BLACK CANYON

ASX Announcement

24 November 2022 ASX:BCA

Flanagan Bore Mineral Resource Estimate Increased by 64%

- Flanagan Bore Mineral Resource Estimate (MRE) increased by 64% to **171 Mt @ 10.3% Mn containing 18Mt of manganese** comprising;
  - **FB3 Deposit: 116 Mt @ 10.2% Mn** (45% Measured and 55% Indicated)
  - **LR1 Deposit: 56 Mt @ 10.4% Mn** (90% Measured and 10% Indicated)
- **High confidence Measured Mineral Resources now total 100 Mt @ 10.4% Mn**
- **Significant higher-grade component totalling 40 Mt @ 13.0% Mn** (63% Measured and 37% Indicated) across the FB3 and LR1 deposits, which will facilitate higher-grade mine feed during the critical early years of mine life
- The updated MRE adds 67 Mt of resource with an additional 7 Mt of contained manganese
- The deposits at LR1 and FB3 are outcropping with higher-grade manganese mineralisation commencing from surface with thick continuous mineralisation encountered to depths between 20 and 40 m
- The updated MRE highlights the large deposit scale, well defined grade domains and significant contained manganese and provides a robust foundation on which to establish potential Ore Reserves through detailed development and feasibility studies currently underway

Australian manganese explorer, Black Canyon Limited (**Black Canyon** or the **Company**) (ASX:BCA), is pleased to announce the June 2022 infill and resource expansion drill program has delivered significant increases to the Mineral Resource Estimate (MRE) tonnage, contained manganese and JORC classification confidence at the Company's flagship Flanagan Bore Project in the eastern Pilbara region of Western Australia.

The previous Mineral Resource (refer to ASX announcement 13 April 2022) at Flanagan Bore comprised 104Mt @ 10.5% Mn (Indicated) has been significantly expanded and upgraded to **171 Mt @ 10.3% Mn (58% Measured and 42% Indicated**) containing **18 Mt of manganese** (Table 1). This represents a substantial increase of 67 Mt of total tonnage and 7Mt of contained manganese from the previous Mineral Resource. This firms up the project's significance on a global scale which is further enhanced by its location in a Tier 1 mining jurisdiction.

Flanagan Bore is part of the Company's Carawine JV and is subject to a farm-in and joint venture agreement with Carawine Resources Ltd (ASX:CWX). Having earned a 51% interest, Black Canyon is now earning up to 75% in the Carawine Project tenements by sole-funding an additional $2.5m of exploration expenditure. The Flanagan Bore project is located approximately 400 km southeast of Port Hedland.

Black Canyon Executive Director, Brendan Cummins, said: *"The Flanagan Bore manganese deposits have continued to outperform with large increases in resource tonnes and contained manganese. The outcropping higher grade zone has improved, now averaging 13% Mn, and increased in size to 40 Mt. This higher grade zone provides a solid platform for early mining years, maximising potential cashflow during the start-up phases of a mining operation. Plus there still remains significant exploration upside on the tenement with limited drilling along several kilometres of the prospective mineralised horizon."*

"Our previously announced Scoping Study, based on the superseded Mineral Resource, evaluated Production Targets of 36.1 Mt @ 11.7% Mn over a 20 year mine life, generating a pre-tax NPV8 of $134M and pre-tax IRR of 67%. Today's updated Mineral Resource and internal higher grade zone therefore bodes well for an improved, multi-decade mining operation at Flanagan Bore."*

"The deposits have continued to show a high level of continuity, with more than half of the updated MRE now within the highest confidence Measured category This is another milestone achievement by the Company in less than 8 months since the last Mineral Resource was announced, and is the result of exceptional work completed by our exploration team and key consultants."

"With the increased scale and confidence in the Mineral Resource the Company can focus on development and Feasibility related studies while in parallel, progress our approval pathway for the recent Mining Lease application."

"The next 12 months will be transformational as Black Canyon continues to execute multiple activities across a number of work fronts to deliver a robust manganese mine Feasibility Study, continue exploration activities and scope the development of high purity manganese sulphate suitable for the electric vehicle industry."

(*refer to ASX Announcement on 18 August for further details)

Table 1. Summary of Mineral Resources for the FB3 and LR1 deposits at Flanagan Bore November 2022

Summary of Mineral Resources[1,3]							
Deposit	Mineral Resource Category	Material (Mt)[2]	In Situ Mn (Mt)	Mn (%)	Fe (%)	Si (%)	Al (%)
FB3	Measured	52	6	10.5	10.4	16.9	4.3
LR1	Measured	47	5	10.3	8.4	16.7	4.6
Total	**Measured**	**100**	**11**	**10.4**	**9.4**	**16.8**	**4.4**
FB3	Indicated	63	6	10.0	9.6	16.8	4.4
LR1	Indicated	8	1	11.3	9.4	6.9	1.8
Total	**Indicated**	**71**	**7**	**10.1**	**9.6**	**15.7**	**4.1**
Grand Total		**171**	**18**	**10.3**	**9.5**	**16.4**	**4.3**

Notes:

(1) Mineral resources reported at a cut-off grade of 7% Mn
(2) Appropriate rounding has been applied
(3) refer below, JORC Table 1, Sections 1 to 3 and Appendix 1-3 for further details

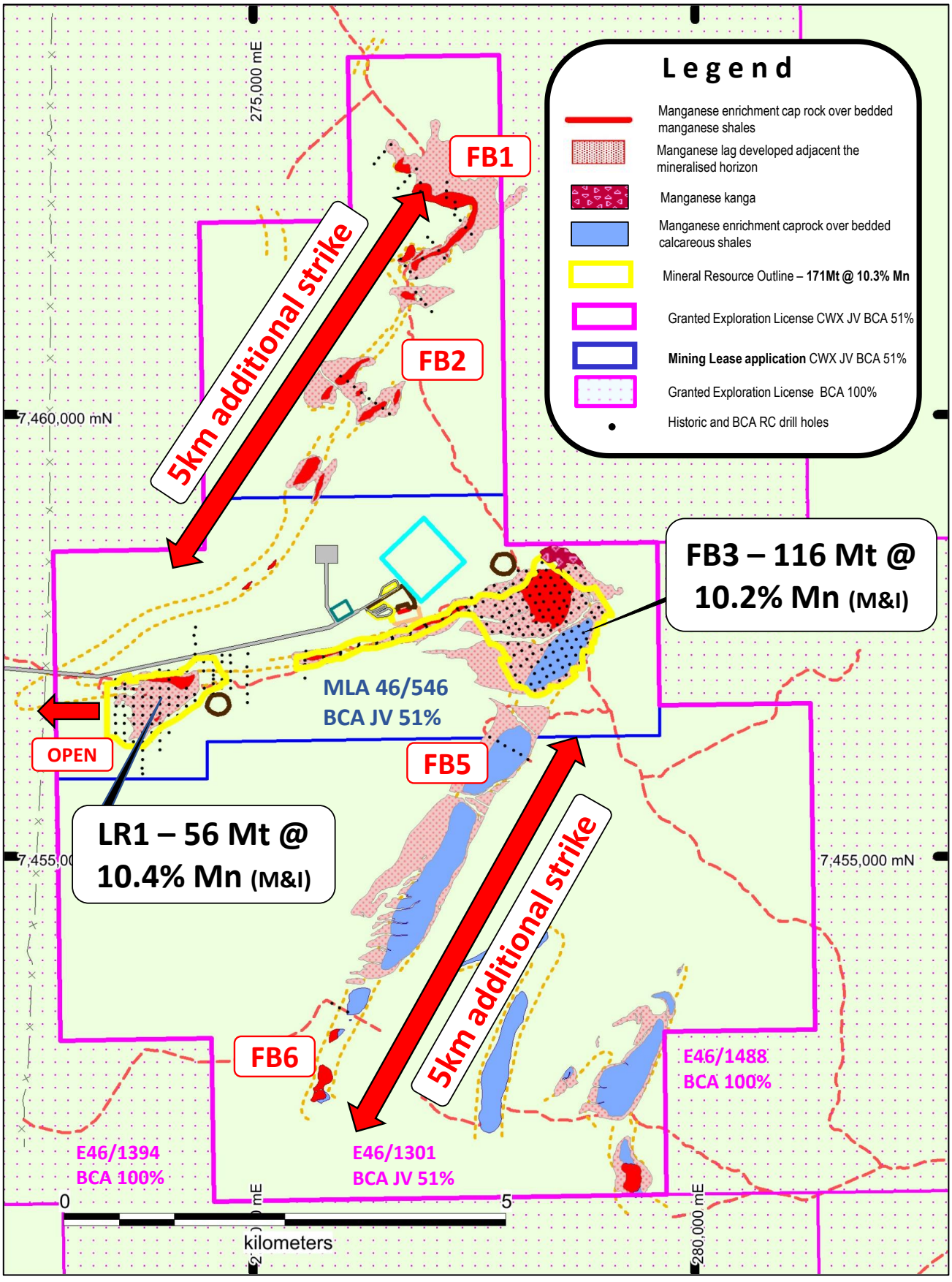

Figure 1. Flanagan Bore Project - FB3 & LR1 Mineral Resource outlines and future resource potential upside at FB1-FB2 and FB5 - FB6 (Black Canyon (51%) earning up to 75%)

FB3 and LR1 Global Mineral Resource Estimate

Historic drill (RC) results from the LR1 Prospect and 2 RC drill campaigns across the LR1 and FB3 deposits conducted by Black Canyon have been reviewed and validated for the Mineral Resource Estimate. The work was supervised and conducted by Greg Jones, a specialist consultant in mineral resources, metallurgy and processing technology and is employed by IHC Mining (refer to Competent Person statement). A Summary of the Mineral Resource Estimate and Reporting Criteria is attached to this announcement.

Table 1 displays the Global Mineral Resource estimates for the FB3 and LR1 deposits. The grade tonnage curves are presented in Figures 2 to 5 and oblique and cross-section views of the FB3 and LR1 deposits are presented in Figures 6 to 9. Supporting JORC tables are presented in Appendix 1, 2 and 3.

The Mineral Resources at LR1 and FB3 are outcropping, and form pronounced topographic features. The Mineral Resources defined at LR1 and FB3 have been estimated based on 516m of historic reverse circulation (RC) drilling from 2012, 4,312m (RC) drill program completed in December 2021 and 7436m (RC) drill program completed in June 2022.

The Mineral Resource estimate is based on drill holes on traverses completed on 100m spaced lines and 100m drill hole centres. The drill data shows manganese grades are strongly continuous downhole and across strike, which has significantly improved the confidence in the estimate and supports the Measured and Indicated Mineral Resource classification. High-grade manganese mineralisation is encountered from surface at FB3 and LR1 with zones of continuous mineralisation typically between 20 to 40m thick.

High-Grade Manganese Mineral Resource

A shallow, high-grade subset of mineralisation has been delineated across the LR1 and FB3 Mineral Resources and presented in Table 2. At an elevated cut-off grade of 11% Mn the Mineral Resource estimate totals 40 Mt @ 13% Mn with 25 Mt @ 13.2% Mn now classified as Measured.

As the Company progresses the development and feasibility studies, having access to high grade manganese Mineral Resources from surface has the potential to add significant value.

Table 2. High-grade Zone Mineral Resource Estimate from the FB3 and LR1 deposits at Flanagan Bore November 2022

Summary of Mineral Resources[1,3]							
Deposit	Mineral Resource Category	Material (Mt)[2]	In Situ Mn (Mt)	Mn (%)	Fe (%)	Si (%)	Al (%)
FB3	Measured	14	2	13.2	11.5	18.2	4.5
LR1	Measured	11	1	13.1	9.7	16.8	4.5
Total	**Measured**	**25**	**3**	**13.1**	**10.7**	**17.5**	**4.5**
FB3	Indicated	10	1	12.7	10.8	18.1	4.8
LR1	Indicated	5	1	12.9	9.9	6.1	1.6
Total	**Indicated**	**15**	**2**	**12.8**	**10.5**	**14.5**	**3.8**
Grand Total		**40**	**5**	**13.0**	**10.6**	**16.4**	**4.3**

Notes:

(1) Mineral resources reported at a cut-off grade of 11% Mn
(2) Appropriate rounding has been applied
(3) Refer to JORC Table 1, Sections 1 to 3 and Appendix 1-3 for further details

