

BLACK CANYON

ASX: BCA 23 April 2025

# **March Quarter Activities Report**

# Wandanya High-Grade Manganese Discovery

- Following the high-grade manganese discovery in the December quarter, the Company is progressing plans to commence a second phase of reverse circulation (RC) drilling to test another 900m of the 3km stratabound manganese horizon strike potential.
- An initial RC drill program is also planned to evaluate the high-grade iron zone testing 900m of strike and 200 - 300m across strike.
- Drilling is expected to recommence in the June quarter, following the completion of a Heritage Survey.

# Wandanya Met Testwork Returns 48-50% Mn

- Metallurgical testwork has been completed on RC drill composites to assess the potential to produce a saleable concentrate. Overall concentrate grades range between 50% and 48% Mn achieved with 68% to 76% recoveries respectively when combining the moderate and higher-grade composites results<sup>i</sup>.
- Positive results received from initial beneficiation testwork (Heavy Liquid Separation HLS) provide confidence that a high-grade manganese oxide concentrate can be readily produced using a simple density-based technique.

# **KR2 Infill Drilling Confirms MRE Upgrade Potential**

- The Company announced thick zones of manganese enriched shale from infill reverse RC drilling of the KR2 deposit, part of the Balfour Manganese Field (BMF) Project.
- Better results released during the quarter included::
  - **36m @ 15.5% Mn** from 0m, including **17m @ 17.2% Mn** from 13m (KRRC117)
  - 33m @ 13.6% Mn from 0m to EOH, including 12m @ 16.0% Mn from 0m (KRRC134)
- Infill drilling to a nominal 100m x 100m pattern is potentially sufficient to upgrade the current Mineral Resource Estimate (MRE) to the higher confidence Indicated category.
- Updated MRE expected in the June quarter.

#### Corporate

As at 31 March 2025, the Company's cash position was \$2.65 million.

## Contact

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#### Capital Structure (ASX: BCA)

Shares on Issue 129.4M Top 20 Shareholders Board & Management 8% Funds & Institutions 20 %

#### **Board of Directors**

Non-Executive Chairman

**Brendan Cummins** 

Managing Director

Simon Taylor Non-Executive Director

Adrian Hill

Non-Executive Director

Rebecca Broughton

Company Secretary

#### **Balfour Manganese Field Highlights**

Global MRE of 314Mt @ 10.5% Mn.\* Largest Resource in Western Australia. Development Options - Traditional Mn concentrate or HPMSM processing for EV's

\*BCA Announcement 12/12/23





Australian manganese developer and explorer, Black Canyon Limited (**Black Canyon** or **the Company**) (**ASX: BCA**), is pleased to present its quarterly activities report for the three months to 31 March 2025 (**March Quarter**).

#### **ACTIVITIES REPORT**

Black Canyon has discovered and controls the largest manganese Mineral Resource in Western Australia's Pilbara region totalling **314 Mt @ 10.5% Mn classified as Measured (32%), Indicated (48%) and Inferred (20%) for 33.1 Mt of contained Manganese.** iii

Black Canyon has released a Scoping Study<sup>iv</sup> for its KR1 and KR2 deposits (BCA 100%), that confirms the potential for **strong financial returns over a 16-year mine life, with a pre-tax NPV**<sub>8</sub> **of A\$340 million and IRR of 70%,** highlighting the quality of the project.

The Company's projects comprise more than 1,700km<sup>2</sup> of prospective tenure in the premier mining jurisdiction of the East Pilbara, between the Woodie Woodie and Butcherbird manganese deposits. The projects can produce manganese concentrate for the steel industry and high purity manganese sulphate monohydrate (**HPMSM**) for cathodes of batteries used by electric vehicles.

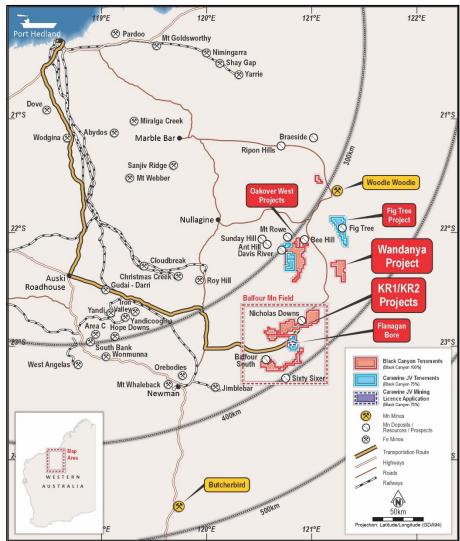


Figure 1: Location of BCA's Manganese Projects in the Pilbara Region of WA



# **WANDANYA PROJECT (BCA 100%)**

In the December quarter, the Company announced the 'discovery' of the W2 Prospect as part of the Wandanya Project. Drilling returned high-grade manganese, with intercepts including:

