Saracen Mineral Holdings Limited

Strong start to FY20 exploration campaign paves way for further inventory growth

Latest drilling results highlight the potential to continue increasing production and mine life at Carosue Dam and Thunderbox

18th February 2020

HIGHLIGHTS

Carosue Dam

- At **Karari - Dervish**, thick high-grade drill results included **22m @ 5.6g/t, 17m @ 6.9g/t, 14m @ 8.0g/t, 10m @ 10.7g/t, 14m @ 5.1g/t** and **16m @ 4.5g/t**
- At the **Carosue Dam Seismic Project**, data has been received and **interpretation has commenced**
- At the **Atbara discovery (just 4km from the Carosue Dam mill),** infill drill results included (aggregated):
  - **86m @ 1.8g/t** (including 45m @ 1.8g/t, 9m @ 5.7g/t and 32m @ 0.8g/t)
  - **51m @ 1.5g/t** (including 37m @ 1.4g/t and 14m @ 1.7g/t)
  - **359m @ 0.5g/t**
- At **Safari Bore**, open pit-able drill results included **4m @ 19.3g/t, 26m @ 2.4g/t**, **45m @ 1.5g/t** and **36m @ 2.1g/t**
- At **Mt Celia regional**, air core drilling has **defined the Okavango prospect**, with **results up to 1050ppb**, RC drilling has commenced

Thunderbox

- At **Otto Bore**, open pit-able drill results included **15m @ 11.2g/t, 16m @ 5.7g/t** and **7m @ 5.3g/t**
- At **Wonder North**, Resource definition drilling has commenced (focused on the high grade shoot)

Super Pit acquisition

- Saracen and its equal KCGM JV partner Northern Star Resources (ASX: NST) have **established an "exploration and growth" sub-committee** and **initiated a strategic review / optimisation that includes exploration and growth**
- Pending the outcome of the review, 5 surface and 2 underground rigs continue to drill under the plan approved by former owners

Saracen Managing Director Raleigh Finlayson said: "These results show that Saracen continues to enjoy a strong growth outlook driven by both organic sources and prudent acquisitions. They are consistent with our goal to keep expanding our production and mine life for what are low discovery costs. At the same time, our Carosue Dam mill expansion is on track for commissioning in the December quarter, further underpinning our growth profile."

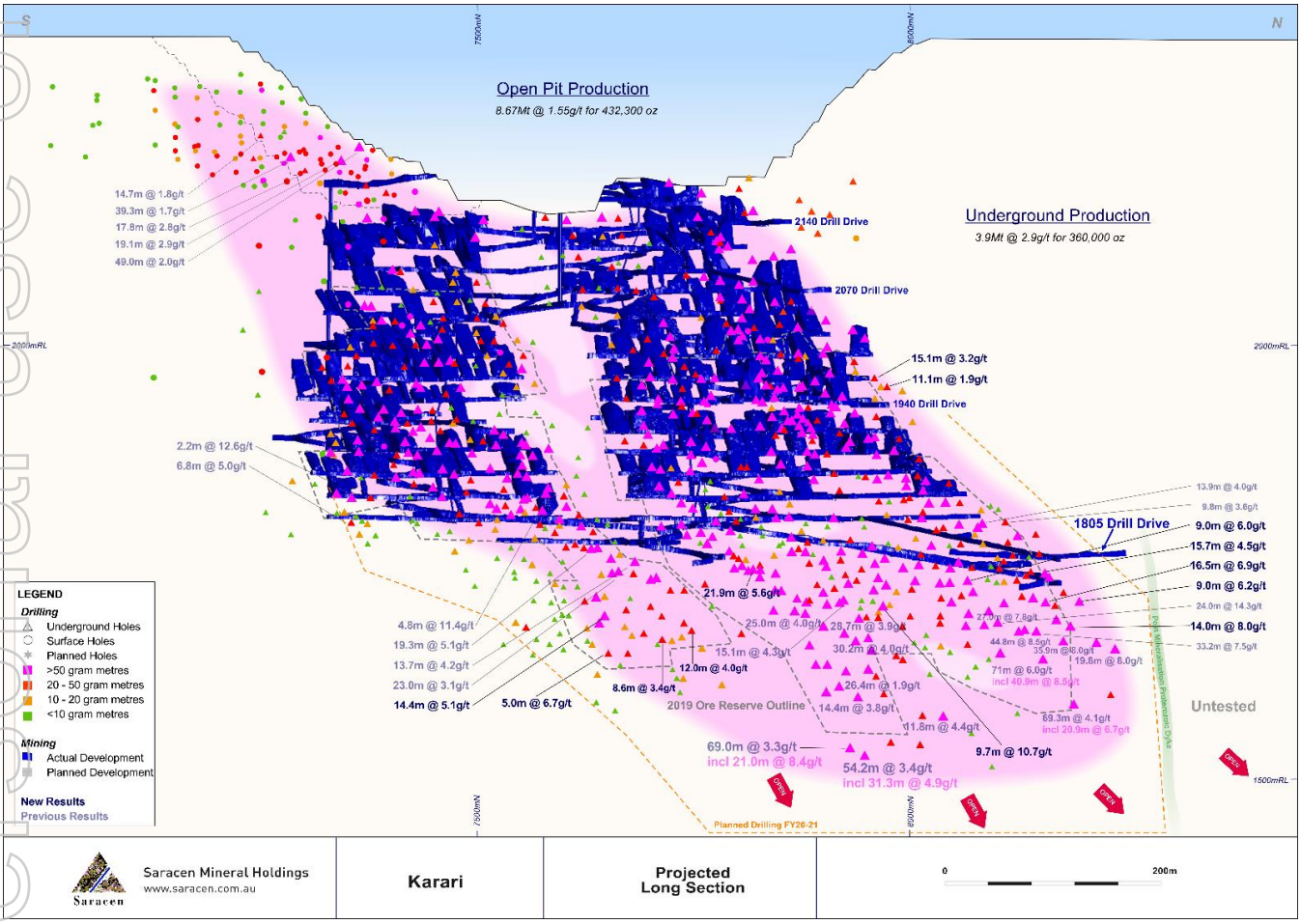
Carosue Dam update

Karari - Dervish underground

Karari drilling has continued to focus on infill grade control following a solid increase in Ore Reserves to 1.2Moz at 30 June 2019. This drilling was the final program from the 1940 drill drive, with the new drill drive on the 1805 level now established.

Recent drilling has returned thick high grade results further demonstrating the **increasing grade profile with depth**. Significant results include **21.9m @ 5.6g/t**, **16.5m @ 6.9g/t** and **14.0m @ 8.0g/t**. The high grade shoots remain open at depth and will be tested further during FY20.

Figure 1 - Karari Long Section, New Drill Results (Karari-Dervish mine)



The new 1805 drill platform is located 135m below the existing drill platform and will **facilitate the next phase of Reserve growth**, weighted to FY21. This will be counterbalanced by enhanced contributions in FY20 from other areas within the portfolio. Resource extension drilling has commenced and will continue to test the strong high grade mineralisation down plunge.

Below is a table of significant Karari infill intercepts:

Significant drill results include:	
KRGC741	21.9m @ 5.6g/t
KRGC712	16.5m @ 6.9g/t
KRGC775	14.0m @ 8.0g/t
KRGC742	9.7m @ 10.7g/t
KRGC715	14.4m @ 5.1g/t
KRGC723	15.7m @ 4.5g/t

Carosue Dam Seismic Project

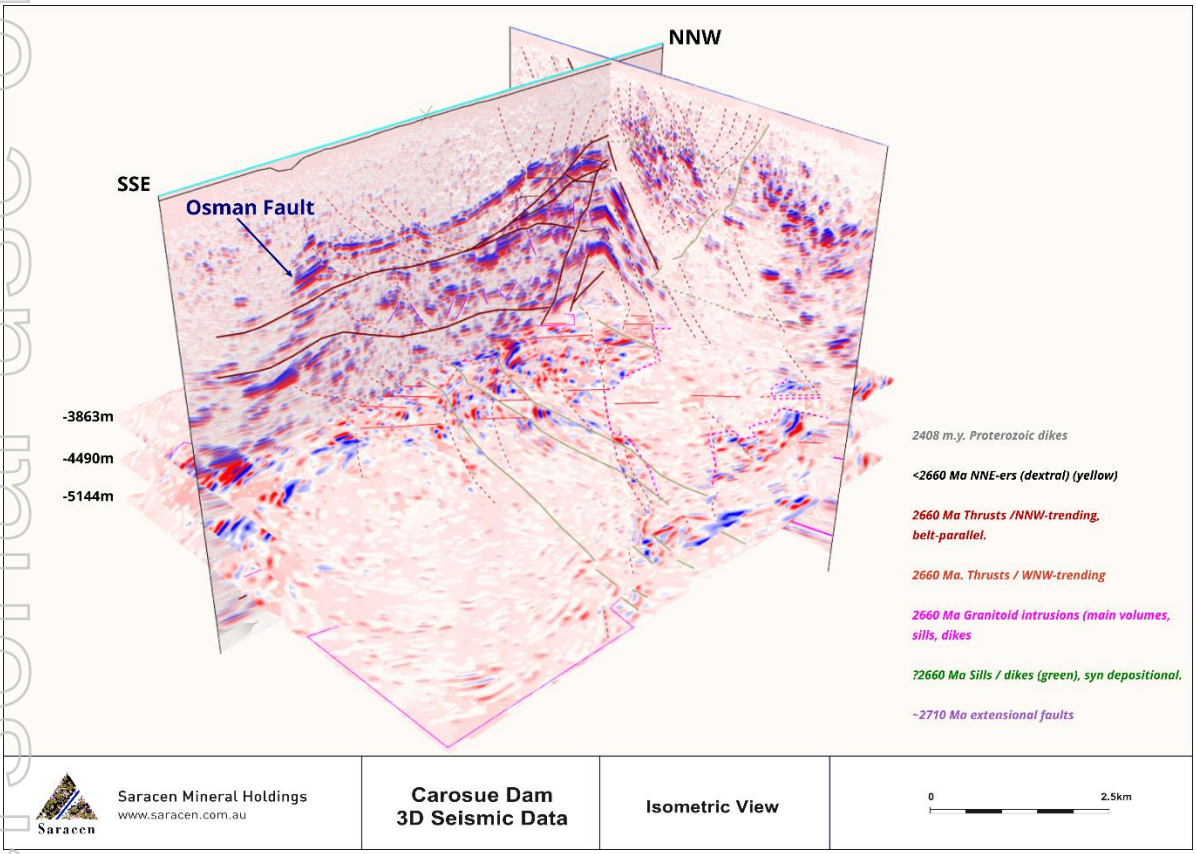
Data processing of the 3D seismic survey is now complete, with interpretation underway.

The high-resolution fully nodal acquisition recorded 263 million traces of seismic data over 50km^2 including Karari, Dervish and Atbara. This is **the highest resolution hard rock survey in Australia** and the **second largest by area** to date. The significant size of the dataset slowed progress, but was overcome by increased processing capacity.

Interpretation of the high resolution survey has commenced with a **significant number of previously unknown structural and geological features beginning to be resolved**.

The interpretation phase is an iterative process as new mapping and drilling information is integrated into the cube.

Figure 2 - Carosue Dam, 3D Seismic data



Once the detailed geological framework is established, drill targets can be determined.

Atbara (Carosue Dam Corridor)

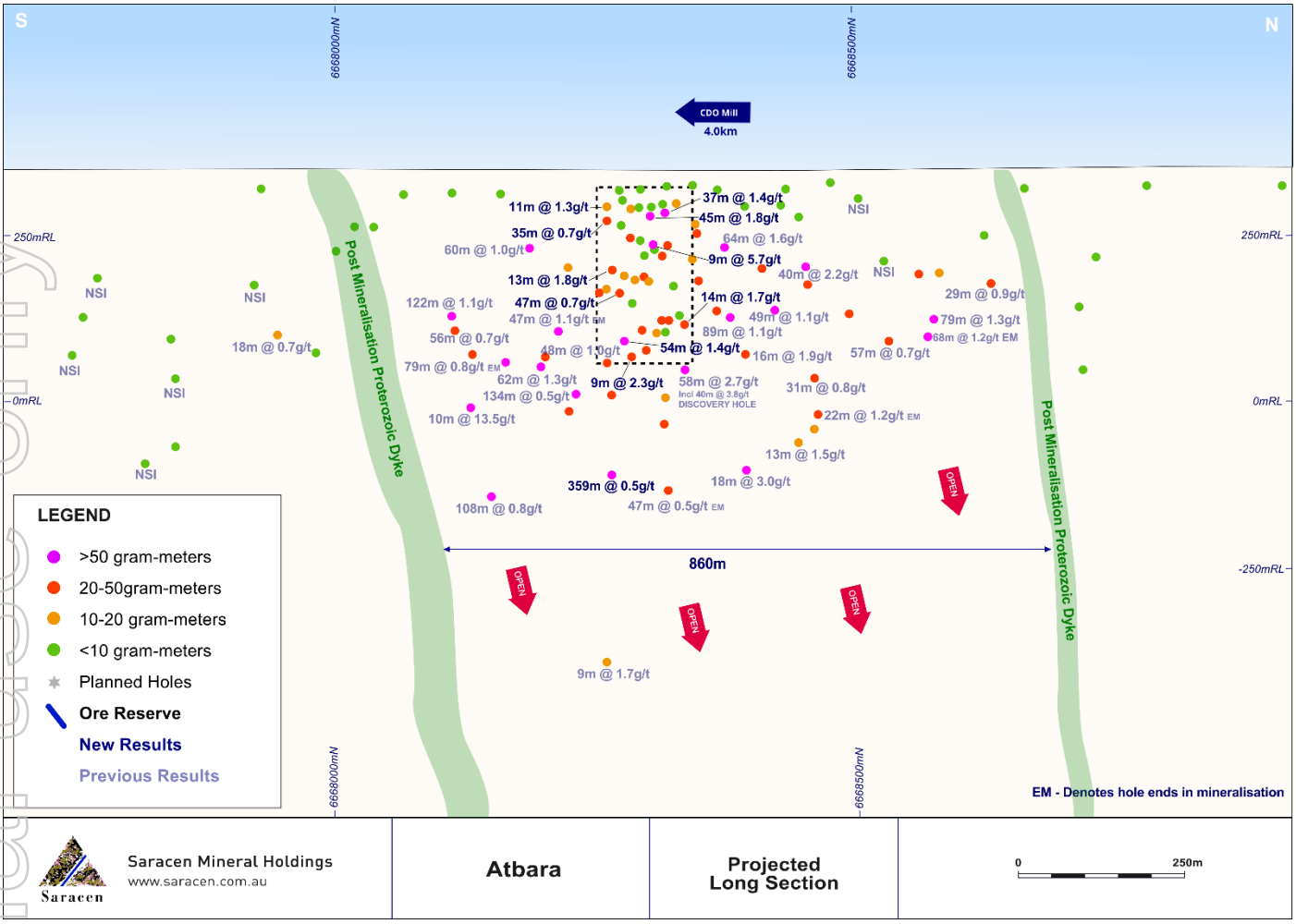
The Atbara discovery, 4km north of the Carosue Dam mill, continues to evolve with further drilling.

The initial broad 160m x 160m framework drilling **identified a large system** with a strike length of 860m between two major post mineralisation Proterozoic Dykes. Initial follow up drilling to the **discovery hole (40m @ 3.8g/t)** suggested that the **mineralisation is highly variable**.

Recently a close spaced 20m x 20m program was completed to assist in understanding the short range variability.

Significant new Atbara results include **45m @ 1.8g/t**, **54m @ 1.4g/t** and **359m @ 0.5g/t**.

Figure 3 - Atbara Long Section, New Drill Results, (dotted outline 20m x 20m focus area)



The geological factors that explain the variability are still being determined.

During the December quarter 2019 over 15,000 pulp samples were sent off for Copper and Molybdenum analysis. The results indicate that while copper and molybdenum are present, the quantities are too low to be considered currently economic.

The variable grade distribution across the project **allows for flexibility in any future approach**. Current drilling has shown the presence of **large lower grade domains** as well as **more discrete higher grade zones**, both of which will be followed up and investigated further.