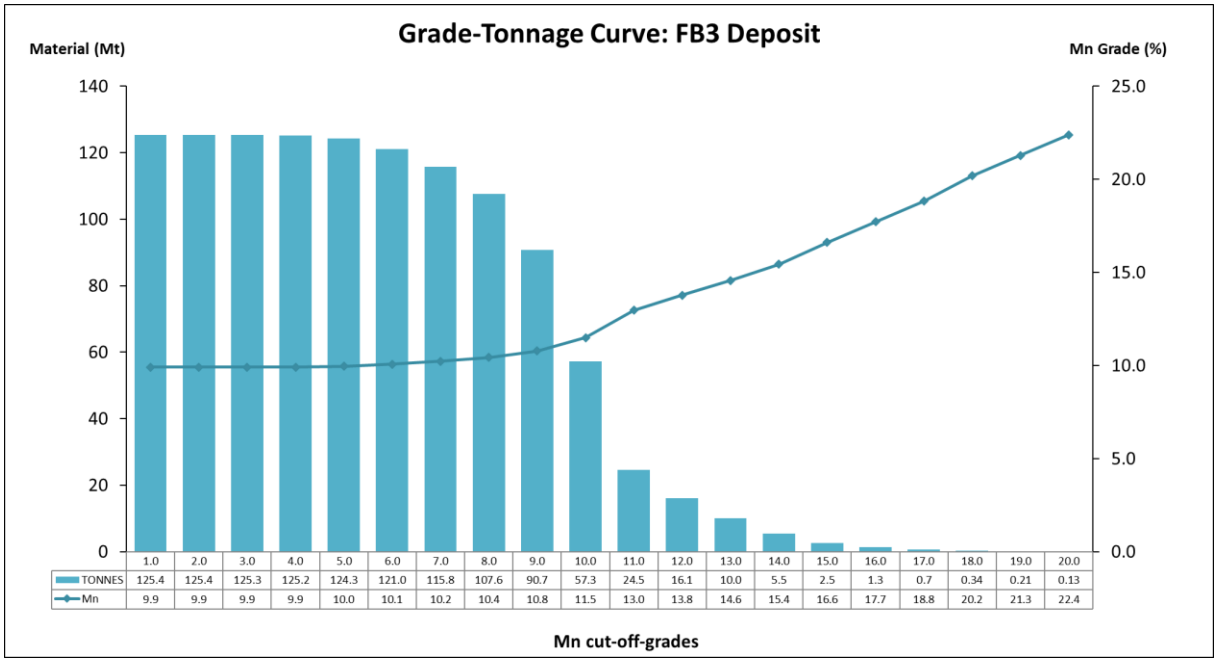

Figure 2. FB3 Mineral Resource grade-tonnage curve

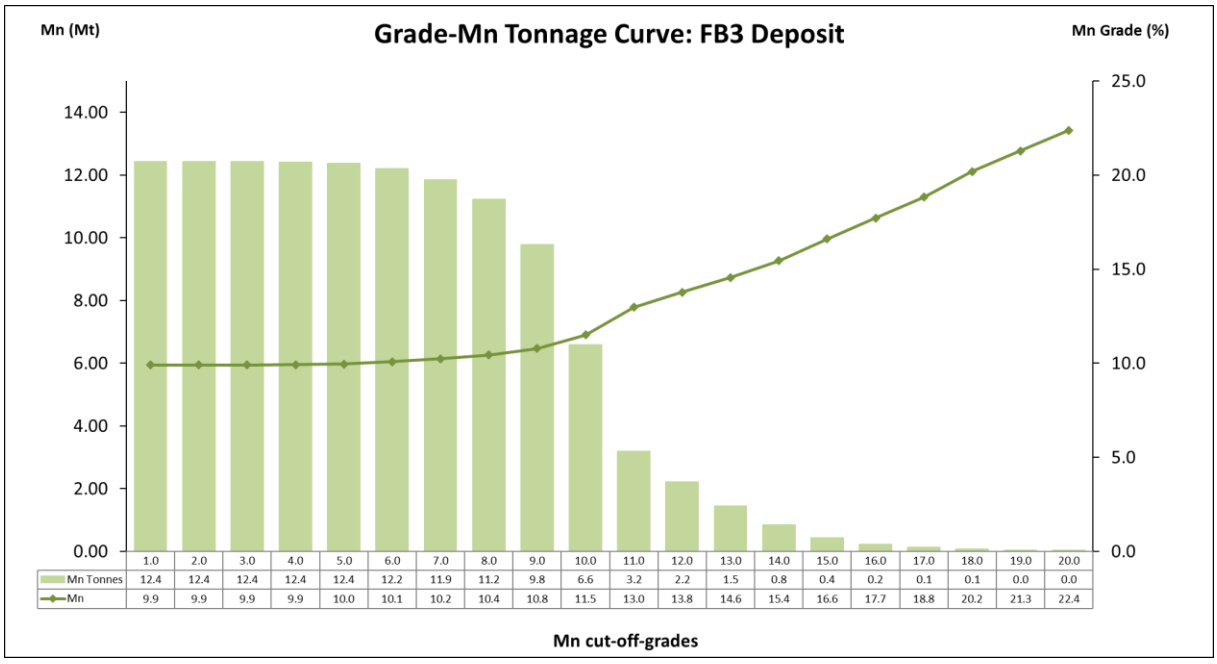

Figure 3. FB3 Mineral Resource grade-contained metal tonnage curve

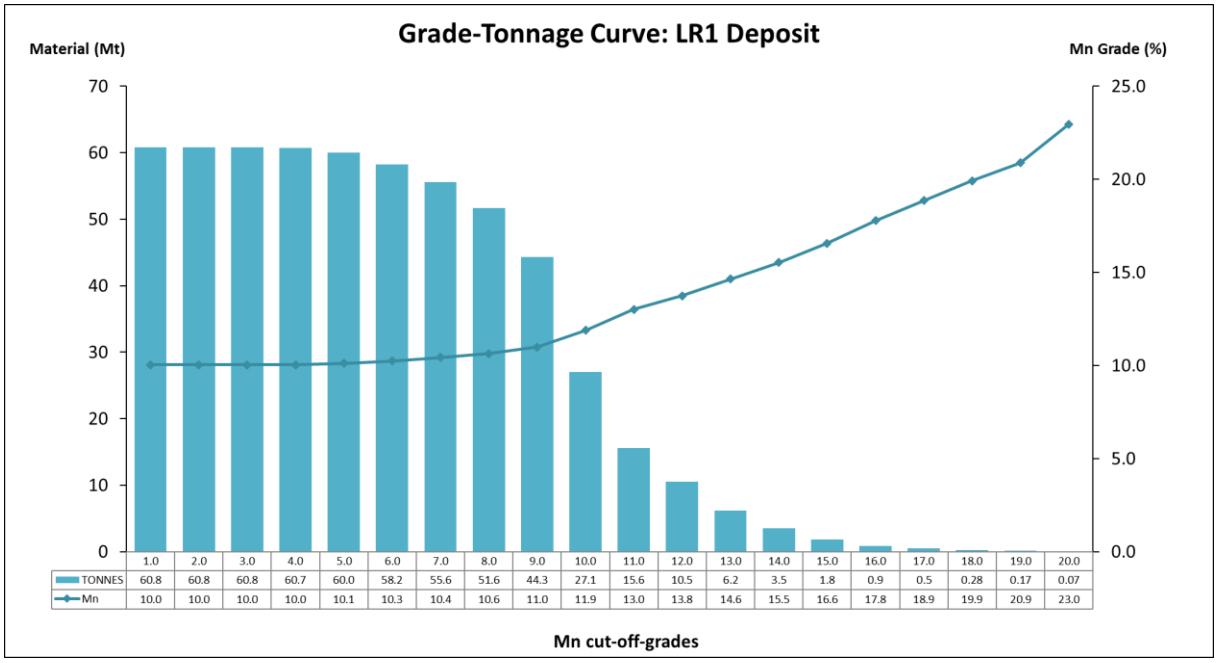

Figure 4. LR1 Mineral Resource grade-tonnage curve

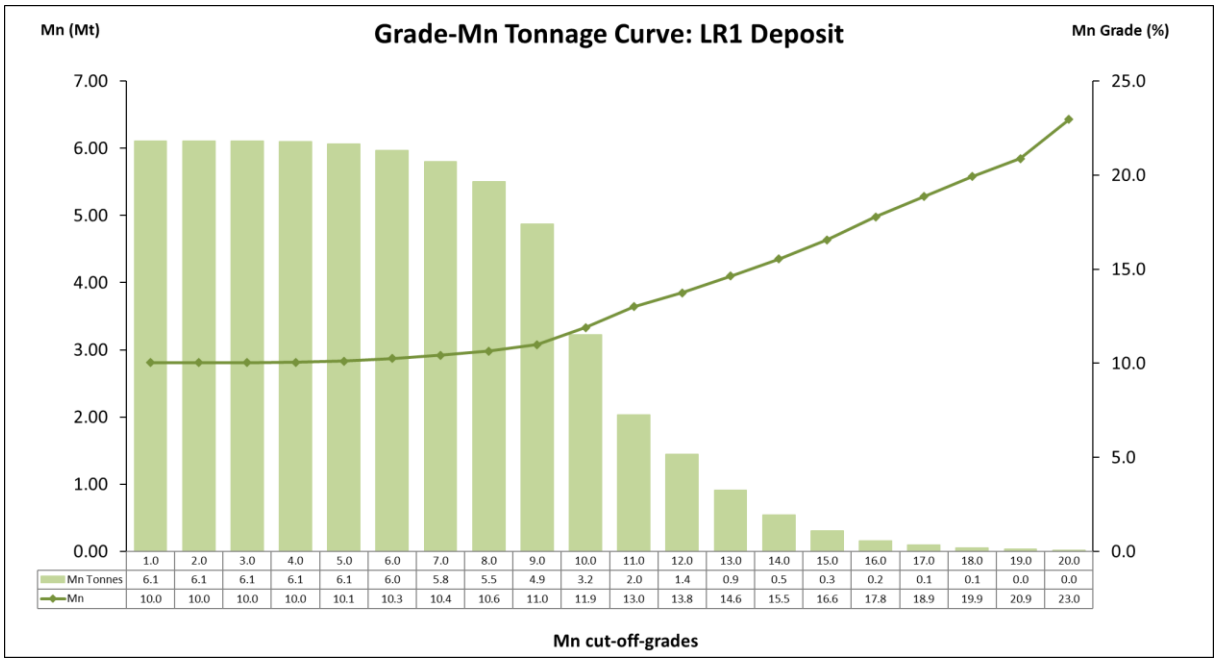

Figure 5. LR1 Mineral Resource grade-contained metal tonnage curve

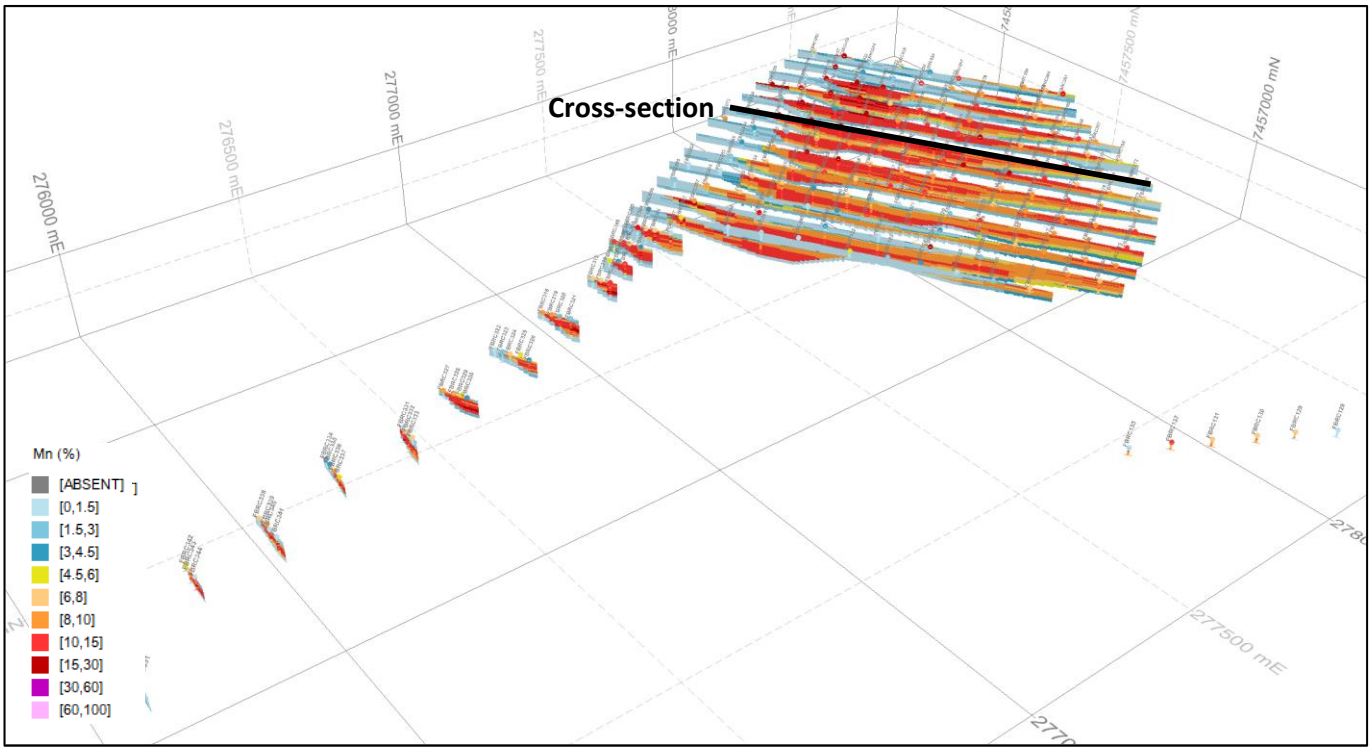

Figure 6. Oblique view of the FB3 Mineral Resource model looking northeast and coloured by Mn grade (%) (2x vertical exaggeration). (Labels represent drill holes used in the estimate)

