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ASX Announcement



14 August 2022

ASX:BCA

RC drilling completed across the Balfour Manganese Projects

HIGHLIGHTS

- A ~7000m reverse circulation (RC) drilling program has been successfully completed across 6 key targets within the Balfour Manganese Field that has confirmed widespread manganese mineralisation across a number of the prospects.
- Geological similarities were noted to Mineral Resources defined at Flanagan Bore where the Company has delineated 171Mt @ 10.3% Mn from the FB3 and LR1 deposits.¹
- Manganese mineralisation identified along 1500m strike at the KR1 prospect with thick zones of manganese enriched shale logged from surface in multiple holes.
- All samples have now been received by the laboratory with initial assay results are expected over the coming weeks. Within the next 2 to 3 months all of the assay's results will be collated and Mineral Resource and or Exploration Targets estimated subject to results.
- Mineralisation mapping completed at the W2 prospect where previously reported high-grade rock chip samples delivered grades above 50% Mn² has extended known mineralisation by 1500m to the north.

Australian manganese explorer and developer, Black Canyon Limited (**Black Canyon** or the **Company**) (ASX: BCA) is pleased to announce the completion of drilling activities on multiple targets within the Balfour Mineral Field (BMF), located in the Pilbara region of Western Australia. The drill program tested 6 key prospects including the prospective KR1 and Balfour targets (Figure 1) for a total of approximately 6927m of RC drilling with all samples now delivered to the laboratory for analysis. The Company anticipates that initial assay results will be received over the coming weeks.

Black Canyon Executive Director, Brendan Cummins, said: “The RC drill program has successfully intersected significant manganese mineralisation across the 100% owned Balfour Manganese Field projects. As anticipated drilling at KR1 and KR2 confirmed thick intervals of manganese enriched shale from surface with many similarities to the mineralisation we have discovered at Flanagan Bore. On that basis we are confident that there is additional Mineral Resource potential on the projects that will confirm the endowment of this prospective region.”

¹ BCA Announcement 24 November 2022 – Flanagan Bore Mineral Resource Estimate Increased by 64%

² BCA Announcement 5 July 2023 – High-Grade Rock Chip Samples up to 54% Mn

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“At Wandanya the high-grade, 50% Mr² plus manganese mineralisation at W2 has been followed up with further mineralisation mapping and extended over 1500m to the north. The mineralisation is unusually high grade, and an IP survey is now planned to help understand the depth potential and geometry. A positive response from that IP survey, will put us in a position to plan the maiden drill program on this exciting new target.”