Below is a table of significant Atbara exploration intercepts:

Significant drill results include:		
	Aggregated	Primary (or including)
ATEX108	**86.0m @ 1.8g/t**	45.0m @ 1.8g/t
		9.0m @ 5.7g/t
		32.0m @ 0.8g/t
ATEX0110	**51.0m @ 1.5g/t**	37.0m @ 1.4g/t
		14.0m @ 1.7g/t
ATEX114	**54.3m @ 1.4g/t**	54.3m @ 1.4g/t
ATEX111	**56.0m @ 0.9g/t**	9.0m @ 2.5g/t
		47.0m @ 0.7g/t
ATEX118	**13.0m @ 1.8/t**	13.0m @ 1.8g/t

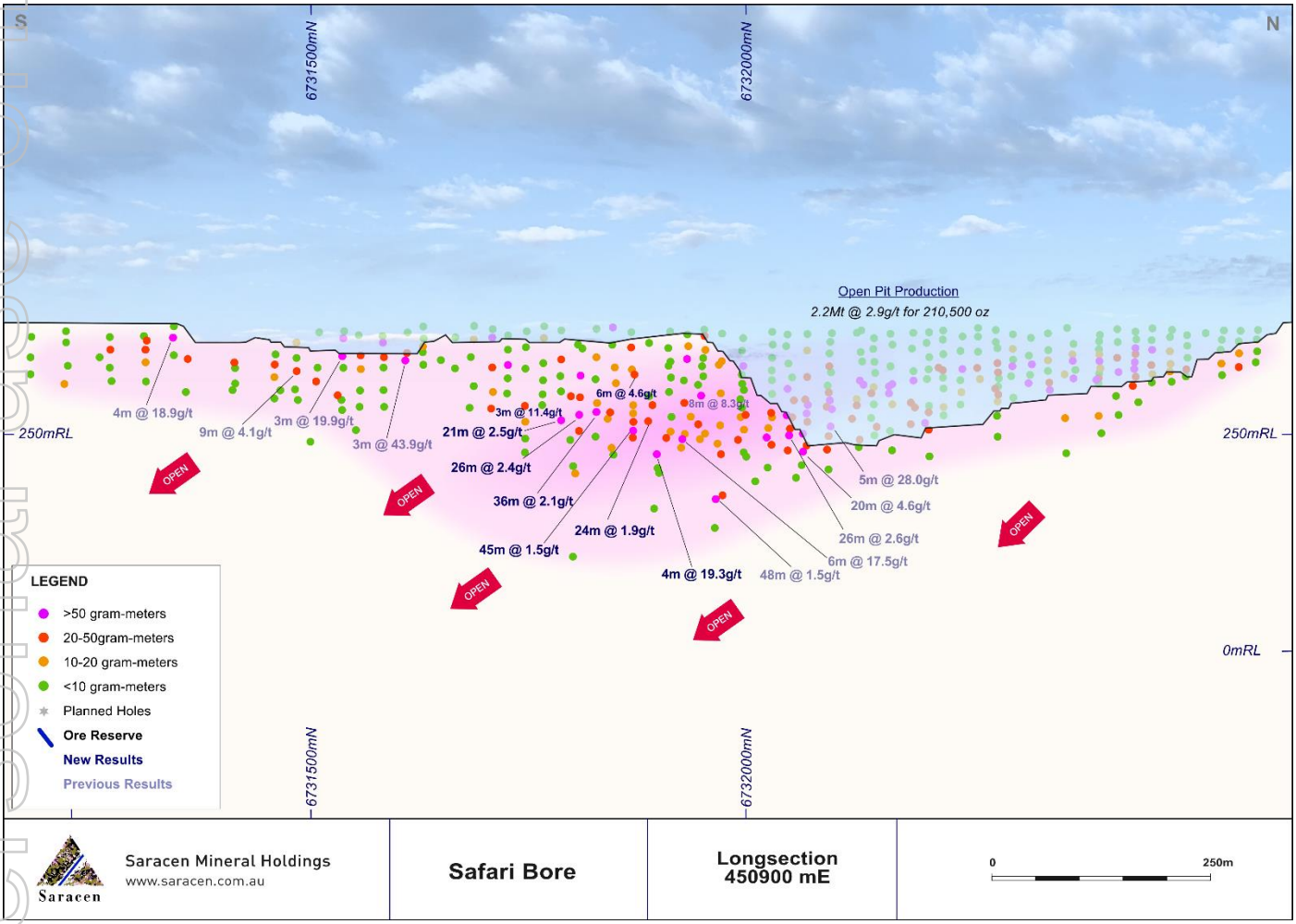
Safari Bore

The Safari Bore project is located 70km north-northeast of the Carosue Dam mill, and 5km west of the Deep South underground mine. Mineral Resources of **2.9Mt at 2.1g/t for 200,000 ounces** were reported at 30 June 2019.

The project was previously mined between 2003 and 2005, producing 210,000 ounces at an **impressive open pit grade of 2.9g/t**. The last drilling at Safari Bore was completed by Saracen in 2010.

Significant open pit-able results from recent Resource definition drilling include **4m @ 19.3g/t**, **21m @ 2.5g/t** and **26m @ 2.4g/t**.

Figure 4 - Safari Bore Long Section, New Drill Results



The high grade shoots remain open down plunge with further drilling to be planned.

Safari Bore sits adjacent to the large regional Pinjin Fault. The steeply west south-westerly dipping stratigraphy is highly deformed with mylonitic fabrics commonly observed. High grade mineralisation is commonly associated with intense sericite-albite alteration proximal to quartz-carbonate veining and local brecciation.

Below is a table of significant Safari Bore intercepts:

Significant drill results include:	
SBRD007	4.0m @ 19.3g/t
SBRD027	26.0m @ 2.4g/t
SBRD015	45.0m @ 1.5g/t
SBRD005	21.0m @ 2.5g/t
SBRD003	36.0m @ 2.1g/t

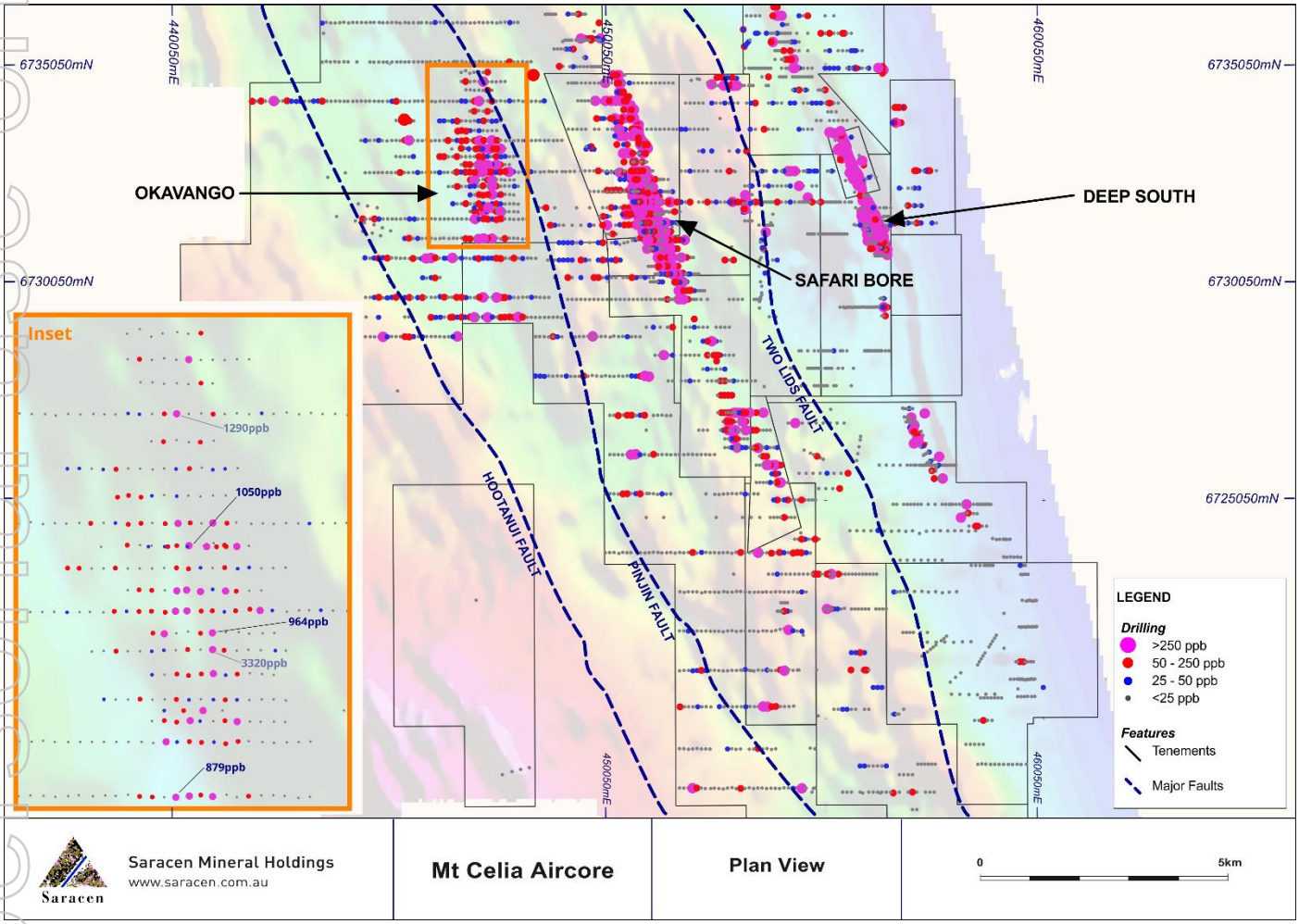
Mt Celia regional

Aircore drilling has **successfully identified a large gold anomaly (Okavango)** to the west of **Safari Bore**, **now defined over a strike length of 6.0km** and **up to 1.2km wide**. The prospect is a strong basement anomaly that is coincident with albite-sericite alteration and key pathfinder elements including; As, Bi, Mo, Sb, Te and Ce.

The infill aircore drilling program across the Okavango prospect has now been completed. This program has reduced the drill spacing down to 200m x 100m. The program has further refined and delineated the core of the anomaly.

Significant new Okavango results include **1050ppb**, **964ppb** and **879ppb**.

Figure 5 - Mt Celia, Aircore drilling results



RC drilling has commenced at Okavango to test the bedrock for primary mineralisation responsible for the large anomalous footprint defined in the aircore drilling.

No further aircore drilling is planned at the broader Mt Celia area for the remainder of FY20. Additional drilling is planned for FY21 to follow up on other areas of significant anomalism defined in the broad 900m x 100m programs completed in FY19 and FY20.

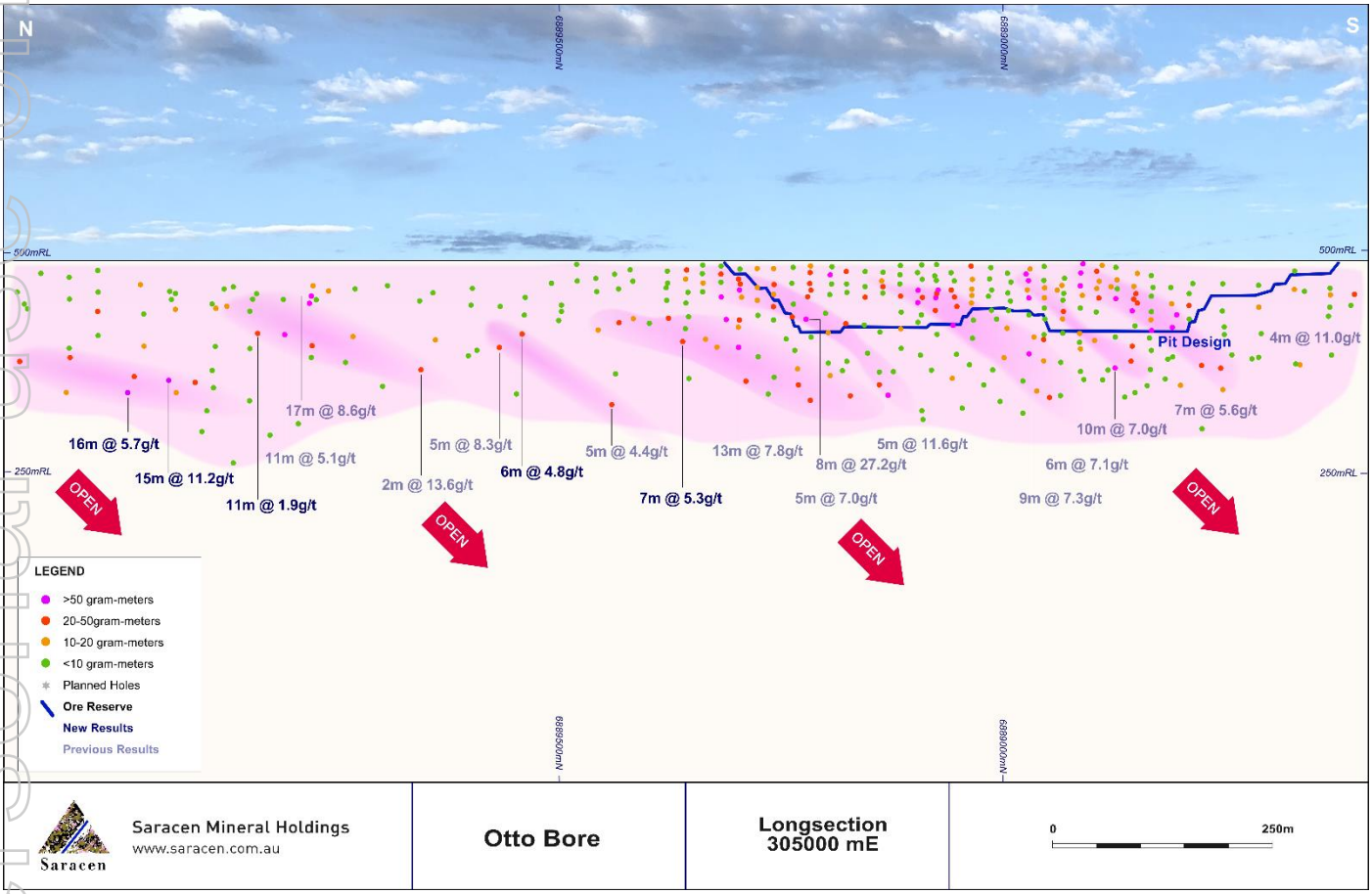
Thunderbox update

Otto Bore

Drilling has continued at the Otto Bore project, 8km north of the Thunderbox Plant. A maiden Ore Reserve of **950kt at 2.0g/t for 60,000 ounces** was reported at 30 June 2019.

Recent activity has focused on extending the drilling coverage north of the current Ore Reserve. This drilling has further demonstrated the growth potential of the project with some impressive open pit-able results being returned including **15m @ 11.2g/t, 16m @ 5.7g/t** and **7m @ 5.3 g/t**.

Figure 6 - Otto Bore, New Drill Results



The high grade mineralisation appears confined to shallow south plunging ore shoots.

The strike length of the mineralised structure has now been tested over 1.5km.