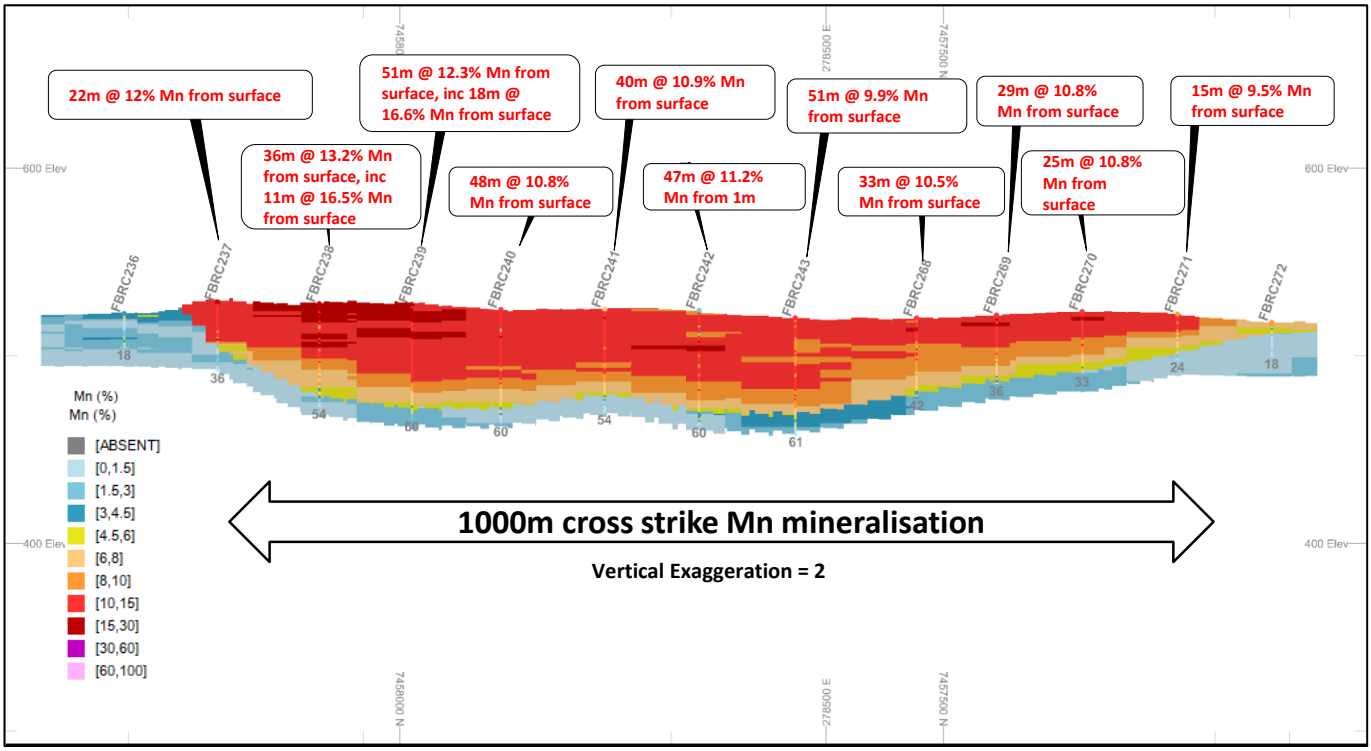

Figure 7. Type section 278,430 mE mid-point (looking north-east) showing FB3 Mineral Resource model cells and drill holes coloured by Mn grade (%) (2x vertical exaggeration)

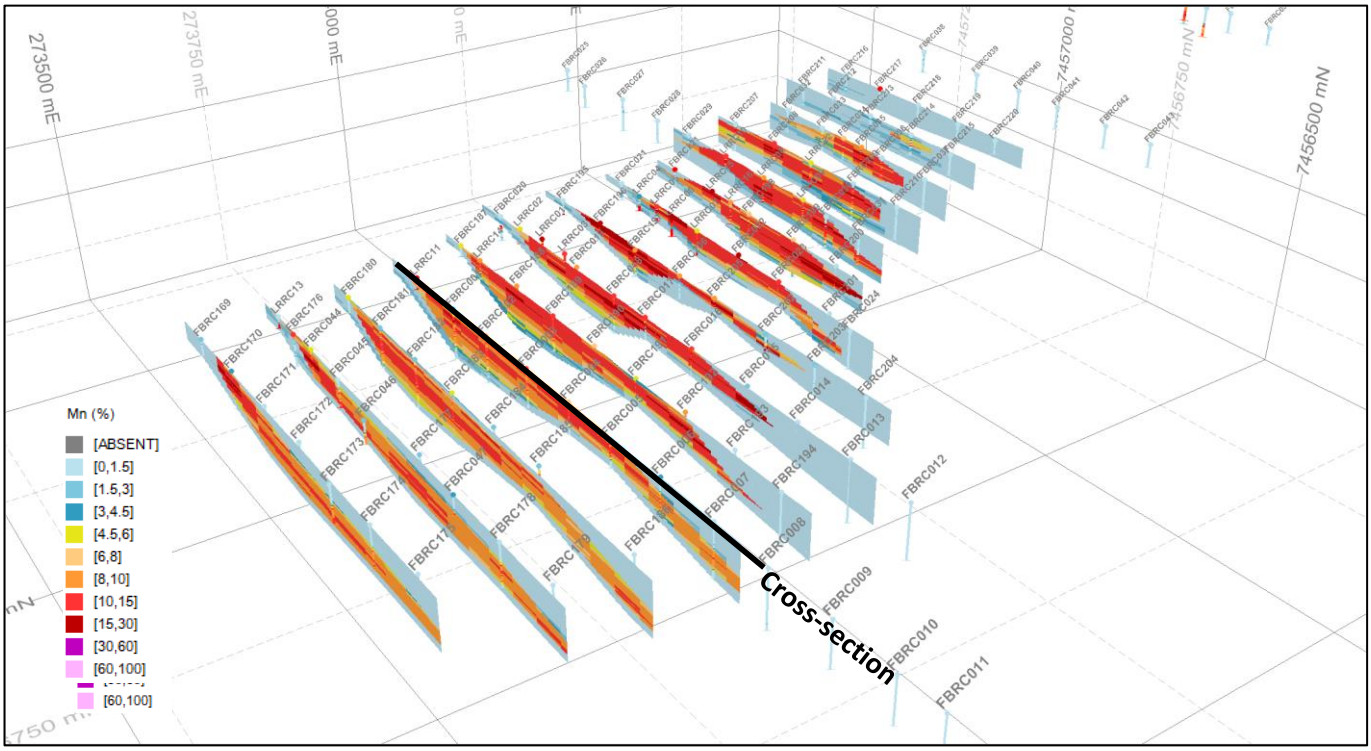

Figure 8. Oblique view of the LR1 updated Mineral Resource model coloured by Mn grade (%) (2x vertical exaggeration). Labels ("LRRC01-22) represent historic drillholes used in the estimate)

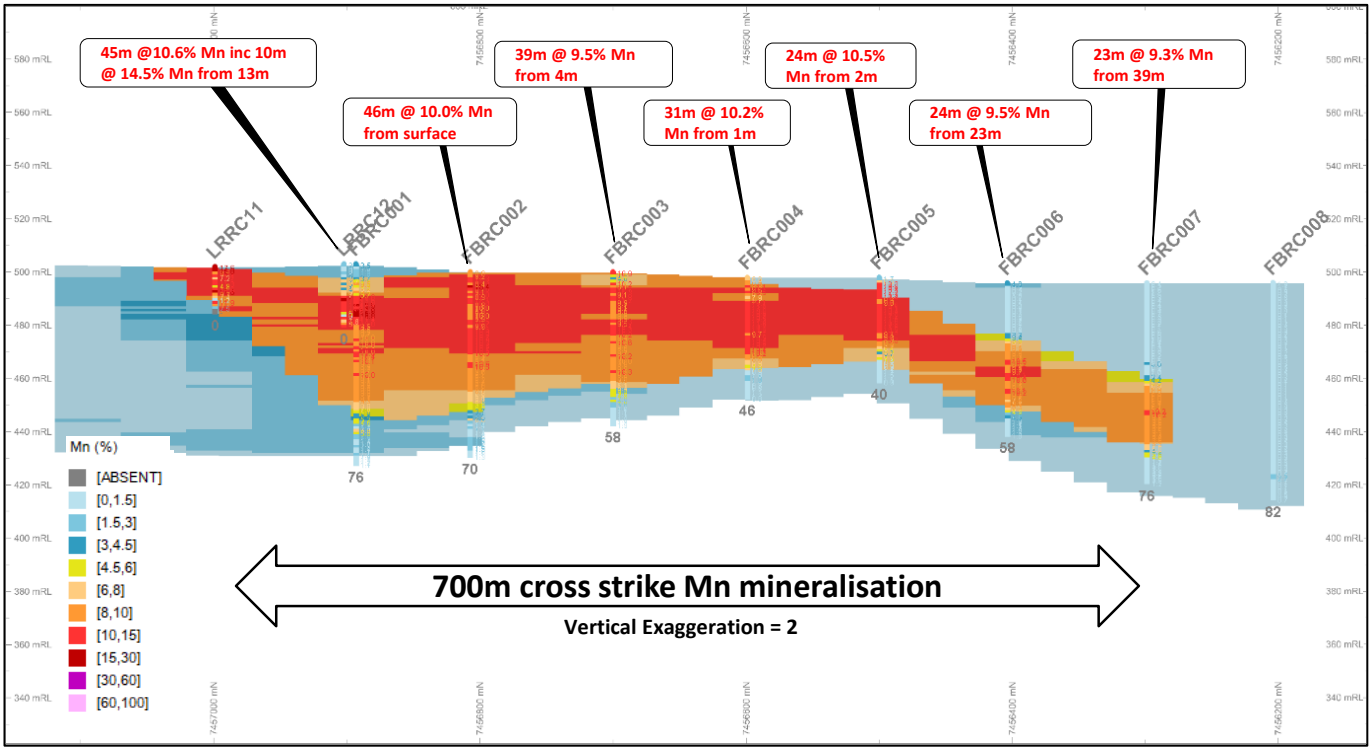

Figure 9. Type section 273,760 mE (looking east) showing LR1 Mineral Resource model cells and drill holes coloured by Mn grade (%) (2x vertical exaggeration)

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

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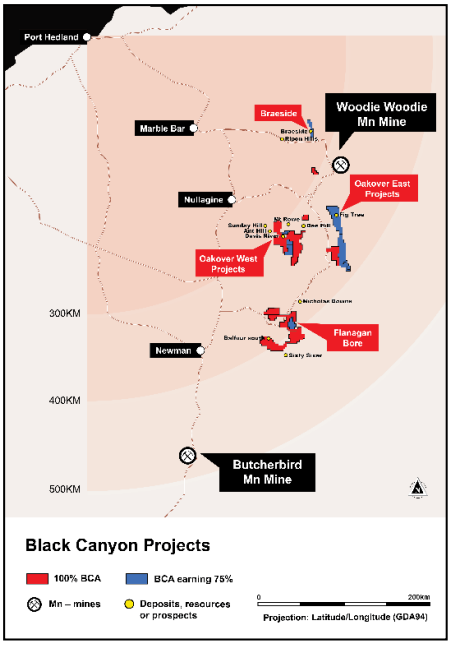
About Black Canyon

Black Canyon has entered into a farm-in and joint venture with ASX listed Carawine Resources Limited (ASX:CWX) to acquire a majority interest in the Carawine JV Project in Western Australia. The Carawine Project covers approximately 800km^2 of tenure located south of the operating Woodie-Woodie manganese mine, providing a large footprint in a proven and producing manganese belt. Black Canyon has also been granted or acquired other exploration licenses adjacent to the Carawine Project that increase the total land holdings to over 2,400 km^2. In addition to manganese, the Carawine Project also hosts multiple copper occurrences including the Western Star prospect which comprises a large zone of surface copper enrichment.

Manganese and copper continue to have attractive fundamentals with growing utilisation in the battery mineral sector and challenging supply conditions.



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 Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Greg Jones, (Consultant to Black Canyon and Geological Services Manager for IHC Mining). Mr Jones is a Fellow of the Australasian Institute of Mining

and Metallurgy and has sufficient experience of relevance to the style of mineralisation and type of deposit under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Jones consents to the inclusion in this report of the matters based on the information in the form and context in which they appear.

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 and 15 September 2022 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.

SUMMARY OF MINERAL RESOURCE ESTIMATE AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the JORC (Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition)) reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for further detail please refer to JORC Table 1, Sections 1 to 3 included below in Appendix 1).

Geology and geological interpretation

The Capricorn Orogen of Western Australia is host to significant manganese deposits of varying sizes and styles which are typically constrained to the Mesoproterozoic Edmund-Collier Basin. The most prominent of these is the Butcherbird manganese operation hosted in the Ilgarari Formation of the Collier Group. The Flanagan Bore project is located within the Proterozoic Manganese Group which is part of the northern extent of the Collier Basin where it transitions to the Oakover Basin. Besides the Flanagan Bore project there are also a number of recognised sedimentary Mn deposits within the Collier Basin such as the well-known Woodie Woodie, Oakover, Nicholas Downs, Balfour South and Ripon deposits. These deposits have a number of associated mineralisation styles such as supergene-enrichment, lateritic and fault hosted deposits

The Collier Group and Manganese Group Mn deposits share similar qualities and are considered stratigraphic equivalents. In detail the Collier Basin comprises a Mesoproterozoic basin consisting of sedimentary rocks of the Collier and Manganese Groups. The important manganese bearing units of the Collier Group are the Ilgarari Formation (shale) and the Backdoor Formation (siltstone). The manganese bearing units of the Manganese Group are the Balfour Formation (shale) and the Woblegun Formation (siltstone) and underlying Enacheddong Dolomite. It unconformably overlies a portion of the Pilbara Craton, the Edmund Basin and Earaheedy Basin

The local geology of Flanagan Bore is dominated by shallow cover overlying shales from the Balfour Formation that overlie carbonate sequences ranging from calcareous shales and dolomite of the Enacheddong Dolomite. The sequence is also intruded by cross-cutting dolerite dykes and sills.

