AUGC00184	205578	7568925	407	100	-60	30				AA		AA

AA= Awaiting Assays. NSA = No Significant assays. Intersections are calculated with 0.5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution. Higher grade intersections are calculated with 5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution.

**JORC 2012 Edition - Table 1**

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representatively and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No surface samples were used in any estimation of Mineral Resources or Ore Reserves.</li> <li>Sampling at Shearers and AU81 West was carried out using the Reverse Circulation (RC) drilling.</li> <li>Standard samples were inserted to the sampling stream at a ratio of 1:50.</li> <li>RC drilling was carried out with a 5.5 inch face-sampling bit, 1m samples collected through a cyclone and cone splitter to form a 2-3kg sub-sample.</li> <li>All sub-samples were fully pulverised at the laboratory to &gt;85% passing-75um, to produce a 50g charge for Fire Assay with AAS finish.</li> <li>Rock chip samples were selected over zones interpreted to be mineralised and are biased towards mineralisation. Rock chip samples are taken to identify areas to prioritise drilling programmes.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation (RC) drilling was carried out with a 5.5 inch face-sampling bit.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>A record of the RC sample recovery and moisture content was recorded by on rig geologists. Overall sample weight and quality were good to very good (2 to 3.5 kg).</li> <li>ALS records sample weights on receipt of samples. This was used to help track sample recovery.</li> <li>There is no observed correlation between sample recovery and gold grade.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All of the drilling has been captured in chip trays.</li> <li>Geological logging is both qualitative and quantitative in nature. Logging is carried out for lithology, colour, grain size, regolith, alteration, weathering, veining and mineralisation. Sulphide and vein content were logged as a percentage of the interval.</li> <li>RC chip trays are retained at site.</li> <li>All of the intersections were logged.</li> </ul>
Sub-sampling techniques and	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether</li> </ul>	<ul style="list-style-type: none"> <li>The recent 1 metre RC samples were split using a rig mounted cone splitter. The vast majority of the samples were dry with moist and wet samples were recorded.</li> </ul>