- o 5m @ 33.2% Mn from 4m including 2m @ 48.7% Mn (WDRC032)
- o 5m @ 33.2% Mn from 1m including 2m @ 44.1% Mn (WDRC031)
- o 5m @ 32.4% Mn from 4m including 2m @ 39.6% Mn (WDRC027)
- o 5m @ 31.1% Mn from surface, including 2m @ 42% Mn (WDRC005)

The mineralisation shows consistent thickness and grade, with only 240m of strike drill tested within the 3km long manganese corridor identified at the W2 Prospect.

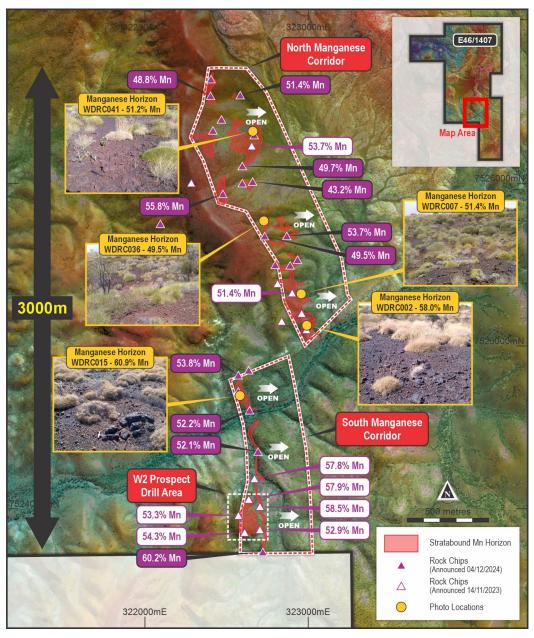


Figure 2. W2 prospect, Wandanya Project (E46/1407) showing high grade manganese outcrops<sup>v</sup>.



In the March quarter, the Company undertook an initial benchtop scale beneficiation testwork program at the W2 Prospect to assess the potential to produce a saleable concentrate of W2 material.

The testwork was completed on composite RC drill chip samples from the W2 prospect. The testwork demonstrates substantial uplifts from composite feed grades of 21.2% Mn and 41.5% Mn to concentrate grades well above the premium 44% Mn oxide benchmark grade for both the moderate and higher-grade feed samples. The laboratory testwork used HLS techniques as a proxy for widely used, industry based dense media separation (**DMS**).

These initial sighter level metallurgical tests provide a positive insight to the beneficiation characteristics of the manganese mineralisation discovered at Wandanya using feed grades similar to those at Woodie Woodie that routinely use DMS as part of its ore processing circuit.

The results are displayed in Table 2 and show significant uplifts, especially from the moderate grade concentrate. Based on the testwork completed and assuming re-combining the moderate-grade and high-grade composites at an SG of 3.0g/cm3 and 3.3g/cm3, the combined calculated averages for the concentrate are 50% Mn and 48% Mn respectively, produced from a calculated combined average head grade feed of about 31% Mn.

Summary assay data from the HLS concentrate products have been completed for a limited element suite with the results shown in Table 3. Low Fe and Al contents from the head assays and final concentrates further highlight the quality of the Wandanya manganese mineralisation.

Mn Αl Ca Mg **Composite** (%) (%) (%) (%) (%) (%) (%) (%) WD01MG 2.4 4.0 21.2 3.5 14.2 6.0 1.4 0.01 2.3 WD02HG 41.5 1.6 7.0 2.4 1.0 1.5 0.01

Table 1. Head grade assays from the moderate and high-grade composites<sup>i</sup>

