Saracen

Saracen Mineral Holdings Limited

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Outstanding extensional drill results further underpin 400,000ozpa strategy

Strike length of recent Atbara discovery increases to 650m, open in all directions

HIGHLIGHTS

Carosue Dam

- At **Karari**, thick high-grade extensional drill results included **27m @ 8.1g/t, 23m @ 7.1g/t, 20m @ 8.0g/t, 17m @ 7.8g/t** and **30m @ 4.0g/t**

- At **Whirling Dervish**, thick high-grade extensional drill results included **37m @ 3.5g/t, 31m @ 3.4g/t** and **24m @ 5.1g/t,** and **19m @ 4.4g/t (300m north of Ore Reserve)**

- At the **Atbara discovery, just 4km from the Carosue Dam mill**, drill results included (**aggregated**):
  - **104m @ 1.4g/t** (including 64m @ 1.6g/t, 16m @ 1.8g/t and 24m @ 0.5g/t)
  - **130m @ 1.1g/t** (including 60m @ 1.0g/t, 22m @ 1.3g/t and 48m @ 1.0g/t)
  - **82m @ 1.3g/t** (including 47m @ 1.1g/t, 12m @ 1.5g/t, 10m @ 1.1g/t and 13m @ 1.9g/t)
  - **91m @ 1.1g/t** (including 62m @ 1.3g/t and 29m @ 0.7g/t)

- Atbara has merged with the adjacent Qena discovery; The combined system (now called Atbara) has a **strike length of 650m** and **remains open in all directions**

Thunderbox

- At **Thunderbox A Zone**, extensional drill results included **44m @ 2.0g/t** and **25m @ 2.9g/t;** infill results included **59m @ 2.3g/t** and **86m @ 2.1g/t**

- At **Thunderbox D Zone open pit**, infill drill results included **43m @ 3.7g/t**, **73m @ 1.9g/t** and **43m @ 1.6g/t**

Regional exploration

- **New gold anomalies discovered** at both Mt Celia (Carosue Dam) and Bannockburn (Thunderbox)

- **Carosue Dam Seismic Project** –the **3D seismic survey has commenced** and is due for completion in the **September quarter**

Saracen Managing Director Raleigh Finlayson said the newly-discovered mineralisation would feed into the upcoming Reserve and Resource update, which would in turn underpin the Company's seven-year growth strategy.

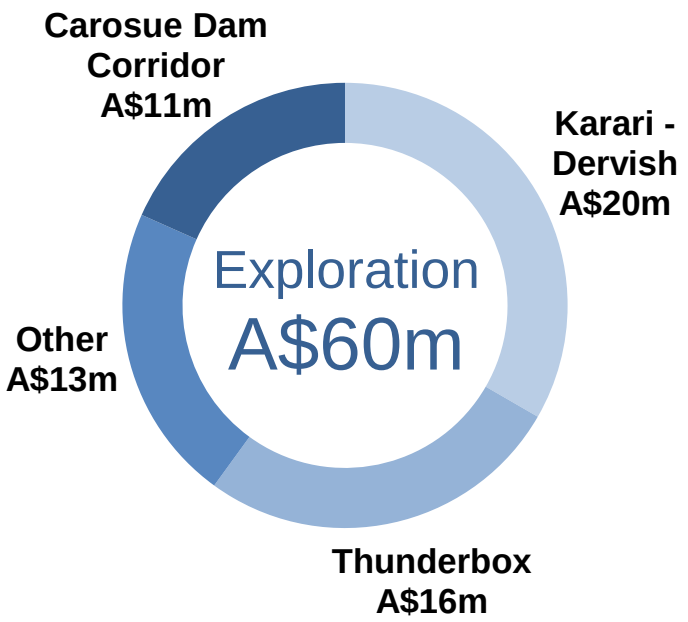
"Our aim is to grow production to 400,000oz a year while maintaining long mine lives and these outstanding results show we are on track to achieve that goal," Mr Finlayson said.

"We are finding extensive mineralisation outside of the existing Resources at both Carosue Dam and Thunderbox, including the rapidly emerging discovery at Atbara."

Next Chapter of Growth in FY19

Exploration and drilling has increased significantly across Saracen's portfolio with a **A$60m investment planned over FY19**.

The A$60m of exploration can be broken up into the following items and estimated spend:



At the end of March 2019 A$38m of the total has been invested with strong results across the portfolio.

The exploration success has prompted an increase in the FY19 capital development budget by A$35m (previously announced). This will accelerate underground development at Carosue Dam and Thunderbox, ensuring both the increased production rate and mine lives are maintained.

Carosue Dam Operations – Drilling Update

The accelerated exploration and resource definition effort continues across the key projects at Carosue Dam.

Further results from the increased activity highlight the potential to unlock significant value and extend mine life.

Drilling has been focused on:

- Key operating underground mines (Karari-Dervish)
- Carosue Dam Corridor, including the recent discovery at Atbara

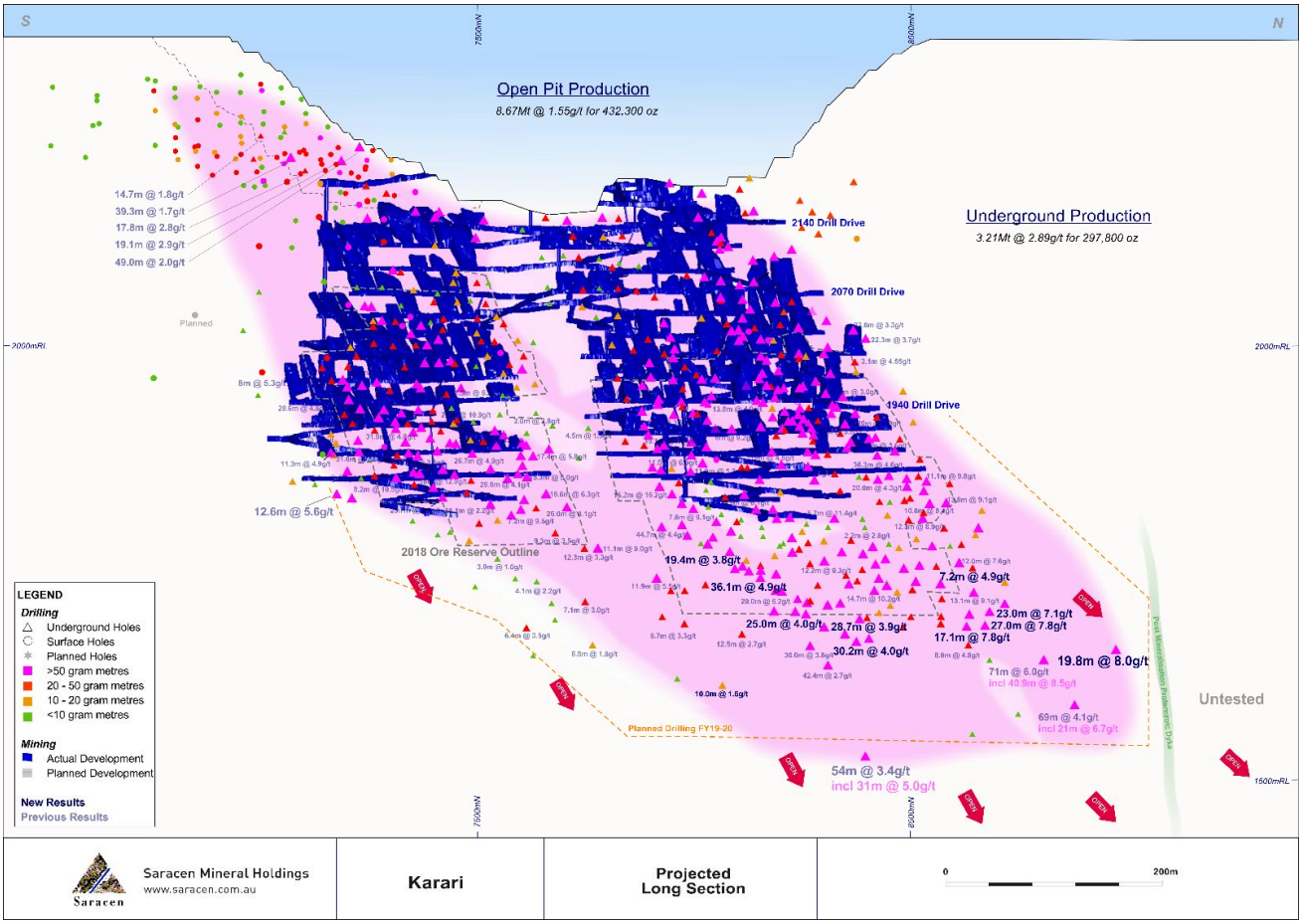
Karari Underground

Drilling at Karari has been focused on Resource definition below the current Ore Reserve in the north of the mine.

Drilling in the northern area continues to deliver very strong results. The most northern hole to date hit the lode **100m** north of the previous high grade results. Notably the grade of the recent drilling is also high. Combined with strong widths this further emphasises the future benefits of paste fill which is currently being commissioned.

Significant results include **27.0m @ 7.8g/t**, **23.0m @ 7.1g/t** and **19.8m @ 8.0g/t**. These highly encouraging results remain open at depth.

Figure 1 – Karari Long Section, New Drill Results



A third underground rig has been mobilised to Karari for the remainder of the current June quarter. The ongoing focus will be resource drilling to increase the Indicated Resource ahead of the next Reserve update.

Below is a table of significant Karari extensional intercepts:

Significant drill results include:	
KRRD386	27.0m @ 8.1g/t
KRRD383	23.0m @ 7.1g/t
KREX045A	19.8m @ 8.0g/t
KRRD369	36.1m @ 4.9g/t
KRRD385	17.1m @ 7.8g/t
KRRD391	30.1m @ 4.0g/t

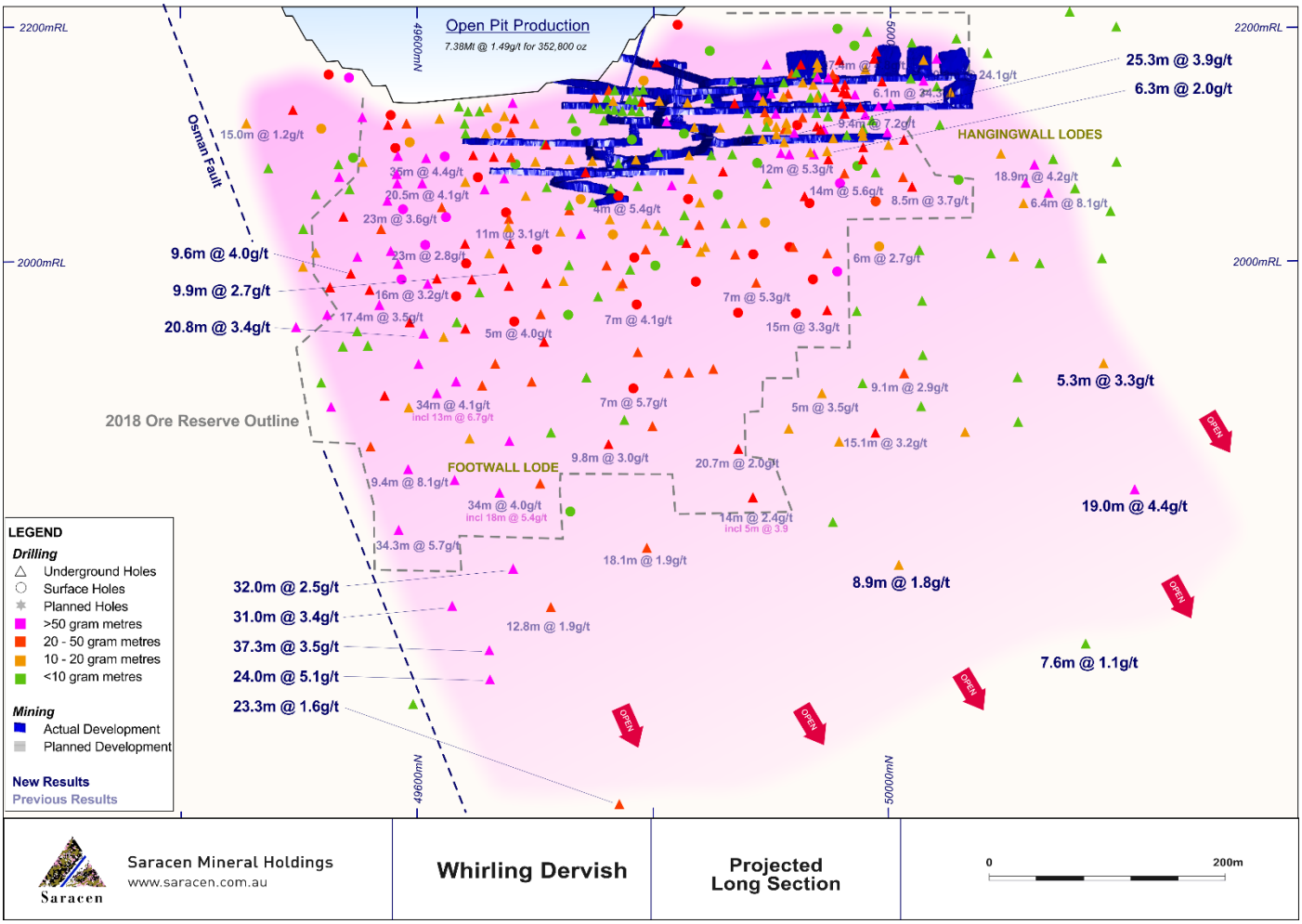
Whirling Dervish Underground

With the return of the second underground rig late in the March quarter 2019, drilling has been balanced between extensional exploration in the north, Resource definition in the south and infill drilling proximal to development.

Resource extension drilling in the south has continued to highlight the thick high grade shoot controlled by the Osman Fault, with strong results including **37.3m @ 3.5g/t**, **31.0m @ 3.4g/t** and **24.0m @ 5.1g/t.**

Extensional exploration drilling to the north has also returned very encouraging results. The most significant result was **19.0m @ 4.4g/t**, which was intersected **300m north of the current Ore Reserve**.