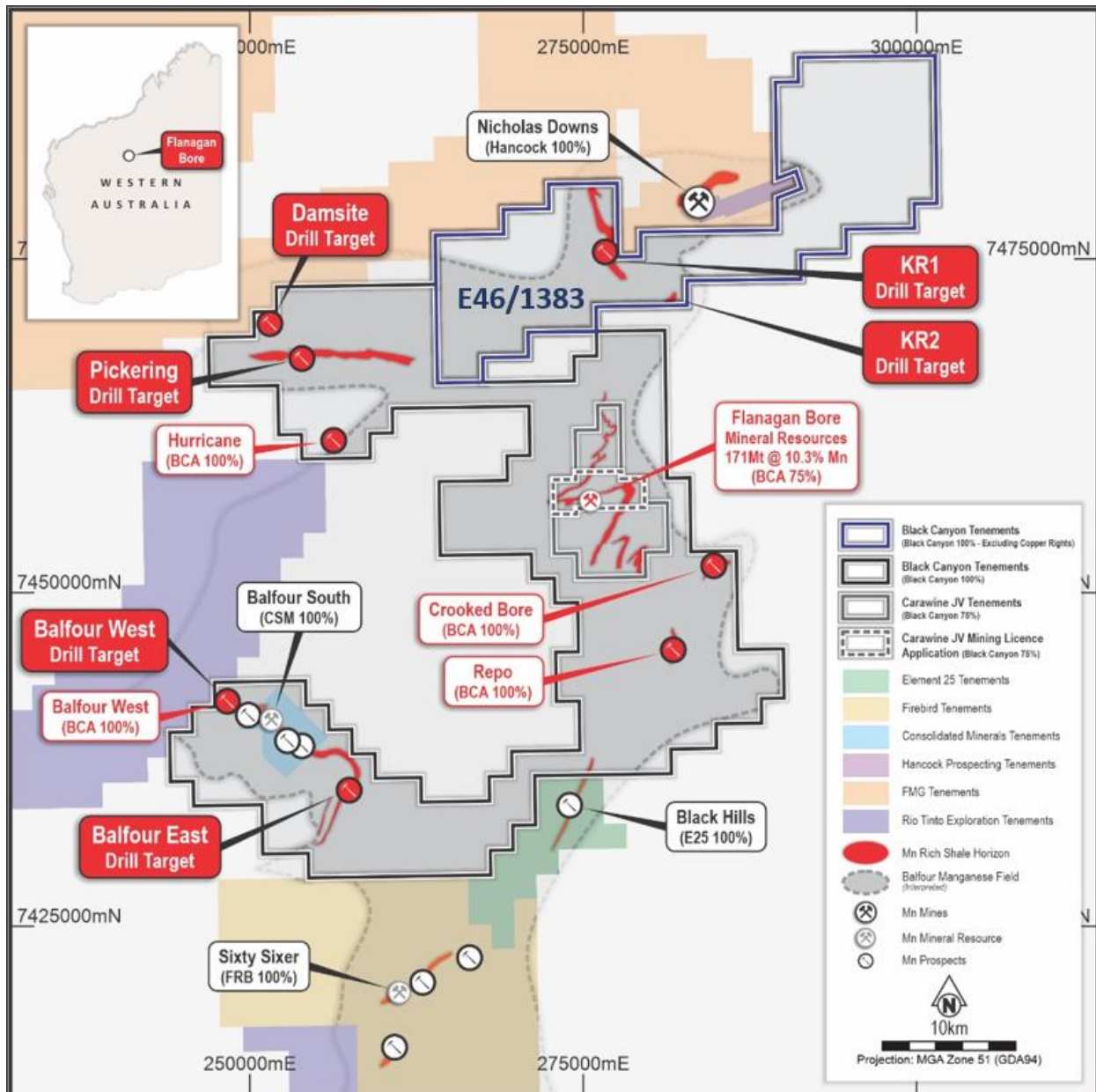


Figure 1. Location of the main drill targets across the Balfour Manganese Field and manganese shale horizon (red solid outlines).

Balfour Manganese Field Exploration Drill Program

A total of 220 holes for 6,927m of drilling were drilled across 6 target areas. The program was designed to drill test multiple targets across Black Canyon's 100% owned tenements within the Balfour Manganese Field. In summary the following prospects were evaluated as part of this RC drill program:

1. KR1 - a previously undrilled 2,500m section of outcropping supergene mineralisation was drill tested using E-W oriented lines, 200m apart with drill holes spaced at 100m or 200m centres. Widespread manganese mineralisation was encountered along the 2500m of strike with stronger zones of manganese enrichment encountered along a 1500m section. The mineralised zone was between 100 and 400m wide extending 15 to 30m downhole. Satellite imagery and check mapping has confirmed additional manganese enrichment continues for a further 3km to the north and may persist under thin cover to the south.
2. KR2 - a previously undrilled 900m section of outcropping supergene mineralisation was drill tested using E-W oriented lines, 200m apart with drill holes spaced at 200m centres. Manganese mineralisation was encountered along 700m of strike and open to the northwest and southeast. The manganiferous zone was between 200 and 350m wide extending 10 to 25m downhole.
3. Balfour West target - a previously undrilled 1,500m long horizon was interpreted to extend from outcropping manganese enriched shales located to the east and off lease onto Black Canyon's tenement. The target was tested with three N-S oriented drill lines spaced 400m apart, but no obvious manganese enriched shale was intersected. To the north and down dip of the outcropping manganese enriched shale surface mineralisation up to 5m thick was intersected over 600m of strike.
4. Balfour East - several wide spaced stratigraphic drill lines are drilled across subcropping and interpreted manganese enriched shale horizons. The subcropping target encountered mineralisation over 600m of strike and up to 250m wide extending 10 to 30m downhole. With limited drilling to date the mineralised corridor appears closed to the east but open in all other directions.
5. Damsite - a previously undrilled 600m section of outcropping supergene mineralisation was drill tested using E-W oriented lines, 200m apart with drill holes spaced at 100m centres. Mineralisation was drilled over 500m of strike and up to 200m wide and extended 15 to 20m downhole. The mineralisation appears to under cover and trend to the northwest off the tenement.
6. Pickering - a previously undrilled 1600m section of subcropping manganese enriched calcareous shales was drill tested using three N-S oriented lines spaced 800m apart with drill holes located at 100m centres. Mineralisation was drilled over 1600m of strike and between 400 and 500m wide and extended 10 to 20m downhole. Significantly Pickering is open to the east and west with subcropping manganese enriched calcareous shales mapped 4km and 4.5km to the east and west respectively. The to

