

ASX: **BCA 24** July **2025** 

# June Quarter Activities Report

## **Wandanya Manganese and Iron Project**

- Phase 2 Reverse Circulation (RC) drilling confirms the presence of large manganese and iron mineralising systems with most of the assays expected through August.
- Post quarter end fast-track assays were received from 3 drill holes including:
  - o 12m @ 60.1% Fe from 5m including 7m @ 64.2% from 7m (WDRC057)
  - o 8m @ 31.1% Mn from 5m including 3m @ 41%Mn from 10m (WDRC063)
  - o 4m @ 29.8% Mn from 12m (WDRC069)
- Multiple drill holes successfully intersected the hydrothermal stratabound manganese
  horizon with drill chip logging confirming the consistency of the mineralisation and
  geology previously encountered from the W2 drill program.
- Manganese mineralisation has been delineated along 2km of strike in drilling and remains open to the north and east.
- Shallow to outcropping hematite dominated iron formation was also intersected in multiple drill holes over hundreds of metres strike and remains open to the north.
- Further drilling to extend and delineate these targets is planned for August 2025.

## Wandanya Beneficiation Improves Overall Recovery

- Additional beneficiation testwork on Wandanya composites improved overall recovery of manganese to 80% producing 45% Mn concentrate grade.
- Beneficiation results confirm expectations of increasing recovery at the expense of concentrate grade, but importantly still producing a high-grade manganese concentrate above the premium 44% Mn benchmark grade.

## **Corporate**

- Acquisition of six tenements expands prospective areas around the Wandanya Manganese and Iron Project discovery and across the Balfour Manganese Field (BMF) by 229km<sup>2</sup>.
- As at 30 June 2025, the Company's cash position is \$2.2 million.

#### Contact

35 Richardson Street West Perth, WA, 6005

E info@blackcanyon.com.au W www.blackcanyon.com.au

#### Capital Structure (ASX: BCA)

Shares on Issue 130.2M
Top 20 Shareholders 52%
Board & Management 9%
Funds & Institutions 28%

#### **Board of Directors**

**Graham Ascough**Non-Executive Chairman

**Brendan Cummins** 

Managing Director

Simon Taylor Non-Executive Director

Adrian Hill

Non-Executive Director

# 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.78-78-89





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 30 June 2025 (**June Quarter**).

## **ACTIVITIES REPORT**

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

Black Canyon has released a Scoping Study<sup>ii</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.

During the quarter the Company confirmed the **Wandanya Discovery** representing a new exploration model on the eastern margin of the Oakover Basin **comprising hydrothermal**, **stratabound high-grade manganese and high-grade iron with significant scale and grade potential**.

The Company's projects comprise more than 2,329km<sup>2</sup> of prospective tenure in the premier mining jurisdiction of the East Pilbara, close to the operating 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.

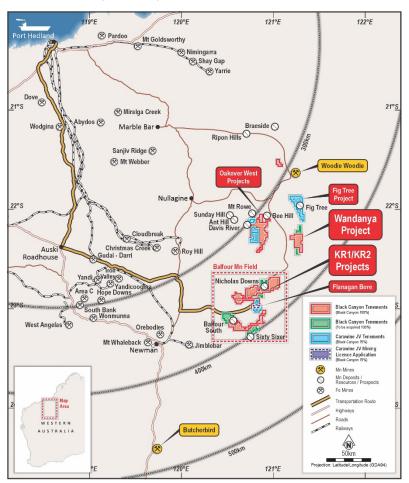


Figure 1: Location of BCA's Manganese Projects in the Pilbara Region of WA



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

## Phase 2 RC drilling fast-tracked assay results

The phase two RC drill program completed at Wandanya totalled 101 holes for 2,300m of drilling with drill line spacing ranging between 100m and up to 350m, and hole centres at 40m.