Figure 2 – Whirling Dervish Long Section, New Drill Results



Recent infill drilling in the upper areas of the resource has returned a number of strong results including **20.8m @ 3.4g/t** and **25.3m @ 3.9g/t.**

Below is a table of significant Whirling Dervish intercepts:

Significant drill results include:		
WDRD092A	37.3m @ 3.5g/t	FW
WDRD090	31.0m @ 3.4g/t	FW
WDRD095	24.0m @ 5.1g/t	FW
WDEX053	19.0m @ 4.4g/t	FW
WDGC215	25.3m @ 3.9g/t	HW

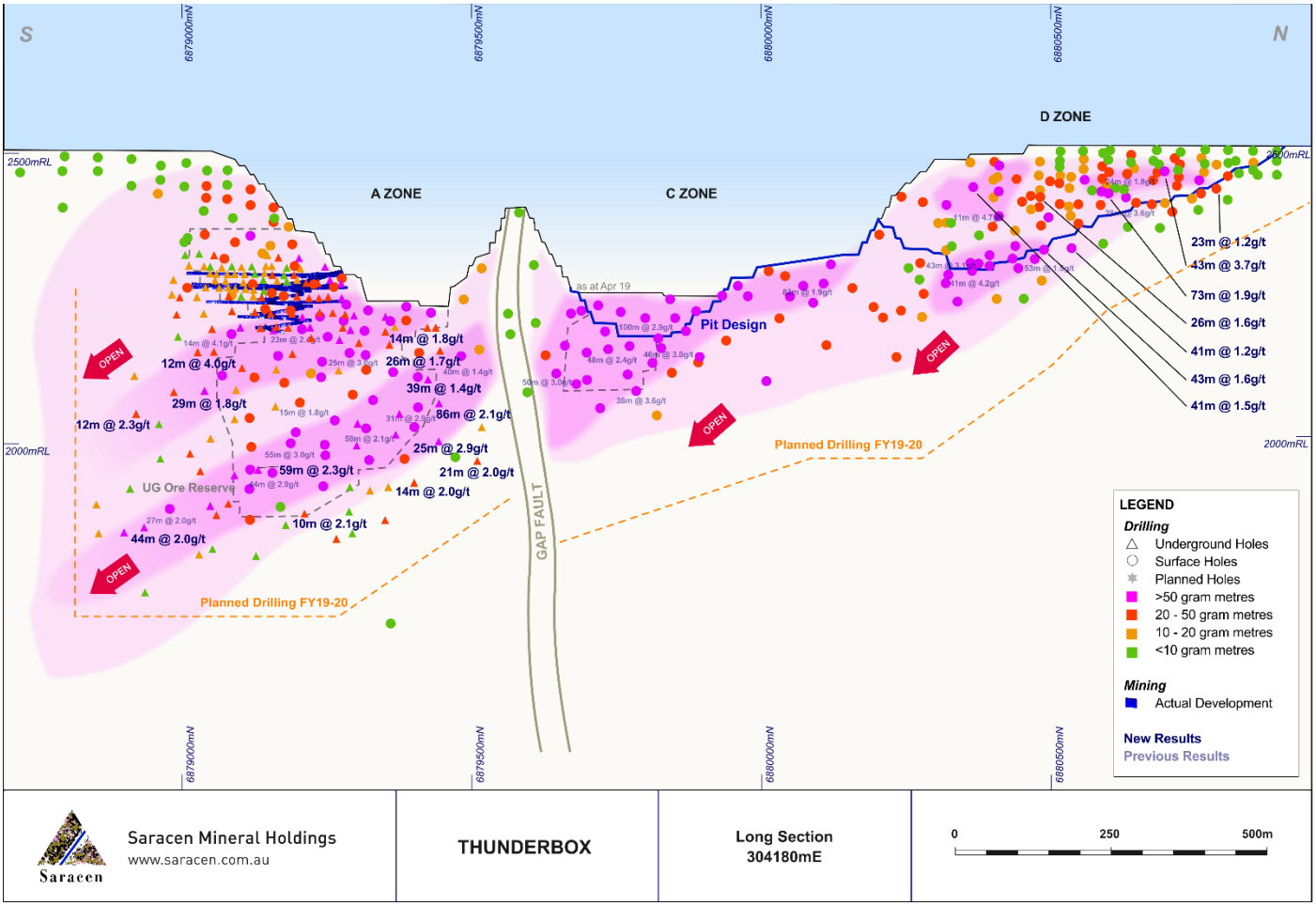
Thunderbox Operations – Drilling Update

Thunderbox Underground

Recent underground drilling has been focused on testing the extents of the known A Zone mineralisation and increasing the data density outside the current Ore Reserve.

This drilling has continued to demonstrate the **consistent and persistent** nature of the Thunderbox mineralisation. Extensional exploration in the down plunge position has again intersected solid mineralisation. Extensional results include **44m @ 2.0g/t** and **25m @ 2.9g/t.**

Figure 3 – Thunderbox Long Section, New Drill Results



Infill results in the upper and central areas of the A Zone have also been positive. Highlights include **59m @ 2.3g/t** and **86m @ 2.1g/t**.

Below is a table of significant Thunderbox A Zone underground intercepts:

Significant drill results include:	
THEX015	44.2m @ 2.0g/t
THRD028	59.4m @ 2.3g/t
THRD019	86.1m @ 2.1g/t
THRD020	25.0m @ 2.9g/t
THGC121	12.1m @ 4.0g/t
THGC122	29.3m @ 1.8g/t

Thunderbox D Zone open pit

Following earlier drill programs during FY18-19, this third phase of infill drilling in the D-Zone continues to deliver promising results.

The current program has returned a number of thick high grade intersections including **43m @ 3.7g/t** and **73m @ 1.9g/t.** The drilling has further improved the confidence in the resource.

The recent program included a number of diamond holes that has provided valuable lithological and structural data.

The D Zone mineralisation is associated with the key dacite host which is intercalated with andesitic volcanoclastics.

Below is a table of significant Thunderbox D Zone infill intercepts:

Significant drill results include:	
TBRC061	43m @ 3.7g/t
TBRC063	73m @ 1.9g/t
TBRC068	43m @ 1.6g/t
TBRC073	41m @ 1.5g/t
TBRC067	26m @ 1.6g/t

Regional Exploration – Update

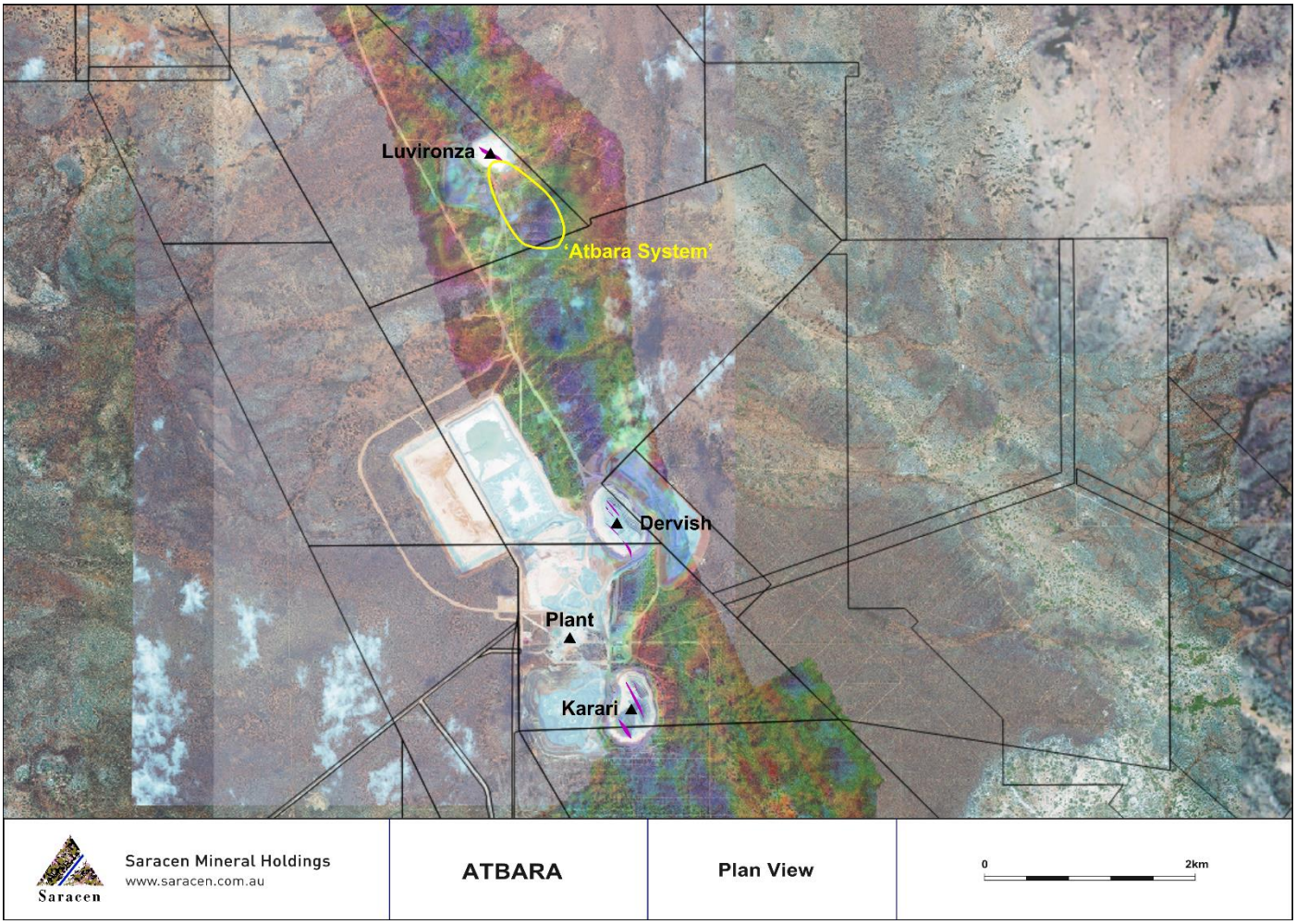
Atbara Discovery (Carosue Dam Corridor)

Drilling along the highly prospective Carosue Dam Corridor (Figure 4) has delivered early success, with a **significant new discovery at Atbara**, only 4km north of the mill.

This exciting new discovery will be the focus of Corridor drilling activities for the remainder of FY19.

The phase 1 framework drill testing has been **highly successful** in identifying **thick zones of mineralisation** in areas where prior drill testing has been shallow and broad, and largely ineffective.

Figure 4 – Location, Carosue Dam Corridor 'Atbara System'



Following the significant result at the Atbara discovery (**40m @ 3.8g/t**) late in the December quarter 2018, a staged follow up program is currently being executed.

Drilling has focused on extensional and infill holes which aimed at building context around the initial encouraging results.

The system has now been identified over **650m** of strike and **remains open in all directions**.

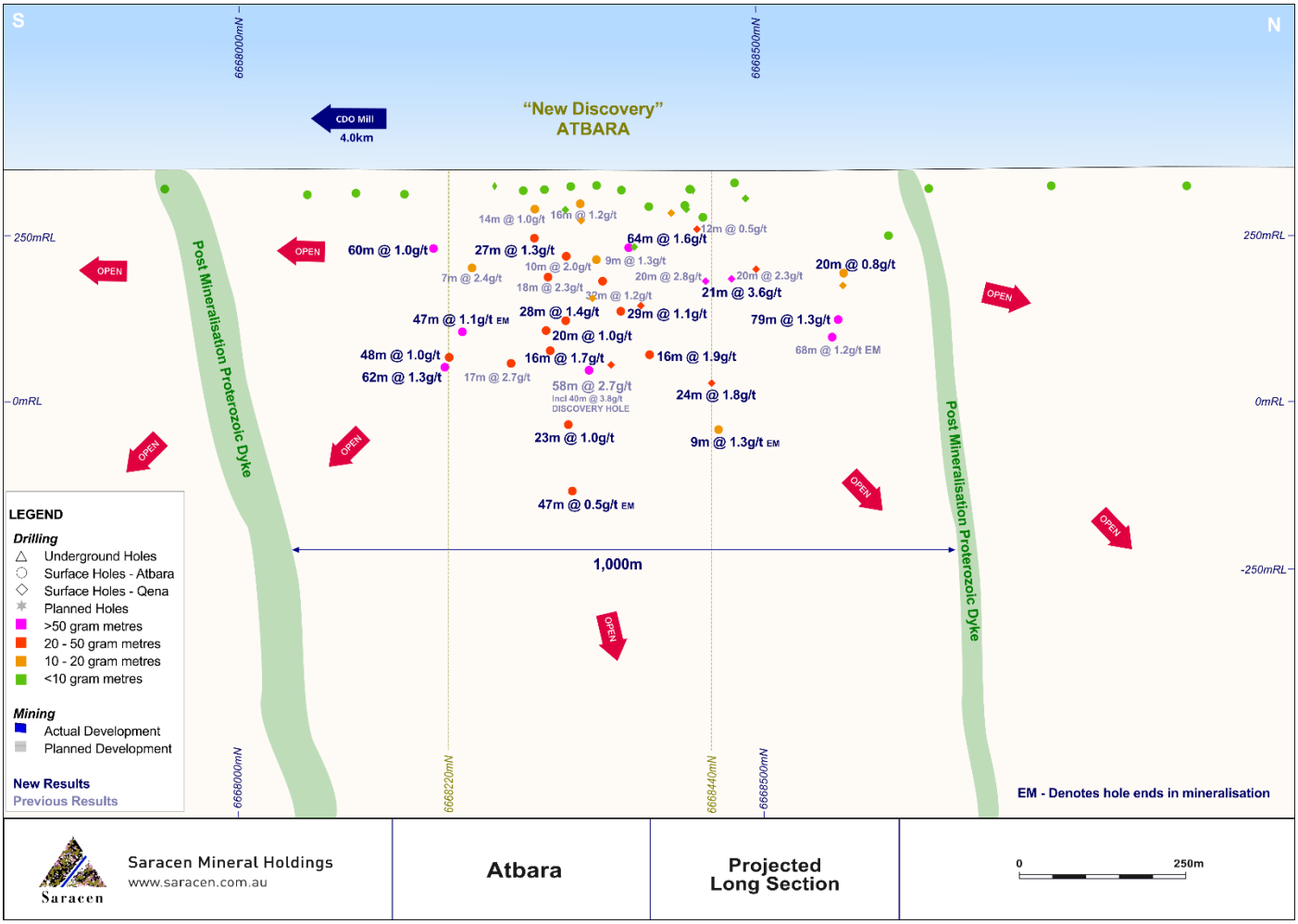
The Atbara mineralisation is **entirely hosted in a large monzonite** complex bound to the east and west by a succession of intermediate volcanoclastic sediments, syenite and monzonite intrusives.

The mineralisation is contained within several broad domains characterised by the presence of narrow quartz-biotite-calcite-pyrite veins and quartz-sulphide (pyrite-molybdenite-chalcopyrite) veins of varying orientations.

Based on broad drilling to date, the mineralised domains appear to be continuous in the northwest direction with a number of shorter domains that have a shallow dip to the east and west.

Significant non-aggregate or individual results include **64m @ 1.6g/t, 62m @ 1.3g/t** and **60m @ 1.0g/t**.

Figure 5 – Atbara Long Section, New Drill Results



Further frame work drilling will be completed over the next few months to build a better understanding of this evolving mineralised system.

A number of samples are being collected for early metallurgical test work.