Below is a table of significant Otto Bore intercepts:

Significant drill results include:	
OBRC0189	15.0m @ 11.2g/t
OBRC0192	16.0m @ 5.7g/t
OBRC0149	7.0m @ 5.3g/t
OBRC0165	6.0m @ 4.8g/t
OBRC0184	11.0m @ 1.9g/t

Wonder North

In the September quarter 2019, Saracen acquired Bligh Resources (ASX: BGH) including the Bundarra Project. The project comprises 5 deposits with a **total Mineral Resource of 9.6Mt @ 2.1g/t for 660,000 ounces.**

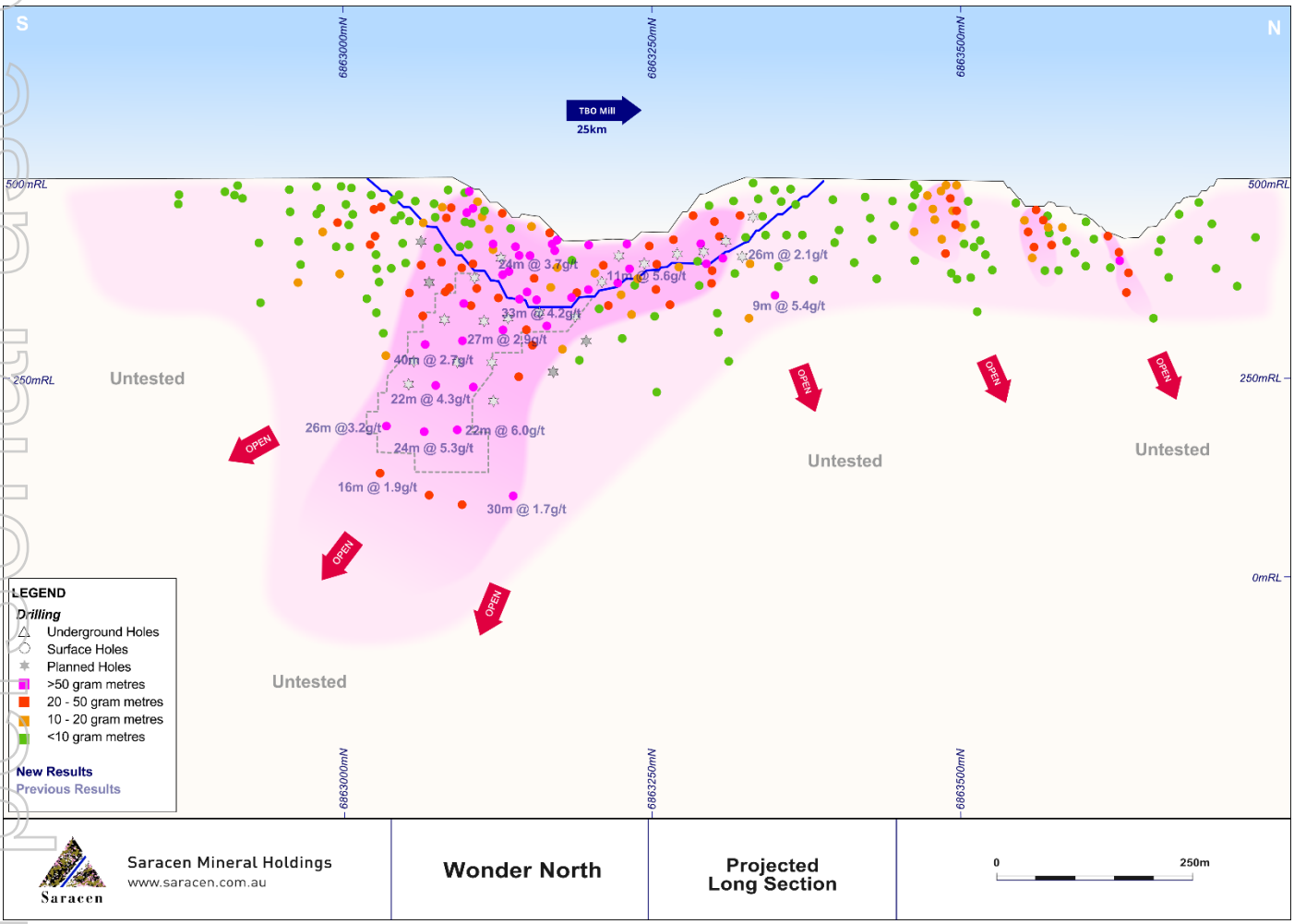
Wonder North is the largest deposit and will be the focus of drilling in the June half 2020. The drilling will be focused on:

- Infilling the Resource to improve geological confidence
- Confirming previous high grade drilling results

The well-developed high grade shoot which plunges to the south will be the primary focus of the initial program. Step out exploration programs will be planned for FY21.

Previous drilling results at Wonder North include **22m @ 6.0g/t, 24m @ 5.5g/t** and **22m @ 4.3g/t**.

Figure 7 - Wonder North, Planned drilling



The Bundurra project is characterised by large volumes of tonalities with assimilated rafts of mafic xenoliths from the greenstone in which the tonalite has intruded. The tonalities have been later intruded by porphyries, fractionated intrusions and lamprophyres.

Wonder North is hosted within a package of coarse grained tonalite-granodiorite with diorite porphyry, aplite and lamprophyre dykes and sills. Mineralisation is associated with a west northwest trending Wonder Shear zone with quartz veining containing pyrite.

Corporate structure:

Ordinary shares on issue:	1,102.9m
Unvested employee performance rights:	17.2m
Market Capitalisation:	A$4.6b (share price A$4.21)
Cash, bullion and investments (31 December):	A$283.8m
Debt (31 December):	A$385.0m
Substantial Shareholders:	Van Eck Global 12.0% BlackRock Group 9.8%

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Competent Person Statements

The information in the report to which this statement is attached that relates to Exploration Results and Mineral Resources related to Gold is based upon information compiled by Mr Daniel Howe, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Daniel Howe is a full-time employee of the company. Daniel Howe 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 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Daniel Howe consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

Table 1 – Karari Drill Results

KARARI DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KREX060	438697	6664049	-233.106	640.6	322.5	-57.59	no significant results				
KRGC703	438619.7	6663777	-63.586	141	301	-51.76	hole not sampled				
KRGC708	438619.6	6663777	-63.771	72	304.7	-45.95	hole not sampled				
KRGC708A	438619.5	6663777	-62.584	309.6	308.2	-46.43		285.5	285.9	0.4	3.64
KRGC709	438619.6	6663777	-62.584	330	304.7	-34.56		289	305.2	16.2	2.88
KRGC710	438619.8	6663777	-62.594	342	306.3	-37.46		284.45	296	11.55	2.06
KRGC711	438619.8	6663777	-63.78	153	308.2	-40.34	hole not sampled				
KRGC712	438620.4	6663778	-63.785	384	312.4	-39.4		**337**	**353.5**	**16.5**	**6.87**
							and	360.9	361.95	1.05	12.90
KRGC712A	438620.3	6663778	-63.848	365.9	311.3	-37.26		296	312	16	1.85
KRGC713	438704.2	6663345	-93.857	219	306.3	-63.93		140.8	142.55	1.75	3.23
							and	147.05	147.65	0.6	5.18
							and	150	150.55	0.55	3.45
							and	175.5	175.8	0.3	3.35
							and	186.6	187	0.4	3.03
KRGC714	438704.3	6663345	-93.861	240	319.6	-71.97		157.2	158.2	1	2.99
							and	160.85	161.4	0.55	2.83
							and	175.5	176.35	0.85	9.57
							and	189.25	189.7	0.45	3.74
KRGC715	438704.3	6663345	-93.884	282	336.7	-65		207	207.4	0.4	2.64
							and	**231.5**	**245.94**	**14.44**	**5.07**
KRGC716	438704.1	6663345	-93.895	141	341.8	-53.96	hole not sampled				
KRGC716A	438704.3	6663345	-93.866	294.2	339.6	-55.14		217	217.75	0.75	2.50
							and	238.5	239.7	1.2	4.84
KRGC717	438704.3	6663345	-93.861	314.4	341.9	-51.97		238.75	239.65	0.9	5.35
							and	248.5	261	12.5	1.64
KRGC718	438704	6663345	-93.934	232.8	322.6	-75.55		185	185.75	0.75	8.14
							and	192.15	193.34	1.19	4.61
							and	231	232	1	2.64
KRGC719	438704.3	6663345	-93.902	302.7	350.8	-61.56		269.9	272.75	2.85	4.69
KRGC720	438704.3	6663345	-93.863	282	9.7	-79.84		209	210.13	1.13	5.92
KRGC721	438704.3	6663345	-93.857	273	353	-76.41		232.6	233.1	0.5	3.26
							and	240.82	241.4	0.58	3.07
KRGC722	438705.1	6663344	-93.889	294	350.6	-72.5		246.3	247.5	1.2	3.69
							and	257	259	2	2.98
							and	279	280	1	3.58
KRGC723	438619.8	6663777	-63.906	356.7	307.4	-34.18		**328**	**343.7**	**15.7**	**4.49**
KRGC724	438619.8	6663778	-63.843	120	309.5	-35.48	hole not sampled				
KRGC724A	438619.8	6663778	-63.765	387	308.6	-32.55		318	330.1	12.1	1.72
KRGC725	438620.2	6663778	-64.036	176.9	311.1	-37.97	hole not sampled				
KRGC725A	438619.9	6663777	-63.782	90	312.4	-34.37	hole not sampled				
KRGC726	438620	6663778	-63.857	420	314.2	-36.65		375	375.7	0.7	12.40
							and	**377**	**385.95**	**8.95**	**6.24**
KRGC730	438620.2	6663778	-63.94	297	302.9	-52.1		202.37	202.87	0.5	6.32
							and	**256**	**265**	**9**	**5.97**
KRGC731	438702.4	6663347	-92.557	227.35	310	-48.16		160.9	161.75	0.85	14.60
							and	166	171	5	3.65
							and	175	178	3	2.90
							and	183.25	184.55	1.3	2.54
							and	192.8	194.8	2	3.63
							and	198	199	1	3.30

KARARI DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KRGC732	438704.9	6663343	-93.968	213	249.2	-80.06		145	146	1	3.97
							and	151.55	152.55	1	4.69
							and	155.25	155.7	0.45	2.54
							and	173.75	175	1.25	4.95
KRGC733	438704.6	6663346	-93.879	233.96	302.2	-84.99		200.95	201.9	0.95	4.12
KRGC734	438704.8	6663345	-93.769	360	353.3	-51.99		302	307	5	3.63
							and	310.5	311	0.5	2.51
KRGC735	438705	6663345	-93.73	365.5	356	-54.49		294.65	300.45	5.8	3.05
KRGC736	438704.4	6663346	-93.952	333	354.6	-55		269	270	1	2.77
							and	**285.45**	**294**	**8.55**	**3.38**
							and	315.1	316	0.9	2.55
KRGC737	438704.4	6663345	-93.959	296.6	356.89	-69.41		**272.5**	**277.45**	**4.95**	**6.68**
							and	284	286.7	2.7	7.56
KRGC740	438652.6	6663700	-60.643	249.7	178.4	-57.84		213.1	216.4	3.3	13.42
							and	220	220.8	0.8	5.25
							and	228.6	229.25	0.65	3.39
							and	235	236	1	5.49
							and	238.55	239.35	0.8	3.65
KRGC741	438652.7	6663702	-60.796	273	171.1	-63.92		**208.65**	**230.5**	**21.85**	**5.61**
							and	245.6	246.1	0.5	6.42
							and	254.55	255.05	0.5	3.05
KRGC742	438619.6	6663774	-64.087	263.5	265.4	-76.13		**234.3**	**244**	**9.7**	**10.68**
							and	249	250.25	1.25	7.76
KRGC743	438619.8	6663774	-64.075	276	243.7	-84.71		222.8	223.15	0.35	7.14
							and	244.85	259	14.15	3.32
KRGC744	438620.2	6663775	-64.082	298.7	327.4	-84.27		279.3	280.1	0.8	10.40
KRGC745	438620.1	6663775	-64.078	299.8	319	-79.65		252.6	253	0.4	6.54
KRGC746	438619.4	6663777	-64.068	299	319.1	-75.18		244.62	246.5	1.88	3.01
							and	278	278.8	0.8	15.40
KRGC748	438619.5	6663776	-64.088	311	321.6	-72.13	no significant results				
KRGC749	438704.4	6663345	-93.938	266.8	342.4	-72.03		241.76	243.6	1.84	8.59
							and	256.7	257	0.3	5.45
KRGC750	438704.4	6663345	-93.946	293.6	345.7	-62.41		201	202	1	5.70
							and	252.65	257.55	4.9	3.69
							and	264	264.4	0.4	4.35
							and	270.95	272	1.05	4.23
KRGC751	438703.3	6663348	-93.806	327	347.6	-43.26	no significant results				
KRGC752	438703.3	6663348	-93.787	381	351.4	-49.91		**300**	**312**	**12**	**4.00**
KRGC753	438703.2	6663348	-93.779	344.5	359.6	-58.53		293	294	1	2.53
							and	319.3	320	0.7	4.74
							and	325	326.1	1.1	3.47
							and	330	333	3	3.50
KRGC754	438703.1	6663348	-93.771	384	4.3	-59.95		286	288	2	3.83
KRGC756	438411.4	6663737	-54.617	42	13.3	55.4		**14.45**	**29.5**	**15.05**	**3.17**
KRGC757	438411.2	6663739	-58.412	51	19.83	-22.85		5.4	12.8	7.4	1.55
							and	9.3	9.8	0.5	3.34
							and	28.5	30.5	2	2.88
							and	31.5	32	0.5	2.65
							and	50.5	51	0.5	3.05
KRGC758	438410	6663738	-56.507	51	354.1	18.7		**18.5**	**29.55**	**11.05**	**1.92**
							and	36	38	2	2.79
							and	40.5	41	0.5	5.20
KRGC759	438409.9	6663738	-56.383	81	338.7	25.74		14.9	24	9.1	1.30
							and	22	22.5	0.5	4.27
KRGC768	438694.7	6664045	-232.36	135	236.9	7.19	results pending				
KRGC771	438694.5	6664046	-233.106	345	251.7	-6.3	results pending				
KRGC775	438694	6664046	-233.376	439.49	257.3	-13.75		**286.05**	**300**	**13.95**	**7.97**

KARARI DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KRGC778	438702.9	6663342	-92.484	218.7	290.6	-81.68		158	160	2	2.81
							and	162.55	163.46	0.91	4.69
							and	171	172	1	6.23
							and	187	188	1	12.40
KRGC779	438711.2	6663338	-94.25	279	5.4	-81.37	no significant results				
KRGC780	438702.9	6663342	-92.444	254.7	151.9	-87.1		186.83	187.3	0.47	6.49
								223	229.1	6.1	2.79
								232	233	1	3.01
								235	236	1	5.50
KRGC781	438711.2	6663338	-94.25	306	102.6	-82.73	results pending				
KRGC782	438732	6663304	-93.986	198	211	-71.79		119.45	120	0.55	35.40
							and	176	176.4	0.4	7.16

Table 2 – Safari Bore Drill Results

SAFARI BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
SBRD002A	450844	6731912	376.4	210.7	92.62	-55.25		125.5	143.5	18	0.59
							and	150.8	157.9	7.1	1.84
							and	163.4	164.65	1.25	2.85
							and	178	179	1	1.05
							and	195.55	208	12.45	1.91
SBRD003	450894.1	6731868	376.75	180.6	90.53	-54.49		90.69	94.5	3.81	1.16
							and	100.39	101.49	1.1	0.90
							and	113.35	134	20.65	1.50
							and	142.12	149.22	7.1	2.99
							and	164	165	1	0.54
							and	178	179	1	1.04
SBRD004	450909.8	6731828	377.042	180.7	91.67	-55		86	87.95	1.95	0.99
							and	107.9	110	2.1	2.43
							and	**113.35**	**149.6**	**36.1**	**2.09**
							and	161	162	1	1.46
SBRD005	450911.3	6731788	376.718	180.65	91.67	-55		31.55	33.16	1.61	1.37
							and	92.65	95.2	2.55	0.86
							and	**130**	**151.25**	**21.25**	**2.52**
							and	168.4	169.4	1	0.55
SBRD006	450824.1	6731910	376.265	256	89.6	-54.62		124	126	2	1.18
							and	149	150	1	2.79
							and	156	160	4	1.60
							and	170	171	1	4.17
							and	181	182	1	1.48
							and	187	189	2	3.20
							and	197	200	3	0.88
							and	206	216	10	0.78
							and	219	221	2	5.27
							and	232	233	1	0.69
							and	234	240	6	1.28
							and	244	245	1	1.09