Table 2. HLS testwork summar	y of results from the moderate and high-grade composites <sup>i</sup>	
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		Assayed		HLS Results						
Composite	Sample type	head Mn (%)	Size fraction	Parameter	Mn (%) Conc	Mn Stage Rec (%)	Mn (%) ave Conc	Mn overall Conc rec (%)	Combined Mn (%) Conc	Combined overall Conc rec (%)
	RC chip		+1.0mm -10mm		43.9	78		67.3	- 48	76
WD01MG	composite	21.2	-1.0mm +0.045mm	SG 3.0	46.6	65.6	45.1			
	RC chip		+1.0mm -10mm		50.8	96.3			40	
WD02HG	composite	41.5	-1.0mm +0.045mm	SG 3.0	51.7	90.7	51.2	84.4		
WD04146	RC chip	04.0	+1.0mm -10mm	66.2.2	46.6	58	47.9	50.4		68
WD01MG	composite	21.2	-1.0mm +0.045mm	SG 3.3	49.2	57		53.1	50	
	RC chip		+1.0mm -10mm		51.6	92.4	52.2	82	30	00
WD02HG	composite	41.5	-1.0mm +0.045mm	SG 3.3	52.9	89.4				



Table 3. HLS testwork concentrate element analysis from the moderate and high-grade composites

Campasita	Size fraction	Dovometer	Mn	Fe	Al	Si
Composite	Size Traction	Parameter	(%)	(%)	(%)	(%)
WD01MG	+1.0mm -10mm	SG 3.0	43.9	3.5	1.5	3.7
	-1.0mm +0.045mm	3G 3.0	46.6	3.5	1.1	2.6
WD02HG	+1.0mm -10mm	SG 3.0	50.8	2.0	0.9	2.3
	-1.0mm +0.045mm	30 3.0	51.7	1.6	0.7	1.8
WD01MG	+1.0mm -10mm	SG 3.3	46.6	3.1	1.2	2.6
	-1.0mm +0.045mm	30 3.3	49.2	3.4	1.0	2.0
WD02HG	+1.0mm -10mm	CC 2.2	51.6	1.7	0.8	1.9
	-1.0mm +0.045mm	SG 3.3	52.9	1.5	0.7	1.5

The initial metallurgical results have provided the Company with confidence to the amenability of the Wandanya manganese discovery to simple beneficiation and an indication of potential manganese concentrate grades and recoveries. These parameters can be used in further testwork to improve recovery which in the short term will rely on RC drill chips but in the future will use diamond drill core samples from further planned drilling programs.

#### **Upcoming Drill Planning**

The next step in the exploration program will be to drill further along strike and down dip at Wandanya to show scale and continuity of the manganese and drill test the high-grade iron targets identified up dip.

Heritage surveys are planned before drilling recommences in the June quarter 2025, aimed at testing another 900m of the 3km strike defined by rock chips that extend to the west into the high-grade iron zones.

# **BALFOUR MANGANESE FIELD (BCA 100%)**

#### **KR2 Infill RC Drill Program**

The Company infill drilled the KR2 Inferred Mineral Resource in late 2024, with 31 holes for 881m of reverse circulation (RC) drilling completed. The mineral resource currently stands at 24 Mt @ 11.9% Mn<sup>iii</sup> and is one of the higher-grade mineral deposits the Company has discovered in the BMF. The KR2 deposit was integral to the positive KR1 and KR2 Scoping Study<sup>IV</sup>.

The infill drill program has reduced the previous drill pattern from 200 x 200m to 100m x 100m. The objective of the infill drill program is to increase the geological and grade confidence so the currently Inferred mineral resource can be upgraded to a higher confidence classification that can be used in more detailed feasibility studies.

Widespread, continuous manganese mineralisation was encountered with stronger zones of surface manganese enrichment intersected along 400m of outcrop. The mineralised shale has been drilled to between 400m and 500m wide, 800m along strike, extending 10m to 35m downhole with several holes ending in mineralisation and it remains open to the north-west.



Significant assay results are presented belowii:

- 36m @ 12.9% Mn from surface until EOH (KRRC116)
- 36m @ 15.5% Mn from surface, including
  - o 17m @ 17.2% Mn from 13m (KRRC117)
- 30m @ 10.7% Mn from surface until EOH (KRRC120)
- 30m @ 13.9% Mn from surface (KRRC126)
- 36m @ 11.9% Mn from surface until EOH (KRRC129)
- 30m @ 13.1% Mn from surface until EOH (KRRC133)
- 33m @ 13.6% Mn from surface until EOH including
  - o 12m @ 16.0% Mn from surface (KRRC134)
- 30m @ 12.2% Mn from surface until EOH (KRRC137)
- 29m @ 12% Mn from surface until EOH (KRRC141)