Post quarter end three holes were selected and submitted for fast-track analysis to gain an early understanding of the thickness and grade potential from the iron, iron/manganese and manganese zones. The three holes were selected to represent the various styles of mineralisation drilled across the most northern drill line completed (7,525, 900mN) and located between 240m and 250m apart (Table 1, X-section - Figure 2 and plan - Figure 3).

HO LE ID	Commodity Target	E_GDA94	N_GDA94	RL	EOH (m)	DIP	AZIMUTH	Drill intersection
WDRC057	Iron	322472.1	7525901.3	425.5	30	-90	360	12m @60.1% Fe & 0.5% Mn from 5m including 7m @64.2% Fe & 0.2% Mn from 7m
WDRC063	Iron/Manganese	322720.9	7525897.2	415.7	20	-90	360	8m @31.1% Mn & 6.4% Fe from 5m including 3m @41%Mn &3.4% Fe from 10m
WDRC069	Manganese	322958.0	7525899.2	408.0	20	-90	360	4m @29.8% Mn & 3.1% Fe from 12m

Table 1. Drill hole collar details and fast-tracked assay results

The assays from WDRC057 support the logging of high-grade iron mineralisation intersected in multiple drill holes over hundreds of metres strike which remains open to the north

The results from WDRC063 and WDRC069 demonstrate manganese mineralisation continues at least 2km north of the original W2 discovery and supports the consistent grade and geology of the stratabound manganese horizon which remains open to the north and east. The drill program has shown that on line 7,525,900mN the cross-strike width of the Mn horizon is about 480m and open to the east. The cross-strike width tested for manganese mineralisation as part of this program was between 200m and 400m and the mineralisation remains open to the east on multiple lines.

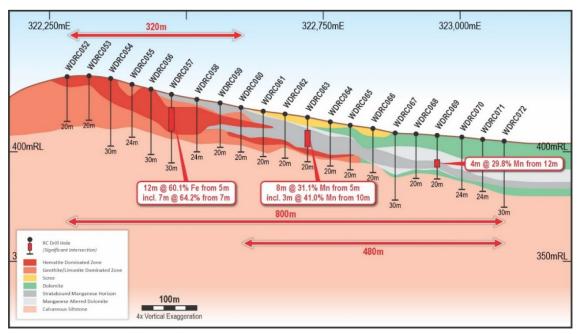


Figure 2: Cross section 7,525,900mN looking to the north showing the location of RC holes WDRC057, WDRC063 and WDRC06 (4x Vertical Exaggeration). Note assays are pending for all other holes.



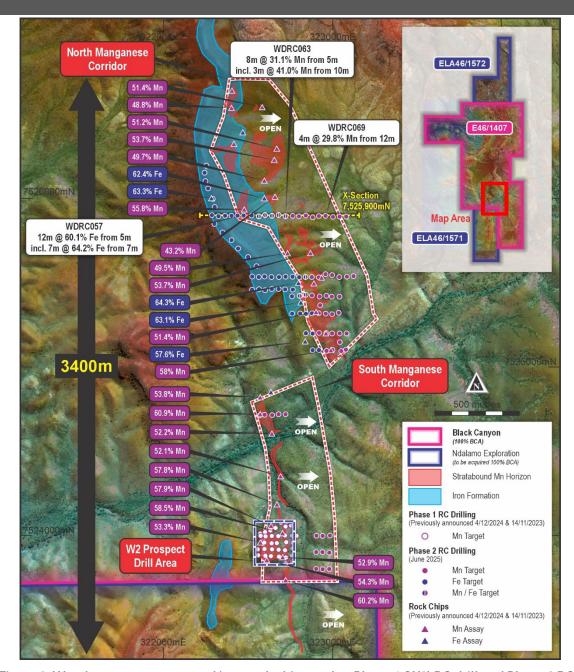


Figure 3: Wandanya manganese and iron rock chip results, Phase 1 (W2) RC drill and Phase 2 RC drill collars coloured by commodity target and fast-tracked assay results received post quarter end.