Assays are pending and expected to be received over the next 2 to 3 months prior to the estimation of a Mineral Resource Estimates or Exploration targets subject to analysis of the assay results confirming grade and geological continuity.



Figure 2. RC drilling at KR2 with manganese enriched shale in the foreground

Wandanya (W2) High Grade Manganese Mineralisation

Further detailed mineralisation mapping was completed at the W2 prospect tracing the mineralisation for a further 1.5km along strike. Detailed mapping of the mineralisation identified insitu high grade, shallow dipping bedded mineralisation that has subsequently eroded and recemented to form a high-grade residual lag and wider areas of locally transported sheetwash. The area is structurally complex with multiple NE and NW-trending cross cutting faults dislocating the main mineralised horizon. Several surface rock chip samples have been taken across the mineralisation to confirm the tenor of the mineralisation with assays pending.

An IP survey is currently planned across the W2 target which may help assess the geometry of the mineralisation and if there is potential for down dip or structurally controlled manganese mineralisation below shallow dipping carbonate units. The IP survey is due to commence at the end of the month.



Figure 3. W2 prospect showing high-grade manganese outcrops

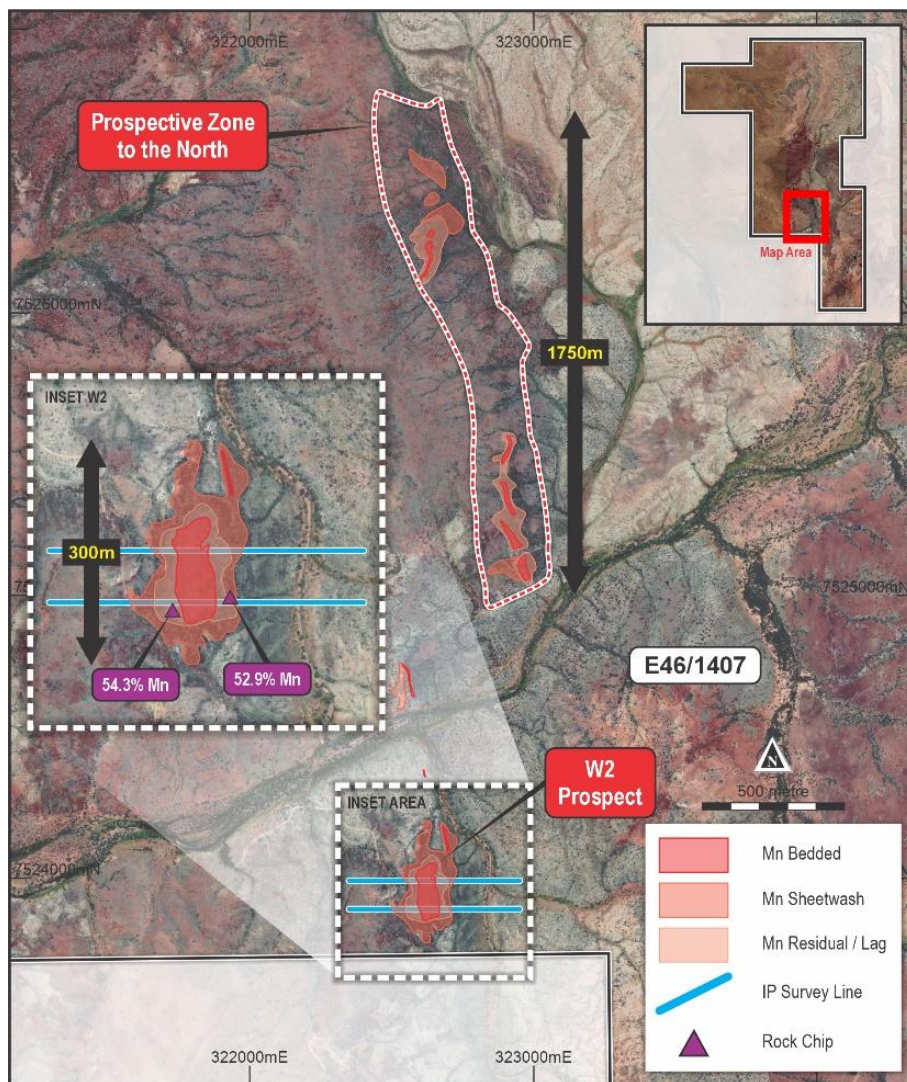


Figure 4. W2 prospect, Wandanya Project (E46/1407) showing high-grade manganese results and recent mineralisation mapping and planned IP lines.

This announcement has been approved by the Board of Black Canyon Limited.

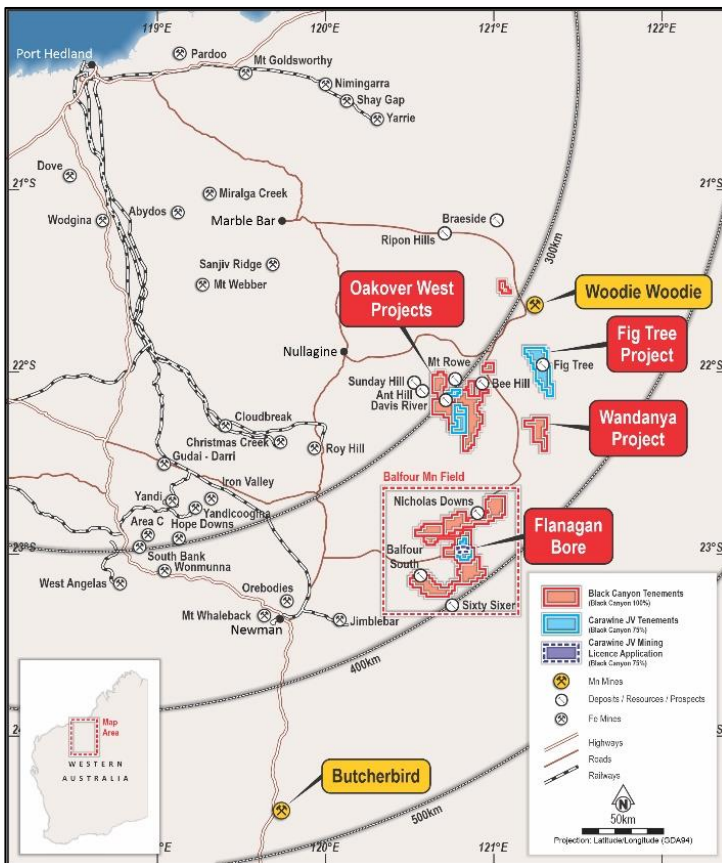
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About Black Canyon



Black Canyon has consolidated a significant land holding totalling 2,400km² in the underexplored Balfour Manganese Field and across the Oakover Basin, in Western Australia.