SAFARI BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
SBRD007	450865	6731910	376.598	238	88.88	-54.91		103	106	3	1.96
							and	113	127	14	2.35
							and	136	150	14	1.14
							and	**185**	**189**	**4**	**19.26**
							and	209	217	8	0.57
							and	232	233	1	0.52
SBRD008	450885	6731910	376.801	184	83.13	-55.39		56	62	6	0.78
							and	69	72	3	0.64
							and	99	100	1	2.11
							and	113	132	19	0.75
							and	142	143	1	0.55
SBRD009	450905.8	6731910	376.947	178	83.76	-55.78		24	25	1	0.78
							and	29	34	5	0.60
							and	39	41	2	0.58
							and	93	94	1	0.66
							and	98	99	1	0.72
							and	112	113	1	4.29
							and	127	129	2	0.77
							and	137	139	2	0.94
							and	146	172	26	1.18
SBRD010	450925	6731910	377.135	140	84.91	-55.25		56	58	2	4.38
							and	102	113	11	1.46
SBRD011	450945	6731910	377.564	118	88.45	-54.98		35	36	1	15.90
							and	62	64	2	0.69
							and	66	67	1	0.58
SBRD012	450865	6731890	376.773	210	88	-55		92	93	1	0.94
							and	120	122	2	1.93
							and	**127**	**151**	**24**	**1.90**
							and	158	159	1	1.06
							and	177	179	2	1.92
							and	183	185	2	0.91
SBRD013	450905	6731890	376.894	180	88.3	-55.56		26	30	4	1.30
							and	49	50	1	0.74
							and	86	87	1	1.14
							and	101	104	3	0.74
							and	108	110	2	0.99
							and	114	116	2	3.56
							and	128	129	1	0.73
							and	136	139	3	2.99
							and	143	146	3	0.93
							and	161	164	3	1.37
SBRD014	450925	6731890	377.098	144	88.68	-55.7		9	10	1	0.68
							and	18	19	1	0.82
							and	63	64	1	0.85
							and	85	86	1	4.42
							and	97	98	1	0.81
							and	106	109	3	5.97
							and	115	123	8	2.53
SBRD015	450844.4	6731870	376.283	190	88.71	-55.43		40	41	1	0.74
							and	129	132	3	0.80
							and	**145**	**190**	**45**	**1.46**

SAFARI BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
SBRD016	450865	6731870	376.472	210	88.26	-55.22		108	109	1	1.03
							and	129	130	1	10.30
							and	141	149	8	1.33
							and	153	162	9	1.73
							and	166	173	7	1.43
							and	177	184	7	2.30
SBRD017	450925	6731870	377.062	168	88	-55		29	30	1	1.07
							and	**67**	**73**	**6**	**4.64**
							and	80	81	1	0.91
							and	93	106	13	1.50
							and	110	111	1	3.53
							and	115	127	12	1.17
							and	136	144	8	3.42
SBRD018	450845	6731850	376.544	162	88	-55		37	39	2	5.62
							and	131	132	1	0.61
							and	144	145	1	2.06
							and	154	159	5	1.62
SBRD019	450865	6731850	376.544	222	88	-55		25	27	2	0.51
							and	121	122	1	1.74
							and	141	145	4	0.62
							and	150	152	2	0.80
							and	163	173	10	1.56
							and	181	182	1	1.21
							and	186	190	4	0.63
							and	198	203	5	0.67
							and	211	213	2	1.12
SBRD020	450885	6731850	376.492	196	88	-55	results pending				
SBRD021	450925	6731850	376.656	150	89.23	-55.01		59	60	1	1.02
							and	78	90	12	1.69
							and	95	96	1	1.11
							and	101	106	5	1.03
							and	116	121	5	1.64
							and	125	126	1	0.53
							and	138	139	1	0.76
SBRD022	450945	6731850	377.219	138	89.03	-55.02		62	72	10	1.24
							and	77	78	1	0.57
							and	99	100	1	1.88
							and	108	109	1	1.13
							and	124	125	1	0.93
SBRD023	450885	6731830	377.194	200	88	-55		81	82	1	0.69
							and	93	94	1	0.57
							and	113	114	1	0.64
							and	123	124	1	1.31
							and	132	156	24	0.92
							and	161	162	1	0.53
							and	182	184	2	3.39
SBRD024	450925	6731830	376.589	160	88	-55		12	15	3	2.77
							and	52	54	2	8.13
							and	58	59	1	0.58
							and	94	114	20	0.82
							and	118	138	20	1.96
							and	144	148	4	1.61

SAFARI BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
SBRD025	450945	6731830	377.151	144	90	-54.81		31	32	1	0.78
							and	45	46	1	0.88
							and	64	65	1	0.96
							and	71	73	2	1.44
							and	78	79	1	2.53
							and	94	99	5	1.05
							and	101	102	1	1.03
							and	107	113	6	2.59
							and	136	137	1	0.79
SBRD026	450965	6731830	377.155	120	87.98	-55.4		41	48	7	1.74
							and	56	57	1	1.94
							and	62	63	1	0.62
							and	93	94	1	0.53
							and	98	99	1	1.00
SBRD027	450925	6731810	377.278	160	88.04	-55.53		62	63	1	0.51
							and	78	79	1	0.58
							and	93	95	2	5.60
							and	99	108	9	0.71
							and	113	114	1	0.59
							and	**122**	**148**	**26**	**2.43**
SBRD028A	450891.6	6731790	376.919	210	90.29	-55.81		37	38	1	0.79
							and	48	49	1	2.24
							and	91	92	1	4.14
							and	97	98	1	20.70
							and	144	150	6	3.74
							and	167	168	1	0.78
							and	182	184	2	0.77
							and	197	198	1	0.59
							and	203	204	1	0.90
SBRD029	450965	6731790	376.428	130	87.96	-60.9		20	24	4	0.56
							and	34	37	3	0.59
							and	45	46	1	0.83
							and	52	53	1	0.56
							and	81	86	5	2.98
							and	96	108	12	0.89
							and	112	113	1	0.85
SBRD030	450905	6731770	377.047	204	88	-55		38	40	2	0.73
							and	67	69	2	0.83
							and	81	82	1	2.07
							and	118	119	1	2.12
							and	143	154	11	0.80
							and	159	161	2	0.85
							and	181	182	1	0.51
							and	201	202	1	0.50
SBRD031	450925	6731770	376.611	180	87.61	-55.5		8	12	4	2.01
							and	36	37	1	1.07
							and	56	60	4	4.20
							and	121	126	5	0.67
							and	135	138	3	1.52
							and	148	149	1	0.71
							and	168	169	1	2.30

SAFARI BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
SBRD032	450945	6731770	376.713	150	89.45	-55.51		4	8	4	0.75
							and	14	15	1	8.99
							and	19	20	1	3.08
							and	28	29	1	3.01
							and	52	53	1	0.86
							and	62	68	6	0.62
							and	73	79	6	1.04
							and	84	85	1	9.98
							and	102	103	1	0.57
							and	107	108	1	0.52
							and	111	117	6	0.94
							and	136	137	1	1.20
SBRD033	450965	6731770	376.805	126	88.88	-55.13		8	12	4	2.65
							and	45	46	1	0.83
							and	68	69	1	1.70
							and	94	95	1	0.88
							and	99	104	5	1.44
							and	112	113	1	0.76
SBRD034	450925	6731750	377.003	126	86.28	-50.93		8	12	4	0.82
							and	35	36	1	0.55
							and	70	71	1	0.84
SBRD034A	450925	6731750	377.003	192	89.07	-55.21		50	51	1	6.44
							and	71	76	5	0.66
							and	95	96	1	1.38
							and	**130**	**133**	**3**	**11.37**
							and	141	145	4	1.84
							and	184	186	2	0.95
SBRD035	450945	6731750	376.663	162	85.82	-55.93		16	20	4	1.44
							and	65	71	6	0.51
							and	119	121	2	1.49

Table 3 – Otto Bore Drill Results

OTTO BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
OBRC0077	304726	6889811	486.6	310	90	-60		**85**	**96**	**11**	**5.06**
							and	107	108	1	0.85
							and	121	122	1	1.98
							and	153	155	2	3.41
OBRC0080	304805	6889732	486.5	226	90	-60		127	128	1	0.53
							and	130	131	1	0.97
OBRC0081	304861	6889732	486.3	150	90	-60		1	2	1	1.16
							and	92	94	2	7.25
OBRC0082	304853	6889651	486.8	226	103.82	-60.85		71	77	6	1.84
							and	117	118	1	0.52
OBRC0083	304910	6889651	486.578	148	90	-60		43	45	2	2.09
OBRC0132	305010.6	6888845	488.303	118	89.56	-71.48		55	56	1	1.30
							and	60	65	5	0.94
							and	77	78	1	0.56
OBRC0138	305017.1	6888789	488.368	106	92.02	-61.23		32	34	2	1.04
							and	52	56	4	1.06
							and	90	91	1	3.91
OBRC0139	304929.9	6888758	488.786	214	93.82	-60.85		148	152	4	1.24
							and	157	158	1	0.88
							and	163	172	9	2.02

OTTO BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
OBRC0140	305025.4	6888761	488.229	124	94.1	-61.25		37	38	1	0.75
							and	48	52	4	1.04
							and	84	85	1	0.72
OBRC0142	304961.4	6888720	488.447	190	90.59	-61.25		100	101	1	6.12
							and	121	126	5	1.92
							and	133	134	1	1.25
OBRC0144	305078.1	6888669	487.982	106	90	-60		36	38	2	1.06
OBRC0145	305042.6	6888640	488.299	154	90	-60		64	76	12	0.83
							and	98	99	1	2.37
OBRC0146	305083.5	6888640	487.972	100	91.17	-61.2		38	39	1	3.24
OBRC0147	304820	6889353	492	280	90	-60		153	160	7	0.90
							and	165	171	6	0.96
OBRC0148	304910	6889360	489	142	90	-60		76	79	3	0.52
							and	83	86	3	2.14
							and	91	93	2	1.26
							and	105	106	1	3.91
							and	110	114	4	1.47
OBRC0149	304910	6889380	490	112	90	-60		**70**	**77**	**7**	**5.30**
							and	109	111	2	1.06
OBRC0150	304995	6889380	490	64	90	-60		2	3	1	0.85
							and	29	30	1	1.26
OBRC0151	304850	6889430	489	184	90.02	-61.64		19	20	1	3.17
							and	133	134	1	0.65
							and	138	147	9	0.56
							and	176	177	1	0.57
OBRC0152	304910	6889420	490	112	90	-60		71	74	3	5.44
OBRC0153	304950	6889420	490	82	92.12	-61.36		12	13	1	2.04
							and	26	28	2	0.73
							and	56	57	1	0.70
OBRC0154	304990	6889420	490	64	88.34	-61.33		8	10	2	1.21
OBRC0155	304890	6889460	490	142	92.12	-61.36		76	89	13	1.53
							and	110	112	2	0.71
OBRC0156	304930	6889460	490	100	92.12	-61.36		36	43	7	1.30
							and	62	64	2	2.27
							and	79	80	1	0.56
OBRC0157	304970	6889460	490	70	88.97	-61.29		21	22	1	3.24
							and	45	46	1	0.61
OBRC0158	304840	6889500	490	214	88.27	-60.86		104	109	5	0.68
								132	134	2	0.97
								138	139	1	1.01
								151	152	1	1.79
OBRC0159	304890	6889500	490	150	87.09	-60.72		48	50	2	0.73
							and	71	74	3	1.31
							and	80	81	1	0.74
							and	103	104	1	0.60
OBRC0160	304930	6889500	490	100	91.77	-61.47		19	25	6	0.60
							and	49	60	11	0.76
OBRC0161	304950	6889500	490	70	91.48	-61.26		38	39	1	0.80
							and	42	43	1	0.55
							and	63	66	3	3.91
OBRC0162	304970	6889500	490	100	96.97	-61.75		42	43	1	0.83
							and	51	52	1	2.26
OBRC0163	304990	6889500	490	118	90.93	-61.27	no significant results				

OTTO BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
OBRC0164	304785	6889535	494	280	87.85	-61.54		58	59	1	0.64
							and	62	63	1	0.63
							and	139	140	1	1.48
							and	175	177	2	1.60
OBRC0165	304840	6889540	493	208	87.32	-60.79		**95**	**101**	**6**	**4.85**
							and	106	107	1	1.02
							and	126	128	2	1.23
OBRC0166	304890	6889540	490	142	91.74	-61.13		41	42	1	2.36
							and	67	68	1	0.87
							and	71	73	2	0.78
							and	96	97	1	1.94
OBRC0167	304930	6889540	490	100	91.23	-60.85		41	45	4	0.59
							and	67	68	1	1.17
OBRC0168	304970	6889540	490	52	87.39	-61.15		35	36	1	0.51
OBRC0169	304795	6889600	490	280	90	-60		124	129	5	1.84
							and	134	135	1	1.27
							and	139	141	2	0.93
OBRC0170	304850	6889600	490	234	95.14	-61.16		111	113	2	3.18
							and	124	126	2	1.21
							and	204	205	1	11.10
OBRC0171	304890	6889600	490	202	90	-60		26	27	1	0.88
							and	53	54	1	0.51
							and	58	60	2	2.53
							and	73	74	1	1.00
OBRC0172	304930	6889600	490	148	93.39	-61.07		34	35	1	0.51
							and	57	58	1	0.57
OBRC0173	304780	6889690	492	270	90.99	-59		130	131	1	4.18
OBRC0174	304855	6889695	492	184	88.92	-59.7		110	111	1	0.77
OBRC0175	304915	6889695	490	100	92.45	-60.41	no significant results				
OBRC0176	304915	6889730	487	100	90	-60	no significant results				
OBRC0177	304755	6889775	492	280	90	-60		147	149	2	0.58
OBRC0179	304855	6889777	490	142	92.13	-60.99		50	51	1	0.63
							and	90	91	1	10.20
OBRC0180	304895	6889777	490	100	88.3	-59.83		29	37	8	2.46
							and	64	65	1	0.80
							and	88	89	1	0.81
OBRC0182	304846	6889811	485	154	90	-60		41	42	1	2.68
							and	69	70	1	1.32
							and	99	100	1	0.98
OBRC0183	304700	6889840	485	280	89.6	-60.51	no significant results				
OBRC0184	304740	6889840	485	244	90	-60		**83**	**94**	**11**	**1.94**
							and	135	136	1	7.42
OBRC0185	304860	6889840	485	160	91.3	-71.35		76	77	1	0.82
							and	149	150	1	0.55
OBRC0186	304790	6889890	485	183	90.07	-61.06		28	29	1	1.35
							and	33	34	1	0.64
							and	136	138	2	2.52
							and	145	147	2	1.47
OBRC0187	304850	6889890	485	142	89.64	-60.79	no significant results				
OBRC0188	304690	6889930	485	244	90	-60		161	172	11	1.14
OBRC0189	304770	6889930	485	201	90	-60		67	70	3	1.06
							and	140	141	1	2.41
							and	**150**	**165**	**15**	**11.18**
							and	171	173	2	2.47

OTTO BORE DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
OBRC0190	304820	6889930	490	142	90	-60		44	45	1	0.62
							and	47	48	1	0.52
							and	54	55	1	0.61
							and	61	62	1	1.59
							and	64	72	8	0.89
OBRC0191	304890	6889930	489	82	90	-60		39	44	5	3.46
							and	58	59	1	0.82
OBRC0192	304660	6889970	489	280	89.52	-61.37		67	68	1	0.76
							and	134	135	1	1.22
							and	**168**	**184**	**16**	**5.69**
OBRC0193	304860	6889970	489	100	90	-60		26	29	3	0.73
							and	35	36	1	0.55
OBRC0194	304770	6890050	489	142	90	-60	no significant results				
OBRC0195	304820	6890050	489	100	91.84	-60.19		45	50	5	1.63
							and	77	79	2	1.30