The geology at LR1 and FB3 can be separated into a number of primary units

a. The surface enriched manganese shales which are typically higher grade and maybe lateritised to some extent and occurs from surface to 15 m depth.
b. A thin interval of upper unmineralised Balfour shale. The upper unmineralised shale is brown grey in colour and occurs intermittently across the project area from surface up to 10 m in depth.
c. A thick and widely distributed manganiferous shale unit that contains a supergene (manganese) enriched shale located between surface and 40 m depth and gently dipping. The manganese enriched layers are confined to distinct bands within the Balfour shale and alternate with barren red/brown or pale coloured shales intermixed within saprolitic clay bands.
d. At depth the fresh manganiferous olive to green shales of the Balfour shale persist but have a lower manganese grade.
e. Below the fresh manganiferous shales green or brown barren shale are encountered

At LR1 the northern extents of the current drilling demonstrates that the manganiferous deposit is structurally controlled, terminating at surface. This geological structure is visible by satellite imagery showing what has been interpreted as a large, folded structure with a nose closure possibly located to the west and then striking to the northeast towards FB2 and FB1. The mineralised zone generally strikes east-west forming a semi-basin like structure which outcrops on surface and gently dips to the south-southeast. The southern boundary of the LR1 deposit is truncated by a northeast trending structure infilled with dolerite terminating the strike continuity to the east and likely offsetting the mineralised unit to the north. Additional drilling is required in this area to resolve the strike extents to the east and northeast.

The LR1 deposit is considered well drilled on a 100 x 100 m spaced drill pattern and remains open to the west.

The FB3 deposit is located within an open asymmetric folded synformal structure with an axial plane striking to the northeast. The northern limb of the fold appears to be dipping slightly steeper to the southwest while the southern limb appears to be dipping very shallowly to the northwest. The mineralisation extends to TF1 and FB5. At FB5 there has been limited drilling but it is likely the mineralisation will continue for a further 3.5km to the southwest towards FB6. Mineral Resource expansion drilling completed in June 2022 drilled the 2km long TF1 to L1 strike extension which yielded significant mineralisation and forms an extension of the FB3 deposit. The FB3 deposit is considered well drilled on a 100 x 100 m spaced drill pattern.

The LR1 and FB3 resources have been zoned into three domains including basement. Target mineralisation is in the mineralised Balfour shale unit (Zone 2). The upper domain, Zone 1 is defined from surface up to 10 m depth. Zone 1 comprises brownish unmineralised Balfour shale lithology.

Zone 2 is the higher grade, brown grey, Balfour shale unit that is manganese enriched. The mineralised zone generally strikes east-west forming a semi-basin like structure which outcrops on surface and gently dips to the south.

Occasional low grade Mn intercepts in Zone 2 are associated with Balfour shale lithology consisting of unmineralised interbedded shale or ferruginous material. An oxidation and transition/fresh rock boundary has also been applied to the block model.

The basement (Zone 200) has been used to control the interpolation of high-grade Mn values into the un-sampled and low-grade area of the deposit.

Drilling techniques and hole spacing

The Mineral Resource estimate is based on a combination of historic data and Company drilled data. The historic drill data comprises 22 drill holes and associated assays that were drilled into LR1 of which 17 of these the drill holes were within the boundary defined for the LR1 Mineral Resource estimate. The historic data was compiled from open file reports obtained from the Western Australian Department of Mines, Industry Regulation and Safety ("DMIRS"). Sufficient work has been done by Black Canyon to confirm that the quality and accuracy of the data is sufficient to support the Mineral Resource estimate in the form and context in which it is reported.

The historic drilling was completed using reverse circulation (RC) drilling for the Flanagan Bore project by Consolidated Global Investments Limited (CGI) in July 2012. The drill company is stated as NDRC Pty Ltd within the header information of the collar, geology and assay text files. All drill collars, lithology, survey and assay files were checked prior to being imported into Datamine using standard routines.

Data collection and assaying was completed for the historic July 2012 drill program. Excel tables were provided to IHC Mining by Black Canyon and were checked for out of range values and header information was modified prior to being imported into Datamine using standard routines. A list of drillhole collars and manganese intersects > 7% Mn are presented in Appendix 2.

Drilling has been conducted via a conventional drill grid. The nominal drill spacing was 50 m along north-south traverses and each traverse was spaced approximately 100 m apart east-west. There are areas were the spacing of the traverses is up to 200 m. The objective of this early-stage drilling completed by CGI was to target areas of high prospectivity which coincide with manganese outcrops and targets generated from remote sensing.

The drill programs completed by Black Canyon were designed and managed by Black Canyon staff and contractors and was undertaken in December 2021 and followed up with an infill program in June 2022. The FB3 deposit was not previously drilled prior to Black Canyon's 2021 program. The RC drill programs

were primarily focussed on the LR1 and FB3 deposits and then extended to LR1 and TF1. McKay Drilling using a truck mounted 685 Schramm drill rig completed the December 2021 program whilst Westside Drilling completed the December 2022 program. The drill contractors used a conventional 5.25 inch RC hammer drill bit to drill the holes. The initial drill spacing comprised a regular pattern of 200 m spaced lines and 100 m spaced drill holes which has now been infilled to 100 x 100m grid pattern. A list of drillhole collars and manganese intersects > 7% Mn are presented in Appendix 3.

Sampling and sub-sampling techniques

The July 2012 drilling and sampling programs across the LR1 prospect were completed using RC drilling to obtain samples at 1 m intervals. Logging of individual 1 m intervals was completed using logging code dictionary ('GeolCodes.txt') which recorded weathering, colour, lithology and observed commentary to assist with determining manganese mineralisation.

It has been observed from photography taken by Black Canyon during their site reconnaissance activities in 2021 that individual 1 m RC chips were placed in plastic bags with corresponding SAMPLEID's and stored in consecutive order adjacent to corresponding drill collars (Figure 10). The sample bags have since degraded however the weathered samples can still be observed on site, which provides a confirmatory and visual guide of the lithological sequence. The drilling and sampling techniques employed at LR1 are considered industry standard.

Figure 10. Drill rig spoil from historic drill hole LRRC03 (EOH 42) with samples laid in rows of 20m

The RC drilling completed by Black Canyon was logged and sampled on 1 m intervals. The samples were collected from a side mounted adjustable cone splitter that was set to collect a 2 to 3 kg sample representing a 1 m interval which was submitted for analysis. The samples in the calico bags were not weighed on site but were weighed upon receipt at the laboratory in Perth. The bulk reject was collected in a large green plastic sample bag and stored on site. Prior to the commencement of drilling each hole the cone splitter was levelled to minimise sample bias. The cone splitter was regularly checked for obstructions, contamination and cleaned out when required. The drilling was predominantly dry.

Figure 11. December 2021 RC drill program designed and managed by Black Canyon staff and consultants

Sample analysis method - XRF

The elemental oxides were determined for both the historic and recent drill samples completed by Black Canyon using whole rock fusion (XRF – fused disc) analysis completed by ALSCHEMEX method ME-XRF26s. The oxides analysed are outlined in Table 3 in addition to the conversion factor used to convert oxides assay results to elemental results.

Table 3 Mineral species classification and definition and oxide conversion factor for the elements estimated

MINERAL SPECIES CLASSIFICATION	
Mineralogy	Definition
Aluminium oxide	Al2O3
Barium oxide	BaO
Calcium oxide	CaO
Cromium (III) oxide	Cr2O3
Iron	Fe
Iron (III) oxide	Fe2O3
Potassium oxide	K2O
Magnesium oxide	MgO
Manganese	Mn
Manganese oxide	MnO
Sodium oxide	Na2O
Phosphate pentoxide	P2O5
Silicon dioxide	SiO2
Strontium oxide	SrO
Titanium dioxide	TiO2

Element	Oxide	Factor
Al	Al2O3	1.889
Ca	CaO	1.399
Fe	Fe2O3	1.430
K	K2O	1.205
Mg	MgO	1.658
Mn	MnO	1.291
Na	Na2O	1.348
P	P2O5	2.291
Si	SiO2	2.139

Estimation methodology

Drill hole sampling has remained consistent at 1 m intervals for all drill holes from both the 2012 RC drill holes completed by CGI and the December 2021 & June 2022 RC drill holes completed by Black Canyon. This is considered good practice and provides both a consistent basis and adequate resolution for both geological interpretation and grade interpolation during the domaining and model build.

Inverse distance cubed (ID3) was used to interpolate grades and values into the block model. Part of the rationale for using ID3 is centred on the continuity of mineralisation for the manganese enriched Balfour shale both along strike, across strike and down hole.

Effectively, there is an averaging over the length of the sample interval down hole (in this case being 1 m) therefore there is already a dilution effect on any potential high-grade mineralisation leading to inverse distance being a less complex and more straight forward methodology.

A downhole geophysics program was completed by ABIM Solutions Pty Ltd who captured short (SSD) and long spaced density (LSD), caliper, magnetitic susceptibility and natural gamma. Density measurements were collected using a down hole probe that provides bulk density readings at regular intervals along the length of a borehole.

A total of 85 holes representing approximately 28,000 density measurements (0.1 m recordings) were surveyed across the LR1 and FB3 deposits down RC holes drilled primarily in Dec 2021, which were spaced 200 x 100m apart.

The 0.1 m readings were composited to 1 m intervals for the grade interpolation process by which Nearest Neighbour was used to interpolate density values into the block model in the Measured area of FB3 deposit and for the Measured and Indicated areas of the LR1 deposit.

Average density values were applied to the Indicated areas of the FB3 model by domain where no down hole density values have been taken. This equates to 2.38 for Zone 1, 2.52 for Zone 2 and 2.69 for basement.

It is recommended that future studies include further down hole density surveys in the Indicated regions of FB3 that are currently informed by average density values by domain to provide additional support for upgrading material to Measured classification.

Cut-off grades

The Mineral Resources stated for LR1 and FB3 deposits was estimated using a cut-off grade of 7% Mn. High-grade zones have also been estimated for LR1 and FB3 deposits using a cut-off grade of 11% Mn. The selection of an Mn cut-off grade used for reporting the Mineral Resources was based on the experience of the Competent Person, by considering similar style deposits in comparable geological settings and by considering the continuity of mineralisation at the cut-off grade.

Classification criteria

The JORC Code (2012) classification for the LR1 and FB3 deposits for the Flanagan Bore project has taken into consideration the drill hole spacing in plan view, the down hole sampling support with respect to the mineralised domain (Zone 2) and assessment of grade continuity by use of variography.

The LR1 and FB3 deposits have been assigned a JORC classification of Measured and Indicated, which is supported by the following criteria:

- regular drill hole average spacing that defines the Mn % distribution trends.
- geological and grade continuity seen within the defined domains supported by geo-statistics; and
- domain controlled variography for Mn grade that supports the drill spacing for the assigned JORC classification.

- Nearest Neighbour estimate used to interpolate density values from the down hole density survey into the block model in the Measured areas of FB3 and LR1.

All drill hole sampling has been carried out at regular 1 m intervals down hole. The use of industry standard laboratory and the drilling, sampling and assaying procedures overall have fully supported the development of an Indicated Mineral Resource estimate. The historic and more recent QAQC data collected by Black Canyon to support the assaying process demonstrates satisfactory results which are adequate for this stage of the project. The sample support and distribution of assays is to an appropriate level of density for the domain interpretation and the resultant JORC classification.

Mining and metallurgical methods and parameters

No mining has been undertaken on the LR1 and FB3 deposits.

The Company has completed scoping level metallurgical testwork to beneficiate the ores on PQ drill core material from the LR1 and FB3 Mineral Resource areas (Refer to ASX Announcement on 9 June for further details). The PQ core was drilled by Black Canyon during a December 2021 drill campaign. Composites have been selected on the following basis with 2 samples from an upper and lower mineralogical domain from LR1 and a single composite from FB3. All the composites are from Zone 2 within each of the LR1 and FB3 orebodies.

The objectives of the scoping level sighter testwork completed by BCA were to establish early-stage material characteristics, scrubbing and sizing analysis, variability, recoveries (where possible), potential flowsheet design options (ore-sorting and/or DMS) and product marketability. The learnings will be applied to future test work to continually improve the grade of the manganese concentrates and to understand recoveries that might apply across the mineralised domains. Summary conclusions are as follows:

- Initial testing completed on three composite samples (two from the LR01 deposit and one from the FB03 deposit) achieves grades in excess of 30% Mn during early-stage sighter level work.
- Significant manganese grade uplifts from feed grades of 11.7% and 13.7% Mn upgraded to approximately 19% and 26% Mn through scrubbing and washing - an important first step for beneficiation.
- Further beneficiation tests on the scrubbed/washed manganese feed material result in additional manganese grade improvements:
    - Heavy Liquid Separation (HLS) (used to simulate dense media separation (DMS)) achieved grades up to 35.5% Mn from the FB03 composite sample.
    - Ore sorting achieved grades of up to 31.3% Mn from the FB03 composite sample.
- Preliminary discussions with marketing specialists indicate manganese concentrates with key characteristics similar to ores from Flanagan Bore would be suitable for silico or ferro manganese alloying as feedstocks into the steel manufacturing industry

A Scoping Study (Refer to ASX Announcement on 18 August for further details) was completed in August 2022 with the following key conclusions:

- Flanagan Bore Project can generate strong financial returns over a 20 year mine life at an average production rate of 1.8Mtpa
- Project pre-tax NPV of A$134m (8% discount rate) and pre-tax IRR of 67%
- Low development CAPEX of A$44m with a payback period of less than 2 years
- LOM estimated Production Target of 36.1Mt @ 11.7% Mn mined from 104Mt @ 10.5% Mn Mineral Resource (Indicated)

- Conventional free dig mining with a very low strip ratio for the first 3 years and a LOM average strip ratio of 0.7:1 waste to ore

This Scoping Study was based on mining optimisations of 100% of the JORC-2012 Indicated Mineral Resource, comprising 107Mt @ 10.4% Mn (Refer to ASX Announcement on 13 April for further details) The operating costs have been estimated using at market mining, transport and processing costs based on similar scales and styles of mining operations and mineral separation processes. The capital costs have been estimated based on quotes received from suppliers, which includes installation and a number of critical spares.