## Manganese

Drilling into the north manganese corridor has now defined manganese mineralisation over 1.2km of strike with a total of 2km of strike now successfully drill tested at Wandanya. At depth, continuity of the stratabound manganese mineralisation has been found to reflect the surface mineralisation with similar thickness of the mineralised horizon to those previously encountered at the W2 prospect. The cross-strike width tested for manganese mineralisation as part of this program was between 200m and 400m and the mineralisation remains open to the east on multiple lines.

In the southern manganese corridor, directly east of the W2 prospect, the Company has completed 9 holes that have continued to extend the stratabound manganese mineralisation down dip to the east a further 200m at depths between 20m and 25m. The mineralisation remains open to the east, along strike to the north and south.





Figure 4: Image looking to the northwest showing drill lines along and cross strike of the east dipping manganese horizon.

#### Iron

A 900m long ridgeline section of the iron rich formation was also drill tested with holes drilled every 40m to 50m along strike to understand the thickness, mineralogy and grade potential of the unit at its western most boundary. A total of 3 cross lines were also completed to determine the width potential of the iron enriched unit, which based on logging, appears to be between 250m and 400m wide. Significantly the iron formation does not appear to be related to surface enrichment processes.



Figure 5: Image looking to the south showing the north-south oriented drill line on the ridge and western boundary of the iron enriched outcrops (322,250mE).





Figure 6: Image looking to the west with the iron enriched formation located on the ridgeline and manganese on the flats to the east. The drill line is about 500m long to the top of the hill (7,525,550mN).

## **EIS Grant Awarded for Wandanya Drill Program**

Black Canyon's EIS application for Round 31 co-funded drilling to be completed within a 12-month window commencing on the 1 June 2025 was successful. The Company has been offered up to a maximum of \$112,500 for RC drilling and up to \$10,000 for mobilisation/demobilisation cost. The co-funded grant will be applied to the Wandanya phase two RC drill program once the assay results are received, and the program is officially completed in the next quarter.

## Metallurgical Testwork - Higher Manganese Recovery Achieved

Following the initial Heavy Liquid Separation (HLS) testwork on composite reverse circulation (RC) drill chip samples from the W2 prospect at the Wandanya Project, a further round of density-based beneficiation was completed during the quarter. The testwork has confirmed important grade/recovery trends whilst still delivering a high-grade manganese concentrate. Using a specific gravity (SG) or liquid density of 2.85g/cm3, an overall recovery of 80% was achieved yielding a high value 45% Mn concentrate.

Heavy Liquid Separation (HLS) techniques were used as a proxy for widely applied industry based dense media separation (DMS). The additional sighter level metallurgical tests continue to trend positively. This provides valuable beneficiation characteristic information from the manganese mineralisation discovered at Wandanya using feed grades similar to those at the Woodie Woodie Mn Operation 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 composite. Based on the testwork completed and assuming re-combining the moderate-grade and high-grade composites at an SG of 2.85g/cm3, 3.0g/cm3 and 3.3g/cm3, the combined calculated averages for the concentrates are 44.8% Mn, 48% Mn and 49.9% Mn respectively, produced from a calculated combined average head grade feed of about 31% Mn. The recoveries range from 79.5% to 67.5%.

Summary assay data from the HLS concentrate products have been compiled, with the results presented in Table 3. The concentrate samples are characterised by very low phosphorus and low iron and aluminium, further highlighting the quality of the Wandanya manganese mineralisation.