Table 4 – Atbara Drill Results

ATBARA DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEX008	436747	6668049	345	338	248.17	-64.72	results pending				
ATEX036	437009.5	6668169	345	545.8	235	-60		363	364	1	1.16
							and	414.3	417.08	2.78	1.17
							and	444	445	1	0.69
ATEX037	437408	6668407	345	805	235	-65		255	256	1	1.40
							and	**273**	**631.5**	**358.5**	**0.50**
							incl	273	333	60	0.83
							incl	347	353	6	0.55
							incl	359	364.6	5.6	0.76
							incl	378	395	17	0.80
							incl	409	433	24	0.76
							incl	447	451.25	4.25	1.24
							incl	474	480	6	1.41
							incl	507	630	123	0.53
							and	716	717	1	0.61
ATEX042	437233	6668910	350	712	235	-65		54	63	9	0.72
							and	159.9	186	26.1	1.20
							and	350	376	26	0.67
							and	389	390	1	0.75
							and	392	393	1	0.91
ATEX107	437314.145	6668310	347.67	330	239.66	-66.09		72	73	1	1.60
							and	100	108	8	0.65
							and	113	114	1	0.95
							and	125	126	1	0.89
							and	131	134	3	0.71
							and	188	213	25	0.73
							and	324.96	327	2.04	0.86
ATEX108	437241.287	6668356	348.0165	280	234.67	-60.5		**56**	**101**	**45**	**1.84**
							and	**125**	**134**	**9**	**5.73**
							and	182	183	1	0.50
							and	239	271	32	0.82

ATBARA DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEX109	437283.452	6668336	347.752	316	236.14	-65.66		68	76	8	1.56
							and	95	102	7	0.56
							and	105	106	1	0.66
							and	111	113	2	0.71
							and	128	129	1	1.33
							and	151	166	15	0.75
							and	194	197	3	1.33
							and	211	212	1	0.63
							and	217	218	1	0.54
							and	227	229	2	0.54
							and	231	232	1	0.58
							and	258	259.77	1.77	3.24
							and	297.5	302	4.5	1.36
ATEX110	437225.313	6668372	347.9917	346	234.67	-60		**56**	**93**	**37**	**1.43**
							and	199	208	9	0.51
							and	215	216	1	0.55
							and	242	243	1	0.90
							and	247	248	1	1.14
							and	258	259	1	0.78
							and	**276**	**290**	**14**	**1.65**
							and	302	305	3	1.11
							and	316	317	1	0.67
							and	323	326	3	1.21
							and	344	345	1	0.67
ATEX111	437299.087	6668322	347.708	364	239.33	-65.53		73	74	1	0.78
							and	107	112	5	0.54
							and	117	118	1	0.57
							and	125	128	3	0.88
							and	143	144	1	1.41
							and	148	149	1	0.60
							and	**184**	**231**	**47**	**0.65**
							and	254	257	3	0.69
							and	**310**	**319**	**9**	**2.25**
ATEX112	437276.661	6668302	347.8	214	0	-65		**65**	**100**	**35**	**0.73**
							and	113	114	1	0.54
							and	116	117	1	1.08
							and	145	148	3	0.93
							and	207	208	1	0.85
ATEX113	437238.561	6668322	348.121	190	241.78	-64.88		57	58	1	1.74
							and	70	71	1	1.47
							and	112	121	9	0.59
							and	141	142	1	1.01
							and	148	149	1	1.36
							and	159	160	1	0.59
							and	171	172	1	1.12
ATEX114	437267.494	6668291	347.799	340	234.37	-65.4		63	67	4	0.54
							and	90	93	3	0.88
							and	130	134	4	1.40
							and	145	146	1	0.53
							and	256.7	311	54.3	1.44

ATBARA DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEX115	437213.085	6668352	348.496	260	238.57	-59.7		59	60	1	1.12
							and	73	81	8	0.66
							and	123	142	19	1.19
							and	153	154	1	3.04
							and	181	197	16	2.08
							and	210.35	212.1	1.75	1.10
							and	222	223	1	0.62
							and	227.48	232	4.52	0.53
							and	235	236	1	0.85
ATEX116	437253.533	6668307	347.959	279	239.55	-60.49		60	61	1	0.70
							and	78	80	2	0.80
							and	85	86	1	1.29
							and	114	116	2	3.27
							and	138	144	6	2.09
							and	170	207.9	37.9	0.45
							and	215	222	7	0.52
							and	239.3	240.5	1.2	2.20
ATEX117	437224.529	6668339	348.335	276	237.3	-60.64		61	62	1	0.62
							and	75	76	1	1.91
							and	132	139	7	1.10
							and	185	186	1	3.56
							and	200	216.07	16.07	0.55
							and	240	241	1	0.68
							and	265	272	7	0.60
ATEX118	437251.61	6668277	347.685	176	235.37	-61		64	65	1	0.68
							and	77	79	2	0.73
							and	87	89	2	0.69
							and	96	97	1	0.87
							and	103	131	28	0.51
							and	**163**	**176**	**13**	**1.84**
ATEX119	437221.301	6668309	348.086	320	239.07	-65.5		48	59	11	0.58
							and	66	77	11	0.55
							and	85	86	1	1.00
							and	111	119	8	0.65
							and	126	127	1	1.71
							and	139	140	1	1.07
							and	147	148	1	0.58
							and	154	155	1	0.77
							and	176	177	1	0.92
							and	238	239	1	0.63
							and	271	272	1	3.06
							and	281	282	1	0.57
ATEX120	437237.31	6668263	347.528	270	234.17	-60.5		**61**	**72**	**11**	**1.30**
							and	136	147	11	0.80
							and	191	192	1	0.61
							and	210	236	26	0.50
							and	265	268	3	1.42
ATEX121	437194.285	6668338	348.882	319.85	234.57	-60		50	71	21	0.69
							and	118	119	1	0.56
							and	121	122	1	0.55
							and	172	174	2	1.09
							and	188	189	1	1.62
							and	204	210	6	1.35
							and	230.6	240.85	10.25	3.53
							and	256	273	17	0.51
							and	282.8	284	1.2	0.54
							and	308.52	310	1.48	0.55

ATBARA DRILLING FEBRUARY 2020										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEX122	437222.881	6668280	347.7	260	237.67	-60.1		51	58	7	0.66
							and	66	67	1	0.89
							and	81	101	20	0.51
							and	107	111	4	0.54
							and	180	187	7	0.79
							and	196	197	1	0.95
ATEX123	437207.146	6668326	348.466	250	237.19	-60.51		51	59	8	0.84
							and	75	76	1	1.44
							and	108	124	16	0.51
							and	157	170.17	13.17	1.06
							and	215	216	1	0.62
ATEX124	437313	6668309	347	331	243.59	-66.65	results pending				
ATEX125	437220.4	6668309	348	139	241.09	-64.01		52.7	70	17.3	0.64
							and	82	83	1	0.58
							and	126	127	1	0.52
ATEX125A	437221.2	6668308	348	320	240.24	-63.48		52.1	60	7.9	0.56
							and	66	68	2	0.54
							and	82	83.2	1.2	0.68
							and	110	111	1	0.54
							and	140	144	4	0.58
							and	146	147.08	1.08	0.57
							and	153	154	1	0.52
							and	181.18	182.2	1.02	2.22
							and	210.14	211.35	1.21	0.59
							and	248.14	250.18	2.04	0.72
							and	292	297.3	5.3	0.54
							and	316	318	2	1.15

Table 5 – Mt Celia Drill Results

MT CELIA DRILLING FEBRUARY 2020							
Hole	Easting	Northing	RL	Depth	Azimuth	Dip	Max Au in hole (ppb)
MCAC1200	456269	6713892	370	80	0	-90	2.8
MCAC1201	456379	6713915	370	84	0	-90	8
MCAC1202	456495	6713945	370	80	0	-90	3.4
MCAC1203	456605	6713996	370	77	0	-90	63
MCAC1204	456707	6713932	370	91	0	-90	19.8
MCAC1205	456795	6713958	370	98	0	-90	21
MCAC1206	456906	6713938	370	91	0	-90	15.3
MCAC1207	457000	6713927	370	54	0	-90	1.4
MCAC1208	457090	6713957	370	51	0	-90	1.3
MCAC1209	457211	6713950	370	75	0	-90	-5
MCAC1210	457300	6713965	370	84	0	-90	-5
MCAC1211	457395	6713948	370	81	0	-90	-5
MCAC1212	457506	6713939	370	90	0	-90	-5
MCAC1213	457592	6713948	370	113	0	-90	-5
MCAC1214	457694	6713947	370	105	0	-90	-5
MCAC1215	457798	6713934	370	90	0	-90	74.8
MCAC1216	457892	6713947	370	79	0	-90	1.2
MCAC1217	457895	6713074	370	61	0	-90	-5
MCAC1218	457794	6713082	370	102	0	-90	-5
MCAC1219	457704	6713049	370	109	0	-90	-0.5
MCAC1220	457603	6713064	370	77	0	-90	-5
MCAC1614	456999	6710343	360	102	0	-90	92.9
MCAC1615	456896	6710352	349	103	0	-90	109
MCAC1616	456800	6710352	355	109	0	-90	328
MCAC1617	456709	6710349	353	113	0	-90	251
MCAC1618	457060	6709453	354	92	0	-90	6.5
MCAC1619	457100	6709450	362	96	0	-90	18.8
MCAC1620	457199	6709449	357	93	0	-90	3.2
MCAC1621	457297	6709452	351	92	0	-90	31.2

MT CELIA DRILLING FEBRUARY 2020							
Hole	Easting	Northing	RL	Depth	Azimuth	Dip	Max Au in hole (ppb)
MCAC1622	457400	6709453	352	95	0	-90	6.1
MCAC1623	457498	6709456	361	105	0	-90	96.4
MCAC1624	457598	6709459	359	102	0	-90	15.4
MCAC1625	457699	6709461	354	119	0	-90	8.1
MCAC1626	457797	6709460	360	96	0	-90	7.2
MCAC1627	457900	6709456	304	110	0	-90	701
MCAC1628	457995	6709451	353	127	0	-90	8
MCAC1629	458098	6709446	360	101	0	-90	15
MCAC1630	458197	6709465	369	94	0	-90	16.9
MCAC1631	458294	6709470	360	101	0	-90	7
MCAC1632	458394	6709458	360	96	0	-90	32.8
MCAC1633	458501	6709461	360	100	0	-90	188
MCAC1634	458596	6709447	360	89	0	-90	275
MCAC1635	458693	6709453	360	112	0	-90	276
MCAC1636	458792	6709462	360	94	0	-90	37.3
MCAC1637	458898	6709469	360	81	0	-90	2.1
MCAC1638	458993	6709460	360	73	0	-90	2.8
MCAC1639	459095	6709459	360	88	0	-90	8.4
MCAC1640	459197	6709450	360	83	0	-90	6
MCAC1641	459297	6709459	360	100	0	-90	16.3
MCAC1642	459396	6709462	360	106	0	-90	3
MCAC1643	459494	6709442	360	104	0	-90	9.2
MCAC1644	459594	6709445	360	78	0	-90	16.6
MCAC1645	459091	6706309	360	105	0	-90	44.4
MCAC1646	459195	6706305	360	105	0	-90	97.5
MCAC1647	459298	6706301	360	101	0	-90	21.3
MCAC1648	459396	6706300	360	100	0	-90	32.2
MCAC1649	459496	6706320	370	96	0	-90	15.8
MCAC1650	459596	6706305	367	107	0	-90	7
MCAC1651	459198	6707194	356	73	0	-90	3.6
MCAC1652	459296	6707201	351	74	0	-90	2.8
MCAC1653	459399	6707196	356	93	0	-90	5
MCAC1654	459494	6707208	365	64	0	-90	1.9
MCAC1655	459597	6707202	364	83	0	-90	10.4
MCAC1656	459508	6708539	366	77	0	-90	2.5
MCAC1657	459403	6708541	364	75	0	-90	3.6
MCAC1658	459302	6708540	373	90	0	-90	2.6
MCAC1659	459199	6708542	378	100	0	-90	4.7
MCAC1660	459102	6708556	349	66	0	-90	8
MCAC1661	459002	6708550	359	75	0	-90	2.6
MCAC1662	458903	6708543	360	78	0	-90	2.7
MCAC1663	458804	6708552	354	85	0	-90	10.6
MCAC1664	458702	6708535	356	79	0	-90	13.1
MCAC1665	458600	6708549	369	89	0	-90	10
MCAC1666	458504	6708543	358	98	0	-90	3.6
MCAC1667	458401	6708544	358	105	0	-90	334
MCAC1668	458302	6708556	360	109	0	-90	1030
MCAC1669	458203	6708553	357	116	0	-90	107
MCAC1670	458106	6708547	360	117	0	-90	502
MCAC1671	458003	6708544	357	102	0	-90	4.7
MCAC1672	457908	6708552	359	87	0	-90	2.7
MCAC1673	457805	6708550	359	76	0	-90	4.6
MCAC1674	457705	6708546	357	67	0	-90	3
MCAC1675	457607	6708553	356	84	0	-90	12.5
MCAC1676	457509	6708551	355	90	0	-90	1.3
MCAC1677	457404	6708554	356	76	0	-90	2.3
MCAC1678	457309	6708542	359	53	0	-90	7.5
MCAC1679	457206	6708532	357	73	0	-90	9.6
MCAC1680	457107	6708540	358	85	0	-90	39.2

MT CELIA DRILLING FEBRUARY 2020							
Hole	Easting	Northing	RL	Depth	Azimuth	Dip	Max Au in hole (ppb)
MCAC1681	457002	6708544	365	60	0	-90	1.8
MCAC1682	457496	6713052	365	85	0	-90	3.2
MCAC1683	457408	6713047	364	94	0	-90	6.3
MCAC1684	457305	6713059	366	101	0	-90	16
MCAC1685	457188	6713067	365	72	0	-90	5.1
MCAC1686	457101	6713057	365	95	0	-90	54.9
MCAC1687	457009	6713052	366	95	0	-90	226
MCAC1688	456903	6713042	364	85	0	-90	40.9
MCAC1689	456805	6713046	358	85	0	-90	214
MCAC1690	456703	6713031	349	81	0	-90	17.1
MCAC1691	456604	6713055	349	81	0	-90	3.4
MCAC1692	456508	6713044	366	85	0	-90	23
MCAC1693	456399	6713053	356	79	0	-90	18.4
MCAC1694	456311	6713032	349	96	0	-90	25
MCAC1695	456196	6713033	340	112	0	-90	4.3
MCAC1696	456085	6713067	346	102	0	-90	17.9
MCAC1697	455999	6713073	346	106	0	-90	96.9
MCAC1698	455893	6713057	347	98	0	-90	393
MCAC1699	455802	6713050	356	104	0	-90	19
MCAC1700	455690	6713055	293	98	0	-90	7.8
MCAC1701	455601	6713061	352	108	0	-90	9.8
MCAC1702	455498	6713052	347	94	0	-90	9.6
MCAC1703	455402	6713063	349	89	0	-90	16.5
MCAC1704	455301	6713034	333	92	0	-90	10.7
MCAC1705	455206	6713052	344	89	0	-90	10.1
MCAC1706	455107	6713052	354	86	0	-90	3.4
OKAC001	447300	6734866	365.5	85	0	-90	201
OKAC002	447196	6734861	365	56	0	-90	8
OKAC003	447106	6734875	364.5	26	0	-90	2.9
OKAC004	446986	6734863	364	37	0	-90	3.6
OKAC005	446892	6734837	363.5	36	0	-90	17.6
OKAC006	446796	6734898	363	51	0	-90	8
OKAC007	446692	6734861	363	101	0	-90	20.1
OKAC008	447397	6734451	365.4	73	0	-90	6.4
OKAC009	447301	6734454	386	42	0	-90	57.1
OKAC010	447197	6734446	364.6	36	0	-90	5
OKAC011	447102	6734453	364.3	51	0	-90	4.3
OKAC012	446996	6734449	364	101	0	-90	3.3
OKAC013	446901	6734461	363.5	84	0	-90	4.6
OKAC014	446803	6734461	363.3	95	0	-90	6.7
OKAC015	447406	6733979	364	54	0	-90	10
OKAC016	447296	6733968	363.8	102	0	-90	71.9
OKAC017	447202	6733969	363.6	71	0	-90	6.7
OKAC018	447100	6733985	363.3	69	0	-90	10.2
OKAC019	446992	6733972	363	84	0	-90	102
OKAC020	446893	6733975	362.5	85	0	-90	11.3