Conventional free dig excavator and trucking is proposed for the open pits with a number of staged mine pits developed on the LR1 and FB3 deposits. The initial starter pits will focus on low strip ratio, higher-grade (>12% Mn) mineralisation with a stockpiling strategy for material with grades between 10 and 12% Mn. The project is currently based on a 20-year life of mine, with mining only in the first 11 years followed by 9 years of processing stored stockpiles. Approximately 60% of the ores will be mined from FB3 and the remainder from LR1. There is significant opportunity to extend the mine life through the delineation of additional shallow mineralisation along the recently drilled L1 to TF1 and FB5 to FB6 trends in addition to delineating Mineral Resources at LR1 and LR2.

A 1.8 Mtpa processing plant is proposed with the front-end comprising scalping, primary and secondary crushers, log washer scrubbing and screening followed by fine and coarse DMS circuits treating +1mm to 6mm and +6mm to 30mm feeds respectively. Coarse (lump) and fine manganese concentrates will be produced. The proposed sales strategy is to sell a lump and fines products, with some of the fines product reserved for potential downstream processing into manganese sulphate. The Company plans to produce a 33% Mn product, generating approximately 500,000t of manganese concentrate per year over the LOM.

A predominantly lump and fines product will be transported using contract haulage service providers using road trains to Port Hedland and trucked to the Utah Point multi-user berth for ship loading. A number of haulage routes will be evaluated in future detailed studies with the potential to deliver concentrate initially to a site close to Port and then campaign truck the concentrate to the port for loading. Truck haulage costs include a component for road maintenance and upgrades. At Port Hedland, the Company intends to utilise large vessels with a minimum freight size of 50,000t to reduce CIF costs.

The Scoping Study has an accuracy of +/- 35%.

Statement of Mineral Resources

The Global Mineral Resource reported at a cut-off grade of 7% Mn for the LR1 and FB3 deposits is presented in Table 4. This table conforms to guidelines set out in the JORC (2012). The JORC Classification outlines are presented in Figures 12 and 13.

At a cut-off grade of 7% Mn the Flanagan Bore project comprises a total Measured and Indicated Mineral Resource of 171 Mt @ 10.3% Mn for contained Mn of 18 Mt.

Table 4. Global Mineral Resource Estimate for FB3 and LR1 deposits at Flanagan Bore, November 2022

Summary of Mineral Resources[1,3]							
Deposit	Mineral Resource Category	Material (Mt)[2]	In Situ Mn (Mt)	Mn (%)	Fe (%)	Si (%)	Al (%)
FB3	Measured	52	6	10.5	10.4	16.9	4.3
LR1	Measured	47	5	10.3	8.4	16.7	4.6
Total	**Measured**	**100**	**11**	**10.4**	**9.4**	**16.8**	**4.4**
FB3	Indicated	63	6	10.0	9.6	16.8	4.4
LR1	Indicated	8	1	11.3	9.4	6.9	1.8
Total	**Indicated**	**71**	**7**	**10.1**	**9.6**	**15.7**	**4.1**
Grand Total		**171**	**18**	**10.3**	**9.5**	**16.4**	**4.3**

Notes:

(1) Mineral resources reported at a cut-off grade of 7% Mn
(2) Appropriate rounding has been applied
(3) Refer to JORC Table 1, Sections 1 to 3 and Appendix 1-3 for further details

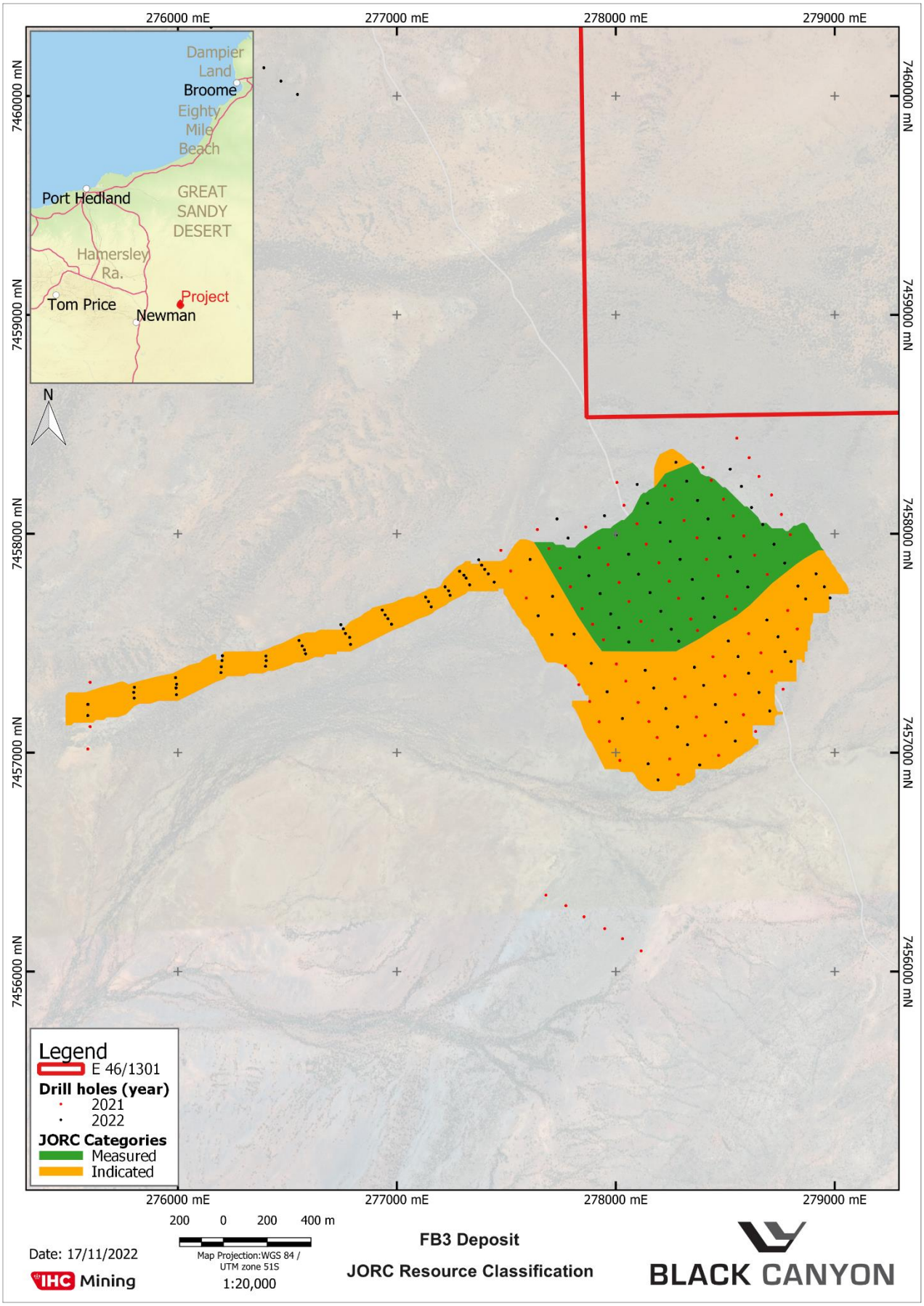


Figure 12. FB3 deposit JORC Mineral Resource Classification (>7% Mn)

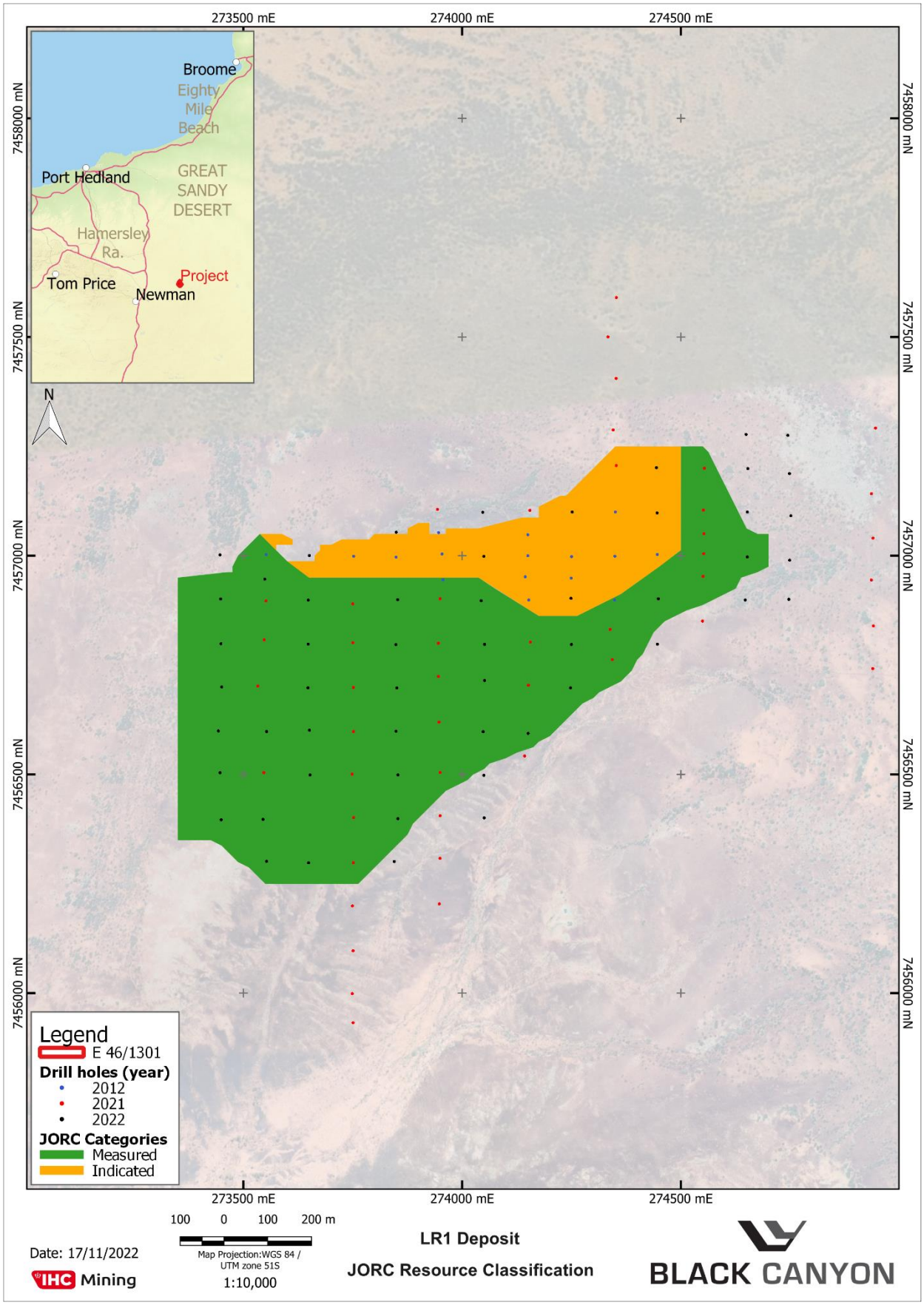


Figure 13. LR1 deposit JORC Mineral Resource Classification (>7% Mn)

APPENDIX 1: JORC 2012: TABLE 1

Section 1 Sampling Techniques and Data		
Criteria	**Explanation**	**Comment**
Sampling techniques	*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.*	*Reverse circulation ('RC) was used as the primary drilling technique for the Flanagan Bore project.* *RC cuttings were continuously sampled at 1 m intervals. All drill holes were sampled from surface to end of hole or depth of mineralisation.* *A combination of historic drilling and recent drilling completed by Black Canyon have been used for the Flanagan Bore project. The historic holes were drilled by CGI during their 2012 exploration campaign while Black Canyon completed the RC drilling in December 2021 and June 2022.* *All drill samples were logged for weathering, colour, lithology and mineralogy (+ %).* *RC samples were collected and placed in marked plastic bags in order at each collar position.* *CGI's Annual Report for E46/794 for the period ending 11-02-2013 states that samples were analysed by using Multi-Element XRF26 technique at ALS Minerals Perth – now ALSChemex ('ALS').* *The assay results for the historic and Black Canyon drilling were collected on 1m intervals, pulverised and submitted for 'LOI (TGA), Whole Rock by Fusion (XRF)' using assay code ME-XRF26s.* *The 1m interval samples are considered industry standard and representative of the material being tested*
Drilling techniques	*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).*	*Both the historic and Black Canyon drilling was completed using RC technique at 90-degree angle to collect 1 m samples as RC chips. Drill diameter is considered to be 5.25 inches as per standard RC sizing. A face sampling hammer was used to drill and sample the holes* *The 2012 drill campaign contracted NDRC Pty Ltd to complete the drill program over LR1. No drilling was completed at FB3.* *The 2021 drill campaign contracted McKay Drilling to twin, infill and extend the drilling at LR1 and complete the maiden drill program at FB3.* *The 2022 drill campaign contracted Westside Drilling to infill and extend the drilling at LR1 and FB3.*