The emerging potential for the Balfour Manganese Field is evident by the size of the geological basin, mineral resources identified to date, distance from port, potential for shallow open pit mining and a likely Fig beneficiated Mn oxide concentrate product grading between 30 and 33% Mn. Black Canyon holds several exploration licenses 100% within the Balfour Manganese Field along with a 75% interest in the Carawine Joint Venture with ASX listed Carawine Resources Limited. A Mineral Resource (Measured and Indicated) of **171Mt @ 10.3% Mn** has been defined at Flanagan Bore which is part of the Carawine JV³.

Manganese continues to have attractive fundamentals where it is essential and non-substitutable in the manufacturing of alloys for the steel industry and a critical mineral in the cathodes of Li-ion batteries.

Compliance Statements

Reporting of Exploration Results and Previously Reported Information

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation reviewed by Mr Brendan Cummins, Executive Director of Black Canyon Limited. Mr Cummins is a member of the Australian Institute of Geoscientists, and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Cummins consents to the inclusion in this release of the matters based on the



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information in the form and context in which they appear. Mr Cummins is a shareholder of Black Canyon Limited.

For further information, please refer to ASX announcements dated 17 May 2021, 10 June 2021, 7 July 2021, 5 October 2021, 4 January 2022, 8 February 2022, 21 February 2022, 2 March 2022, 23 March 2022, 13 April 2022, 9 June 2022, 7 September 2022, 15 September 2022, 11 October, 21 & 24 2022 November 2022, 5 December 2022, 28 December 2022, 14 February 2023, 27 March 2023, June 1 2023, June 14 2023 and June 17 2023 which are available from the ASX Announcement web page on the Company's website. The Company confirms that there is no new information or data that materially affects the information presented in this release that relate to Exploration Results and Mineral Resources in the original market announcements.

Note 3 ASX release 24/11/2022 Mineral Resource increases by 64% at Flanagan Bore.



Appendix 1. Balfour Manganese July 2023 drill collar information

HOLE ID	EASTING	NORTHING	RL	GRID	HOLE TYPE	COLLAR PICK-UP	DIP	AZIMUTH	EOH	PROSPECT
KRRC001	277011	7475082	514.5	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC002	276899	7475104	521	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC003	276814	7475097	524.5	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC004	276702	7475101	520.5	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC005	276603	7475098	518.8	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC006	276493	7475098	514.8	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC007	276399	7475104	512.7	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC008	276302	7475103	512.2	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC009	276101	7475104	511.2	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC010	275900	7475105	509.5	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC011	275704	7475103	508	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC012	277003	7475301	513.6	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC013	276899	7475304	516.5	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC014	276801	7475304	522	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC015	276702	7475302	516	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC016	276602	7475303	513.8	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC017	276512	7475305	512.2	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC018	276401	7475305	510.8	MGA94_51	RC	GPS	-90	360	54	KR1
KRRC019	276204	7475304	509	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC020	276000	7475303	507.3	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC021	275805	7475306	505.8	MGA94_51	RC	GPS	-90	360	54	KR1
KRRC022	277102	7474901	512.1	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC023	276911	7474901	516	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC024	276796	7474903	519.4	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC025	276697	7474904	520	MGA94_51	RC	GPS	-90	360	17	KR1
KRRC026	276703	7474906	521	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC027	276600	7474909	521.5	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC028	276505	7474910	520	MGA94_51	RC	GPS	-90	360	48	KR1
KRRC029	276404	7474898	518.3	MGA94_51	RC	GPS	-90	360	54	KR1
KRRC030	276203	7474906	515.5	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC031	276001	7474906	513	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC032	275801	7474852	509.9	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC033	276294	7474903	516	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC034	276703	7474703	517.7	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC035	276501	7474703	519.2	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC036	276303	7474703	518.6	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC037	276102	7474703	515.5	MGA94_51	RC	GPS	-90	360	18	KR1
KRRC038	275903	7474701	514.6	MGA94_51	RC	GPS	-90	360	18	KR1
KRRC039	275696	7474699	511.1	MGA94_51	RC	GPS	-90	360	18	KR1
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KRRC042	276400	7475499	509	MGA94_51	RC	GPS	-90	360	18	KR1