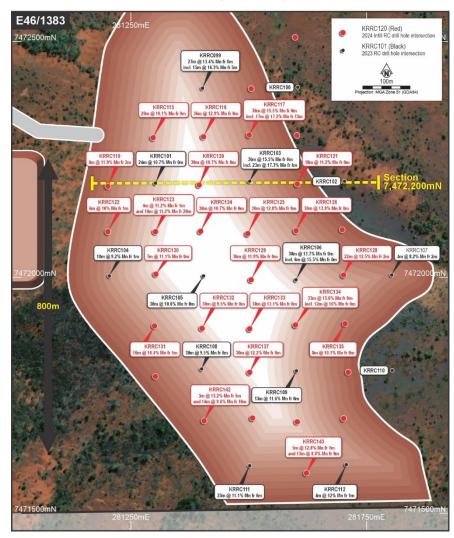


Figure 3: Drill plan, cross-section location and significant results received from KR2 from the 2023 and 2024 infill RC drill program



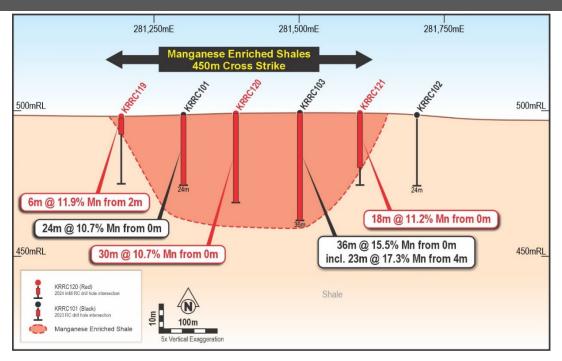


Figure 4: KR2 cross-section 7,472,200mN (looking to the north) with manganese enriched shale and drill intersections (2023 and 2024 infill drill results

## **Next Steps**

The Company's consultants are undertaking the Mineral Resource Estimate update for KR2 prior to reviewing the mine schedule and updating the Scoping Study financial metrics. The results of the study updates should be available in the June and December quarters.

# **CARAWINE JV ACTIVITIES (BCA 75%)**

Black Canyon holds a 75% interest in the Carawine JV Project tenements which are subject to a joint venture agreement with Carawine Resources Ltd (ASX:CWX) with both parties contributing to JV expenditure according to their interests. The JV status remains unchanged from previous quarters and the JV is operating under a minimum tenement expenditure basis to ensure the tenements are maintained in good standing.

There are no significant activities to report from the CWX JV tenements during the quarter. Minimum expenditure programs and budgets have been agreed between the JV partners for 2025.

#### CORPORATE

#### Cash

The Company's consolidated available cash was \$2.65m as of 31 March 2025 with no debt.

Tranche 2 of a capital raising to accelerate exploration at the Wandanya Iron and Manganese Discovery that was announced in December 2024, was completed after shareholder approval was received on 12 March 2025.

Subsequent to the end of the quarter the Company appointed Ms Rebecca Broughton as Company Secretary and Chief Financial Officer, effective 3 April 2025.



# **KEY ACTIVITIES PLANNED FOR THE JUNE 2025 QUARTER**

- Conduct a Heritage Survey at Wandanya for planned manganese and iron drill programs.
- Undertake drill site preparation and planning for the Wandanya RC drill program.
- Implement RC drilling at Wandanya for high grade manganese and iron targets.
- Conduct additional metallurgical beneficiation testwork programs from W2 samples to potentially improve overall recoveries.
- Submit W2 beneficiated manganese concentrate samples for mineralogical analysis.
- Progress the KR2 Mineral Resource update.
- Review the Wandanya RC drill results and field data to plan the third phase of RC drilling.
- Exploration Incentive Scheme (EIS) grant for drilling and geophysics undergoing review from DEMIRS
- Progress engagement with strategic parties interested in offtake or involvement in producing HPMSM and manganese concentrate products
- Attend the annual International Manganese Institute conference

# MARCH QUARTER ASX RELEASES

Additional details pertaining to information reported in this Quarterly report, including JORC 2012 reporting tables where applicable, can be found in the ASX announcements lodged with the ASX during the quarter:

4 Feb 2025	KR2 Infill Drilling Confirms Mineral Resource Upgrade Potential
11 Feb 2025	Metallurgical Testwork Delivers 48% to 50% Manganese Concentrates



## **ASX ADDITIONAL INFORMATION**

- ASX Listing Rule 5.3.1- Mining exploration activities and investment activity expenditure during the quarter was \$417,000. Full details of the activity during the quarter are set out in this report.
- ASX Listing Rule 5.3.2 Mining production and development activity expenditure for the quarter was Nil and there were no substantive mining exploration activities for the quarter.
- ASX Listing Rule 5.3.3 Tenement Schedule. During the quarter the Company surrendered 2 3. tenements and partially surrendered portions of tenements that after evaluation were not deemed prospective.