Criteria	JORC Code Explanation	Commentary
sample preparation	<p><i>sampled wet or dry.</i></p> <ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The sample sizes are industry-standard and considered to be appropriate to correctly represent mineralisation at the deposits based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay ranges for gold.</li> <li>Field duplicates were taken from the second aperture of the cone splitter at a rate of 1 in 50 with additional field duplicates taken in the expected mineralised zones.</li> <li>No duplicates or standards were inserted into the rock chip samples batches. Normal internal laboratory checks were run.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The industry best practice standard assay method of 50g charge Fire Assay with AAS finish was used to determine total Au content.</li> <li>Commercially prepared, predominantly matrix-matched low, medium &amp; high value certified reference QAQC standards were inserted at a rate of 1:50 into the sample stream.</li> <li>The QAQC results from this protocol were considered to be acceptable.</li> <li>No geophysical tools were used to determine any element concentrations used for these results.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.</li> <li>Results highlight that sample assay values are accurate.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Intersections were checked by alternative company personnel to check they were reported correctly.</li> <li>No twin holes were drilled in the programme.</li> <li>Sampling is directly uploaded to the LogChief software and it is synchronised to the database.</li> <li>Assay results were not adjusted.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Post completion of the drilling the RC collars were surveyed with a Real Time Kinematic (RTK) DGPS device to a <math>\pm 10\text{mm}</math> positional precision. All collars are then validated against planned positions as a cross check. Surveyed collar co-ordinates are uploaded into the Company SQL database.</li> <li>Grid datum is GDA94 51K (East Pilbara).</li> <li>Downhole surveys were completed on all holes at 30m maximum downhole intervals with a preference of an initial survey at <math>\sim 12\text{m}</math> downhole. Surveys were taken using a single shot camera or via electronic multi-shot survey tool (Reflex, Camprodual or Camteq) at AU81 West and using a north-seeking gyro at Shearers (Reflex), lithologies have negligible magnetic susceptibility (greywacke). Selected re-surveying was carried</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<p>out to check the quality of measurements.</p> <ul style="list-style-type: none"> <li>Aerial Photogrammetry± LIDAR was produced by Fugro Surveys (±0.2m vertical &amp; ±0.1m horizontal). Survey control points were marked out by licensed surveyor for the Fugro Survey. An error was noted in early RC drilling collar RL co-ordinates (ellipsoid not geoid model); these holes were adjusted to the Fugro DTM surface RL and recorded as DTM RL in the SQL database; the original survey RL was retained. Otherwise there was good agreement of surveyed collars and Fugro DTM.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>RC drilling was conducted at nominal 100-40m x 20m spacing.</li> <li>Thus far the drill spacing has been sufficient to establish geological and grade continuity.</li> <li>None of the reported sample intervals were composited.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Geological mapping and structural measurements have been taken from Shearers and AU81 West and largely confirms the interpreted orientation of mineralisation as defined by the drilling. Based upon the above information the drilling was largely perpendicular to the mineralisation.</li> <li>No significant orientation bias has been identified in the data at this point.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were given an ID, cross checked by field personnel that they corresponded to the assigned interval. Samples were collected on completion of each hole and delivered to the onsite assay laboratory for dispatch to Perth. Monitoring of sample dispatch is undertaken for samples sent from site and to confirm that samples have arrived in their entirety and intact at their destination.</li> <li>Sample security is managed with dispatch dates noted for each samples by the technician, this is checked and confirmed at the Perth laboratory on receipt of samples and discrepancies are corrected via telephone link up with the on-site and Perth laboratories.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data reviews.</li> </ul>	<ul style="list-style-type: none"> <li>Internal lab audits conducted by Millennium have shown no material issues.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>All the deposits and prospects lie within fully granted Mining Leases within the Pilbara Gold Field (46), as detailed below. All the tenements are in good standing with no known impediments.</p> <ul style="list-style-type: none"> <li>Shearers * – M46/261<sup>+</sup> and M46/262<sup>+</sup> (both 100% MML);</li> <li>AU81 West * – M46/443<sup>+</sup> (100% MML)</li> <li>Yates * – M46/433 and M46/434 (both 100% MML)</li> </ul> <p>*These tenements are located within the Njamal (WC1999/008) and Palyku (WC1999/016) title claims</p> <p><sup>+</sup> A \$10/oz royalty payable to Tyson Resources Pty Ltd</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration by other parties has been reviewed and taken into account when exploring. Previous RAB drilling was conducted by Wedgetail Exploration NL. Millennium has re-drilled this area to gain high quality representative samples.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Nullagine Project deposits are structurally controlled, sediment hosted, lode Au style of deposit. They are all situated in the Mosquito Creek Basin that consists predominantly of Archean aged, turbidite sequences of sandstones, siltstones and shales.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Provided in a table that relates exploration results to the drill hole information including: hole co-ordinates, RL, dip, azimuth, end of hole depth, downhole length and interception depths.</li> <li>All of the current drilling with results returned has been reported.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>All of the their significant intersections reported with a lower cut-off of 0.5g/t Au and maximum of two consecutive metres of internal dilution. Higher grade intersections use a lower cut-off of 5g/t Au and maximum of two consecutive metres internal dilution.</i></li> <li><i>All samples reported were one metre in length. Thus no aggregation methods were required to derive intersections.</i></li> <li><i>No metal equivalents were used.</i></li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Only selected historic exploration data related to the included targets and prospects are presented.</i></li> <li><i>Most of the drilling is perpendicular to the mineralisation; however, in early exploration the dip direction is sometimes uncertain and thus holes some holes can be drilled sub-parallel to the mineralisation producing longer and higher grade intersection than the true intercept. Quoted widths are down-hole widths. True-widths are likely to be approximately 70-90% of down-hole widths.</i></li> <li><i>The drill hole orientations relative to the ore zones have ensured accurate interpretations and 3D modelling.</i></li> </ul>
Diagrams	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Significant exploration results are tabulated in the release with drill hole plans to show them in context.</i></li> <li><i>Representative maps have been included in the report along with documentation.</i></li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>All of the current drill results have been reported for the project.</i></li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>The outcrops of quartz veins have been previously mapped at Shearers North. The mineralisation at Shearers North is primarily associated with a combination of quartz veining, moderate foliation, strong sericite alteration and strong limonite staining or pyrite content.</i></li> </ul>
Further work	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Further RC drilling will be planned to extend the mineralisation along strike from current holes.</i></li> </ul>