MT CELIA DRILLING FEBRUARY 2020							
Hole	Easting	Northing	RL	Depth	Azimuth	Dip	Max Au in hole (ppb)
OKAC021	447505	6733529	364.7	64	0	-90	8
OKAC022	447400	6733528	364	36	0	-90	12
OKAC023	447297	6733520	364	77	0	-90	6.7
OKAC024	447196	6733528	363.5	97	0	-90	17
OKAC025	447101	6733523	363	97	0	-90	33.1
OKAC026	446998	6733533	362.6	87	0	-90	6.7
OKAC027	446897	6733527	362	93	0	-90	31
OKAC028	446807	6733515	362	94	0	-90	51.5
OKAC029	446705	6733529	370	95	0	-90	106
OKAC030	446614	6733515	361	102	0	-90	101
OKAC031	447695	6733114	364	84	0	-90	8.1
OKAC032	447596	6733109	363.8	101	0	-90	632
OKAC033	447495	6733119	363.5	85	0	-90	165
OKAC034	447406	6733137	363.5	85	0	-90	13.2
OKAC035	447325	6733114	363	85	0	-90	18
OKAC036	**447202**	**6733116**	**363**	**116**	**0**	**-90**	**1050**
OKAC037	447102	6733116	362.6	97	0	-90	194
OKAC038	447003	6733108	362.2	90	0	-90	32.2
OKAC039	446894	6733115	370	85	0	-90	7.8
OKAC040	446800	6733120	361.4	89	0	-90	13.3
OKAC041	446694	6733120	361	92	0	-90	80.7
OKAC042	447798	6732747	363	77	0	-90	7.8
OKAC043	447699	6732746	362	76	0	-90	6.5
OKAC044	447591	6732741	362	98	0	-90	115
OKAC045	447503	6732742	362	96	0	-90	523
OKAC046	447397	6732756	362	88	0	-90	25.2
OKAC047	447297	6732738	361	102	0	-90	644
OKAC048	447200	6732750	361	7	0	-90	
OKAC048A	447183	6732751	361	102	0	-90	480
OKAC049	447102	6732744	366	114	0	-90	479
OKAC050	447003	6732748	361	81	0	-90	13.3
OKAC051	446896	6732748	361	100	0	-90	226
OKAC052	446791	6732752	361	103	0	-90	108
OKAC053	446698	6732749	360.5	90	0	-90	19.5
OKAC054	446905	6732396	359	94	0	-90	242
OKAC055	446999	6732390	359	95	0	-90	284
OKAC056	447097	6732394	360	84	0	-90	8.1
OKAC057	447194	6732408	360	85	0	-90	4.8
OKAC058	447297	6732395	360.5	108	0	-90	66.4
OKAC059	**447395**	**6732398**	**371**	**102**	**0**	**-90**	**964**
OKAC060	447505	6732404	361	89	0	-90	23.1
OKAC061	447612	6732403	361.5	85	0	-90	14.9
OKAC062	447697	6732391	362	86	0	-90	4.9
OKAC063	447808	6732394	362	91	0	-90	6
OKAC064	447905	6732396	362	81	0	-90	18.1
OKAC065	447900	6732052	362	77	0	-90	5.6
OKAC066	447804	6732059	361.5	84	0	-90	5
OKAC067	447702	6732066	361.5	83	0	-90	4.5
OKAC068	447599	6732058	361	110	0	-90	152
OKAC069	447504	6732050	364	114	0	-90	38.1
OKAC070	447403	6732062	363	150	0	-90	394
OKAC071	447304	6732059	360.4	117	0	-90	97.2
OKAC072	447198	6732046	360	116	0	-90	106
OKAC073	447103	6732058	359.8	97	0	-90	51.2
OKAC074	447001	6732054	359.6	100	0	-90	24.2
OKAC075	446898	6732052	359.3	122	0	-90	36.8
OKAC076	446898	6731672	358.6	118	0	-90	6.6

MT CELIA DRILLING FEBRUARY 2020							
Hole	Easting	Northing	RL	Depth	Azimuth	Dip	Max Au in hole (ppb)
OKAC077	446999	6731676	358.9	120	0	-90	176
OKAC078	447101	6731663	359.2	126	0	-90	103
OKAC079	447212	6731675	331	144	0	-90	263
OKAC080	447293	6731671	359.7	148	0	-90	26.3
OKAC081	447402	6731670	360	61	0	-90	4.3
OKAC082	447498	6731674	360.4	111	0	-90	85.5
OKAC083	447599	6731667	360.7	150	0	-90	529
OKAC084	447704	6731668	361.2	93	0	-90	4.7
OKAC085	447792	6731666	361.5	80	0	-90	4.9
OKAC086	447901	6731667	362	80	0	-90	6.7
OKAC087	447994	6731663	362.4	97	0	-90	6.4
OKAC088	445398	6731054	354.5	101	0	-90	34.4
OKAC089	445495	6731060	361	84	0	-90	87.4
OKAC090	445593	6731054	355.06	111	0	-90	16.7
OKAC091	445697	6731055	355.35	104	0	-90	34.2
OKAC092	445797	6731053	355.63	101	0	-90	8.4
OKAC093	445896	6731059	355.9	101	0	-90	7.2
OKAC094	446004	6731056	356.2	91	0	-90	3.8
OKAC095	446102	6731048	356.5	104	0	-90	12
OKAC096	446208	6731054	356.7	82	0	-90	4
OKAC097	446295	6731062	356.9	81	0	-90	2.7
OKAC098	446411	6731053	357.1	81	0	-90	3.2
OKAC099	446513	6731059	363	81	0	-90	6.7
OKAC100	446598	6731055	357.4	90	0	-90	3.7
OKAC101	446701	6731065	357.6	98	0	-90	5.1
OKAC102	446796	6731051	358	142	0	-90	107
OKAC103	448197	6731048	362.8	80	0	-90	12.5
OKAC104	448102	6731038	362.5	89	0	-90	12.7
OKAC105	447989	6731055	362.25	93	0	-90	7.5
OKAC106	447896	6731061	361.8	97	0	-90	23.3
OKAC107	447798	6731060	361.5	111	0	-90	22.5
OKAC108	447692	6731053	361	117	0	-90	162
OKAC109	447596	6731045	360.7	133	0	-90	13.3
OKAC110	447512	6731064	360.5	129	0	-90	24
OKAC111	447397	6731050	360	136	0	-90	396
OKAC112	447299	6731062	359.7	125	0	-90	234
OKAC113	447205	6731054	359.4	126	0	-90	730
OKAC114	**447094**	**6731044**	**359**	**135**	**0**	**-90**	**879**
OKAC115	446998	6731044	358.7	136	0	-90	23.8
OKAC116	446900	6731046	358.3	156	0	-90	126
OKAC117	445811	6730152	354.7	112	0	-90	36.6
OKAC118	445897	6730146	354.9	102	0	-90	2.5
OKAC119	446005	6730157	355.2	99	0	-90	45.7
OKAC120	446095	6730148	355.4	108	0	-90	99.6
OKAC121	446208	6730160	355.7	108	0	-90	7.5

Karari 2012 JORC Table 1 (Including KA Sth)

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	*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.*	Sampling methods undertaken by Saracen at Karari have included reverse circulation drillholes (RC), diamond drillholes (DD) and RC grade control drilling within the pit, and diamond drilling and face chip sampling underground. Historic sampling methods conducted since 1991 have included aircore (AC), rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond and RC drilling and face chip sampling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips and diamond core provide high quality representative samples for analysis. RC, RAB, AC and DD core drilling was completed by previous holders to industry standard at that time (1991- 2004).
	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 (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*	RC chips are cone or riffle split and sampled into 1m intervals, diamond core is NQ or HQ sized, sampled to 1m intervals or geological boundaries where necessary and cut into half core and underground faces are chip sampled to geological boundaries (0.2-1m). All methods are used to produce representative sample of less than 3 kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Some grade control RC chips were analysed in the Saracen on site laboratory using a PAL (pulverise and leach) method. Visible gold is sometimes encountered in underground drillcore and face samples. Historical AC, RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis methods include fire assay and unspecified methods.
Drilling Techniques	*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.).*	The deposit was initially sampled by 11 AC holes, 452 RAB holes, 496 RC holes (assumed standard 5 ¼ ''bit size) and 25 surface unknown diameter diamond core holes. Saracen has completed 14 surface RC precollars with HQ and NQ diamond tail drill holes (precollars averaging 287m, diamond tails averaging 168m) , 76 RC holes from both surface and within the pit (recent drilling utilised a 143mm diameter bit with a face sampling hammer and an external auxiliary booster) and 3052 grade control RC holes within the pit. 786 NQ diamond holes have been drilled underground. 2002 underground faces and walls have been chip sampled. Diamond tails were oriented using an Ezi-mark tool. Some historic surface diamond drill core appears to have been oriented by unknown methods.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sampling recoveries are recorded in the database as a percentage based on a visual weight estimate; no historic recoveries have been recorded. Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >90%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. UG faces are sampled from left to right across the face at the same height from the floor. During GC campaigns the sample bags weight versus bulk reject weight are compared to ensure adequate and even sample recovery. Historical AC, RAB, RC and diamond drilling to industry standard at that time.
	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.	There is no known relationship between sample recovery and grade for RC drilling. Diamond drilling has high recoveries due to the competent nature of the ground meaning loss of material is minimal. Any historical relationship is not known.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	Logging of RC chips and diamond drill core records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	Mineral Resource estimation, mining studies and metallurgical studies. *Whether logging is qualitative or quantitative in nature.* *Core (or costean, channel, etc) photography.*	Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. All faces are photographed and mapped. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference while remaining core is stored in core trays and archived on site. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All RC and diamond drillholes holes are logged in full and all faces are mapped. Every second drill line is logged in grade control programs with infill logging carried out as deemed necessary. Historical logging is approximately 95% complete.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All drill core is cut in half onsite using an automatic core saw. Samples are always collected from the same side.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration and grade control RC samples are cone or riffle split. Occasional wet samples are encountered. Underground faces are chip sampled using a hammer. AC, RAB and RC drilling has been sampled using riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core and RC and underground face chips adhere to industry best practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. No duplicates have been taken of underground core or face samples. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes of 3kg are considered to be appropriate given the grain size (90% passing 75 microns) of the material sampled.
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.*	RC chip samples, grade control chip samples, underground face chip samples and diamond core are analysed by external laboratories using a 40g or 50g fire assay with AAS finish. These methods are considered suitable for determining gold concentrations in rock and are total digest methods. Some GC samples were analysed in the Saracen onsite laboratory using pulverise and leach method. This method is a partial digest. Historic sampling includes fire assay and unknown methods.
	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.	No geophysical tools have been utilised for reporting gold mineralisation.
	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.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intercepts are verified by the Geology Manager and corporate personnel.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	The use of twinned holes.	No specific twinned holes have been drilled at Karari but grade control drilling and underground diamond drilling has confirmed the width and grade of previous exploration drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.
	Discuss any adjustment to assay data.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Drillhole collars within the pit and immediate surrounds are picked up by company surveyors using a Trimble R8 GNSS (GPS) with an expected accuracy of +/-8mm. All underground drillhole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/-2mm. Underground faces are located using a Leica D5 disto with and accuracy of +/- 1mm from a known survey point. Downhole surveys are carried out using the DeviFlex RAPID continuous inrod survey instrument taking readings every 5 seconds, In and Out runs and reported in 3m intervals, survey accuracy +-3:1000. A number of drillholes have also been gyroscopically surveyed. Previous holders' survey accuracy and quality is unknown
	Specification of the grid system used.	A local grid system (Karari) is used. The two point conversion to MGA_GDA94 zone 51 is KAREast KARNorth RL MGAEast MGANorth RL Point 1 4000 8000 0 439359.94 6663787.79 0 Point 2 3000 7400 0 438359.84 6663187.72 0 Historic data is converted to the Karari local grid upon export from the database.
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal spacing for drilling is 25m x 25m.
	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	Sample compositing is not applied until the estimation stage. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable. Underground diamond drilling is designed to intersect the orebody in the best possible orientation given the constraints of underground drill locations. UG faces are sampled left to right across the face allowing a representative sample to be taken.
	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.	No significant sampling bias has been recognised due to orientation of drilling in regards to mineralised structures.
Sample security	*The measures taken to ensure sample security.*	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted.

Section 2: Reporting of Exploration Results		
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, wilderness or national park and environmental settings.*	The Karari pit is located on M28/166 and M28/167 Mining Leases M28/166 and M28/167 are held 100% by Saracen Gold Mines Pty Ltd a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M28/166 and M28/167 have a 21 year life (held until 2020) and are renewable for a further 21 years on a continuing basis. There are no registered Aboriginal Heritage sites within Mining Leases M28/166 and M28/167. M28/166 and M28/167 are the subject of the Maduwongga native title claim (WC2017/001). Mining Leases M28/166 and M28/167 are subject to two third party royalties payable on the tenements, a bank mortgage (Mortgage 499142) and two caveats (Caveat 51H/067 and 52H/067, respectively). All production is subject to a Western Australian state government NSR royalty of 2.5%. The tenements are subject to the Pinjin Pastoral Compensation Agreement. The Mining Rehabilitation Fund applies to the tenements.
	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 tenements are in good standing and the licence to operate already exists
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Carosue Dam project area in which the Karari deposit is located has been subjected to extensive gold exploration by numerous companies since 1991. Karari was highlighted as an area of interest following an aeromagnetic survey conducted by CRA Exploration. Auger sampling of the target defined a widespread gold anomaly with follow up RAB drilling intersecting significant gold mineralisation. RC and DD drilling further defined the mineralisation before Aberfoyle entered into a joint venture agreement with CRA. Further drilling by Aberfoyle defined mineralisation over a 600m strike length. Aberfoyle were subject to a hostile takeover by Western Metals with PacMin then purchasing the Carosue Dam project. An intensive resource definition program consisting of both RC and DD drilling was carried out before mining of Karari commenced in 2000.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Karari deposit sits along the regional NNW-trending Keith-Kilkenny fault zone within the eastern edge of the Norseman-Wiluna greenstone belt. The deposit itself is lithologically and structurally controlled and sits within an altered volcaniclastic sandstone unit that has been offset along a series of major faults running NE-SW and NW-SE, as well as intruded by large lamprophyre units post mineralization. Mineralization is dominated by pyrite and hosted in broad hematite altered sandstone units with a central high grade siliceous core light-moderately dipping to the North.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Drillhole 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation* • *above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	All material data is periodically released on the ASX: 31/07/2018, 01/05/2018,15/02/2018, 27/11/2017, 26/09/2017, 13/07/2017, 01/05/2017, 21/02/2017, 13/04/2016, 23/02/2016, 10/12/2015, 03/07/2015, 25/05/2015, 05/05/2015, 11/03/2015, 16/01/2014, 14/10/2013, 25/01/2013, 28/07/2011, 03/06/2011, 21/04/2011, 09/02/2011, 03/11/2008
Data aggregation methods	*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.*	All underground diamond drillhole significant intercepts have been length weighted with a minimum Au grade of 2.5ppm. No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 0.5m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.
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 (e.g. 'down hole length, true width not known').*	Previous announcements included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths.
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.*	No Diagrams are referenced in this release.
Balanced Reporting	*Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results from previous campaigns have been reported, irrespective of success or not.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
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.*	No substantive data acquisition has been completed in recent times.
Further work	*The nature and scale of planned further work (e.g. 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*	Further infill drilling may be carried out inside the reserve UG design to improve confidence. The drilling is getting to the depth where exploration is expensive and the approach needs to be carefully considered. Underground drilling continues and surface drilling is being evaluated. A seismic project is also being assessed.