Figure 6 – Atbara, Hosted in large monzonite complex

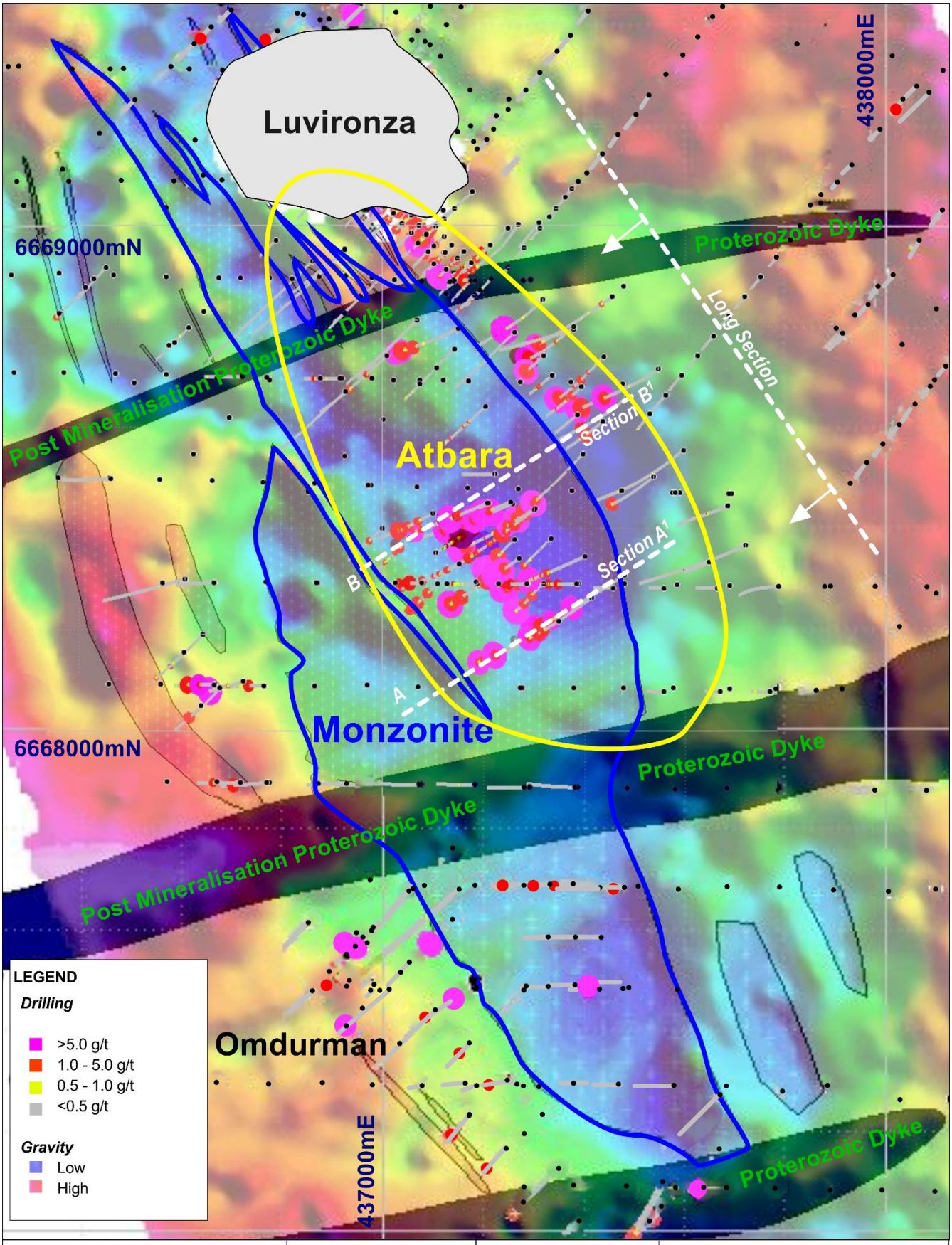


Figure 7 – Atbara Cross Section, New Drill Results

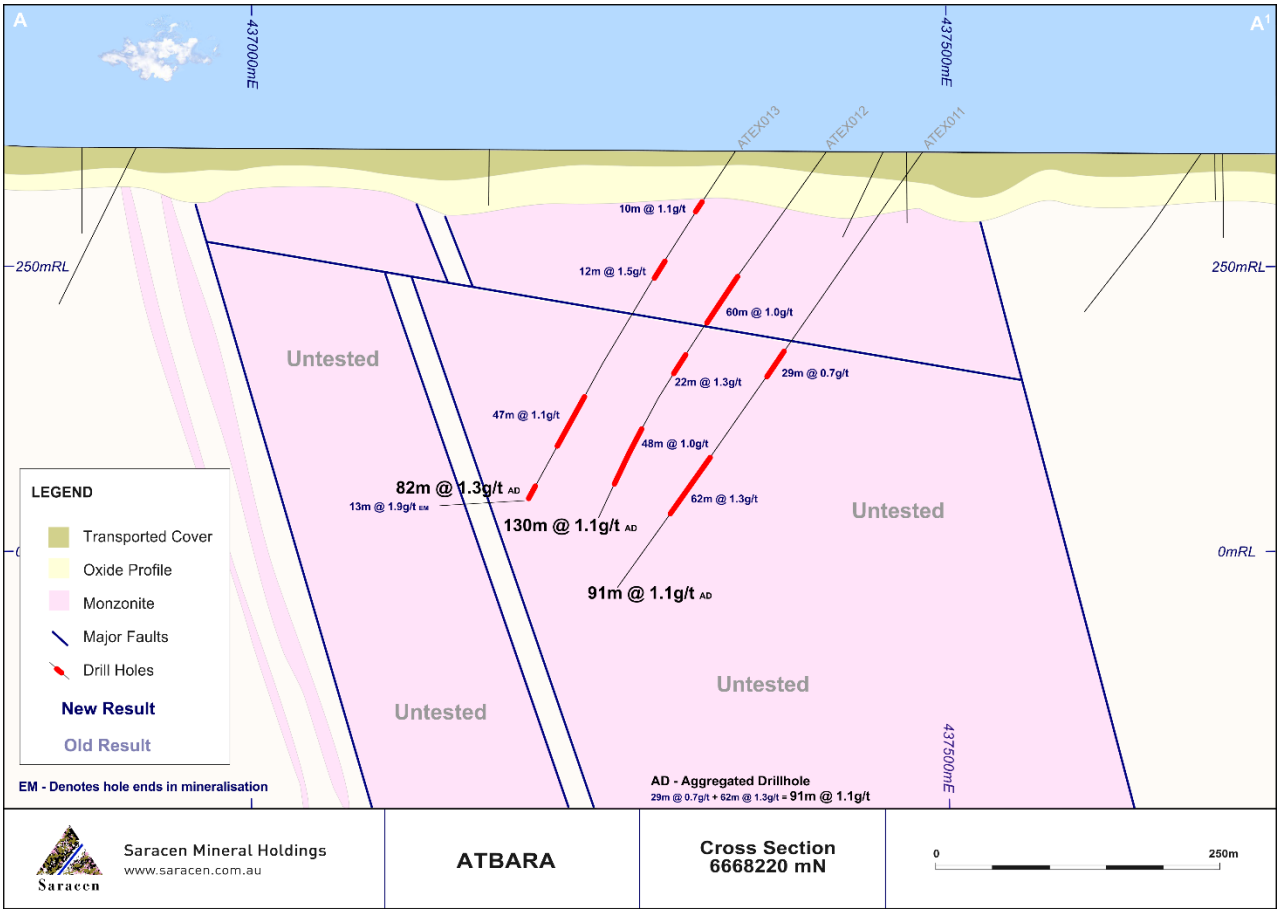
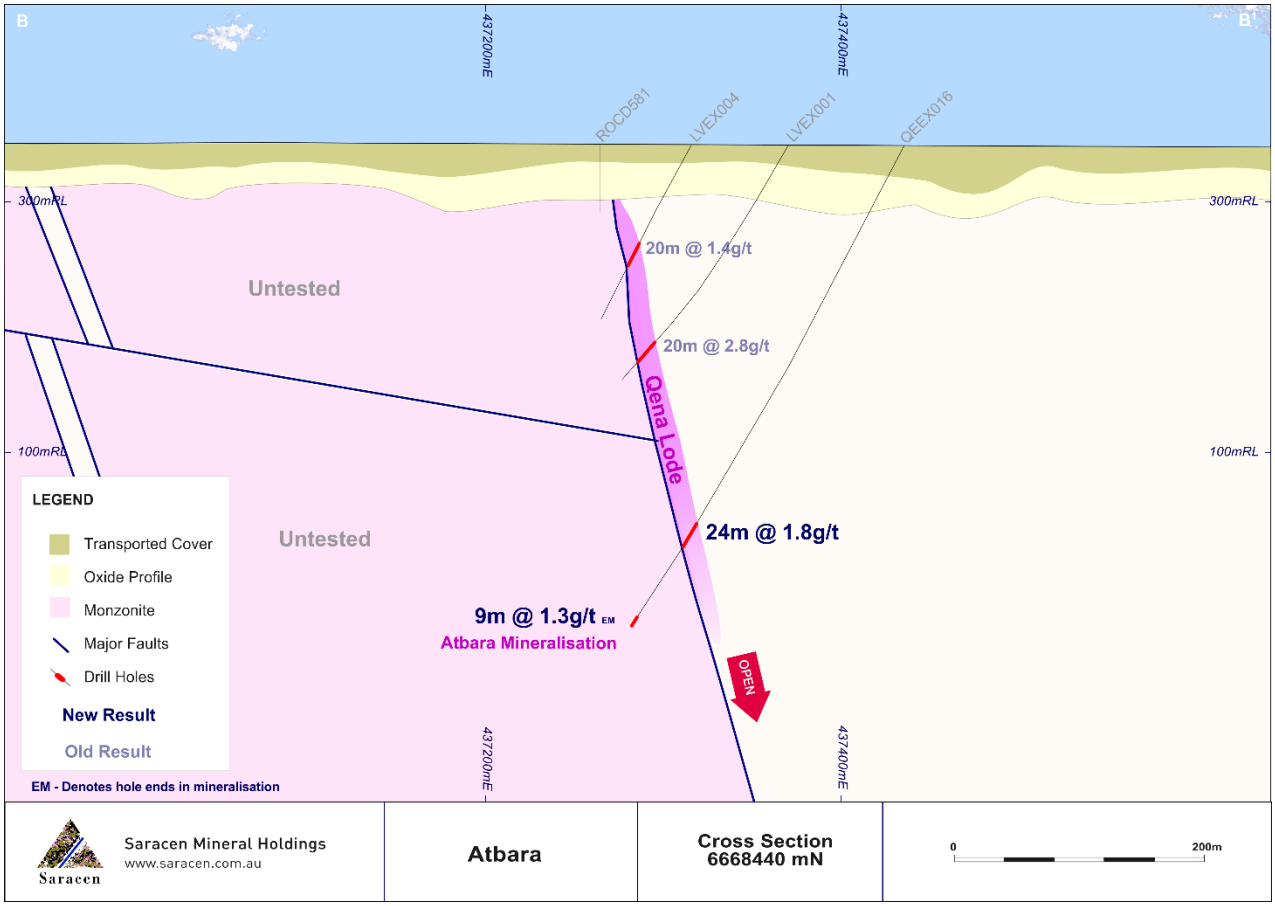


Figure 8 – Atbara Cross Section, New Drill Results



Below is a table of significant Atbara exploration intercepts:

Significant drill results include:		
	Aggregated	Primary (or including)
ATEX009A	**104.0m @ 1.4g/t**	64m @ 1.6g/t
		16m @ 1.8g/t
		24m @ 0.5g/t
ATEX012	**130.0m @ 1.1g/t**	60m @ 1.0g/t
		22m @ 1.3g/t
		48m @ 1.0g/t
ATEX013	**82.0m @ 1.3g/t**	10m @ 1.1g/t
		12m @ 1.5g/t
		47m @ 1.1g/t
		13m @ 1.9g/t
ATEX011	**91.0m @ 1.1g/t**	29m @ 0.7g/t
		63m @ 1.3g/t
QEEX003		28m @ 1.4g/t
ATEXDD003		27m @ 1.3g/t
QEEX016		24m @ 1.8g/t
QEEX017		21m @ 3.6g/t

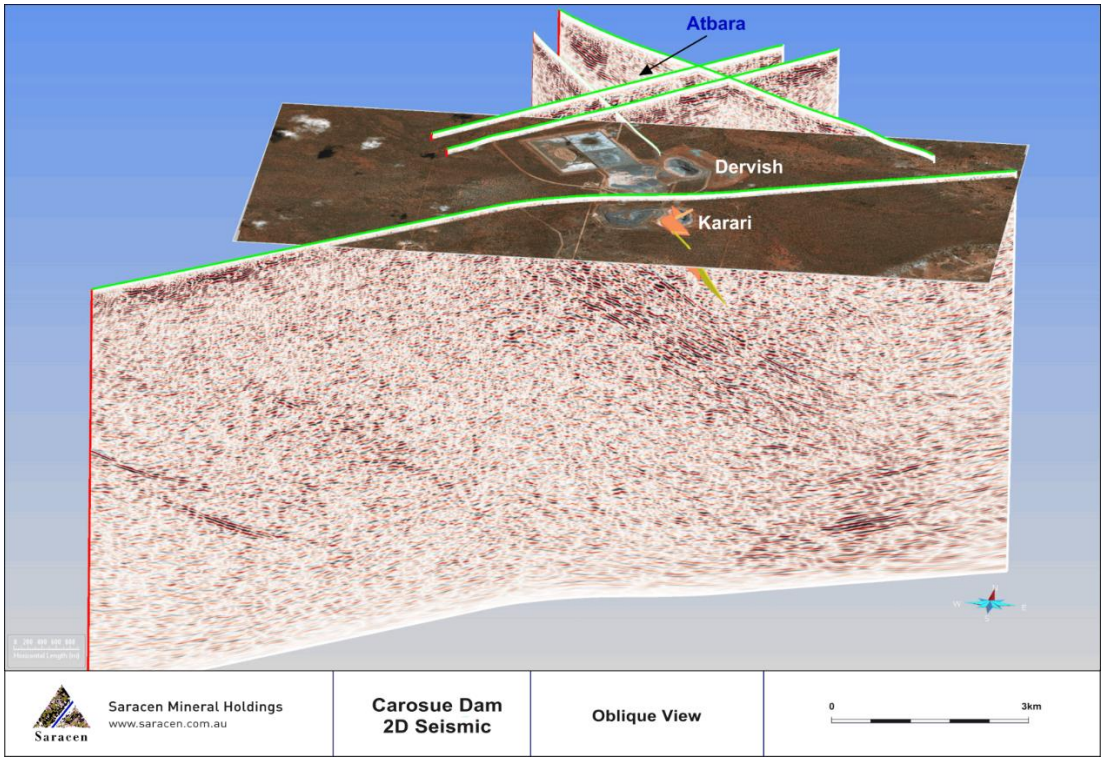
Carosue Dam Seismic Project

In January 2019 five 2D seismic lines were collected across key areas of the Carosue Dam Corridor. This 2D data acquisition was a precursor to a much larger and more detailed 3D seismic survey.

The 2D data has now been processed and is currently under review. This review aims to identify the large scale architecture of the Carosue Dam basin and key controlling structures in the district.

The 3D seismic data acquisition is underway. The 3D survey will cover the well-endowed corridor from south of Karari through to the north of the new Atbara discovery.

Figure 9 – Carosue Dam, 2D Seismic data



Completion of the 3D seismic survey is anticipated **during the September quarter 2019**. This survey will provide an extremely valuable dataset for future exploration targeting from late 2019.