Criteria	Explanation	Comment
Drill sample recovery	*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.*	*There is little information from the 2012 drill campaign to confirm the drill sample recoveries. However this is not considered significant due to the small size of the data being used for the resource estimate at this stage of the project A number of the historic drill holes were twinned during the 2021 RC drill campaign with the results showing good comparisons.* *The 2021 drill campaign recorded satisfactory drill sample recovery. The sample weights were not recorded on site, but the samples were weighted once received at the laboratory. The samples weights show good overall recoveries with smaller samples weights recorded in the top 1-2m.* *During the 2021 drill program the 1m samples were collected from a levelled cone splitter affixed to the side of the drill rig.* *It is unlikely the lower weights encountered in the top 1 -2m of the holes has biased the samples particularly with the style of mineralisation.*
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.* *The total length and percentage of the relevant intersections logged.*	*Geological logs exist for the 2012, 2021 and 2022 drill programs.* *Logging of individual 1 metre intervals was completed using logging code dictionary which recorded weathering, colour, lithology and observed commentary to assist with determining manganese mineralisation.* *Logging and sampling has been carried out to industry standards to a level sufficient to support an Indicated Mineral Resource estimate.* *Drill holes were geologically logged in their entirety and a reference set of drill chips were collected in 20m interval chip trays for the drill programs completed in 2021 and 2022.*

Criteria	Explanation	Comment
Sub-sampling techniques and sample preparation	*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.*	*Not applicable, no diamond drilling assays results have been used in this mineral resource estimate.* *The drill holes were completed using RC drilling technique and the 1m samples were dry split using an on-board cone splitter set to deliver a 2-3kg samples. This technique is considered best practice and appropriate for sample generation.* *Field duplicates were undertaken at a rate of 2 per 100 samples. The field duplicates were split from the cone splitter simultaneously.* *The samples sizes collected from the cone splitter are considered appropriate for the commodity being investigated.*
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.* *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.*	*Both the 2012, 2021 and 2022 samples were analysed at ALSchemex Perth, Western Australia utilising ore-grade XRF analysis which is considered industry standard for manganese ores.* *Elemental oxides assayed using XRF analysis include:* *Al2O3, BaO, CaO, Cr_2O_3, Fe, Fe2O3, K2O, MgO, Mn, MnO, Na2O, P2O5, SiO2, SrO, TiO2* *Oxides were converted to primary elements using standard conversion factors outlined by ALS.* *QA/QC was conducted by Black Canyon on the 2021and 2022 drill data by the following methods* • *inserting 2 certified reference samples every 100* • *inserting 2 blanks every 100* • *conducting field duplicates at a rate of 2 in every 100* • *submitting a 200g pulped lab duplicate to a secondary laboratory for check XRF analysis at a rate of 2 in every 100 samples for the 2021 drill program only* *The Company has reviewed the QAQC data and is satisfied that acceptable levels of precision and accuracy have been achieved through the sampling and assaying program and there is no evidence of bias. The data set is of a high standard and appropriate for use in Mineral Resource Estimation*

Criteria	Explanation	Comment
Verification of sampling and assaying	*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.*	*Validation of the drilling files (collar, assay and lithology) was undertaken by IHC Mining.* *All historic data was stored digitally using separate .txt files for collar, assay and lithology.* *Adjustment of elemental oxides to primary element was completed using well known conversion factors outlined by ALS.*
Location of data points	*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.*	*It is understood all drill holes in the project area were initially surveyed by GPS with an accuracy of +/-5 m. The drill holes were then re-surveyed using a DGPS with holes FBRC001 to FRBRC288 surveyed. These DGPS picked up drill holes cover the LR1 and FB3 deposits. The accuracy of the location of the drill collars is sufficient at this stage of exploration and resource development.* *Grid system used is WGS 84 / UTM zone 51S.* *IHC Mining deems all drill collar positions within the Flanagan Bore project area to be satisfactory at this stage of exploration and to support the Mineral Resource estimate as reported.* *A simple topographic DTM surface was developed using the existing collar positions and is considered satisfactory at this stage of exploration and to support the Mineral Resource estimate as reported.* *A downhole geophysics programme was completed by ABIM Solutions Pty Ltd who captured short (SSD) and long spaced density (LSD), caliper, magnetitic susceptibility and natural gamma. ABIM Solutions completed calibrations of their relevant equipment* *It is recommended further works continue to use DGPS as survey pickup and LIDAR for development of a high-resolution topographic surface.*
Data spacing and distribution	*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.*	*The 2012 drilling completed at LR1 was conducted via a conventional drill grid. The nominal drill spacing was 50 m along north-south traverses and each traverse was spaced approximately 100 m apart east-west. There are areas were the spacing of the traverses is up to 200 m. The drill spacing was sufficient to establish grade and geological continuity* *The 2021 drilling completed at LR1 and FB3 was conducted on a conventional grid pattern. The lines were spaced 200m apart and drill holes drilled at 100m centres* *The 202 drilling completed at LR1 and FB3 was conducted on a conventional grid pattern with the drill density reduce to lines 100m apart and drill holes drilled at 100m centres* *Variography has demonstrated current drill spacing supports an Measured and Indicated Mineral Resource classification* *No sample compositing has been applied.*

Criteria	Explanation	Comment
Orientation of data in relation to geological structure	*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.*	*At LR1 the drill lines were oriented north south across the strike of the primary mineralisation trend. The drill holes were completed at 90 degrees (vertical).* *The mineralisation is relatively flat lying exhibiting a gentle dip to the south, south-west.* *At FB3 the drill lines are oriented to the northwest perpendicular to the axial plane of the synformal structure* *The drill grid is assumed to be located both perpendicular to the planar orientation of the key mineralised horizon with no bias introduced with respect to the strike or dip of the mineralised horizon.*
Sample security	*The measures taken to ensure sample security.*	*All samples were dispatched directly from site to ALS Perth, Western Australia. There has been no documentation stating any problems during sample transportation from site to ALS.* *Given the location of the project it is not considered high risk in the context of which samples were reported.*
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	*Senior Black Canyon geological personnel have reviewed the data prior to use in the Mineral Resource estimate. No independent audits have been undertaken as they are not considered to be necessary at this stage.*

Section 2 Reporting of Exploration Results		
Criteria	**Explanation**	**Comment**
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 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 Flanagan Bore Project lies within tenement E 46/1301 currently held by Carawine Resources Limited. Tenement E 46/1301 was granted on 24/09/2019 and expires on 24/09/2024.* *Black Canyon Limited has a farm-in and joint venture agreement with Carawine Resources Limited (ASX:CWX). On the 4 April Black Canyon announced it had earnt a 51% interest in the Joint Venture that includes Flanagan Bore. The Company is now moving towards earning a 75% by sole funding $2.5m in the next 3 years.* *The tenement of which the project resides remains subject to native title. Access has been previously provided and there are no known impediments to obtaining a licence to operate in the area.*
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	*Previous work on the tenure Includes exploration by Sentinel Mining Company carried out in 1968 in the general area of Balfour Downs. The exploration work included rock chip sampling from the southern edge of E46/784 which returned three samples with manganese values of 21.6 %, 25.7% and 11.4% Mn within manganese surface enrichment of Balfour Shales. Consolidated Global investment Pty Limited ('CGI') owned the tenement E46/784 between 2010 and 2015 and carried out exploration work.*

Criteria	Explanation	Comment
		Early reconnaissance work completed by CGI delineated many occurrences of manganese enriched outcroppings of the Balfour Formation. These north south striking outcrops were continuous over a distance of 1 km with widths of 50 m to 90 m in the LR1 Prospect area. Further exploration work completed by CGI included identification of prospective area using google images and remote sensing, a heritage survey and clearance for drilling using local Martu consultants. CGI completed a reverse circulation drilling programme of 22 holes in July 2012 on E46/784. *Black Canyon completed a ground reconnaissance exercise in May 2021 to map the manganese enriched shales, determine potential sub-cropping and review historic drill samples which remains on site alongside their respective collar positions. The exercise proved significant manganese enriched shale throughout the project both as outcropping, sub-cropping and as substantial float material. This early reconnaissance groundwork by Black Canyon was used as a basis for the 2021 RC drilling programme.*
Geology	*Deposit type, geological setting and style of mineralisation.*	*The lithological sequence of the project principally consists of the Balfour Formation shales from the Proterozoic Manganese Group of the southern Oakover Basin which is overlain by Quaternary cover.* *The LR1 and FB3 deposits can be separated into three primary units, the upper unmineralised Balfour shale, the mineralised Balfour shale and the lower basal shale unit. The unmineralised shale is brown grey in colour and the manganiferous shale unit contains a supergene enriched manganiferous horizon which exhibits thickness range between 5 m to 50 m depth. The manganese layers are confined to distinct banding within the Balfour and there are also minor occurrences of interbedded red/brown shales intermixed with minor saprolitic clay bands.* *The northern extents of the current drilling demonstrates that the manganiferous deposit is structurally controlled in both the LR1 and FB3 deposits, terminating at surface. This geological structure is visible by satellite imagery showing what could be a large syncline structure. The mineralised zone generally strikes east-west forming a semi-basin like structure which outcrops on surface and gently dips to the south-south-east for the LR1 deposit. The FB3 deposit is located at the apex of the large geological synclinal structure providing a large continuous body of mineralisation.* *Current drilled extents of the LR1 prospect is positioned at the extents of one arm of the syncline structure indicating significant potential for further manganese exploration in the local region.*

Criteria	Explanation	Comment
Drill hole 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.*	*See drill hole location plan in Figures 11 and 12 in main body of the report.* *A complete listing of drill holes and their corresponding coordinates, elevation and depth and composited drill results using a cut-off grade of 7% Mn is listed in Appendix 2 and 3*
Data aggregation methods	*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.*	*No grade cutting to assays has been undertaken.* *No aggregation of samples has been undertaken.* *Assays have been reported as oxides. Appropriate conversion from oxides to elements has been completed using standard conversion factors outlined by ALS*

Criteria	Explanation	Comment
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').*	*The LR1 deposit is mostly flat lying exhibiting a gentle dip of mineralisation to the south, south-east therefore 90-degree (vertical) drill holes considered appropriate.* *The mineralisation of the LR1 prospect is primarily strata bound striking approximately 80 to 90 degrees, gently dipping to the south.* *The FB3 deposit is also mostly flat lying therefore 90-degree (vertical) drill holes considered appropriate. The FB3 deposit shows strong mineralisation continuity along and across strike, forming a synclinal structure in the south-western extents. A significant number of holes terminate in Mn% grade.*
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.*	*Refer to body of report for maps and sections of drilling data.*
Balanced reporting	*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.*	*Exploration results are not being reported at this time.*
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.*	*Exploration results are not being reported at this time.*
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*	*IHC has been advised that Black Canyon will be undertaking feasibility related studies on developing the Flanagan Bore Project which includes a significant amount of metallurgical testwork to be followed by process equipment selection, design and engineering studies.* *In addition Black Canyon will be undertaking significant environmental studies to capture the baseline data to facilitate the approvals process.*

Criteria	Explanation	Comment
	areas, provided this information is not commercially sensitive.	*It is recommended that the Company undertake a suitable topographic survey (preferably LiDAR) to improve accuracy of the topographic DTM surface used for modelling purposes.*

Section 3 Estimation and Reporting of Mineral Resources		
Criteria	**Explanation**	**Comment**
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	*Exploration data was provided by the Company to IHC Mining in the form of Excel datasheets relating to collar, lithology and assay data,* *Geological interpretations also provided by the Company to IHC Mining in the form of Powerpoint presentations for both FB3 and LR1 deposits.* *Data in the form of individual Excel files ('.csv') was independently checked and reviewed by IHC Mining. Data review included:* • *Assay review for out-of-range values* • *Sample gaps* • *Overlapping sample intervals* *Checks of data by visually inspecting on screen (to identify translation of samples).* *Visual and statistical comparison was undertaken to check for validity of results.*
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	*Black Canyon Limited has completed a number of site trips through 2021 to map the Flanagan Bore prospects and visually inspect historic collars and stored samples at individual collar positions. The Company managed and supervised the December 2021 and June 2022 RC drill program.* *This was completed by the Executive Director Mr Cummins who is a current member of the AIG. Mr Cummins is the Competent Person for the Exploration Results used as a basis for the Mineral Resource estimate. Mr Cummins was present on site for the duration of the December 2021 RC drill program and conducted a site visit for the June 2022 drill program.* *The Competent Person Greg Jones has not yet conducted a site trip, however given his experience with the style of mineralisation in question, site visits to other manganese stratabound deposits, in addition to the extensive photography, videos and site visit reports, he considers this not to be of sufficient risk to prevent the estimation and classification of the Mineral Resource*
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.*	*The geological interpretation was undertaken by IHC Mining and then validated using logging data, sampling information, geological surface mapping and observations. Three domains were identified based on the manganese grades and lithological logging and these domains are noted as Zones. Both the FB3 and LR1 deposits share similar geological characteristics and therefore consist of the same geological domains.*