Safari Bore JORC Table 1

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	*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.*	Saracen has undertaken reverse circulation drilling (RC) at Safari Bore. Historic methods conducted since 1968 have included aircore (AC), rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips provide high quality representative samples for analysis. RC, RAB, AC and DD core drilling was completed by previous holders to industry standard at that time (1968- 2004).
	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 (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*	RC chips are cone split and sampled into 1m intervals with total sample weights less than 3 kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 50g sub sample for analysis by FA/AAS. Historical AC, RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis methods include fire assay, aqua regia, atomic absorption spectroscopy and unspecified methods.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Drilling Techniques	*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.).*	The deposit was initially sampled by 161 AC holes, 452 RAB holes, 690 RC holes (assumed standard 5 ¼ ''bit size) and 66 surface diamond HQ core and unknown diameter holes. Saracen has completed 57 RC drillholes and 5 HQ diameter diamond holes It is unknown if historic diamond drill core was oriented.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sampling recoveries are recorded as a percentage based on a visual weight estimate; limited historic recoveries have been recorded.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During RC campaigns daily rig inspections are carried out to check splitter condition, general site and address general issues. Historic AC, RAB, RC and diamond drilling to industry standard at that time.
	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.	There is no known relationship between sample recovery and grade for RC drilling. Any historical relationship is not known.
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, channel, etc) photography.*	Logging of RC chips records lithology, mineralogy, texture, mineralisation, weathering, alteration, veining and other features. Chips from all RC holes are stored in chip trays for future reference. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All exploration RC samples are cone split. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. Historic AC, RAB and RC drilling was sampled using cone, riffle and unknown methods.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Saracen has not carried out diamond drilling. Historic diamond drilling has been half core sampled or sampled via unknown methods.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration RC samples are cone split. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. Historic AC, RAB and RC drilling was sampled using cone, riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sampling techniques for exploration RAB, RC and DD drilling are unknown, best practice is assumed. The sample preparation of RC grade control drilling and blast hole sampling involved oven drying, coarse crushing and total grinding in an LM5.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	Duplicate sampling is carried out at a rate of 1:10 for exploration drilling, with the duplicate being sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate given the grainsize (90% passing 75 microns) of the material being sampled.
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.*	RC chip samples are analysed by external laboratories using a 50g fire assay with AAS finish. This method is considered suitable for determining gold concentrations in rock and is a total digest method. Historic sampling includes fire assay, aqua regia, atomic absorption spectroscopy and unknown methods.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining	No geophysical tools have been utilised for reporting gold mineralisation at Whirling Dervish.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
	the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	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.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intercepts are verified by the Geology Manager and corporate personnel.
	The use of twinned holes.	No specific twinned holes have been drilled at Safari Bore.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.
	Discuss any adjustment to assay data.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Downhole surveys are carried out using an Eastman single shot camera at regular intervals (usually 30m). Previous holders' survey accuracy and quality is unknown
	Specification of the grid system used.	A local grid system (Safari Bore) is used. The two point conversion to MGA_GDA94 zone 51 is SBEast SBNorth RL MGAEast MGANorth RL Point 1 51000 34000 0 451137.753 6734157.921 0 Point 2 51000 30000 0 451137.890 6730157.896 0 Historic data is converted to the Safari Bore local grid upon export from the database.
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal spacing for exploration drilling ranges from 20 m x 20 m
	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	Sample compositing is not applied until the estimation stage. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable.
	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.	No significant sampling bias is thought to occur due to orientation of drilling in regards to mineralised structures.
Sample security	*The measures taken to ensure sample security.*	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures.

Section 2: Reporting of Exploration Results		
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, wilderness or national park and environmental settings.*	The Safari Bore resource is located on M39/307. Near mine exploration extends onto M39/639. The tenements are held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M39/307 have a 21 year life (held until 2015 and 2024, respectively). The tenements are renewable for a further 21 years on a continuing basis. Mining Leases M39/307 and M39/639 are each subject to one royalty agreement and one associated caveat (144H/067 and 150H/067, respectively). M39/307 is subject to a bank mortgage (415495). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Leases M39/307 and M39/639 are subject to the Edjudina Pastoral Compensation Agreement. M39/307 is subject to the Yundamindera Pastoral Compensation Agreement. There are no registered Aboriginal Heritage sites within M39/307 and M39/639.
	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 tenements are in good standing and there are no known impediments to obtaining a licence to operate.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Unsuccessful nickel exploration was carried out in the Mount Celia project area in which Safari Bore is located in the 1960's and 1970's. Pancontinental Mining pegged the ground in 1988 and began gold exploration beginning with a soil geochemistry survey (deemed ineffective due to depth of cover) followed by regional RAB then targeted RC drilling of anomalous areas. Further RC and diamond drilling was carried out to define the Safari Bore resource. PanCon entered into a joint venture with Goldfields in 1995. Extensive regional RAB and RC drilling were carried out along with RC and diamond resource infill drilling. Sons of Gwalia purchased the project from Goldfields in 2001 and completed further regional RAB and RC drilling along with resource definition RC and diamond drilling before mining commenced in 2003. St Barbara acquired the project following the collapse of Sons of Gwalia. No further exploration activities took place and mining operations were suspended in 2005.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Safari Bore deposit is located within the eastern part of the Norseman-Wiluna greenstone belt in the Eastern Goldfields province of the Archaean Yilgarn Craton.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
		The deposit sits within the Pinjin fault, a major NNW trending regional lineament and comprises a sub vertically WSW dipping NNW striking package of intensely deformed and altered intermediate to mafic intrusive and extrusive rocks and sediments intruded by felsic porphyry. Mineralisation within this sequence occurs in multiple structural and lithological settings, in four discreet lodes (red, green, purple and Serengeti), all associated with quartz-carbonate-albite hydraulic breccia veins. Serengeti and red lodes lie within the margins of gently southerly plunging felsic porphyry. Green and purple lodes are sub vertical sheets oriented sub-parallel to foliation.
Drillhole 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation* • *above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	All significant exploration results released by Saracen are documented in ASX statements.
Data aggregation methods	*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.*	All significant intercepts have been length weighted with a minimum Au grade of 1ppm. No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalent values are not 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').*	There are no exploration results to report with this document.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should*	All significant exploration results released by Saracen are accompanied by the appropriate diagrams and maps at the time of the release.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
Balanced Reporting	*Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results from the recent campaign have been reported, irrespective of success or not
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.*	No substantive data acquisition has been completed in recent times.
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*	Safari Bore is currently under review and exploration targeting will focus on areas with economic gain.

Otto Bore JORC Table 1

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	*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.*	Sampling methods undertaken by Saracen at Otto Bore include reverse circulation (RC) and diamond (DD) drillholes Sampling methods undertaken at Otto Bore by previous owners have included aircore (AC), rotary air blast (RAB), RC and diamond drillholes (DD).
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond and RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. AC, RC, RAB, and DD core drilling is assumed to have been completed by previous holders to industry standard at that time (1988- 2012).
	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 (e.g. 'reverse circulation drilling was used to obtain	RC chips are cone split and sampled into 1m intervals with total sample weights under 3kg. Diamond core is HQ sized, sampled to 1m intervals or geological boundaries where necessary and cut into half core to give sample weights under 3 kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	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	Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g sub sample for analysis by FA/AAS. Limited information has been found for historic drilling so it is assumed all AC, RAB, RC and DD and sampling was carried out to industry standard at that time. More recent RAB and RC drilling has involved a total preparation sample protocol involving 4m composite or 1m samples from which a 50g charge is produced for aqua regia or fire assay digest and flame AAS finish.
Drilling Techniques	*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.).*	Drilling activities at Otto Bore have included 31 AC holes, 748 RAB holes, 141 RC holes (assumed standard 5 ¼" bit size) and 4 DD holes (HQ and unknown diameter). Limited historic diamond core hole was oriented by unknown methods. Saracen completed 96 RC holes and 6 geotechnical DD holes. The RC drilling was completed with a 5.5 inch diameter bit with a face sampling hammer. The rig was equipped with an external auxiliary booster. Diamond drilling was HQ sized and orientated using an ACT 11 core orientation tool. Historical drilling is assumed completed to industry standard at that time
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Recoveries for RC drillholes and precollars are recorded as a percentage based on a visual weight estimate.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Measures were taken to supress groundwater.
	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.	There is no known relationship between sample recovery and grade for RC drilling. Diamond drilling has high recoveries meaning loss of material is minimal. Any historical relationship is not known.
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, channel, etc) photography.*	Logging of RC chips and DD core records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Chips from all RC holes are stored in chip trays for future reference while remaining core is stored in core trays and archived on site. Some historic diamond drilling has had limited geotechnical logging carried out. Core has been photographed in both dry and wet state. It is unknown if historic diamond core was photographed. It is unknown if any historic diamond core was photographed.
	The total length and percentage of the relevant intersections logged	All drillholes completed by Saracen have been logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All drill core is cut in half onsite using an automatic core saw. Samples are always collected from the same side. The sampling method for most historic drill core is unknown, a small amount is recorded as half core sampled.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration RC samples are cone split. Occasional wet samples are encountered. The sampling methods for much of the historic AC, RC and RAB drilling are unknown. More recent RC and RAB drilling has been riffle split or spear sampled. It is unknown if wet samples were encountered.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of RC chips and DD core adhere to industry best practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. The sampling techniques for much of the historic AC, RAB, RC and DD drilling are unknown, best practice is assumed.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory Best practice is assumed at the time of historic AC, RAB, DD and RC sampling.
	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.	RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. It is unknown if duplicate sampling was performed on the majority of historic AC, RAB, RC and DD drilling. There is evidence of field duplicate sampling being conducted in more recent campaigns.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Analysis of data determined sample sizes were considered to be 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.*	RC chip and DD core samples are analysed by an external laboratory using a 40g fire assay with AAS finish. This method is considered suitable for determining gold concentrations in rock and is a total digest method. Numerous assay techniques have been used in the history of the deposit, most commonly fire assay, fire assay with flame finish and aqua regia. These methods are considered suitable for determining gold concentrations in rock and are total digest methods. Other assay methods utilised for gold determination include BETA, atomic absorption spectrometry and unknown methods.
	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.	It is unknown if any instruments of this nature have been used at Otto Bore.
	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.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intercepts are verified by the Geology Manager and corporate personnel
	The use of twinned holes.	Specific drilling programs consisting of twinned holes are not apparent.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database
	Discuss any adjustment to assay data.	No adjustment to assay data appears to have been made
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Downhole surveys are carried out using a hired Reflex EZ-gyro by the respective drilling companies on a regular basis, between 10-30m. The survey quality and control is unknown for the majority of historic drilling. More recent drilling has collar locations surveyed by unspecified GPS and DGPS equipment.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
		Downhole survey methods recorded include Eastman single and multishot, gyro, inferred and unknown methods.
	Specification of the grid system used.	MGA Zone 51 grid coordinate system is used. Some historic data drilled on local grid systems has been converted to this grid system
	Quality and adequacy of topographic control.	Digital ortho-imagery of the area from Kevron Aerial Surveys was used in the early 2000s to establish topographic control.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	No exploration results reported in this release. The nominal drillhole spacing is 20 m (northing) by 20 m (easting) in the core of the deposit, and increases to the margins of the deposit.
	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.	The mineralised domains at Otto Bore have demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code.
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	No sample composting has been carried out Historic 1990s RAB and RC drilling was generally sampled on 3 - 4m composites with significant gold results being resampled in 1m intervals Some more recent RAB and RC drilling was composited into 4m samples with any assay >250ppb, or >500ppb in resource definition programs, resampled to 1m.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The deposit is drilled towards grid east at angles varying from -60^0 and -90^0 to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the deposit.
	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.	All drilling from surface has been drilled as close to perpendicular as possible. This has reduced the risk of introducing a sampling bias as far as possible. No orientation based sampling bias has been identified at Otto Bore in the data at this point.
Sample security	*The measures taken to ensure sample security.*	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted

Section 2: Reporting of Exploration Results		
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, wilderness or national park and environmental settings.*	The Otto Bore resource is located on M36/421, M36/462, and M36/177. The mining leases have a 21 year life: M36/462 is held until 2022, M36/421 is held until 2023, and Mining Lease M36/177 is held until 2032. All are renewable for a further 21 years on a continuing basis. Mining Leases M36/421 and M36/462 are currently held by Saracen Metals Pty Limited (90%) and Black Mountain Gold NL (10%). The tenements are the subject of a purchase agreement with Saracen Metals Pty Limited whereby Saracen purchased a 90% share of the tenements from Norilsk Nickel Wildara Pty Ltd and Dalrymple Resources Pty Ltd. Mining Lease M36/462 is subject to a joint venture agreement (Agreement 127H/012 (129675)) between Oresearch NL, Dalrymple Resources NL, and Black Mountain Gold NL, as assigned to Saracen Metals Pty Limited at the time of purchase.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
		Mining Lease M36/177 is held by Saracen Metals Pty Limited (67.8%) and Agnew Gold Mining Company Pty Ltd (32.2%). The tenement is the subject of a purchase agreement between Norilsk Nickel Wildara Pty Ltd and Saracen Metals Pty Limited whereby Saracen has purchased the 67.8% share from Norilsk. Mining Lease M36/177 is the subject of a joint venture agreement (Agreement 163H/945 (104991)) between Plutonic Operations Ltd and Black Mountain Gold NL, as assigned to Saracen Metals Pty Limited at the time of purchase. There are no caveats relating to the tenements. All production is subject to a Western Australian state government NSR royalty of 2.5%. Tenement M36/462 is subject to a Westpac Mortgage (499141). All tenements are subject to a pastoral compensation agreement between Saracen Metals Pty Ltd and Weebo Station. There are no native title claims over the tenements. There is a newly identified Aboriginal Heritage on M36/462 that is yet to be confirmed and registered by an Anthropologist.
	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.	No known impediment to obtaining a licence to operate exists and the remainder of the tenements are in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Gold exploration was conducted near Otto Bore in the 1950s following the discovery of the nearby Goanna Patch mineralisation. Nippon picked up the ground to the north of Otto Bore in the late 1980s and intersected anomalous zones at the Otto Bore prospect, but mineralisation was not deemed extensive enough. Otto Bore was discovered by Kismet in 1990 after they followed up regional RAB traverses at Goanna Patch and encountered mineralisation. It was deemed not large enough for consideration. Leader Resources picked up the area and completed RAB drilling before also deeming the area not worthy of follow up. They did however mine the nearby Double A open cut between March 1990 and May 1991 and concentrated much of the exploration in this area. Forrestania and LionOre entered into a JV on the area in the early 2000s. RAB drilling following up anomalous values from historic drilling intersected mineralisation and was followed up with RC and DD drilling and the Otto Bore resource was defined. Norilsk acquired the deposit but conducted no further exploration in the Otto Bore region.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Otto Bore mineralised deposit is situated within a complex sequence of sheared basalts and felsic volcaniclastics. To north ultramafics occur as part of the stratigraphy. At depth mineralisation is typically associated with quartz veining and is more strongly developed at the rheological boundary between the sheared complex and the hangingwall and footwall units. The shear zone strikes roughly north-south and dips moderately (50-60degrees) to the west. NW trending structures cross cut the main shear and interplay positively with gold mineralisation. It is hypothesised that it's the interaction of these cross cutting structures and/or the folded network within the shear zone that defines the well delineated southerly plunging shoots. Mineralisation has been well tested along a strike length of 650m.
Drillhole 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation*	A total 253 holes have been used in the mineral resource and are deemed to be material. It is not practical to summarise all of the holes here in this release. All material data is periodically released on the ASX: 18/02/2019, 01/05/2018 Exclusion of the drilling information will not detract from the reader's view of the report.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
	• *above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	
Data aggregation methods	*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.*	All significant intercepts have been length weighted with a minimum Au grade of 0.5ppm. No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.
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 (e.g. 'down hole length, true width not known').*	Previous announcements included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths.
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.*	No diagrams are referenced in this release.
Balanced Reporting	*Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results from the recent campaign have been reported, irrespective of success or not.
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,*	Geophysical surveys including aeromagnetics and gravity have been carried out by previous owners to highlight and interpret prospective structures in the project area.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
	groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	*The nature and scale of planned further work (e.g. 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*	Saracen is currently exploring proximal to the Otto Bore deposit and is working on an exploration program which will test the lateral and down dip extents of the Otto Bore mineral resource.