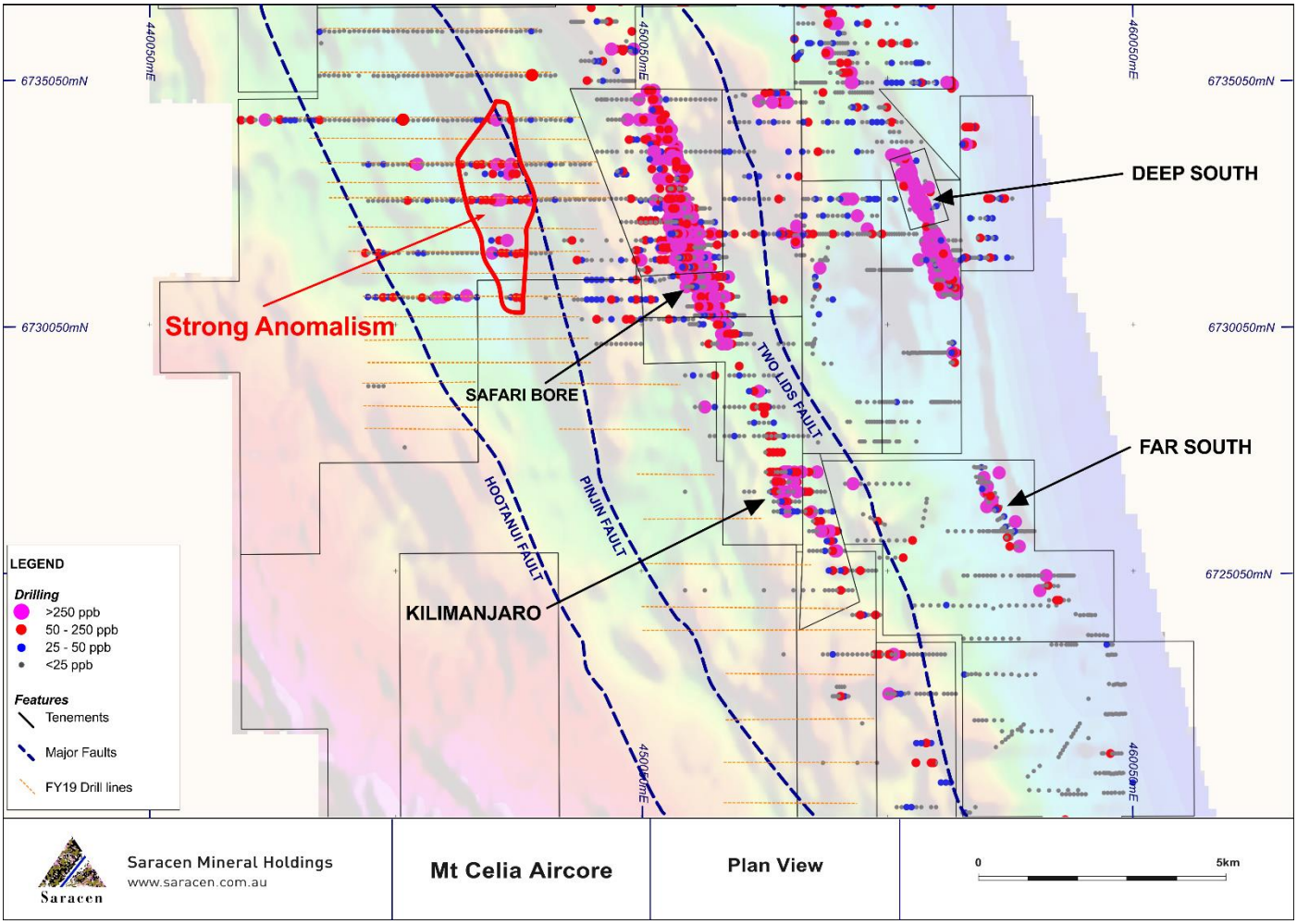
Mt Celia

The wide spaced regional aircore program targeting the largely unknown geology west of the Pinjin Fault has continued during the March quarter 2019.

The broad pattern (800m x 100m) has **successfully identified a large anomaly** to the west of Safari Bore. This significant anomaly has a defined strike length of 3.6km and is up to 1.2km wide.

The anomaly sits in the favourable conceptual structural position defined by the magnetics and gravity datasets. The area has a striped regolith profile, highlighting the primary nature the anomalism. Fresh rock bottom of hole chips indicate the anomaly is associated with sheared volcanoclastics, variably intruded by syenites, with strong sericite alteration and sulphides.

Figure 10 – Mt Celia, Aircore drilling results



Aircore drilling is ongoing at Mt Celia, with a focus to increase the drill coverage over the current anomaly. This will better define the core of the anomaly in preparation for follow up in FY20.

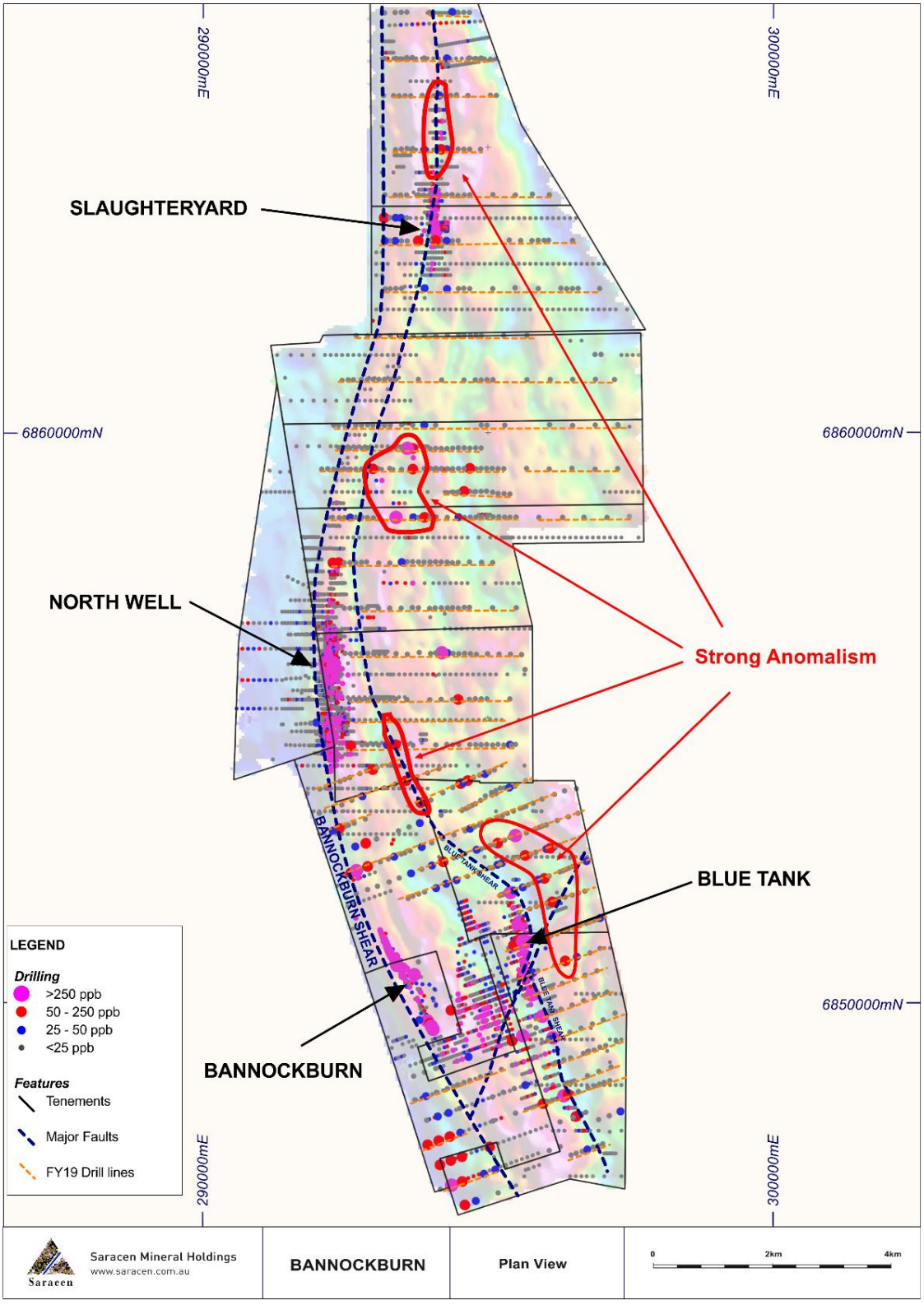
Bannockburn

The Bannockburn project is a large mineralised system that extends over a 20.0km strike length. The major regional Bannockburn shear has been variably tested by previous operators, and recent MT-AMT along with detailed gravity surveys have highlighted a complex structural architecture in the hangingwall of the Bannockburn Shear.

The first phase of the regional aircore program is now complete with **35,605 meters** drilled in FY19.

Results from the drilling has been positive with **strong anomalism identified** in a number of locations, both in new positions and along strike from known mineralisation. Recent results up to **1660ppb** and **815ppb** have been returned. Follow up to these anomalies will be completed in FY20.

Figure 11 – Bannockburn, Aircore drilling results



Corporate Structure:

Ordinary shares on issue:	820.3m
Unvested employee performance rights:	17.3m
Market Capitalisation:	A$2.2b (share price A$2.70)
Cash, bullion and investments (31 March):	A$153.3m
Debt:	Nil
Substantial Shareholders:	Van Eck Global 12.1% BlackRock Group 8.2% Vinva 5.8%

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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 APRIL 2019										Downhole	
Hole	**Easting**	**Northing**	**RL**	**Depth**	**Azimuth**	**Dip**		**From (m)**	**To (m)**	**Width (m)**	**Grade g/t**
KREX044	3254.466	7885.426	-56.682	452.95	130.4	-64.24		**363**	**373**	**10**	**1.6**
KREX045A	3261.355	7987.461	-63	585	326.24	-41.22		211.45	212	0.55	2.06
							and	414	416	2	0.53
							and	**420.23**	**440**	**19.77**	**8.02**
KREX050	3260.923	7988.26	-63.9661	297	294.75	-37.88		248	262.7	14.7	1.121
							and	269	270	1	0.5
							and	291.3	292	0.7	0.97
KREX051	3286.435	7933.389	-61.2521	406.32	94.87	-86.96		54.53	56.55	2.02	2.634
							and	294.7	337	42.3	1.563
KREX052	3286.517	7933.443	-61.2492	432	136.16	-88.11	pending assays				
KREX053	3286.777	7933.212	-61.2406	289.66	80.04	-75.20	pending assays				
KREX054	3286.673	7933.378	-61.2584	472.7	94.34	-89.11	pending assays				
KRGC599	3341.04	7556.872	-93.671	168	280.49	-27.57		106	107.55	1.55	0.526
							and	138	139	1	1.49
							and	146	159.3	13.3	4.1
KRGC600	3341.118	7556.776	-93.6735	192	287.32	-24.82		125.5	127.2	1.7	1.348
							and	147.3	150.7	3.4	0.705
							and	157.7	166.75	9.05	2.707
KRGC601	3341.19	7556.691	-93.6718	147	251.74	-37.27		81.4	82.3	0.9	1.69
							and	101	102	1	1.32
							and	109	121.52	12.52	3.083
							and	121.82	124.67	2.85	1.292
							and	129	130	1	1.08
							and	134	135	1	0.62
							and	138	140	2	0.945
KRGC602	3340.851	7557.292	-93.5732	156	266.98	-38.34		119	121	2	1.902
							and	125	154	29	2.598
KRGC603	3340.865	7557.32	-93.3497	186	286.16	-30.97		148	149	1	10.3
							and	155.26	170.8	15.54	2.756
KRGC604	3341.063	7557.302	-93.3551	147	249.87	-46.41		88	89	1	0.53
							and	102.18	105.5	3.32	2.759
							and	109	109.84	0.84	0.53
							and	114	129.33	15.33	2.23
KRGC605	3341.238	7557.692	-93.3472	162	279.22	-47.35		113.22	135.84	22.62	2.629
							and	141.14	166.3	25.16	1.257
KRGC606	3341.157	7557.217	-93.494	240	287.38	-45.41		119.8	123	3.2	1.163
							and	131	175	44	1.685
KRGC607	3341.011	7557.047	-93.6396	201	296.13	-37.78		145.2	145.65	0.45	2.53
							and	149.86	151	1.14	1.243
							and	161	172.65	11.65	2.23
KRGC608	3341.264	7557.011	-92.3067	204.03	293.49	-22.63	pending assays				
KRGC609	3341.264	7557.011	-92.3067	207	297.12	-28.78	pending assays				
KRGC610	3341.264	7557.011	-92.3067	222.1	301.11	-33.23	pending assays				
KRGC611	3341.264	7557.011	-92.3067	200.77	292.6	-50.22	pending assays				
KRGC612	3341.264	7557.011	-92.3067	207	300.79	-42.17	pending assays				
KRGC613	3341.264	7557.011	-92.3067	225	306.39	-38.52	pending assays				
KRRD369	3293.894	7911.933	-62.18	260.46	166.405	-72.19		**211.9**	**248**	**36.1**	**4.92**
KRRD370	3293.375	7911.351	-59.7436	270	182.35	-62.02		199.25	200.2	0.95	0.63
							and	**209.8**	**229.22**	**19.42**	**3.78**
							and	241.5	259.05	17.55	1.055

KARARI DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KRRD382	3260.632	7988.098	-63.9394	291	300.21	-50.15		169.6	170.14	0.54	0.76
							and	173	177.66	4.66	0.702
							and	181	182	1	0.51
							and	190.3	192.23	1.93	0.802
							and	239.26	240	0.74	0.88
							and	**251**	**258.19**	**7.19**	**4.895**
KRRD383	3260.682	7988.114	-63.9397	345	306.17	-57.28		158	158.45	0.45	0.72
							and	205.67	206.15	0.48	0.51
							and	210.76	213.81	3.05	1.205
							and	271	271.94	0.94	1.16
							and	**283**	**306**	**23**	**7.093**
							and	319.43	324.15	4.72	1.976
KRRD384	3260.87	7988.031	-63.9466	401.7	307.15	-52.78		224.43	225.47	1.04	1.043
							and	296.4	311	14.6	4.384
							and	319	323	4	4.078
							and	329.8	335.8	6	0.973
KRRD385	3260.934	7987.88	-63.954	339	302.36	-67.95		217.3	217.7	0.4	0.59
							and	220.65	222	1.35	1.217
							and	235.45	238.95	3.5	4.265
							and	254.4	255.15	0.75	0.52
							and	**281.91**	**299**	**17.09**	**7.75**
							and	308.85	309.3	0.45	0.59
KRRD386	3260.912	7987.787	-63.9574	382.22	309.26	-65.34		192.23	193.56	1.33	0.776
							and	214.59	218	3.41	1.209
							and	267.62	267.92	0.3	0.62
							and	**284.05**	**311**	**26.95**	**7.81**
							and	325	326	1	1.67
KRRD388	3284.112	7930.868	-61.2977	306.08	175.05	-78.38		**239.65**	**264.65**	**25**	**4.01**
KRRD389	3283.499	7930.672	-61.2938	268.28	223.38	-83.19		203.5	259.44	55.94	2.127
KRRD390	3284.083	7930.88	-61.2571	303.87	145.84	-87.06		234.62	240.61	5.99	1.049
							and	249.06	260	10.94	0.782
							and	262.16	285	22.84	4.531
KRRD391	3287.194	7933.045	-61.2315	315.52	67.63	-85.44		251	253.15	2.15	1.329
							and	**267.65**	**297.8**	**30.15**	**4.04**
KRRD392	3284.182	7931.097	-61.3001	363.7	262.2	-75.99		211	214	3	0.649
							and	**238**	**266.65**	**28.65**	**3.92**
KRRD393	3283.983	7930.994	-61.2996	335.41	251.16	-85.33		252.45	266.8	14.35	0.717
							and	268.4	274.4	6	2.021
							and	276.4	277.43	1.03	0.89
							and	281.3	303	21.7	1.941
KRRD394	3284.164	7931.06	-61.2666	152.47	310.97	-50.15	no signifcant				
KRRD395	3261.077	7987.62	-63.9659	237.01	317.8	-49.86		193.75	194.45	0.7	0.63
							and	198	198.35	0.35	1.02
							and	200.15	201.25	1.1	0.67
							and	221	240.45	19.45	0.686
KRRD396	3261.232	7987.521	-63.9685	314.47	311.09	-73.98		166.2	167	0.8	0.73
							and	201	202	1	0.76
							and	210.85	211.5	0.65	0.51
							and	221.6	229	7.4	3.922
							and	236.8	237.6	0.8	0.5
							and	263	271	8	4.74
							and	285	287	2	1.335
							and	301.7	302.6	0.9	0.83