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KRRC043	276500	7475502	510.5	MGA94_51	RC	GPS	-90	360	18	KR1
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KRRC045	276692	7475503	513	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC046	276808	7475501	517	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC047	276897	7475498	515.5	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC048	277004	7475487	512	MGA94_51	RC	GPS	-90	360	18	KR1
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KRRC054	276799	7475701	511	MGA94_51	RC	GPS	-90	360	24	KR1
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KRRC057	277102	7475702	510	MGA94_51	RC	GPS	-90	360	24	KR1
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KRRC065	276501	7476099	505	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC066	276704	7476098	505	MGA94_51	RC	GPS	-90	360	48	KR1



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KRRC067	276808	7476103	507	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC068	276895	7476103	507.5	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC069	276997	7476097	509	MGA94_51	RC	GPS	-90	360	12	KR1
KRRC070	277099	7476102	509	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC071	277198	7476102	508	MGA94_51	RC	GPS	-90	360	24	KR1
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KRRC080	277399	7476307	505	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC081	276496	7476498	502	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC082	276698	7476498	503	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC083	276902	7476503	507	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC084	276999	7476502	507	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC085	277102	7476501	507	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC086	277201	7476517	507	MGA94_51	RC	GPS	-90	360	12	KR1
KRRC087	277302	7476499	506	MGA94_51	RC	GPS	-90	360	18	KR1
KRRC088	277403	7476505	505	MGA94_51	RC	GPS	-90	360	18	KR1
KRRC089	276501	7476900	501	MGA94_51	RC	GPS	-90	360	30	KR1
KRRC090	276701	7476902	503	MGA94_51	RC	GPS	-90	360	48	KR1
KRRC091	276898	7476902	505	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC092	277101	7476907	508	MGA94_51	RC	GPS	-90	360	36	KR1
KRRC093	277301	7476900	507	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC094	277497	7476904	505	MGA94_51	RC	GPS	-90	360	24	KR1
KRRC095	276603	7475900	507	MGA94_51	RC	GPS	-90	360	60	KR1
KRRC096	276503	7475849	506	MGA94_51	RC	GPS	-90	360	60	KR1
KRRC097	276604	7474704	518	MGA94_51	RC	GPS	-90	360	42	KR1
KRRC098	276609	7474651	518	MGA94_51	RC	GPS	-90	360	48	KR1
KRRC099	281402	7472401	500	MGA94_51	RC	GPS	-90	360	30	KR2
KRRC100	281604	7472403	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC101	281302	7472200	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC102	281703	7472204	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC103	281502	7472204	500	MGA94_51	RC	GPS	-90	360	36	KR2
KRRC104	281204	7472003	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC105	281404	7472003	500	MGA94_51	RC	GPS	-90	360	30	KR2
KRRC106	281662	7472003	500	MGA94_51	RC	GPS	-90	360	30	KR2
KRRC107	281803	7472005	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC108	281400	7471806	500	MGA94_51	RC	GPS	-90	360	30	KR2
KRRC109	281601	7471802	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC110	281804	7471803	500	MGA94_51	RC	GPS	-90	360	24	KR2
KRRC111	281502	7471601	500	MGA94_51	RC	GPS	-90	360	30	KR2