Atbara (Greater Luvironza) JORC Table 1

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	*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.*	Sampling methods undertaken by Saracen at Greater Luvironza has consisted of reverse circulation (RC) drilling. Historic methods conducted since 1993 have included aircore (AC), rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips provide high quality representative samples for analysis. RC, RAB, AC and DD core drilling was completed by previous holders to industry standard at that time (1993- 2002).
	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 (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*	RC chips are cone split and sampled into 4m composite intervals and 1m intervals with total sample weights under 3kg Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Historical AC, RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis methods include fire assay, aqua regia, B/ETA and unspecified methods.
Drilling Techniques	*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.).*	The Greater Luvironza area was initially sampled by 85 AC holes, 170 RAB holes, 224 RC holes (assumed standard 5 ¼ ''bit size) and 22 surface diamond HQ core and unknown diameter holes. Saracen has completed 10 surface RC drill holes, 5 surface diamond holes Diamond holes were oriented using an Ezy-mark tool. Some historic surface diamond drill core appears to have been oriented by unknown methods.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >90%. RC sampling recoveries are recorded as a percentage based on a visual weight estimate; no historic recoveries have been recorded.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. Daily rig inspections are carried out to check splitter condition, general site and address general issues. The sample bags weight versus bulk reject weight is compared to ensure adequate and even sample recovery. Historical AC, RAB, RC and diamond drilling to industry standard at that time.
	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.	Diamond drilling has high recoveries meaning loss of material is minimal. There is no known relationship between sample recovery and grade for RC drilling. Any historical relationship is not known.
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, channel, etc.) photography.*	Logging of diamond drill core and RC chips records lithology, mineralogy, texture, mineralisation, weathering, alteration, veining and other features. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All diamond drillholes and exploration RC holes are logged in full. Every drill line is logged in grade control programs. Historical logging is approximately 95% complete.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All drill core is cut in half onsite using an automatic core saw. Samples are always collected from the same side. Historic diamond drilling has been half core sampled.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All exploration and GC RC samples are cone or riffle split. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. Historic AC, RAB and RC drilling was sampled using spear, grab, riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core and RC chips adhere to industry best practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	Duplicate sampling is carried out at a rate of 1:10 for exploration drilling and 1:20 for GC drilling and is sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be 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.*	RC chip samples, grade control chip samples and diamond core are analysed by external laboratories using a 40g or 50g fire assay with AAS finish. These methods are considered suitable for determining gold concentrations in rock and are total digest methods. Historic sampling includes fire assay, aqua regia, B/ETA and unknown methods.
	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.	No geophysical tools have been utilised for reporting gold mineralisation at Whirling Dervish.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	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.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intercepts are verified by the Geology Manager and corporate personnel.
	The use of twinned holes.	No specific twinned holes have been drilled at Greater Luvironza
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.
	Discuss any adjustment to assay data.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Downhole surveys are carried out using the Axis Champ north seeking Gyroscopic continuous inrod survey instrument taking readings every 18m (diamond drilling) or 30m (RC drilling) down hole as drilling progresses, with a continuous survey conducted at the end of the hole taking a reading every 1m metre. Previous holders' survey accuracy and quality is unknown
	Specification of the grid system used.	MGA_GDA94 zone 51 is used
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal spacing for early stage exploration drilling is 80m x 80m. Later stage exploration drilling is 40m x 40m
	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	RC drillholes were composited into 4m samples, with mineralised areas being resampled to 1m intervals. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable.
	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.	No significant sampling bias is thought to occur due to orientation of drilling in regards to mineralised structures.
Sample security	*The measures taken to ensure sample security.*	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures.

Section 2: Reporting of Exploration Results		
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, wilderness or national park and environmental settings.*	The Greater Luvironza area is located on M31/210, M31/219, and M31/220 The tenements are held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M31/219 and M31/220 have a 21 year life (held until 2020) and are renewable for a further 21 years on a continuing basis. Mining Lease M31/210 has a 21 year life (held until 2023) and is renewable for a further 21 years on a continuing basis. Mining Lease M31/210 is subject to two third party royalties and associated caveats (Caveat 62H/067 and Caveat 513935) Mining Lease M31/219 is subject to two third party royalties and one caveat (Caveat 63H/067). Mining Lease M31/220 is subject to two third party royalties and one caveat (Caveat 64H/067). Mining Lease M31/220 is subject to a bank mortgage (Mortgage 499142). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Leases M31/210 and M31/219 are subject to the Gindalbie Pastoral Compensation Agreement. Mining Lease M31/220 is subject to the Pinjin and Gindalbie Pastoral Compensation Agreements. Mining Leases M31/210, M31/220, and M31/219 are the subject of the Maduwongga native title claim (WC2017/001). The Mining Rehabilitation Fund applies to the tenements.
	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 tenements are in good standing and the licence to operate already exists.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Carosue Dam project area in which the Greater Luvironza area is located has been subjected to extensive gold exploration by numerous companies since 1991. Airborne geophysics conducted by Aberfoyle Resources in 1997 highlighted numerous targets in the project area with subsequent AC, RAB and RC drilling intersecting mineralisation.. Oriole Resources obtained the project in 1998 and, through wholly owned subsidiary company PacMin, completed closely spaced RC drilling to develop the Luvironza resource through to reserve status. Sons of Gwalia carried out minor drilling before their collapse and takeover of the project by St Barbara.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Greater Luvironza area is situated along the Kilkenny-Yilgangi fault zone on the boundary of the Steeple Hill and Mulgabbie domains. The lithology comprises primarily intermediate felsic volcaniclastic sandstones, intermediate tuffs and intermediate porphyry units intruded by granites of varying composition, with stratigraphy dipping generally to the east at approx. 60 degrees. Mineralization has a combined lithological and structurally control dipping parallel to the stratigraphy. Mineralization is continuous along strike in the footwall but is very discontinuous and patchy in the hanging wall structures and overall controlled by the general NW trending ductile faulting and is characterized by weak Hematite banding on the margins to intense hematite-silica alteration hosted in breccia zones adjacent to the faulting with high grade cores typically sericite-silica breccia. Pyrite is the dominant sulphide.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Drillhole 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation* • *above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	A total of 868 holes have been used in the mineral resource and are deemed to be material. It is not practical to summarise all of the holes here in this release. Future drill hole data will be periodically released or when a results materially change the economic value of the project. Exclusion of the drilling information will not detract from the reader's view of the report.
Data aggregation methods	*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.*	All significant intercepts have been length weighted with a minimum Au grade of 1ppm. No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.
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 (e.g. 'down hole length, true width not known').*	Previous announcements included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths.
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.*	No Diagrams are referenced in this release.
Balanced Reporting	*Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results from previous campaigns have been reported, irrespective of success or not.
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.*	No substantive data acquisition has been completed in recent times.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Further work	*The nature and scale of planned further work (e.g. 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*	Extensional exploration for the Greater Luvironza area at this time is under review. Recent results are likely to be followed up with urgency.

Deep South – Mt Celia JORC Table 1

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	*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.*	Sampling methods undertaken by Saracen at Deep South have included reverse circulation drillholes (RC), aircore drilling (AC), surface and underground diamond drillholes (DD), underground face chip sampling and RC grade control drilling within the pit. Historic sampling methods conducted since 1983 have included rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond, face chip and RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC and UG face chips and diamond core provide high quality representative samples for analysis. RC, RAB and DD core drilling was completed by previous holders to industry standard at that time (1983- 2004).
	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 (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*	RC chips are cone or riffle split and sampled into 1m intervals with total sample weights under 3kg Diamond core is NQ sized, sampled to 1m intervals or geological boundaries where necessary and cut into half core to give sample weights under 3 kg. UG faces are chip sampled to geological intervals (0.2 to 1m). Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Some grade control RC chips were analysed in the Saracen on site laboratory using a PAL (pulverise and leach) method. Historical RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis methods include fire assay, aqua regia, atomic absorption spectroscopy and unspecified methods.
Drilling Techniques	*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.).*	The deposit was initially sampled by 114 RAB holes, 211 RC holes (assumed standard 5 ¼ ''bit size) and 29 surface HQ and unknown diameter diamond core holes. Saracen has completed 15 surface RC precollars with NQ diamond tail drill holes (precollars averaging 185m, diamond tails averaging 140m) , 3 geotechnical surface diamond NQ drillholes, 57 RC holes from surface and 107 grade control RC holes within the pit. Underground sampling activities have included 646 NQ diamond drillholes and 1596 faces. Exploration of the broader Deep South area has included 312AC holes. Diamond tails were oriented using an Ezi-mark tool. A limited amount of historic surface diamond drill core appears to have been oriented by unknown methods.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sampling recoveries are recorded in the database as a percentage based on a visual weight estimate; limited historic recoveries have been recorded. Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >98%. Limited historic diamond recoveries have been recorded.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During AC and RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. UG faces are sampled left to right across the face allowing a representative sample to be taken due to the vertical nature of the orebody. During GC campaigns the sample bags weight versus bulk reject weight are compared to ensure adequate and even sample recovery. Historical RAB, RC and diamond drilling to industry standard at that time.
	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.	There is no known relationship between sample recovery and grade for RC or AC drilling. Diamond drilling has high recoveries meaning loss of material is minimal. Any historical relationship is not known.
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, channel, etc) photography.*	Logging of RC and AC chips and diamond drill core records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference while remaining core is stored in core trays and archived on site. All faces are photographed and mapped. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All AC, RC and diamond drillholes and grade control holes are logged in full. Historical logging is complete.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All drill core is cut in half onsite using an automatic core saw. Some grade control diamond holes have been full core sampled. Samples are always collected from the same side. Some historic drillcore was half core sampled, or sampled via unknown methods.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration and grade control RC samples are cone or riffle split. AC drillholes are spear sampled. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. UG faces are chip sampled using a hammer. Historic RAB and RC drilling was sampled using riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core, UG face chips and RC chips adhere to industry best practice. It is conducted by a commercial laboratory or onsite laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory or onsite laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes of 3kg are considered to be appropriate given the grain size (90% passing 75 microns) of the material sampled.
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.*	RC and UG chip samples and diamond core are analysed by external laboratories using a 50g fire assay with AAS finish. AC samples are analysed using a 25g aqua regia digest. These methods are considered suitable for determining gold concentrations in rock and are total digest methods. GC samples were analysed in the Saracen onsite laboratory using a pulverise and leach method. This method is a partial digest. Historic sampling includes fire assay, aqua regia, atomic absorption spectroscopy and unspecified methods.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
	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.	No geophysical tools have been utilised for reporting gold mineralisation.
	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.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration AC, RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intercepts are verified by the Geology Manager and corporate personnel.
	The use of twinned holes.	No specific twinned holes have been drilled at Deep South but grade control drilling has confirmed the width and grade of previous exploration drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.
	Discuss any adjustment to assay data.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Drillhole collars within the pit and immediate surrounds are picked up by company surveyors using a Trimble R8 GNSS (GPS) with an expected accuracy of +/-8mm. All underground drillhole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/-2mm. Underground faces are located using a Leica D5 disto with and accuracy of +/- 1mm from a known survey point. Downhole surveys are carried out using the DeviFlex RAPID continuous inrod survey instrument taking readings every 5 seconds, In and Out runs and reported in 3m intervals, survey accuracy +-3:1000. A number of drillholes have also been gyroscopically surveyed. Previous holders' survey accuracy and quality is unknown
	Specification of the grid system used.	A local grid system (Safari Bore) is used at Deep South. The two point conversion to MGA_GDA94 zone 51 is: SBEast SBNorth RL MGAEast MGANorth RL Point 1 51000 34000 0 451137.753 6734157.921 0 Point 2 51000 30000 0 451137.896 6730157.896 0 Historic data is converted to the Safari Bore local grid upon export from the database.
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal spacing for drilling is 20m x 40m and 40m x 40m
	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	AC drilling is sampled in 4m composites, no other sample compositing has been utilised Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable.
	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.	No significant sampling bias has been recognised due to orientation of drilling in regards to mineralised structures.
Sample security	*The measures taken to ensure sample security.*	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted.

Section 2: Reporting of Exploration Results

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, wilderness or national park and environmental settings.*	The Deep South pit is located on M39/740. The tenement is held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Lease M39/740 has a 21 year life (held until 2024) and is renewable for a further 21 years on a continuing basis. Mining Lease M39/740 is subject to one royalty agreement, one caveat (151H/067) and a bank mortgage (499142). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Lease M39/740 is subject to the Edjudina Pastoral Compensation Agreement. There are no registered Aboriginal Heritage sites within Mining Lease M39/740. The Mining Rehabilitation Fund applies to Mining Lease 39/740.
	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 tenement is in good standing and the licence to operate already exists
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Exploration in the vicinity of Deep South commenced in the 1980's with drilling around the historic Deep Well workings 500m north of Deep South, as well as regional RC drilling carried out by Western Mining Corporation. Initial auger sampling carried out over Deep South by Pancontinental Mining in 1994 failed to detect mineralisation due to the transported material overlying the deposit. Wide spaced east angled RAB drilling carried out by Goldfields in 1999 intersected mineralisation, but results were not repeated in further drilling and the project area was sold to Sons of Gwalia. Sons of Gwalia completed extensive RC and diamond drilling to define the Deep South resource, with mining operations undertaken in 2004 before their collapse and takeover by St Barbara.
Geology	*Deposit type, geological setting and style of mineralisation.*	Deep South lies on the eastern margin of the Norseman – Wiluna greenstone belt. This belt is differentiated into numerous structural-stratigraphic domains separated by major regional structures, with Deep South located within the narrow NNW trending Linden Domain. The lithology comprises metasedimentary and felsic volcaniclastic rocks with an ultramafic and high magnesium basalt layer.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
		Mineralisation occurs in two loads concordant to geology, the Butler and Scarlett lodes, and is confined between layered metasedimentary and felsic volcaniclastic units on both the hangingwall and footwall. The two lodes are separated by a high magnesium basalt and an ultramafic unit. The Butler lode is located in the hangingwall and is strongly silica and pyrrhotite-pyrite altered, and well laminated (appearing like a BIF within the oxidise portion). The contrasting physical properties of this unit to the surrounding unit have created fluid pathways and traps, as well as the high iron content of the unit providing a chemical trap, for gold deposition The Scarlett lode is strongly weathered in the upper oxide portion to a gossanous material comprising hematite, goethite and quartz fragments. Weathering at Deep South has been preferential along Scarlett lode due to its high carbonate content. Where fresh, the lode is a fine grained banded carbonate unit with variable pyrrhotite, pyrite and magnetite. It is weakly foliated in line with the regional foliation.
Drillhole 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation* • *above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *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.*	All material data is periodically released on the ASX: 15/02/2018, 27/11/2017, 26/09/2017, 01/05/2017, 21/02/2017, 17/12/2016, 07/09/2016, 11/05/2016, 23/02/2016, 23/07/2013, 10/10/2012, 31/07/2012, 03/06/2011, 29/07/2010 Future drill hole data will be periodically released or when a results materially change the economic value of the project. Exclusion of the drilling information will not detract from the reader's view of the report.
Data aggregation methods	*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.*	All significant intercepts have been length weighted with a minimum Au grade of 1ppm, or 20ppb for AC drilling No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.
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').*	Previous announcement included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths. This remains consistent with other announcements.
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.*	All significant exploration results released by Saracen are accompanied by the appropriate diagrams and maps at the time of the release.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Balanced Reporting	*Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results from the recent campaign have been reported, irrespective of success or not.
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.*	A small geochemical program was undertaken in 2013 to determine the key features associated with mineralisation. The program gave some insight into the local characteristics of the Scarlett and Butler lodes. More work is needed to fully appreciate the geochemical signature associated with the mineralisation. A detailed gravity survey was recently completed at Deep South on a 400m x 100m grid to assist in the interpretation of the basement geology. The data is currently being processed and interpreted. Saracen has recently completed a biogeochemical sampling program at Deep South involving the sampling of new leaf growth on established *Acacia* trees on a 100m x 800m spacing. Samples were collected from trees of a consistent species and height. The biogeochemical program was an orientation survey only and results will not be used in any calculation of mineralisation. The leaves were washed, dried and pulverised followed by an aqua regia digest for multielement determination.
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*	Surface and underground drilling will continue, and regional aircore program will continue across the Mt Celia district.