Criteria	Explanation	Comment
	The effect, if any, of alternative interpretations on Mineral Resource estimation. *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	*Zones were identified as Zone 1, 2 and 200 in the resource estimation process. Zone 1 consists of brownish background low grade manganese Balfour shale. Zone 2 is the brownish grey target high grade manganese enriched Balfour shale which exhibits elevated grades typically above 5% Mn. Zone 200 is considered basement and is informed by a sharp reduction in Mn grade at depth or by end of hole 'EOH' where drilling terminated in mineralisation.* *It should be noted that Zone 2 contains minor instances of lower grade interbedded shales, and these have not been excluded given their thin and discontinuous nature. The occasional low grade Mn intercepts in Zone 2 are typically associated with Balfour shale lithology consisting of unmineralised interbedded shale or ferruginous material.* *The recent 2021 RC drilling also logged the weathering profile 'WEATH' for each 1 m down hole interval as oxidised 'OX' or fresh 'FR'. Blank intervals are considered to be a transition zone between oxidised and fresh material. This oxidised material was domained (refer 'WZONE' field in model whereby WZONE=2 is oxidised material and WZONE=1 is fresh material) to exclude all transitionary and fresh material.* *This approach of domaining by Mn grade 'ZONE' and oxidised material 'WZONE=2' provides a suitable approach for the company to report the resource model using a combination of the two fields.* *The mineralised zone generally strikes east-west (90 degrees) for the LR1 deposit forming a semi-basin like structure which outcrops on surface and gently dips to the south and constricted by some structure to the north. The dominant east-west strike direction was confirmed by horizontal continuity and variography analysis.* *The FB3 mineralised zone most prominent strike direction is north-west south-east (320 degrees). FB3 is located at the apex of the larger synclinal structure providing a significant body of mineralisation.* *Generally the mineralisation for the LR1 deposit has been well defined from the drilling undertaken during the 2021 and 2022 drill campaign, closing the north and south extents and depth of mineralisation for the most part. The western extents remain open both along strike and at depth. The eastern extents also remain partially open however has been mostly terminated by a drill line 380 m directly west (E274650).* *The majority of the FB3 deposit drilling has been terminated in mineralisation or depth further to the south west as the synform plunges below barren shale. The northern extents of FB3 have been effectively constrained and the south east limb has also now been drilled which has added tonnage to the FB3 deposit. The south-western synclinal extensional limb remain open from FB5 to FB6.*

Criteria	Explanation	Comment
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	*The LR1 deposit from the most easterly point to the most westerly point is approximately 1.2 km along strike. It is approximately 940 m at its widest m and 465 m at its narrowest north – south across strike.* *The average thickness of the manganiferous shale for the LR1 deposit is ranges between 5 m to 50 m thick. The deposit is thickest in through the centre on an east-west strike and thins both north and south where it is structurally contained.* *The FB3 deposit dimensions is approximately 1.3 km north-east, southwest and 1.4 km north-west, south-east therefore retaining similar width in all directions. There is a narrow portion of the deposit on the western flank 130 m wide which is the beginning of the western extensional limb towards TF1.*
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.*	*Inverse distance cubed (ID3) was used to interpolate grades and values into the block model. Part of the rationale for using ID3 is centred on the continuity of mineralisation for the manganese enriched Balfour shale both along strike, across strike and down hole.* *Ordinary Kriging was also used to interpolate Mn grade into the block model (defined as model field 'Mn_OK') to be used as a validation check against the inverse distance weighting technique.* *Effectively there is an averaging over the length of the sample interval down hole (in this case being 1 m) therefore there is already a dilution effect on any potential high-grade mineralisation leading to inverse distance being a less complex and more straight forward methodology* *This is an updated JORC 2012 Mineral Resource estimate for the LR1 and FB3 deposits which includes the 2021 and 2022 drilling completed by the Company.* *No mine production records recorded as this is not applicable at this stage of exploration.* *No assumptions have been made regarding recovery of by-products.* *The parent cell size used in the grade interpolation is typically half the average drill hole spacing on the X and Y axes.* *The parent cell size for this resource estimate is 50 x 50 x 1 (XYZ).* *No assumptions have been made regarding modelling of selected mining units.* *No assumptions have been made about correlation behind variables.* *Validation was undertaken by use of swathe plots, population distribution analysis and visual inspection.* *The geological zones 'ZONE' were used to control the grade interpolation. 'WZONE' was also used as a secondary constraint to report oxide material only (excluding fresh and transitionary material) as an internal company check.*

Criteria	Explanation	Comment
	Discussion of basis for using or not using grade cutting or capping. *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	*Tonnages were estimated on assumed dry basis. No account has been made nor current test work completed to determine moisture.*
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	*A cut-off grade of 7% Mn was used for reporting the Mineral Resource estimate. A high-grade zone was also reported using a cut-off grade of 11% Mn.* *No top or bottom cuts were used for grade interpolation.*
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	*No specific mining method is assumed other than potentially open pit mining methods. No minimum thickness was assumed for reporting of the mineral resource.*
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an*	*The material targeted for extraction is predominantly manganese hosted in manganese enriched shale. No specific detail and assumptions have been applied in the estimation for the current Mineral Resource and only allow for preliminary commentary with no detailed chemistry or sizing of mineral species.* *Based on another manganese hosted shale deposit currently being mined in the Pilbara it is reasonable to assume that the Flanagan Bore deposits also have reasonable prospect for economic extraction*

Criteria	Explanation	Comment
	explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	*No assumptions have been made regarding waste products at this stage of exploration, however it is reasonable to assume the creation and storage of waste products on site will not be of great concern for future mining activities.* *No environmental concerns or issues were identified during this phase of exploration.*
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	*A downhole geophysics program was completed by ABIM Solutions Pty Ltd who captured short (SSD) and long spaced density (LSD), caliper, magnetitic susceptibility and natural gamma.* *Density measurements were collected using a down hole logging probe that provides a continuous record of a formation's bulk density along the length of a borehole.* *A total of 85 holes representing approximately 28, 000 density measurements (0.1 m recordings) were surveyed across the LR1 and FB3 deposits access the RC holes drilled primarily in Dec 2021 which were spaced 200 x 100m apart.* *A BD was applied to the model using data values obtained from the down hole density tool. The 0.1 m readings were composited to 1 m intervals for the grade interpolation process by which Nearest Neighbour was used to interpolate density values into the block model in the Measured area of FB3 deposit and for the Measured and Indicated areas of the LR1 deposit.* *Average density values were applied to the Indicated areas of the FB3 model by domain where no down hole density values have been taken. This equates to 2.38 for Zone 1, 2.52 for Zone 2 and 2.69 for basement.*

Criteria	Explanation	Comment
		It is recommended that future studies include further down hole density work in regions that are currently informed by average density values by domain to provide additional support for upgrading material from Indicated to Measured.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	*The Measured and Indicated classification for the LR1 and FB3 deposit was based on the following criteria: drill hole spacing, down hole density spacing, appropriate grade constraints and domain controlled variography.* *The classification of the Measured and Indicated Resource was supported by all of the supporting criteria as noted above.* *As Competent Person Greg Jones considers that the result appropriately reflects a reasonable view of the deposit JORC categorisation.*
Audits or reviews.	*The results of any audits or reviews of Mineral Resource estimates.*	*No recent audits or reviews of the Mineral Resource estimate has been undertaken at this point in time. This is and updated Mineral Resource estimate for the LR1 and FB3 deposit.*
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared*	*Variography was used to support the drill hole spacing for the selected JORC Classification.* *Validation of the model vs drill hole grades was carried out by direct observation and comparison of the results on screen.* *The Mineral Resource statement is a global estimate for the entire known extent of the FB3 and LR1 deposits within the tenement area.* *There has been no production to date.*

Criteria	Explanation	Comment
	with production data, where available.	

BLACK CANYON

APPENDIX 2: SUMMARY DRILL HOLE COLLAR AND COMPOSITES (>7% Mn) – historic drilling

Hole id	East (WGS84)	North (WGS84)	Rl	Dip	Azimuth	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
LRRC01	273954	7457004	506	-90	360	LR1	0	2	2	14.7	18.7	3.9	13.3	2.0
LRRC01	273954	7457004	503	-90	360	LR1	3	6	3	13.1	11.9	4.7	17.8	2.0
LRRC01	273954	7457004	492	-90	360	LR1	7	23	16	11.7	9.4	5.0	18.3	2.0
LRRC01	273954	7457004	482	-90	360	LR1	24	26	2	8.9	11.2	6.2	21.5	2.0
LRRC02	273946	7457053	502	-90	360	LR1	2	3	1	8.6	7.0	4.4	17.7	200.0
LRRC03	273956	7456945	499	-90	360	LR1	0	11	11	11.1	8.9	4.4	17.0	2.0
LRRC03	273956	7456945	491	-90	360	LR1	12	15	3	12.5	9.5	4.9	17.7	2.0
LRRC03	273956	7456945	482	-90	360	LR1	16	28	12	13.6	8.6	5.3	19.5	2.0
LRRC03	273956	7456945	474	-90	360	LR1	29	31	2	7.5	8.4	6.2	22.0	2.0
LRRC04	274150	7457048	497	-90	360	LR1	4	5	1	9.7	18.0	7.9	13.0	200.0
LRRC04	274150	7457048	489	-90	360	LR1	12	13	1	9.0	6.9	7.1	24.0	200.0
LRRC05	274150	7457000	498	-90	360	LR1	0	3	3	11.3	14.1	4.1	14.7	2.0
LRRC05	274150	7457000	489	-90	360	LR1	6	14	8	13.8	8.6	5.5	20.6	2.0
LRRC06	274144	7456952	494	-90	360	LR1	0	15	15	15.8	9.4	4.6	18.3	2.0
LRRC07	274152	7456899	495	-90	360	LR1	1	24	23	12.4	9.6	4.8	18.4	2.0
LRRC07	274152	7456899	481	-90	360	LR1	25	27	2	9.5	8.3	6.6	23.3	2.0
LRRC07	274152	7456899	479	-90	360	LR1	28	29	1	8.1	7.7	8.7	22.9	2.0
LRRC08	274349	7456999	502	-90	360	LR1	0	1	1	9.4	13.8	5.1	20.2	2.0
LRRC08	274349	7456999	482	-90	360	LR1	2	39	37	12.9	9.9	5.2	19.8	2.0
LRRC09	274348	7456899	498	-90	360	LR1	2	12	10	10.9	9.7	5.0	19.0	2.0
LRRC09	274348	7456899	491	-90	360	LR1	13	16	3	15.9	11.4	4.8	18.0	2.0
LRRC09	274348	7456899	478	-90	360	LR1	17	37	20	10.3	8.1	4.9	17.7	2.0
LRRC10	274350	7457100	501	-90	360	LR1	0	3	3	13.3	16.1	4.1	14.7	2.0
LRRC10	274350	7457100	491	-90	360	LR1	4	19	15	12.8	8.6	5.1	19.5	2.0
LRRC11	273752	7456999	499	-90	360	LR1	0	7	7	11.7	7.6	4.4	15.3	2.0
LRRC11	273752	7456999	492	-90	360	LR1	8	12	4	12.1	8.9	5.4	19.0	2.0
LRRC11	273752	7456999	488	-90	360	LR1	13	15	2	10.6	10.8	6.0	20.3	2.0
LRRC12	273751	7456902	489	-90	360	LR1	11	18	7	12.6	9.9	5.6	19.7	2.0
LRRC12	273751	7456902	481	-90	360	LR1	20	24	4	9.6	9.8	6.2	22.2	2.0
LRRC13	273552	7457003	499	-90	360	LR1	5	6	1	7.1	7.7	5.4	21.2	2.0
LRRC14	273849	7456997	494	-90	360	LR1	0	18	18	10.5	8.3	5.0	18.6	2.0
LRRC14	273849	7456997	483	-90	360	LR1	20	21	1	18.8	14.5	4.0	15.4	2.0
LRRC14	273849	7456997	481	-90	360	LR1	22	23	1	7.4	10.1	6.9	23.2	2.0
LRRC14	273849	7456997	478	-90	360	LR1	25	26	1	9.2	6.3	6.7	24.5	2.0
LRRC15	274250	7456998	500	-90	360	LR1	0	15	15	13.6	8.7	5.0	20.4	2.0
LRRC15	274250	7456998	491	-90	360	LR1	16	17	1	7.6	9.1	6.3	22.2	2.0
LRRC15	274250	7456998	488	-90	360	LR1	18	21	3	8.8	7.7	6.8	23.6	2.0
LRRC16	274249	7456949	501	-90	360	LR1	0	4	4	13.0	21.9	3.9	14.5	2.0
LRRC16	274249	7456949	498	-90	360	LR1	5	6	1	7.6	10.6	5.7	22.7	2.0
LRRC16	274249	7456949	482	-90	360	LR1	8	34	26	11.7	9.2	5.4	20.1	2.0
LRRC22	274446	7457003	504	-90	360	LR1	1	2	1	8.1	6.3	6.3	21.4	1.0
LRRC22	274446	7457003	484	-90	360	LR1	7	36	29	11.9	11.3	5.1	19.4	2.0

BLACK CANYON

APPENDIX 3: SUMMARY DRILL HOLE COLLAR AND COMPOSITES (>7% Mn) – Black Canyon drilling