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KRRC112	281707	7471603	500	MGA94_51	RC	GPS	-90	360	24	KR2
PKRC001	252404	7470998	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC002	252397	7471101	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC003	252403	7471200	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC004	252401	7471301	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC005	252402	7471403	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC006	252403	7471500	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC007	252202	7471507	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC008	252203	7471404	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC009	252199	7471303	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC010	252198	7471205	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC011	252198	7471107	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC012	252201	7471004	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC013	252020	7471506	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC014	252021	7471406	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC015	252021	7471304	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC016	252021	7471204	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC017	252020	7471107	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC018	252020	7470997	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC019	256395	7467803	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC020	256403	7467705	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC021	246401	7467605	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC022	256000	7468201	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC023	255999	7468104	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC024	256000	7468004	480	MGA94_51	RC	GPS	-90	360	54	PK
PKRC025	256002	7467902	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC026	256001	7467808	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC027	255999	7467705	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC028	256001	7467601	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC029	255196	7468205	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC030	255197	7468102	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC031	255200	7468006	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC032	255201	7467904	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC033	255202	7467804	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC034	255198	7467699	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC035	255201	7467601	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC036	254398	7468202	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC037	254398	7468103	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC038	254402	7467998	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC039	254403	7467906	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC040	254406	7467802	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC041	254400	7467703	480	MGA94_51	RC	GPS	-90	360	24	PK
PKRC042	254396	7467605	480	MGA94_51	RC	GPS	-90	360	24	PK

Appendix 2. JORC 2012 Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> The samples were collected using industry standard Reverse Circulation (RC) drill methods . Drilling was completed by Impact Drilling who completed the entire RC drill program – 220 holes for 6927m There was limited water encountered during the drill program The drilling and sample techniques are considered representative for the style of mineralisation utilising 1m sample intervals gathered directly from the RC drill rig using an adjustable cone splitter from a levelled drill rig. The target sample weight was between 2-3kg which is appropriate for the style of mineralisation
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> The drill type is Reverse Circulation (RC) drilling vertical holes The drill diameter us 5 ¼ inch RC using a face sampling hammer
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Sample recovery was estimated by the geologist on the rig and secondly by assessing the weight of the representative samples delivered to laboratory The drill recoveries were deemed acceptable with supervision of the sampling at the cone splitter No sample bias due to sample loss is evident from the observed sample recoveries The samples were drilled mostly dry again minimising sample bias
Logging	<ul style="list-style-type: none"> 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. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Drillhole logging was completed at the drill rig recording lithology, texture, grain size and colour. 1m chip trays were also collected in site, photographed and used to further detailed logging post the drill program The logging was considered appropriate for exploration reporting and eventually Mineral Resource Estimation Every 1m interval as logged and sieved for inspection – 6927 intervals were inspected
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> The 1m RC samples were gathered by using a levelled cone splitter of the side of the rig The samples were dominantly dry Black Canyon inserted Certified Reference Material (CRM) at a rate of 1/50, blanks at a rate of 1/50 and field duplicates from the cone splitter at a rate of 1/50 for a total insertion rate of QA/QC materials at 6% The sub sampling technique and quality control procedures is considered appropriate to ensure sample representivity The sample size is considered appropriate for the grainsize and style of mineralisation
Quality of assay data	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and 	<ul style="list-style-type: none"> The samples were submitted to Bureau Veritas in Canningvale, WA.



Criteria	JORC Code explanation	Commentary
and laboratory tests	<p><i>whether the technique is considered partial or total.</i></p> <ul style="list-style-type: none"> For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The 2 – 3kg samples were weighed and dried prior to pulverising 100% of the sample 95% passing 105µm The sample was then analysed using method XF103 for manganese ores using fusion disc XRF for Fe, SiO₂, Mn, Al₂O₃, TiO₂, P₂O₅, S, MgO, K₂O, Na₂O, CaO, BaO and Cr₂O₃. Loss on Ignition (LOI) was also measured by Thermo Gravimetric Analysis (TGA) Review of the quality control results received to date that include CRM, blanks, duplicates show an acceptable level of accuracy (lack of bias) and precision has been achieved. In addition Bureau Veritas has undertaken its own internal QAQC checks using CRM, Blanks and pulp duplicates and no issues have been reported or identified The CP is satisfied that the analysis was completed to an acceptable standard in the context in which the results have been reported
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> The significant intersections have not been verified by independent personnel Once the assays are received the new drill assay data will be compared to the previous drill hole assays by the Independent Resource Geologist
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Once a drill hole was completed the drill collar was located using a GARMIN handheld GPS with an accuracy of +/- 5m The grid system is UTM zone 51, GDA94 datum The topography is quite flat reflecting the underlying stratigraphy. The holes are shallow and downhole deviation is not considered material in the context of these results
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Drill line and hole spacing has been described for each prospect in the main body of the text. No sample compositing has been applied
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> The deposits are interpreted to be is flat and gently plunging. Drill logs and assay data have identified cross cutting dolerite dykes that may have intruded into zones of structural weakness. Further drilling and interpretation is required to ascertain the impact of dolerite intrusions on the mineralisation The drill hole orientation otherwise is suitable for this style of mineralisation and considered appropriate and unlikely to introduce sample bias
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The samples were collected into bulka bags, sealed with cable ties and stored on site until the drill program was completed The samples were then trucked to Perth in three consignment and delivered directly to Bureau Veritas in Canningvale. The .bulka bags were inspected and audited by Bureau Veritas who did not report any suspicious or tampered samples
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Other than internal review by Company staff no audits have been completed. The CP was on site for some of the RC drill program and considers the sampling and sub sampling techniques to be equal to industry standard and appropriate for the style of mineralisation and the results being reported.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material 	<ul style="list-style-type: none"> The drilling was undertaken on granted tenements E46/1383, E46/1404 and E46/1396