Table 2. HLS testwork summary of results from the moderate and high-grade composites. Results received during the quarter are identified in the bold red text

Composite	Sample type	Head grade feed Mn (%)	Size fraction	HLS Results							
				Density Parameter	Mn (%) Conc	Mn Stage Rec (%)	Mn (%) ave Conc	Mn overall Conc rec (%)	Combined Mn (%) Conc	Combined overall Conc rec (%)	
WD01LG	RC chip		+1.0mm -10mm	SG 2.85	39.6	88.6	39.5	77.9	44.8	79.5	
WD01LG	composite		-1.0 mm +0.045 mm		39.3	93.6					
	RC chip	41.5	+1.0mm -10mm	SG 2.85	49.4	99.0	50.1	81			
WD02HG	composite		-1.0mm +0.045mm		50.8	99.0					
WD01LG	RC chip composite	21.2	+1.0mm -10mm	SG 3.0	43.9	78.0	45.1	67.3	48.1	75.8	
WD01LG			-1.0mm +0.045mm		46.6	65.6					
WD02HG	RC chip		+1.0mm -10mm	SG 3.0	50.8	96.3	51.2	84.4			
WD02HG	composite		-1.0mm +0.045mm		51.7	90.7					
WIDOLLO	RC chip composite		+1.0mm -10mm	SG 3.3	46.6	58.0	47.9	53.1	49.9	67.6	
WD01LG			-1.0mm +0.045mm		49.2	57.0					
WDAAHG	RC chip composite		+1.0mm -10mm	SG 3.3	51.6	92.4	52.2	82			
WD02HG			-1.0mm +0.045mm		52.9	89.4					

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

Composite	Size fraction	Density Parameter	Mn (%)	Fe (%)	Al (%)	Si (%)	P (%)
WD01MG	+1.0mm -10mm	SG 2.85	39.6	3.5	1.7	4.7	0.02
Waving	-1.0 m m +0.045 m m	502.00	39.3	3.7	1.5	4.2	0.005
WD02HG	+1.0mm -10mm	SG 2.85	49.4	2.1	1.0	2.5	0.01
	-1.0 m m +0.045 m m		50.8	1.8	0.7	1.7	0.005

## **Next Steps**

Remaining RC drill assay results are expected to be received from early August

Drilling will recommence in in August to continue testing the full 3km strike potential of the statabound manganese horizon and further extend the newly discovered iron rich formation to the north and east.

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

The Company's consultants are progressing the Mineral Resource Estimate update for KR2 prior to reviewing the mine schedule and updating the Scoping Study financial metrics.

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

Black Canyon has earnt 75% 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**

# **Strategic Tenement Acquisition**

The Company announced the acquisition of 100% of Ndalamo Platinum Pty Ltd (Ndalamo or NDL) which holds key tenement applications ELA46/1571 & ELA46/1572 (pending grant) located south and north of the Wandanya manganese discovery, in addition to other prospective granted licenses. The tenement package adds a further 229km² to the Company's manganese portfolio in the eastern Pilbara.

On ELA46/1571 field mapping has confirmed the Wandanya manganese-rich horizon continues to the south for 300m to 400m (Figure 3). The most southern drill hole completed by Black Canyon at W2 that encountered the mineralised horizon is located 100m north of the tenement boundary and intersected 4m @ 26.3% Mn from 5m including 2m @ 37.4% Mn from 7m1. The prospective stratigraphic corridor for manganese enrichment has been mapped to the south for 4.5km on the Wandanya South tenement and will be investigated for the presence of the manganese rich horizon.

## **Summary of Ndalamo Acquisition Terms**

Black Canyon has entered into a binding Share Sale Agreement to acquire 100% of Ndalamo Platinum Pty Ltd for the following consideration:

- Two (2) million Fully Paid Ordinary shares in Black Canyon and Two (2) million unlisted Black Canyon Options to acquire Fully Paid Ordinary Shares of Black Canyon upon the satisfaction of certain Conditions Precedent
- 2. The Conditions Precedent include;
  - a. Completion of a 21-day due diligence period from execution of the agreement, and
  - b. The grant of tenements ELA46/1571 & ELA46/1572 by 30 November 2025.
- 3. The Black Canyon Options are exercisable at \$0.14 and have a term of 3 years from the issue date.

## **Company Secretary and Chief Financial Officer**

The Company appointed Ms Rebecca Broughton as Company Secretary and Chief Financial Officer effective 3 April 2025.