KARARI DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KRRD397	3261.042	7987.248	-63.9217	294.16	233.24	-82.29		210.85	214.25	3.4	0.583
							and	216	217	1	0.56
							and	223	234.3	11.3	1.653
							and	255	267	12	3.209
							and	272	273	1	0.55
							and	275	275.45	0.45	0.66
							and	282.65	283	0.35	2.2
KRRD398	3261.07	7987.288	-63.9212	357.56	314.46	-76.60		262.15	263	0.85	0.69
							and	308	311	3	2.54
							and	329.6	330	0.4	0.59
							and	372.05	373	0.95	0.56
KRRD399	3261.198	7987.773	-63.9638	411.93	302.42	-80.13		279	281	2	0.948
							and	290.42	292.6	2.18	0.855
							and	304	305	1	0.97
							and	319	324	5	1.498
							and	360	361	1	0.55
KRRD400	3263.611	7986.404	-63.7718	81	7.6	-78.23	pending assays				
KRRD401	3263.46	7986.294	-63.7709	332.35	334.68	-85.93		266.75	267.4	0.65	0.52
							and	269.55	270.15	0.6	0.78
							and	274	274.8	0.8	0.54
							and	285.1	286.15	1.05	6.1
							and	291.67	292.9	1.23	1.16
							and	299.57	300.5	0.93	1.41
							and	323	324	1	1.11
KRRD402	3263.684	7986.148	-63.7476	322.07	157.14	-87.39		259.3	260	0.7	1.3
							and	265	265.8	0.8	0.96
							and	272	277.6	5.6	1.173
							and	282	313	31	0.971
KRRD403	3287.185	7933.131	-61.2438	386.16	37.11	-87.34		98.7	100	1.3	0.7
							and	273	300.6	27.6	2.064
							and	310.08	316	5.92	1.179
							and	325	331	6	0.84
KRRD406	3260.725	7987.956	-63.7069	333	301.63	-23.81	pending assays				
KRRD407	3260.321	7987.903	-63.4511	350.8	305.11	-32.05	pending assays				
KRRD408	3260.298	7987.811	-63.4223	317	305.4915	-28.84	pending assays				
KRRD409	3261.35	7987.46	-63.15	51	302.0072	-40.93	pending assays				
KRRD412	3368.96	7524.07	-93.75	330	44.43	-82.75	pending assays				
KRRD413	3368.96	7524.07	-93.75	366.15	35.96	-75.27	pending assays				
KRRD415	3368.96	7524.07	-93.75	415	4.157125	-71.33	pending assays				

Table 2 – Whirling Dervish Drill Results

WHIRLING DERVISH APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
WDEX048	2979.025	9750.078	140.552	621	46.4	-77.26		**581.7**	**605**	**23.3**	**1.57**
WDEX049A	2979.109	9749.998	140.546	666	24.03	-86.78		259	261	2	3.126
							and	417.32	418.55	1.23	2.752
							and	426	427	1	10.1
WDEX050	2904.328	9840.302	142.2303	608.9	344.1	-77.70		201	204	3	1.229
							and	219	219.82	0.82	1.64
							and	316.56	320	3.44	0.559
							and	324.36	324.94	0.58	0.58
							and	377.61	378.6	0.99	0.57
							and	**408.4**	**417.27**	**8.87**	**1.79**
WDEX051	2904.124	9840.254	142.2179	660	335.58	-68.77		231	237.3	6.3	7.597
							and	246	247	1	1.7
							and	448	448.3	0.3	1.27
							and	521	523	2	1.035
							and	**532.4**	**540**	**7.6**	**1.09**
							and	619.6	620	0.4	0.56
							and	640.86	641.5	0.64	0.73
WDEX052	2903.54	9840.237	142.568	453	300.73	-41.18		163.67	168.6	4.93	0.921
							and	174.2	176.05	1.85	2.273
							and	191.05	195.72	4.67	1.656
							and	311	315	4	3.228
							and	359.5	360.25	0.75	0.7
							and	**366.7**	**372**	**5.3**	**3.3**
WDEX053	2903.475	9840.166	142.5678	555	327.18	-49.98		224	227.5	3.5	4.227
							and	232	233	1	3.74
							and	278	279	1	0.784
							and	394	395	1	11.6
							and	413.15	421	7.85	1.011
							and	**438**	**457**	**19**	**4.41**
							and	486.95	487.55	0.6	0.59
							and	499	504	5	1.31
							and	506	507	1	6.04
							and	548	549	1	0.52
WDEX054	2903.477	9840.255	142.6401	110	316.6	-20.81	pending assays				
WDEX054A	2903.599	9840.334	142.5992	528	306.85	-34.67	pending assays				
WDGC189	2943.951	9795.717	141.5294	233.8	228.78	-40.73		101	102	1	0.9
							and	127.2	130.8	3.6	2.237
							and	137.4	139.95	2.55	1.03
							and	142.7	144	1.3	0.83
							and	150	151	1	1.46
							and	193.85	195.55	1.7	0.789
							and	199.95	218.2	18.25	6.29
							and	218.9	223	4.1	1.269
WDGC194	2912.852	9825.048	142.4963	231	241.25	-32.93		136	138.8	2.8	0.947
							and	143	146	3	1.449
							and	202.6	211	8.4	2.186
WDGC195	2912.984	9825.031	142.3988	237	247.9	-27.76		82	83.1	1.1	0.99
							and	89	90.85	1.85	2.722
							and	101	104	3	0.558
							and	120.95	156.5	35.55	4.012
							and	208.8	224.75	15.95	2.349

WHIRLING DERVISH APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
WDGC197A	2912.816	9825.09	142.6003	302.7	271.56	-17.83		81	83	2	0.76
							and	105	106	1	1.26
							and	114.2	114.8	0.6	6.35
							and	117	122	5	3.637
							and	126	138.3	12.3	2.078
							and	157.15	158	0.85	0.77
							and	169	171	2	1.65
							and	266.16	267	0.84	0.65
							and	269	269.6	0.6	0.65
							and	273	274	1	1.41
							and	280.02	285	4.98	1.199
WDGC204	3022.704	9719.896	141.5883	317.61	182.42	-33.69		153	154.8	1.8	0.737
							and	165.5	168.05	2.55	0.956
							and	173.55	177	3.45	1.167
							and	185	186.2	1.2	0.59
							and	207	215.55	8.55	0.664
							and	222.9	223.6	0.7	1.32
							and	254.6	257.6	3	0.521
							and	**263**	**272.58**	**9.58**	**3.996**
							and	288	288.6	0.6	0.59
WDGC205	3020.324	9721.01	141.432	236.97	211.91	-42.85		124	125	1	1.25
							and	146	147	1	0.59
							and	155.73	156.54	0.81	4.478
							and	176	183.53	7.53	1.05
							and	**207.95**	**217.83**	**9.88**	**2.69**
WDGC206	3020.573	9720.88	141.3854	302.9	188.47	-49.73		57	57.77	0.77	0.73
							and	61	61.4	0.4	0.56
							and	179.38	207.43	28.05	1.583
							and	223.9	224.45	0.55	0.52
							and	**249.17**	**270**	**20.83**	**3.36**
WDGC215	2912.917	9825.025	142.7476	267	247.14	-13.02		63	69	6	0.58
							and	72	73	1	0.74
							and	86.5	96.35	9.85	1.589
							and	106	107.5	1.5	7.553
							and	**132**	**157.3**	**25.3**	**3.86**
							and	195.5	195.8	0.3	0.69
							and	229.75	245	15.25	1.644
WDGC216	2912.836	9825.063	142.5102	258.07	255.91	-18.92		51	51.45	0.45	0.62
							and	80	81	1	0.67
							and	84	87	3	0.64
							and	101	109.35	8.35	1.102
							and	128	137	9	1.941
							and	141	144.8	3.8	1.139
							and	153	154	1	1.7
							and	**159**	**165.25**	**6.25**	**1.97**
							and	185	185.6	0.6	1.17
							and	198	201	3	1.303
							and	226	231.5	5.5	2.428
							and	232.65	238.8	6.15	1.825
WDGC217	2905.374	9835.188	142.1989	270.07	259.63	-59.78	pending assays				
WDGC218	2905.372	9835.132	142.1722	281.8	276.58	-54.32	pending assays				
WDGC219	2905.473	9835.073	142.152	305.9	289.9	-41.98	pending assays				

WHIRLING DERVISH APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
WDRD090	3022.329	9721.582	141.4938	488.9	148.68	-77.45		137	137.9	0.9	0.6
							and	141	142	1	0.5
							and	190	191	1	0.6
							and	209.9	215	5.1	1.994
							and	311.9	313	1.1	1.44
							and	339	342	3	0.613
							and	353	355.3	2.3	9.142
							and	372	373	1	1.01
							and	382	383	1	1.212
							and	391	391.75	0.75	1.12
							and	397.1	399	1.9	2.248
							and	403.5	407	3.5	0.887
							and	**421**	**452**	**31**	**3.37**
							and	466	468	2	0.61
							and	479	486	7	0.625
WDRD091	3020.729	9720.627	141.4937	445.55	169.43	-74.85		207.5	208.13	0.63	1.235
							and	212	213	1	0.85
							and	298.9	301	2.1	5.238
WDRD092	3022.022	9721.729	141.5207	389.9	157.72	-78.95		217	218	1	0.57
							and	259	261.4	2.4	5.55
							and	282	283	1	0.5
							and	310	314.23	4.23	3.872
							and	352	353	1	0.54
							and	381	388	7	1.528
WDRD092A	3022.431	9721.517	141.4816	584.95	117.29	-80.83		192	192.85	0.85	0.57
							and	218	220	2	1.995
							and	258	264	6	0.618
							and	270	271	1	0.61
							and	278.5	279.15	0.65	1.14
							and	317	323.85	6.85	1.487
							and	335.35	336	0.65	0.52
							and	**457.7**	**495**	**37.3**	**3.52**
							and	530	531	1	0.98
							and	540.35	541.05	0.7	0.58
WDRD093	3021.932	9721.485	141.4156	467.1	146.09	-82.85		193	198	5	3.358
							and	273	274	1	1.22
							and	303	304	1	0.77
							and	333	334	1	0.51
							and	360	361	1	0.59
							and	367	373.65	6.65	1.156
							and	374.35	376.85	2.5	1.627
							and	379	417.8	38.8	2.289
WDRD095	3018.246	9726.675	141.2528	561	134.92	-81.01		225	228	3	3.19
							and	232.45	239	6.55	1.124
							and	243.9	245.05	1.15	0.68
							and	347.6	349	1.4	1.447
							and	468	469	1	0.78
							and	472	473	1	0.55
							and	**480**	**504**	**24**	**5.11**
WDRD096	3018.128	9726.739	141.2639	510	118.26	-84.89	pending assays				
WDRD097	2979	9750	140	485	78.96985	-85.06	pending assays				
WDRD098	2979.179	9749.819	140.583	540	97.8	-83.37	pending assays				
WDRD099	2903.025	9839.958	142.5938	357	304.23	-39.55	pending assays				
WDRD100	2902.966	9839.999	142.7893	338.6	296.23	-50.74	pending assays				
WDRD102	2903.1	9839.6	142	440.8	314.9	-74.67	pending assays				
WDRD103	2903.1	9839.6	142	228	310.7938	-62.45	pending assays				

Table 3 – Thunderbox Drill Results

THUNDERBOX DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
THEX015	304238.5	6879180	252.086	554.94	135	-67.24		**407**	**451.17**	**44.17**	**2.04**
THEX017A	304237.8	6879181	253.496	554.94	68.11	-83.99		525.93	526.3	0.37	2.75
							and	529.15	530	0.85	2.59
							and	531	531.63	0.63	2.57
THEX018A	304237.9	6879181	253.41	495.42	127.7	-75.63		416	417	1	2.01
							and	**429.2**	**467.95**	**38.75**	**1.44**
THEX019	304238.5	6879181	253.461	424.09	124.6	-68.51		220	221.3	1.3	3.018
							and	384.2	385	0.8	3.56
THEX020	304237.9	6879180	253.446	454.27	142.37	-65.50		260.4	263.6	3.2	2.078
							and	427.9	430.06	2.16	2.894
							and	446	447	1	4
THGC091	304170.6	6879437	252.154	263.48	41.37	-30.04		101.4	102	0.6	6.52
							and	108.4	110.2	1.8	2.042
							and	210.75	211.6	0.85	2.31
							and	**232**	**257.6**	**25.6**	**1.7**
THGC092	304170.7	6879437	252.129	340.21	51.84	-32.55		99.9	100.4	0.5	2.01
							and	187.25	188	0.75	2.14
							and	192.9	193.7	0.8	4.44
							and	199	200	1	2.37
							and	204.6	205.4	0.8	3.18
							and	207.4	207.8	0.4	5.16
							and	223	224	1	2.33
THGC118	304504.5	6879296	201.901	155.03	278.4	-25.70		116.2	116.9	0.7	3.02
							and	123	128	5	2.76
							and	132.15	137.4	5.25	2.664
							and	145.5	146.15	0.65	3.95
							and	149	150	1	2.5
THGC119	304504.4	6879295	201.861	151.47	258.27	-24.38		118.6	119.3	0.7	3.4
							and	142.68	143.6	0.92	4.82
THGC120	304504.4	6879295	201.662	161.39	235.42	-25.47		128.45	134.14	5.69	3.939
							and	139.4	140.47	1.07	3.862
THGC121	304504.5	6879295	201.702	187.98	226.39	-24.23		**140.8**	**153**	**12.2**	**4.01**
THGC122	304504.5	6879295	201.182	214.05	235.39	-42.16		**170.6**	**199.9**	**29.3**	**1.75**
THGC123	304504.6	6879295	201.615	236.65	220.68	-36.85		206	210.75	4.75	2.037
							and	214	218	4	2.176
THGC124	304504.3	6879296	201.346	166.47	273.86	-35.77		126.9	138	11.1	2.873
							and	148.92	156.5	7.58	2.239
							and	159.85	162.2	2.35	2.14
THRD012	304204.1	6879311	251.175	464.13	45.01	-73.09		**394.6**	**404.4**	**9.8**	**2.14**
THRD013	304204.2	6879310	251.262	488.87	41.33	-76.82	no significant intercepts				
THRD014	304204.2	6879310	251.191	77	107.2	-73.70	no significant intercepts				
THRD014A	304204.2	6879310	251.148	535.95	47.25	-81.88		196.4	197.35	0.95	18.3
							and	424.5	425	0.5	3.31
							and	465.1	465.9	0.8	5.1
THRD015	304169.7	6879435	251.679	465.95	37.92	-68.18		111.3	112.2	0.9	3.67
							and	368	369	1	2.748
THRD016	304169.9	6879435	251.783	415.14	40.94	-61.66		318.67	319	0.33	3.12
							and	322.16	323.16	1	5.55
							and	**363.15**	**376.66**	**13.51**	**1.98**
							and	385	386	1	2.272