Criteria	JORC Code explanation	Commentary
land tenure status	<p>issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenements and all mineral rights are 100% owned by Black Canyon Ltd apart from E46/1383 where Killi Resources owns the copper rights. The tenements have Native Title Heritage Protection Agreements in place with the Karlka Niyiyaparli People that required a Heritage Survey to be undertaken prior to ground disturbing activities. Both Ethnographic and Archeologic surveys have been completed prior to commencement of site activities There are no other known impediments to exploring the listed tenements
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> There has been limited exploration work carried out on the tenements for manganese There has been no drilling carried out by past explorers specifically targeting manganese on these tenements
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The tenements are located within the Oakover Basin, the edges of which are defined by the Neoproterozoic Fortescue Group. Most of the tenements are covered by quaternary alluvium, sheetwash with restricted outcrop that comprises rocks of the Manganese Group, mainly the Encheddong Dolomite and Balfour Formation. The tenements contains widespread manganese scree associated with manganese enriched Balfour Formation shales The mineralisation is described as supergene manganese enriched shale. The host Mn shale is gradually enriched in manganese as it weathers or is leached and redeposited in the upper zones. The upgrades can be substantial and are often associated with iron. Structural enhancement maybe a factor in developing thick zones of mineralisation. Both Mn and Fe are very mobile in the near surface environment in WA.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer to Appendix 1 for a complete listing of the RC drill holes completed across the Balfour Manganese Field for the July 2023 RC drill program by Black Canyon
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Only length (1m) weighted intervals are included in the text of this release. Manganese intervals have been reported at 7% Mn cut off allowing 1 m of dilution (<7% Mn) Iron intervals have been reported as they coincide with the Mn intervals and no cut offs are applied No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> No exploration results are reported with this release.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These 	<ul style="list-style-type: none"> These have been included in the body of the release where relevant and material to the reader's understanding of the results in regard to the context in which they have been



Criteria	JORC Code explanation	Commentary
	<i>should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	reported.
Balanced reporting	<ul style="list-style-type: none">Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul style="list-style-type: none">Information considered material to the reader's understanding of the Exploration Results has been reported. in the body of the text and significant results have selectively been reported to provide the reader with the potential tenor and widths of the mineralisationAPPENDIX 1- contains the location and drill holes details drilled into the July 2023 drill program
Other substantive exploration data	<ul style="list-style-type: none">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.	<ul style="list-style-type: none">All information considered material to the reader's understanding and context of the RC Exploration Results have been reported.
Further work	<ul style="list-style-type: none">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.	<ul style="list-style-type: none">Further work is planned that includes: further infill drilling and diamond core drilling for large scale metallurgical testwork.Down hole geophysical surveys for magnetic susceptibility density and gamma radiation to be completed and will be used to update the lithological loggingMineral Resources and or Exploration Targets will be generated subject to review of the geological and grade continuity of the drill logging and assays results respectively.