Project	Tenement	Beneficial Interest at start of quarter	Beneficial Interest at end of quarter	
	E46/1116-I	75%	75%	
	E46/1119-I	75%	75%	
Carawine Joint Venture tenements	E46/1301	75%	75%	
	MLA46/546	75%	75%	
	E46/1069-I	75%	75%	
Davis Creek	EL46/1382	100%	100%	
Pickering Creek	EL46/1404	100%	100%	
Davis North	EL46/1406	Surrendered	Tenement	
Wandanya	EL46/1407	100%	100%	
Warawagine	EL45/5954	100%	100%	
Bee Hill West	EL46/1422	100%	100%	
Balfour South	EL46/1396	100%	100%	
Hurricane	EL46/1394	100%	100%	
Billanooka	EL46/1488	Surrendered Tenement		
KR	EL46/1383	100%	100%	

Note

EL – Granted Exploration Licence.

ELA – Exploration license in application.

MLA – Mining Licence in application.

4. ASX Listing Rule 5.4.5 – Payments to related parties of the Company during the quarter and outlined in the Appendix 5B include \$174,000 for Salaries, Superannuation, Director Fees and Consulting Fees paid to Directors.



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

For further details:

Brendan Cummins Managing Director

Telephone: +61 400 799 756

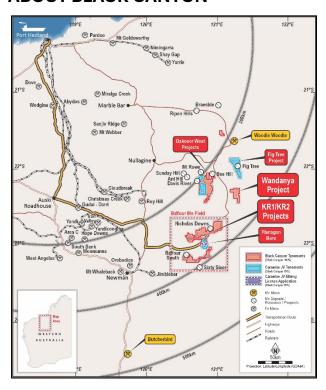
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#### ABOUT BLACK CANYON



Black Canyon has consolidated a significant land holding totalling 1,700km<sup>2</sup> in the underexplored Balfour Manganese Field (BMF) and across the Oakover Basin, in Western Australia.

The Company holds several exploration licenses 100% within the BMF along with a 75% interest in the Carawine Joint Venture with ASX listed Carawine Resources Limited. A Global Mineral Resource (Measured, Indicated & Inferred) of 314 Mt @ 10.4% Mn has been defined across the Balfour Manganese Field projects. This MRE comprises 100Mt @ 10.4% Mn (Measured), 150Mt @ 10.1% Mn (Indicated) and 64Mt @ 11.9% Mn (Inferred) – refer to ASX release 12 Dec 2023.

The Wandanya discovery represents a new exploration model on the eastern margin of the Oakover Basin comprising hydrothermal, stratabound high grade manganese and iron with significant scale and grade potential.

Manganese continues to have attractive long-

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



The information in this report that relates to metallurgical testwork results is based on information reviewed by Mr David Pass, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pass is an employee of BatteryLimits and consultant to Black Canyon Limited. Mr Pass has sufficient experience relevant to the mineralogy and type of deposit under consideration and the typical beneficiation thereof to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr Pass consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

For further information, please refer to ASX announcements dated 14 February 2023, 27 March 2023, June 1 2023, June 1 2023, June 1 2023, July 1 2023, 23 August 2023, 5 September 2023, 26 September 2023, 12 October 2023, 27 November 2023, 12 December 2023, 26 March 2024, and 1 May 2024, 2 July 2024, 21 August 2024, 25 September 2024, 27 September 2024, 8 October 2024, 18 October 2024, 14 November 2024, 27 November 2024, 4 December 2024, 23 December 2024 and 11 February 2025 which are available from the ASX Announcement web page on the Company's website.

The Company confirms that it is not aware of any new information or data that materially affects the information included in this release that relate to Exploration Results and, in the case of mineral resource estimates, that all material assumptions and technical parameters underpinning the estimates in the relevant release continue to apply and have not materially changed.

#### **REFERENCES**

ASX Announcement 11 February 2025 - Metallurgical Testwork Delivers 48% to 50% Manganese Concentrates

ASX Announcement 4 February 2025 - KR2 Infill Drilling Confirms Mineral Resource Upgrade Potential

iii ASX Announcement 12 December 2023 – Global Balfour Manganese MRE Exceed 300 Mt

<sup>&</sup>lt;sup>iv</sup> ASX Announcement 2 July 2024 – Positive Results Confirmed from the KR1 and KR2 Scoping Study

<sup>&</sup>lt;sup>v</sup> ASX Announcement 22 January 2025 – Quarterly Activity and Cashflow Report