THUNDERBOX DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
THRD017	304170.5	6879435	251.478	267.6	56.21	-44.26		209.7	214	4.3	3.532
							and	219.4	222.8	3.4	2.589
							and	233	233.45	0.45	6.22
							and	234.93	244.15	9.22	2.097
							and	249	252	3	2.383
							and	260	260.97	0.97	4.92
THRD018	304170.5	6879436	251.667	314.01	50.99	-39.49		110	110.5	0.5	3.98
							and	225	226	1	3.03
							and	232.25	257	24.75	2.333
							and	261	272	11	2.513
THRD019	304170.5	6879436	251.636	364.27	45.71	-45.67		236.06	236.65	0.59	2.33
							and	**241**	**327.12**	**86.12**	**2.07**
THRD020	304170.4	6879436	251.511	380.18	44.46	-53.65		258	259.5	1.5	3.313
							and	266	266.77	0.77	2.07
							and	270.6	282.95	12.35	2.207
							and	288	289	1	4.296
							and	**320**	**345**	**25**	**2.85**
THRD021	304170.8	6879437	252.193	265.67	49.86	-20.53		107	108	1	2.58
							and	209	210	1	2
							and	224.41	227	2.59	2.948
							and	243	245	2	4.735
THRD022	304169.1	6879440	251.445	351.92	34.06	-45.22		326	327	1	3.04
							and	354	357	3	4.279
							and	360.56	361.05	0.49	3.96
THRD023	304169	6879439	251.559	389.11	36.63	-51.94		**376**	**396.97**	**20.97**	**2.02**
THRD024	304169.2	6879439	251.491	393.45	47.76	-60.93		132	132.7	0.7	2.85
							and	299.9	300.45	0.55	2.81
							and	305.2	307.6	2.4	2.355
							and	315.2	316	0.8	2.59
							and	348	352.65	4.65	2.404
							and	363	370	7	3.959
THRD025	304231.2	6879256	253.4466	334	118.7	-55.51		159.47	160	0.53	3.34
							and	275.02	276.02	1	2.61
							and	281	281.91	0.91	2.64
THRD026	304231.2	6879256	253.4466	344.3	107.31	-62.27		147.75	148.2	0.45	4.76
							and	288.3	289	0.7	2.76
THRD027	304231.2	6879256	253.4466	371.87	99.63	-69.69	pending assays				
THRD028	304204.3	6879310	251.12	383.39	100.89	-70.00		300.05	300.78	0.73	3.88
							and	**309.44**	**368.92**	**59.48**	**2.26**
THRD029	304239.2	6879182	253.6231	304.22	123.07	-36.67		142	146.67	4.67	2.695
							and	165	166	1	4.52
							and	170	171	1	2.22
							and	258.98	265.27	6.29	3.017
THRD030	304239.2	6879182	253.6231	306	118.56	-50.84		166.45	167	0.55	28.8
							and	**286**	**298.2**	**12.2**	**2.28**
THRD031	304239.2	6879182	253.6231	394.51	90.35	-73.56		215	217.92	2.92	2.845
							and	364.7	369.9	5.2	2.131
							and	380	387.5	7.5	3.737
THRD032	304239.2	6879182	253.6231	354.89	97.99	-55.11		174	174.7	0.7	2.51
							and	177	180	3	2.717
							and	284	284.43	0.43	2.81
THRD034	304239.2	6879182	253.6231	374.15	97.97	-64.22		183	184	1	3.51
							and	193.12	194	0.88	2.57
							and	199	200	1	2.59

THUNDERBOX DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
THRD035	304239.2	6879182	253.6231	56.66	88.37	-16.68	no significant intercepts				
THRD035A	304239.2	6879182	253.6231	232.37	91.53	-20.57		206.65	210.46	3.81	2.879
							and	213	214	1	4.92
THRD036	304239.2	6879182	253.6231	257.4	102.98	-33.28	pending assays				
THRD037	304239.2	6879182	253.6231	245.75	68.13	-37.05	pending assays				
THRD038	304205.1	6879312	251.13	260.87	88.89	-37.97	pending assays				
THRD039	304205.1	6879312	251.13	222.7686	78.06	-27.74	pending assays				
THRD040	304205.1	6879312	251.13	256	74.2	-43.70	pending assays				
TBRC049	304172.1	6881114	501.948	100	91.77	-65.33		47	48	1	7.3
							and	60	61	1	2.73
TBRC050	304191.8	6881094	500.62	100	90.53	-65.73		no significant intercepts			
TBRC051	304178.2	6881049	500.47	124	92.74	-64.85		no significant intercepts			
TBRC052	304186.5	6880994	500.308	82	94.91	-65.77		no significant intercepts			
TBRC053	304098.1	6880975	502.793	82	91.68	-58.61		70	71	1	2.41
TBRC054	304182.4	6880959	500.271	94	95.61	-60.24		no significant intercepts			
TBRC055	304165.2	6880930	500.393	124	87.71	-60.21		no significant intercepts			
TBRC056	304191.3	6880920	500.148	90	90.77	-67.46		no significant intercepts			
TBRC057	304096	6880895	502.355	154	86.21	-63.77		**94**	**117**	**23**	**1.15**
TBRC058	304130.3	6880895	500.87	124	90.81	-58.92		46	47	1	5.44
							and	57	59	2	5.675
TBRC059	304095.9	6880855	502.59	160	81.44	-61.43		119	122	3	2.91
							and	131	132	1	2.43
TBRC060	304112.9	6880810	502.006	202	74.68	-54.83		103	104	1	2.13
							and	118	119	1	2.05
							and	125	126	1	2.6
							and	129	131	2	2.6
							and	196	197	1	2.06
TBRC061	304140.2	6880810	501.151	160	87.54	-54.33		**45**	**88**	**43**	**3.74**
TBRC062	304198.9	6880749	495.502	184	95.61	-65.84		6	7	1	3.06
							and	69	70	1	3.99
							and	93	94	1	2.75
							and	103	104	1	2.46
TBRC063	304131.1	6880720	499.4	184	83.81	-56.93		**74**	**147**	**73**	**1.9**
							incl	100	114	14	3.898
TBRC064	304210.4	6880696	498.031	184	83.74	-66.72		65	66	1	2
							and	72	73	1	2.19
TBRC065	304277.5	6880689	498.572	70	89.97	-60.39		no significant intercepts			
TBRC066	304112.8	6880650	499.24	244	63.03	-61.89		148	149	1	2.54
							and	171	172	1	2.2
							and	**180**	**221**	**41**	**1.18**
TBRC067	304158.4	6880613	499.163	210	78.89	-48.33		50	55	5	2.79
							and	**111**	**137**	**26**	**1.63**
							and	190	191	1	2
TBRC068	304099	6880610	499.691	243	78.73	-54.95		**198**	**241**	**43**	**1.59**
TBRC069	304153	6880595	499.283	262	72.07	-45.33		68	69	1	3.13
							and	132	133	1	3.14
							and	142	145	3	2.467
TBRC070	304115.1	6880569	499.577	250	73	-57.52		no significant intercepts			
TBRC071	304142.9	6880550	498.942	250	77.32	-48.44		pending assays			
TBRC072	304130.6	6880500	499.151	274	72.99	-55.92		202	210	8	3.919
TBRC073	304277.9	6880503	447.082	126	72.64	-62.27		**14**	**55**	**41**	**1.54**
							and	71	72	1	3.73
TBRC074	304103.7	6880417	498.149	310	80.11	-49.24		249	253	4	3.482
TBRC075	304075.3	6880380	498.443	330	82.21	-61.41		325	326	1	4.17
TBRC076	304104.2	6880384	498.41	310	83.74	-63.68		pending assays			
TBRC077	304105.3	6880381	497.613	310	87.07	-58.01		pending assays			

Table 4 – Atbara Drill Results

ATBARA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEX003	437100	6668430	350	287	240	-60		54	55	1	0.71
							and	63	65	2	1.23
							and	70	83	13	0.87
							and	99	100	1	0.52
							and	119	121	2	2.24
							and	131	137	6	0.59
							and	152	154	2	1.31
							and	166	175	9	2.21
							and	190	191	1	0.59
ATEX009A	437207	6668450	345	360	246	-55		**104**	**168**	**64**	**1.59**
							and	192	196	4	0.61
							and	276	288	12	0.76
							and	**308**	**324**	**16**	**1.85**
ATEX011	437478.9	6668308	345	459.22	235	-55		**205**	**234**	**29**	**0.66**
							and	249.52	253.79	4.27	0.55
							and	294.79	299.76	4.97	0.99
							and	301.79	309.61	7.82	0.78
							and	**319.98**	**381.96**	**61.98**	**1.25**
							and	389.11	389.82	0.71	1.20
							and	393.42	394	0.58	0.64
							and	419.85	420.89	1.04	0.72
							and	440	443.27	3.27	1.21
							and	445.91	447	1.09	0.90
ATEX012	437413.4	6668262	350	382	235	-55		107	111	4	1.32
							and	120	121	1	1.29
							and	**132**	**192**	**60**	**1.04**
							and	184	192	8	0.68
							and	198	199	1	0.54
							and	201	202	1	0.78
							and	**216**	**238**	**22**	**1.29**
							and	235	237	2	2.09
							and	279	280	1	0.63
							and	283	284	1	0.98
							and	**292**	**340**	**48**	**0.99**
							and	364	365	1	0.50
ATEX013	437347.8	6668216	350	350	238	-55		**54**	**64**	**10**	**1.11**
							and	83	85	2	2.38
							and	97	100	3	0.55
							and	**117**	**129**	**12**	**1.45**
							and	**252**	**299**	**47**	**1.12**
							and	310	314	4	1.85
							and	321	323	2	1.10
							and	**337**	**350**	**13**	**1.87**
ATEX014	437069	6668812	345	381.93	225	-63		132.5	134.5	2	0.73
							and	169.12	169.5	0.38	2.00
							and	201.6	203	1.4	2.42
							and	211.07	212.1	1.03	1.90
							and	**223**	**312**	**79**	**1.30**
ATEX015	437068	6668812	345	251.4	223.7	-50	results pending				
ATEX016	437010	6668742	345	350	227	-55		92	100	8	1.12
							and	**172**	**192**	**20**	**0.80**
ATEX017	436928	6668672	345	400	227	-55	no significant results				

ATBARA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
ATEXDD002	437257	6668449	345	475	246	-60.3		91	97	6	2.81
							and	114.7	117	2.3	2.60
							and	122	123	1	0.67
							and	125	126	1	0.51
							and	161	165.6	4.6	3.72
							and	172	173	1	0.90
							and	176	178	2	0.77
							and	182	183.7	1.7	0.68
							and	187.5	189	1.5	1.01
							and	192	193	1	4.38
							and	195	196	1	1.12
							and	212	213.5	1.5	0.94
							and	219	220	1	2.48
							and	228	229.3	1.3	0.67
							and	**233**	**262**	**29**	**1.09**
							and	279.15	286.4	7.25	3.29
							and	400	401	1	0.72
							and	469	473	4	2.03
ATEXDD003	437270	6668340	345	336.8	235	-60		**66.5**	**93.7**	**27.2**	**1.27**
							and	99.59	100	0.41	1.47
							and	104.92	109.15	4.23	0.95
							and	115	125.79	10.79	4.25
							and	135.31	158	22.69	1.07
							and	184	187	3	0.68
							and	194	194.43	0.43	0.91
							and	256	256.57	0.57	1.14
							and	**263.83**	**284**	**20.17**	**0.97**
							and	**301.5**	**317.75**	**16.25**	**1.68**
							and	330	331	1	0.58
QEEX003	437396	6668546	345	612.73	225	-60		**248.6**	**277**	**28.4**	**1.40**
							and	295	296	1	0.79
							and	307	318	11	1.38
							and	323	325	2	1.34
							and	**349**	**368**	**19**	**1.20**
							and	382	383	1	1.80
							and	394	395	1	3.67
							and	402.7	403	0.3	1.25
							and	**430**	**452.85**	**22.85**	**1.00**
							and	468.66	469.3	0.64	0.57
							and	473.5	473.8	0.3	0.57
							and	507	516	9	1.64
							and	**531**	**578.45**	**47.45**	**0.51**
							and	588	589	1	0.70
							and	602.33	603.75	1.42	0.75
QEEX008	437386	6668625	345	132	230	-60	no significant results				
QEEX009	437336	6668703	345	120	230	-60		**60**	**72**	**12**	**0.98**
							and	80	84	4	0.53
QEEX013	437645.1	6668333	345	90	245	-55	no significant results				
QEEX014	437717.6	6668367	345	339	245	-55		203	204	1	0.68
QEEX015	437683	6668444	345	178	249	-54		72	76	4	0.88

ATBARA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
QEEX016	437455	6668858	345	454.1	236	-63		56.58	58.4	1.82	1.17
							and	63.03	64.57	1.54	0.62
							and	123.93	124.33	0.4	0.67
							and	164.62	165.45	0.83	0.51
							and	330	331	1	0.98
							and	337.13	337.74	0.61	0.90
							and	341.45	342	0.55	1.26
							and	**348.75**	**372.5**	**23.75**	**1.80**
							incl	**366**	**371.4**	**5.4**	**3.22**
							and	381.8	384.27	2.47	0.76
							and	**439**	**448**	**9**	**1.33**
QEEX017	437378	6668793	345	252.3	255.38	-51.41		79.98	83.45	3.47	2.109
							and	122.04	129	6.96	4.437
							and	**188.75**	**210**	**21.25**	**3.556**
QEEX018	437645	6668333	345	418.2	246.76	-47.74	no significant intercepts				