Ms Broughton is an experienced Company Secretary and Chartered Accountant, with expertise and skills in compliance, corporate governance and finance functions of companies within Australia. Ms Broughton holds a Bachelor of Commerce and is currently Company Secretary of ASX listed MetalsGrove Mining Limited.

## **Registered Office**

Effective from 3 April 2025, the Company's registered office and telephone changed to:

35 Richardson Street, West Perth WA 6004

0400 799 756

#### Cash

The Company's consolidated available cash was \$2.2m as of 30 June 2025 with no debt.



## **Summary of Expenditure**

Expenditure on Exploration and Evaluation was \$116k and Admin and Corporate costs totalling \$136k. This information is presented in the Quarterly Cashflow Report (Appendix 5B).

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

- Receive and collate the RC drill assay results from the Phase 2 Wandanya RC drill program
- Undertake drill site preparation and logistics for the Wandanya Phase 3 RC drill program.
- Implement Phase 3 RC drilling comprising 3000m at Wandanya across high grade manganese and iron targets.
- Plan diamond core (PQ) program for iron and manganese metallurgical testwork programs.
- Scope metallurgical testwork programs for iron and manganese
- Plan next round of Heritage Surveys to expand the mineralisation footprint for manganese and iron
- Scope baseline flora/vegetation and fauna surveys for Wandanya
- Completion of KR2 Mineral Resource Update and updating of mining studies.
- Progress engagement with strategic parties interested in offtake or involvement in producing HPMSM and manganese concentrate products

# **JUNE 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:

1 Apr 2025	Wandanya Manganese and Iron Drilling Exploration Update
3 Apr 2025	Appointment Company Secretary & Change of Registered Office
16 Apr 2025	Higher Manganese Recovery Achieved
1 May 2025	EIS Grant awarded for the upcoming Wandanya Drill Program
12 Jun 2025	Strategic Tenement Acquisitions Expand the Wandanya Project
16 Jun 2025	Phase 2 RC Drilling Commences at Wandanya
30 Jun 2025	Wandanya RC Drilling Successfully Tests High-Grade Mn & Fe



## **ASX ADDITIONAL INFORMATION**

- 1. ASX Listing Rule 5.3.1– Mining exploration activities and investment activity expenditure during the quarter was \$116,000. Full details of the activity during the quarter are set out in this report.
- 2. 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.
- 3. ASX Listing Rule 5.3.3 Tenement Schedule

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	100%	100%
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	100%	100%
KR	EL46/1383	100%	100%
	EL46/1571	0%	0%
	EL46/1572	0%	0%
Ndalamo Acquisition Tenements	EL46/1509	0%	0%
subject to Conditions Precedent (announced June 12, 2025)	EL46/1530	0%	0%
	EL46/1554	0%	0%
	EL46/1559	0%	0%

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 \$115,000 for Salaries, 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 8 9426 0666

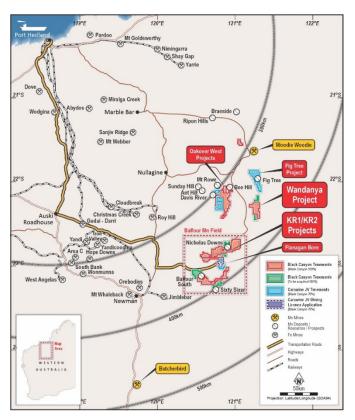
Email: <a href="mailto:brendan.cummins@blackcanyon.com.au">brendan.cummins@blackcanyon.com.au</a>

For media and broker enquiries:

Jason Mack
White Noise Communications

Telephone: +61 400 643 799

Email: jason@whitenoisecomms.com



## 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.

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 14 2023, June 17 2023, July 14 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, 1 April 2025, 16 April 2025, 1 May 2025 and 30 June 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**

<sup>i</sup> ASX Announcement 12 December 2023 – Global Balfour Manganese MRE Exceed 300 Mt

ASX Announcement 2 July 2024 – Positive Results Confirmed from the KR1 and KR2 Scoping Study