Table 5 – Mt Celia Drill Results

MT CELIA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade ppb
MCAC0390	446393	6733300	372	96	0	-90.00		74	75	1	90
							and	92	96	4	30.4
MCAC0392	446597	6733302	385	103	0	-90.00		96	103	7	29.786
MCAC0393	446702	6733291	371	106	0	-90.00		84	92	8	67.4
							and	104	106	2	33.6
							and	105	106	1	71
MCAC0394	446807	6733300	383	95	0	-90.00		94	95	1	86
MCAC0395	446900	6733304	390	92	0	-90.00		84	88	4	22.5
MCAC0396	447006	6733297	396	88	0	-90.00		76	86	10	63.26
MCAC0397	447112	6733299	371	103	0	-90.00		80	103	23	591.635
							and	102	103	1	20
MCAC0398	447212	6733303	365	85	0	-90.00		0	4	4	20.5
							and	72	85	13	37.008
							and	84	85	1	33.5
MCAC0400	447399	6733303	368	96	0	-90.00		80	84	4	35.6
							and	88	96	8	135.55
							and	95	96	1	444
MCAC0401	447515	6733301	382	96	0	-90.00		88	96	8	38.7
							and	95	96	1	54
MCAC0407	448102	6733299	365	62	0	-90.00		48	52	4	22.6
MCAC0408	448194	6733298	370	48	0	-90.00		8	12	4	28.3
MCAC0429	447888	6732582	362	102	0	-90.00		100	102	2	25.5
MCAC0430	447787	6732582	365	109	0	-90.00		60	64	4	28.5
							and	92	96	4	32.8
							and	100	109	9	68.1
MCAC0431	447703	6732592	376	98	0	-90.00		56	60	4	52.4
MCAC0432	447586	6732579	386	114	0	-90.00		96	104	8	45.4
							and	108	112	4	74.4
MCAC0433	447394	6732579	369	98	0	-90.00		56	60	4	32.8
							and	76	84	8	33
							and	88	98	10	76.68

MT CELIA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade ppb
MCAC0434	447303	6732577	358	99	0	-90.00		60	64	4	154
							and	68	72	4	86.6
							and	92	96	4	58.8
MCAC0435	447186	6732579	381	134	0	-90.00		80	100	20	541.92
							and	132	134	2	41.2
MCAC0436	447091	6732576	371	117	0	-90.00		72	92	20	288.92
							and	100	104	4	88.2
							and	108	112	4	23.9
							and	114	117	3	21
MCAC0437	446893	6732576	383	103	0	-90.00		88	103	15	76.933
MCAC0438	446791	6732574	367	99	0	-90.00		84	88	4	71.6
MCAC0439	446689	6732575	370	99	0	-90.00		88	92	4	26.3
MCAC0440	446587	6732575	382	96	0	-90.00		88	92	4	51.6
MCAC0443	446199	6732567	362	80	0	-90.00		72	76	4	40.2
MCAC0448	445695	6732567	369	63	0	-90.00		56	63	7	33
MCAC0452	445292	6732566	353	69	0	-90.00		48	52	4	52.4
MCAC0462	447006	6732567	351	98	0	-90.00		88	92	4	136
							and	96	98	2	21.5
MCAC0464	448007	6732572	373	102	0	-90.00		92	96	4	24.5
MCAC0466	444436	6731502	359	42	0	-90.00		36	42	6	69.1
MCAC0469	444706	6731502	354	66	0	-90.00		60	66	6	27.767
MCAC0477	445508	6731500	362	102	0	-90.00		56	60	4	34.2
MCAC0492	447014	6731501	387	166	0	-90.00		92	112	20	107.34
							and	116	128	12	32.733
							and	136	140	4	20.8
							and	148	156	8	20.75
MCAC0493	447104	6731499	373	143	0	-90.00		96	136	40	34.92
MCAC0494	447205	6731503	375	139	0	-90.00		100	104	4	147
							and	112	116	4	22.3
MCAC0495	447305	6731496	373	168	0	-90.00		148	160	12	25.033
							and	164	168	4	86.4
MCAC0496	447408	6731498	368	132	0	-90.00		80	84	4	25.8
MCAC0497	447504	6731485	368	144	0	-90.00		88	92	4	56.1
							and	96	100	4	27.3
							and	116	120	4	24.6
							and	124	140	16	40.9
MCAC0498	447606	6731504	373	133	0	-90.00		80	84	4	28.3
							and	96	100	4	55.7
							and	104	108	4	26.5
MCAC0505	444487	6730610	364	114	0	-90.00		96	100	4	46.3
MCAC0506	444596	6730602	365	96	0	-90.00		56	60	4	23.8
MCAC0508	444648	6730603	356	124	0	-90.00		80	92	12	33.5
							and	88	92	4	25
MCAC0509	444798	6730600	366	120	0	-90.00		92	96	4	74.1
							and	108	116	8	50.9
MCAC0510	444902	6730611	359	98	0	-90.00		68	72	4	25
							and	92	96	4	31.6
MCAC0511	445000	6730603	364	107	0	-90.00		68	72	4	22.7
							and	84	100	16	89.3
MCAC0517	445589	6730595	357	126	0	-90.00		60	64	4	25.3
							and	100	104	4	152
MCAC0518	445694	6730601	346	115	0	-90.00		104	108	4	22.1
MCAC0519	445786	6730592	354	114	0	-90.00		60	64	4	38.1
							and	100	104	4	47.2

MT CELIA DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade ppb
MCAC0520	445889	6730597	353	114	0	-90.00		104	114	10	500.8
MCAC0521	446001	6730606	360	112	0	-90.00		104	108	4	307
MCAC0522	446101	6730610	336	116	0	-90.00		80	84	4	95.1
							and	104	108	4	21.3
MCAC0524	446309	6730601	358	126	0	-90.00		76	80	4	20.9
							and	104	108	4	49.6
MCAC0525	446396	6730599	365	119	0	-90.00		92	96	4	32.4
MCAC0526	446493	6730637	384	114	0	-90.00		104	108	4	466
MCAC0528	446703	6730603	325	90	0	-90.00		96	100	4	26.3
MCAC0531	447006	6730603	357	96	0	-90.00		80	84	4	48.3
MCAC0532	447091	6730592	362	120	0	-90.00		96	104	8	77.55
MCAC0533	447197	6730602	360	120	0	-90.00		100	120	20	40.16
MCAC0534	447307	6730600	374	112	0	-90.00		100	104	4	33.1
MCAC0535	447399	6730602	370	126	0	-90.00		68	72	4	23.9
							and	104	116	12	39.1
MCAC0536	447501	6730600	368	120	0	-90.00		96	108	12	92.167
								100	108	8	84.25
MCAC0537	447602	6730592	364	130	0	-90.00		0	4	4	34.1
							and	96	116	20	74.58
							and	124	128	4	22.3
MCAC0540	447902	6730603	381	102	0	-90.00		68	72	4	72.9
							and	80	84	4	25.3
MCAC0541	448104	6730594	375	85	0	-90.00		16	20	4	28.9
MCAC0546	444503	6729703	356	116	0	-90.00		64	68	4	22.4
MCAC0548	444704	6729702	353	108	0	-90.00		60	64	4	29.3
MCAC0549	444805	6729705	354	120	0	-90.00		108	112	4	210
							and	116	120	4	30.3
MCAC0551	445000	6729690	359	115	0	-90.00		104	115	11	37.445
MCAC0552	445102	6729702	356	114	0	-90.00		104	108	4	30.4
MCAC0553	445200	6729705	357	107	0	-90.00		52	56	4	96
							and	84	88	4	23.5
							and	100	107	7	154.371

Table 6 – Bannockburn Drill Results

BANNOCKBURN DRILLING APRIL 2019										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade ppb
BBAC0447	293484	6857728	412	24	0	-90.00		16	24	8	31.9
BBAC0449	292277	6857715	416	45	0	-90.00		16	24	8	143.1
BBAC0454	292581	6858508	419	25	0	-90.00		16	20	4	32.3
BBAC0459	292378	6857718	415	27	0	-90.00		24	27	3	70.6
BBAC0469	293384	6858511	421	23	0	-90.00		**16**	**20**	**4**	**815.0**
BBAC0470	293687	6858512	421	54	0	-90.00		28	32	4	27.4
							and	36	40	4	26.0
BBAC0472	293884	6858512	422	66	0	-90.00		56	66	10	100.9
BBAC0481	295188	6858522	424	36	0	-90.00		20	24	4	21.3
BBAC0488	294480	6858515	425	73	0	-90.00		68	71	3	46.2
BBAC0490	294090	6858518	423	55	0	-90.00		40	44	4	21.7
BBAC0500	294576	6858967	425	80	0	-90.00		68	72	4	56.4
							and	76	80	4	20.0
BBAC0515	294679	6859371	397	71	0	-90.00		0	4	4	58.9
							and	48	52	4	26.3
BBAC0524	293679	6859358	420	45	0	-90.00		40	45	5	28.0
BBAC0528	292977	6859363	421	56	0	-90.00		48	56	8	54.9
BBAC0547	293982	6859716	421	61	0	-90.00		40	44	4	23.4
BBAC0550	293679	6859720	426	48	0	-90.00		28	40	12	52.1
							and	44	48	4	42.0
BBAC0551	293581	6859723	425	36	0	-90.00		**32**	**36**	**4**	**1660.0**
BBAC0572	293880	6860130	423	96	0	-90.00		68	76	8	30.6
BBAC0620	294082	6861691	429	81	0	-90.00		64	68	4	24.9
BBAC0639	294279	6862517	434	57	0	-90.00		8	12	4	27.7
BBAC0640	293885	6862529	431	80	0	-90.00		72	76	4	29.8
BBAC0655	294270	6863360	440	64	0	-90.00		56	60	4	27.0
BBAC0659	294075	6863367	437	72	0	-90.00		48	52	4	48.0
							and	68	72	4	81.7
BBAC0661	293776	6863362	430	56	0	-90.00		28	32	4	81.5
BBAC0664	293371	6863358	441	66	0	-90.00		0	4	4	26.2
BBAC0666	293187	6863359	438	66	0	-90.00		52	56	4	26.8
BBAC0675	294064	6864167	441	77	0	-90.00		8	20	12	44.1
							and	24	32	8	340.8
							and	36	40	4	26.4
							and	48	56	8	109.2
BBAC0683	293176	6863764	434	75	0	-90.00		48	56	8	76.4
							and	60	64	4	73.4
BBAC0685	293380	6863764	435	60	0	-90.00		4	8	4	25.2
BBAC0686	293471	6863763	437	55	0	-90.00		0	4	4	32.8
BBAC0693	294278	6864968	453	51	0	-90.00		36	40	4	43.0
							and	44	48	4	23.9
BBAC0694	294176	6864964	450	78	0	-90.00		24	40	16	35.1
							and	52	60	8	29.4
BBAC0696	293881	6864957	450	54	0	-90.00		12	16	4	27.0
BBAC0708	294142	6865909	462	32	0	-90.00		24	32	8	29.3
BBAC0719	294277	6866558	457	57	0	-90.00		24	28	4	27.7
BBAC0729	294370	6867373	459	26	0	-90.00		24	26	2	40.7
BBAC0744	292991	6869375	451	65	0	-90.00		40	44	4	20.0
BBAC0748	293278	6870565	469	65	0	-90.00		48	52	4	41.2
							and	56	60	4	37.1
							and	64	65	1	574.0
BBAC0753	293186.3	6871765	458	45	0	-90.00		32	36	4	23.3

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.

Whirling Dervish 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 Whirling Dervish have included reverse circulation (RC), surface and underground diamond drillholes (DD) and RC grade control drilling within the pit. 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 diamond and RC drilling 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 (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*	Diamond core is NQ sized, sampled to 1m intervals and 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. RC chips are riffle or cone split and sampled into 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 deposit was initially sampled by 35 AC holes, 159 RAB holes, 407 RC holes (assumed standard 5 ¼ ''bit size) and 53 surface diamond HQ core and unknown diameter holes. Saracen has completed 51 surface RC precollar with NQ diamond tail drill holes (precollars averaging 193m, diamond tails averaging 200m) , 12 diamond geotechnical holes , 80 RC holes from both surface and within the pit,4039 grade control RC holes within the pit and 222 NQ underground diamond drillholes. Diamond tails were oriented using an Ezy-mark tool. Some historic surface diamond drill core appears to have been oriented by unknown methods.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
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.
	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. During GC campaigns 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 Whirling Dervish 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. 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 (Whirling Dervish) is used. It is rotated 45 degrees west of MGA_GDA94. The one point conversion to MGA_GDA94 zone 51 is WDEast WDNorth RL MGAEast MGANorth RL Point 1 20003.8190 50277.5540 0 437865.3740 6665770.2100 0 Historic data is converted to Whirling Dervish 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 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.

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 Whirling Dervish pit is located on M28/166 and M31/220, while near mine exploration has been carried out on M28/245. The tenements are held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M28/166 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 M28/245 has a 21 year life (held until 2029) and is renewable for a further 21 years on a continuing basis. Mining Lease M28/166 is subject to two third party royalties and one caveat (Caveat 51H/067). Mining Lease M31/220 is subject to two third party royalties and one caveat (Caveat 64H/067) and Mining Lease M28/245 is subject to one third party royalty. There are no caveats associated with Mining Lease M28/245. Mining Leases M28/166, M28/245 and M31/220 are subject to a bank mortgage (Mortgage 499142). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Leases M28/166, M31/220 and M28/245 are subject to the Pinjin Pastoral Compensation Agreement. Mining Lease M31/220 is subject to the Pinjin and Gindalbie Pastoral Compensation Agreements. M28/166, M31/220 and M28/245 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 Whirling Dervish deposit 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 RAB drilling intersecting the Whirling Dervish mineralisation and an extensive RC campaign confirming it. Oriole Resources obtained the project in 1998 and, through wholly owned subsidiary company PacMin, completed closely spaced RC drilling to develop the resource through to reserve status. Sons of Gwalia carried out minor drilling before their collapse and takeover of the project by St Barbara.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Geology	*Deposit type, geological setting and style of mineralisation.*	Whirling Dervish 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. The mineralization is terminated to the west by the by a NW trending shear zone dipping 60 degrees to the east.
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, 15/10/2015, 14/10/2013, 23/07/2013, 03/12/2012, 10/10/2012, 31/07/2012, 27/04/2012, 06/03/2012, 27/01/2012, 06/01/2012, 26/10/2011, 01/08/2011, 28/07/2011, 03/06/2011, 21/04/2011, 09/02/2011
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.

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 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.*	Drilling is on going on surface and underground. A seismic project is also being assessed.

Thunderbox 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 Thunderbox include diamond drilling (DD) and reverse circulation (RC) drilling. Sampling methods undertaken by previous owners have included rotary air blast (RAB), DD and RC drilling and blast hole sampling within the pit. Limited historical data has been provided by previous owners.
	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. RC chips and diamond core provide high quality representative samples for analysis Historic RC, RAB, and DD core drilling is assumed to have been completed by previous holders to industry standard at that time (1999- 2007).
	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 or 1m intervals with total sample weights under 3kg Diamond core is NQ or 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. 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. All historic RAB, RC and DD and sampling is assumed to have been carried out to industry standard at that time.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
		RC grade control drilling was used to obtain 1m samples or 2m composite samples from which 3 kg was pulverised to create a 50g charge for fire assay, while blast hole samples were composited into 2.5m before a 3kg sample was obtained for pulverising to a final 50g charge for fire assay.
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 470 RAB holes. Further drilling included 306 RC holes (assumed standard 5 ¼ ''bit size) , 216 HQ, NQ and PQ diamond drillholes , approximately 15,400 blast holes and 2,400 RC grade control holes. Some diamond drilling carried out for geotechnical studies was oriented (the method is unknown), it is unknown if other core was oriented. Saracen completed 46 RC drillholes, 8 diamond geotechnical holes, 65 RC precollar diamond tail drillholes (precollars averaging 122m, diamond tails averaging 351m), 93 underground DD holes and 1998 RC grade control 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 or NQ diameter. Drill core was oriented utilising an ACT II core orientation tool.
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. Recoveries for some grade control drilling and blast hole sampling have been recorded based on a visual weight estimate. No other recoveries have been provided, it is unknown if they were recorded
	Measures taken to maximise sample recovery andensure 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. 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. Historical drilling is assumed completed 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 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 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 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 drillholes completed by Saracen have been logged in full.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
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. Duplicate core samples are quarter cored. 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 RC samples are cone split. Occasional wet samples are encountered. The sampling method for historic RAB and RC drilling is unknown. Grade control RC drilling has been cone split while blast hole sampling has been riffle split. Wet drilling was rarely encountered, and extra care was taken to clean the splitter after encountering wet samples. Drillholes in puggy, wet clays were abandoned and redrilled once dewatering of the pit had commenced. Care was taken to adjust the splitter orifice for grade control drilling to ensure the sample weight did not exceed 3kg, meaning no subsampling was needed at the preparation stage.
	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. The sampling techniques for historic 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. Best practice is assumed at the time of historic RAB, DD and RC sampling. Procedures adopted to ensure sample representivity for RC grade control and blast hole sampling included weight analysis to determine split ratio (at least 2 holes per program) and sizing analysis of every 25th sample, with an expected return of 90% passing 75um.
	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 historic exploration RAB, RC and DD drilling. Field duplicates were carried out on RC grade control drilling at a rate of one per hole, collected from the second sample port on the cone splitter. Duplicates were carried out at a rate of 1 in 20 for blast hole sampling.
	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 samples and diamond core 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. A 50 gram fire assay with AAS finish was used to determine the gold concentration for all grade control samples. This method is considered suitable for determining gold concentrations in rock and is a total digest method. Methods for exploration RC, RAB and DD drilling included fire assay with AAS finish, BAAS 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.	The clay mineralogy of the deposit was investigated using PIMA (Portable Infra-red Microscopic Analyser) analysis to assist with geological interpretation. This data was not used in the estimation process.
	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.

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
		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.	A number of exploration RC holes were drilled to twin original RAB holes and verify results.
	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 a hired Reflex EZ-gyro by the respective drilling companies on a regular basis, between 10-30m.
	Specification of the grid system used.	MGA Zone 51 grid coordinate system is used
	Quality and adequacy of topographic control.	Kevron Geomatic Services flew and processed aerial photography and provided ortho images at 1:5000 scale over the Thunderbox deposit and environs.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal spacing for drilling is varied from 20mx20m to 40mx40m
	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 drilling is distributed and spaced such that geological and grade continuity can be established to estimate the mineral resource and ore reserve appropriately. The mineralisation is continuous over a 2km strike length, therefore the 80m x 80m exploration drill spacing effectively defines the continuity.
Orientation of data in relation to geological structure	*Whether sample compositing has been applied.*	RC precollar sampling was composted into 4m samples. Historic RAB drilling was sampled with 4m composite samples. Grade control RC drilling was carried out on 2m composite samples, while blast hole sampling was carried out on 2.5m composites.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The bulk of the drilling has been oriented to the east in order to provide the best intersection angles possible for the steeply west dipping orebody.
	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.
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.*	M36/504, M36/512 and M36/542 form part of the Thunderbox project and are in good standing. There are no native title claims over the Thunderbox deposit. A number of heritage surveys have been undertaken with Aboriginal groups with no sites of significance identified. In addition a detailed archaeological survey has been conducted with no sites of significance identified
	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 license to operate already exists.
Exploration done by other parties	A*cknowledgment and appraisal of exploration by other parties.*	Extensive nickel exploration was undertaken in the area during the 1960s and 1970s. Grassroots gold and PGE exploration was undertaken during and since the 1980s by BHP, Dominion, Dalrymple Resources and Forrestania Gold. Thunderbox was discovered in 1999.
Geology	*Deposit type, geological setting and style of* *mineralisation.*	Thunderbox is a mesothermal lode gold deposit located at the southern end of the Yandal greenstone belt in an area where several major shear zones converge and join with the Perseverance Fault. The shear zone dips at 30° to 60° WSW, with the exception in the vicinity of the mineralisation, where the shear is vertical to steeply dipping. Mineralisation is hosted by strongly deformed, silicified and carbonate altered albite-quartz porphyry in the hangingwall of the shear zone. The shear juxtaposes foliated basalts and intrusive porphyries in the hangingwall against sedimentary rocks in the footwall. The zone of shearing is over 200m wide. An ultramafic unit occurs within the shear, in the footwall of the deposit and is attenuated along the shear. The main gold related hydrothermal alteration assemblage comprises quartz-ankerite-arsenopyrite-pyrrhotite-galena and gold. This assemblage has been overprinted by a retrograde chlorite-epidote-white mica-biotite-quartz and pyrite assemblage. Syn-mineralisation veins have a continuum of vein textures ranging from laminated to pseudo-breccias.
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*	A total of 2722 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. Exclusion of the drilling information will not detract from the reader's view of the report. All material data is periodically released on the ASX: 31/07/2018, 01/05/2018, 13/07/2017, 21/02/2017, 07/12/2016, 25/11/2015, 29/04/2015, 23/03/2015

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
	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 (eg 'down hole length, true width not known').*	This announcement includes sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths. The geometry of the mineralisation is well known and true thickness can be calculated. Drilling intersects the mineralisation perpendicular and at an average intersection angle of 45 degrees.
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.*	Included in this release is an appropriately orientated longsection of the mineralisation, illustrating the centroids of the intercept point projected to a plane. Included also in this release are cross section views of the mineralisation which provides the visual perspective of the typical drilling angle.
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.*	Historic activities have included drilling to obtain samples for metallurgical test work, bulk density analyses and geotechnical analyses. A number of geophysical surveys including dipole-dipole IP, Gradient array IP and TEM were carried out over known mineralisation to determine effectiveness in delineating mineralisation/alteration. None were deemed effective. An environmental survey investigated the erosional characteristics of the soil, surface hydrology and groundwater and identified no issues. A partial leach soil sampling program carried out over the deposit was deemed effective in identifying anomalous gold values associated with the deposit. A detailed structural review of the mineralisation has been conducted by Model Earth
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*	Underground drilling is ongoing in the A zone area and future deep surface drilling is still being assessed under A and D Zones.

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.
	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.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	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.
	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.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
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.
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.
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.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
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.
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.

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.
	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.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature.* *Core (or costean, 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.
	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.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
		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.
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.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
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. 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:*	All material data is periodically released on the ASX:

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
	• *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.*	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.
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

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
		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.

Bannockburn 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 Bannockburn include reverse circulation (RC) drilling and aircore (AC) drilling. Sampling methods undertaken at Bannockburn by previous owners have included rotary air blast (RAB), reverse circulation (RC) and diamond drillholes (DD). Limited historical data has been provided by previous owners.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for RC and AC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC, RAB, and DD core drilling is assumed to have been completed by previous holders to industry standard at that time (1990-2008).
	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, while AC samples are spear sampled, with both sampled into 4m or 1m intervals with total sample weights under 3kg. 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 40g sub sample for analysis by FA/AAS. Initial RC drilling in the early 1990s included single stage mix and grind sample preparation to create a 300g pulp from which a 50g charge was used for assay determination. More recent RC drilling involved total preparation of a 4m composite sample to provide a 40g charge for fire assay. No other information has been found or supplied so it is assumed all RAB, RC and DD and sampling was carried out to industry standard at that time.
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-*	Historic drilling activities at Bannockburn have included 684 RAB holes, 1694 RC holes (some with diamond tails) and 78 DD holes (HQ, NQ, and unknown diameter).

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
	sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Saracen has completed 138 RC drillholes and 332 AC 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. Some historic HQ core was oriented by unknown methods.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Recoveries for RC and AC drillholes are recorded as a percentage based on a visual weight estimate. No other recoveries have been provided, it is unknown if they were recorded.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During RC and AC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Measures were taken to supress groundwater. It is unknown what, if any, measures were taken to ensure sample recovery and representivity.
	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. 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 record lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. Chips from all RC holes are stored in chip trays for future reference. Some historic diamond drilling has been photographed and geotechnically logged. It is unknown if all diamond core was photographed. Qualitative and quantitative logging of historic data varies in its completeness
	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.*	The sampling method for most drill core is unknown. Some historic core was half core sampled.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All RC samples were cone split. Occasional wet samples were encountered. AC drillholes were spear sampled RC drilling carried out in the 1990s includes spear sampled composites and riffle split 1m samples. RAB drilling was spear sampled. More recent RC drilling has been riffle split or spear sampled. Some sampling methods remain unknown.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of RC and AC chips adheres 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 sample preparation of 1990s RC drilling involved a single stage mix and grind method, more recent RC drilling involved a total preparation method. The sampling techniques for much of the remaining historic RAB, RC and DD drilling are unknown, best practice is assumed.
	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 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.	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 historic RAB, RC and DD drilling. Limited field duplicates were carried out on some more recent RC grade control drilling at a rate of one per hole.
	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 samples are analysed by an external laboratory using a 40g fire assay with AAS finish. AC samples are analysed using a 25g aqua regia digest. Both method are considered suitable for determining gold concentrations in rock and are total digest methods.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
		Limited historic samples were assayed using a leachwell digest and AAS finish in the onsite laboratory. More recent RC drilling has been assayed using a 50g aqua regia or 40g fire assay with AAS finish. Other assay methods for exploration RC, RAB and DD drilling included fire assay with AAS finish, aqua regia with AAS finish 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 Bannockburn.
	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 RC and AC. 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. However, grade control from both open pit and underground operations have 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 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.*	Saracen 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. Collar locations for early 1990s RC, RAB and DD drilling were surveyed using an EDM theodolite. The precision of this equipment in unknown. Downhole surveys were carried out using a CHAMP downhole electronic multishot system. More recent drilling has collar locations surveyed by unknown GPS and DGPS equipment, while downhole surveys have been carried out at regular intervals by 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.	No detail of topographic control was supplied or found.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	AC drilling was carried out on a broad 400x200m to 600x800m grid, with some closer spacing (50x50m) designed to test geophysical and geochemical targets
	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 drilling is distributed and spaced such that geological and grade continuity can be established to estimate the mineral resource and ore reserve appropriately. The mineralisation is continuous over a 2km strike length, therefore the 25m x 25m exploration drill spacing effectively defines the continuity. The tight drill spacing at the exploration and mineral resource definition stage highlight the complex nature of some areas of the resource.

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.*	RC and ACsampling was composited into 4m samples with mineralised areas resampled to 1m intervals Historic 1990s RC drilling was sampled on 6m composites due to the depth of overburden, with significant gold results being resampled in 1m intervals. Historic RAB drilling was generally 4m composite sampled with anomalous zones resampled to 1m intervals. Some more recent RC drilling was composited into 3m or 4m samples with areas of interest 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.	Due to the variability in the dip direction of the various lodes at Bannockburn, drilling has been orientated in multiple directions to ensure all mineralisation has been tested effectively. This ensures that minimal bias is introduced when sampling.
	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. Multiple drill orientations have been used to test the variably orientated mineralisation.
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 Bannockburn pit and associated infrastructure is located across M37/339, M37/340, M37/360, and M37/361. The tenements are 100% held by Saracen Metals Pty Ltd. The mining leases have a 21 year life and are all held until 2034. All are renewable for a further 21 years on a continuing basis. The tenements are the subject of a purchase and sale agreement between Norilsk Nickel Wildara Pty Ltd and Saracen Metals Pty Limited dated the 6 May 2014, whereby Saracen purchased 100% shares in the tenements. The tenements are all subject to a royalty of $25 p/oz over 33,000 and up to 73,000 oz of gold produced from the Resources, and $1 p/oz on each ounce of gold after 73,000 oz of gold produced from the Resource payable to Challenger Gold Operations Pty Ltd. Mining Lease 37/340 is subject to a Westpac mortgage (499139). All production is subject to a Western Australia state government NSR royalty of 2.5%. There are two registered heritage sites located over the tenements: Bannockburn 1 site (Place ID 1119) located over M37/361 and Koara Camp site (Place ID 1522) located over M37/339 and M37/340 There are no caveats relating to the tenements. There are no native title claims or pastoral compensation agreements over 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 license to operate already exists.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Gold was discovered at Bannockburn in the late 1800s with intermittent working of the deposit until the 1950s. Modern exploration began in the late 1970s with initial exploration targeting nickel sulphides before gold exploration began in 1979. Exploration activities by numerous companies including Freeport of Australia, Kulim Limited and Arboyne took place until Dominion purchased the project and commenced mining in 1991. The mine was placed on care and maintenance in 1995. The project changed hands numerous times after this with owners including Consolidated Gold Mines, Arrow Resources, Breakaway Resources, LionOre Australia and Norilsk Nickel Australia carrying out exploration activities leading to the discovery of numerous other deposits in the vicinity.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
Geology	*Deposit type, geological setting and style of mineralisation.*	The Bannockburn deposit is located along the western margin within the central portion of the Norseman-Wiluna greenstone belt. Locally the project area is dominated by an extensive sequence of tholeiitic, high-Mg and komatiitic basalts with intercalated sedimentary and intermediate volcaniclastic horizons. Dolerite and gabbro sills intrude the sequence. The deposit is complex with multiple controlling factors. The gross geometry of the deposit is controlled by the Bannockburn fault, a steeply dipping NNW trending fault that is continuous over at least 2.3km on the western margin of the orebody. The fault separates an ultramafic unit in the west from the Bannockburn host sequence in the east. It dips steeply east, rolling to vertical and steep west dipping in the northern part of the orebody. The Bannockburn fault is effectively the western boundary to the orebody with very little mineralisation penetrating the western side of the fault. The Central fault which hosts the Central orebody has a shallow northerly plunge and is the orebody on which the majority of the underground workings have focused on. There are a series of steeply east dipping lodes in the hangingwall of the central lode; these are interpreted as either tensional veins of reverse faults with shearing present along the veins. Black graphic shale units present within the stratigraphy have acted as a localised control on the mineralisation. The black shale units have taken up some of the deformation with stratigraphy parallel shearing and mafic sequences between the shales have extended to form steep east dipping extension veins.
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 17642 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 for RC drilling 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 (e.g. 'down hole length, true width not known').*	The geometry of the mineralisation is highly variable and the complex nature of the orebodies makes the definitive calculation of true thickness difficult. Drilling has been orientated to intersect the various orebodies at most optimum angle where possible. This has not always been achieved. Where holes have drilled parallel to or within a lode, additional holes have been drilled at a more suitable orientation to account for the poor angle.

Section 2: Reporting of Exploration Results		
Criteria	**JORC Code Explanation**	**Commentary**
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.
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.*	Various geophysical surveys have been carried out over the Bannockburn deposit in an effort to delineate structure and mineralisation including magnetics, gravity, CSMAT (Controlled Source Audio Magneto Telluric), radiometrics and SAM (sub-audio magnetics). CSMAT was deemed ineffective due to penetration issues while other methods returned varying results.
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 working on establishing an exploration program which will identify areas of opportunity to extend or enhance the Bannockburn mineral resource. A regional aircore program is currently underway testing the regional structures.