Hole id	East (WGS84)	North (WGS84)	Rl	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC001	273749.91	7456890.09	491.92	-90	360	LR1	7	8	1	9.5	6.3	6.3	20.9	2
FBRC001	273749.91	7456890.09	488.92	-90	360	LR1	10	11	1	9.3	8.1	6.2	21.2	2
FBRC001	273749.91	7456890.09	465.92	-90	360	LR1	12	55	43	10.8	8.6	4.6	16.8	2
FBRC002	273750.21	7456801.13	475.90	-90	360	LR1	0	46	46	10.0	8.1	4.4	15.9	2
FBRC003	273751.35	7456699.07	497.76	-90	360	LR1	0	1	1	10.9	8.2	5.2	21.6	2
FBRC003	273751.35	7456699.07	474.76	-90	360	LR1	4	43	39	9.5	7.9	4.5	16.4	2
FBRC004	273751.54	7456598.29	482.88	-90	360	LR1	1	32	31	10.2	8.3	4.6	16.5	2
FBRC004	273751.54	7456598.29	464.88	-90	360	LR1	34	35	1	7.0	6.7	6.4	23.0	2
FBRC005	273748.45	7456500.83	484.17	-90	360	LR1	2	26	24	10.5	8.3	4.4	16.2	2
FBRC006	273751.89	7456401.38	463.78	-90	360	LR1	23	47	24	9.5	7.4	4.4	16.1	2
FBRC007	273751.06	7456298.25	447.86	-90	360	LR1	39	62	23	9.3	7.6	4.4	16.0	2
FBRC015	273949.35	7456504.61	476.25	-90	360	LR1	18	30	12	16.1	13.4	4.9	16.3	2
FBRC016	273947.00	7456619.74	487.37	-90	360	LR1	0	26	26	12.6	10.0	4.7	17.4	2
FBRC017	273945.60	7456724.11	497.02	-90	360	LR1	0	7	7	11.0	10.2	4.1	15.4	2
FBRC017	273945.60	7456724.11	488.52	-90	360	LR1	8	16	8	15.4	11.0	4.6	17.9	2
FBRC017	273945.60	7456724.11	482.52	-90	360	LR1	17	19	2	15.1	9.7	5.5	19.4	2
FBRC018	273945.37	7456800.13	480.53	-90	360	LR1	0	39	39	13.6	8.7	4.5	16.7	2
FBRC019	273949.40	7456901.81	484.97	-90	360	LR1	0	31	31	11.2	8.9	4.5	17.1	2
FBRC022	274155.79	7456802.66	497.01	-90	360	LR1	0	9	9	13.5	8.5	4.4	17.9	2
FBRC022	274155.79	7456802.66	486.01	-90	360	LR1	10	21	11	11.7	9.4	5.6	20.1	2
FBRC022	274155.79	7456802.66	479.01	-90	360	LR1	22	23	1	7.9	7.8	6.0	20.8	2
FBRC023	274151.19	7456704.21	496.94	-90	360	LR1	0	9	9	11.8	8.3	4.3	17.0	2
FBRC023	274151.19	7456704.21	490.94	-90	360	LR1	10	11	1	23.4	10.0	3.7	13.4	2
FBRC023	274151.19	7456704.21	487.44	-90	360	LR1	12	16	4	12.4	11.7	5.0	18.7	2
FBRC023	274151.19	7456704.21	483.44	-90	360	LR1	17	19	2	12.9	10.1	5.7	20.8	2
FBRC023	274151.19	7456704.21	480.44	-90	360	LR1	20	22	2	10.0	8.9	6.3	21.8	2
FBRC029	274352.15	7457206.36	487.15	-90	360	LR1	16	19	3	9.2	10.0	6.3	23.2	2
FBRC030	274337.85	7456831.66	488.84	-90	360	LR1	11	15	4	14.4	9.3	4.7	18.4	2
FBRC030	274337.85	7456831.66	484.84	-90	360	LR1	16	18	2	14.2	13.9	4.4	17.1	2
FBRC030	274337.85	7456831.66	471.84	-90	360	LR1	19	41	22	12.4	8.7	4.7	17.9	2
FBRC031	274342.99	7456762.75	457.82	-90	360	LR1	35	52	17	10.7	9.1	4.9	17.7	2
FBRC032	274553.52	7457200.09	487.47	-90	360	LR1	18	19	1	13.3	6.7	6.2	22.9	2
FBRC032	274553.52	7457200.09	484.97	-90	360	LR1	20	22	2	10.8	7.0	6.5	23.4	2
FBRC033	274551.33	7457104.46	494.99	-90	360	LR1	9	10	1	9.1	11.5	6.2	22.3	2
FBRC033	274551.33	7457104.46	491.49	-90	360	LR1	11	15	4	9.1	8.6	5.7	24.6	2
FBRC033	274551.33	7457104.46	486.99	-90	360	LR1	17	18	1	10.3	8.0	5.6	24.0	2
FBRC033	274551.33	7457104.46	484.99	-90	360	LR1	19	20	1	9.5	12.5	5.5	21.3	2
FBRC033	274551.33	7457104.46	476.99	-90	360	LR1	27	28	1	11.8	8.8	6.3	21.9	2
FBRC034	274552.26	7457050.52	502.07	-90	360	LR1	2	3	1	16.5	8.5	4.3	17.2	2
FBRC034	274552.26	7457050.52	494.57	-90	360	LR1	5	15	10	13.0	9.0	5.1	21.5	2
FBRC034	274552.26	7457050.52	482.07	-90	360	LR1	17	28	11	11.5	9.2	6.0	21.5	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC035	274551.75	7457004.82	503.15	-90	360	LR1	0	2	2	9.5	10.3	4.1	15.9	2
FBRC035	274551.75	7457004.82	499.65	-90	360	LR1	3	6	3	10.2	8.5	4.7	20.4	2
FBRC035	274551.75	7457004.82	496.65	-90	360	LR1	7	8	1	12.6	7.9	5.8	22.5	2
FBRC035	274551.75	7457004.82	485.65	-90	360	LR1	9	28	19	14.3	9.7	5.0	19.7	2
FBRC035	274551.75	7457004.82	474.65	-90	360	LR1	29	30	1	14.7	6.3	5.1	19.6	2
FBRC035	274551.75	7457004.82	471.15	-90	360	LR1	31	35	4	8.2	8.3	6.3	22.2	2
FBRC036	274550.34	7456952.88	493.56	-90	360	LR1	6	14	8	11.9	9.8	5.4	21.6	2
FBRC036	274550.34	7456952.88	481.56	-90	360	LR1	15	29	14	12.2	10.5	5.0	20.6	2
FBRC036	274550.34	7456952.88	468.56	-90	360	LR1	30	40	10	9.9	8.5	5.3	19.5	2
FBRC044	273551.47	7456896.76	476.03	-90	360	LR1	5	40	35	11.9	8.7	5.1	18.5	2
FBRC045	273547.60	7456807.95	470.36	-90	360	LR1	14	40	26	9.6	8.5	4.4	15.7	2
FBRC046	273532.68	7456702.05	470.70	-90	360	LR1	21	34	13	9.2	8.1	4.4	16.2	2
FBRC047	273546.58	7456504.33	471.29	-90	360	LR1	24	28	4	9.4	8.1	4.3	15.2	2
FBRC170	273447.87	7456901.28	482.25	-90	360	LR1	2	31	29	13.8	8.8	4.7	17.5	2
FBRC170	273447.87	7456901.28	464.75	-90	360	LR1	32	36	4	9.6	7.0	5.5	19.5	2
FBRC171	273448.68	7456799.11	485.66	-90	360	LR1	12	13	1	7.8	5.3	6.5	21.1	2
FBRC171	273448.68	7456799.11	483.16	-90	360	LR1	14	16	2	11.3	8.0	6.7	21.9	2
FBRC171	273448.68	7456799.11	459.16	-90	360	LR1	18	60	42	9.9	8.2	4.3	15.7	2
FBRC172	273450.34	7456700.12	451.86	-90	360	LR1	27	66	39	9.7	8.0	4.1	15.3	2
FBRC173	273442.79	7456599.60	455.51	-90	360	LR1	31	54	23	9.7	8.2	4.3	15.5	2
FBRC174	273446.56	7456504.11	450.85	-90	360	LR1	33	60	27	9.6	7.9	4.2	15.5	2
FBRC175	273449.17	7456396.43	447.36	-90	360	LR1	40	60	20	9.5	7.6	4.3	15.8	2
FBRC176	273548.72	7456946.53	495.95	-90	360	LR1	0	6	6	9.8	6.9	3.9	14.4	2
FBRC176	273548.72	7456946.53	491.45	-90	360	LR1	7	8	1	7.0	7.0	5.3	20.4	2
FBRC177	273552.86	7456598.20	456.42	-90	360	LR1	22	60	38	9.8	7.9	4.3	15.8	2
FBRC178	273544.73	7456397.51	456.01	-90	360	LR1	29	54	25	9.7	7.5	4.3	15.9	2
FBRC179	273552.81	7456301.52	447.66	-90	360	LR1	40	60	20	9.7	7.9	4.3	15.7	2
FBRC181	273648.25	7456898.62	489.53	-90	360	LR1	6	13	7	10.6	7.9	4.6	16.7	2
FBRC181	273648.25	7456898.62	484.53	-90	360	LR1	14	15	1	9.7	8.0	5.7	20.6	2
FBRC181	273648.25	7456898.62	466.03	-90	360	LR1	16	50	34	10.3	8.3	4.7	17.3	2
FBRC182	273647.80	7456798.27	495.14	-90	360	LR1	3	4	1	8.3	6.6	7.1	23.9	2
FBRC182	273647.80	7456798.27	468.64	-90	360	LR1	7	53	46	10.2	8.5	4.3	15.9	2
FBRC182	273647.80	7456798.27	434.14	-90	360	LR1	64	65	1	7.1	6.1	6.4	22.9	2
FBRC183	273647.52	7456698.08	492.23	-90	360	LR1	6	7	1	17.0	6.6	5.9	18.8	2
FBRC183	273647.52	7456698.08	468.23	-90	360	LR1	9	52	43	9.6	8.0	4.3	15.9	2
FBRC183	273647.52	7456698.08	443.73	-90	360	LR1	54	56	2	7.8	7.5	5.1	18.7	2
FBRC184	273650.86	7456601.25	489.65	-90	360	LR1	8	9	1	8.2	5.5	6.6	22.2	2
FBRC184	273650.86	7456601.25	469.65	-90	360	LR1	12	45	33	10.7	8.3	4.4	16.1	2
FBRC185	273652.11	7456498.90	490.98	-90	360	LR1	7	8	1	7.3	5.9	7.2	23.7	2
FBRC185	273652.11	7456498.90	475.98	-90	360	LR1	10	35	25	9.9	7.8	4.5	16.1	2
FBRC186	273648.82	7456298.00	445.63	-90	360	LR1	40	64	24	9.7	7.9	4.2	15.7	2
FBRC188	273852.57	7456899.79	478.07	-90	360	LR1	0	44	44	11.1	8.5	4.3	16.2	2
FBRC189	273848.35	7456796.86	478.74	-90	360	LR1	0	43	43	10.5	8.6	4.3	16.0	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC190	273850.54	7456697.68	482.83	-90	360	LR1	0	34	34	10.4	8.1	4.3	16.1	2
FBRC191	273848.76	7456598.98	484.53	-90	360	LR1	5	25	20	11.6	9.2	5.0	18.3	2
FBRC192	273853.27	7456499.03	496.98	-90	360	LR1	0	5	5	9.1	8.3	3.7	15.1	2
FBRC192	273853.27	7456499.03	480.48	-90	360	LR1	6	32	26	12.0	9.6	4.3	16.1	2
FBRC193	273853.12	7456399.09	457.17	-90	360	LR1	39	44	5	10.3	10.6	6.4	19.7	2
FBRC196	274049.50	7456998.84	498.90	-90	360	LR1	0	11	11	17.1	8.7	4.4	16.5	2
FBRC196	274049.50	7456998.84	489.90	-90	360	LR1	12	17	5	13.2	14.4	5.1	17.9	2
FBRC197	274043.44	7456897.34	488.23	-90	360	LR1	0	29	29	14.8	9.0	4.8	18.2	2
FBRC198	274248.69	7456902.78	502.82	-90	360	LR1	0	2	2	8.0	6.0	3.7	17.6	2
FBRC198	274248.69	7456902.78	496.82	-90	360	LR1	3	21	18	11.3	9.5	4.6	18.9	2
FBRC198	274248.69	7456902.78	475.82	-90	360	LR1	23	61	38	12.1	10.8	5.0	18.8	2
FBRC199	274249.74	7456797.38	494.09	-90	360	LR1	1	14	13	12.6	8.4	4.4	17.8	2
FBRC199	274249.74	7456797.38	473.09	-90	360	LR1	15	42	27	12.4	9.6	4.5	17.6	2
FBRC200	274247.54	7456698.02	475.69	-90	360	LR1	15	42	27	15.7	9.8	4.3	18.1	2
FBRC201	274150.76	7456594.12	459.54	-90	360	LR1	34	47	13	9.9	7.9	4.4	17.2	2
FBRC202	274047.91	7456597.85	484.34	-90	360	LR1	15	16	1	7.3	4.4	9.5	23.1	2
FBRC202	274047.91	7456597.85	480.84	-90	360	LR1	18	20	2	11.4	7.1	10.1	18.4	2
FBRC202	274047.91	7456597.85	475.84	-90	360	LR1	22	26	4	16.7	9.9	5.5	17.8	2
FBRC205	274051.00	7456715.00	500.69	-90	360	LR1	0	1	1	9.8	8.0	5.7	19.4	2
FBRC205	274051.00	7456715.00	497.19	-90	360	LR1	3	5	2	16.7	12.6	4.3	16.4	2
FBRC205	274051.00	7456715.00	491.19	-90	360	LR1	6	14	8	16.2	10.3	4.6	18.6	2
FBRC206	274051.13	7456797.45	498.87	-90	360	LR1	0	4	4	10.8	5.3	3.4	14.7	2
FBRC206	274051.13	7456797.45	494.87	-90	360	LR1	5	7	2	13.3	7.7	4.7	17.3	2
FBRC207	274443.95	7457201.41	492.44	-90	360	LR1	7	18	11	12.4	10.6	5.4	21.2	2
FBRC207	274443.95	7457201.41	484.94	-90	360	LR1	19	21	2	9.6	10.6	6.0	22.6	2
FBRC207	274443.95	7457201.41	481.44	-90	360	LR1	23	24	1	9.9	9.9	6.1	22.2	2
FBRC207	274443.95	7457201.41	476.44	-90	360	LR1	27	30	3	9.1	8.1	6.6	24.0	2
FBRC207	274443.95	7457201.41	473.44	-90	360	LR1	31	32	1	11.5	7.5	6.4	22.7	2
FBRC207	274443.95	7457201.41	470.44	-90	360	LR1	34	35	1	15.3	6.5	5.8	21.6	2
FBRC208	274445.41	7457097.87	503.08	-90	360	LR1	0	3	3	14.7	7.6	4.1	16.6	2
FBRC208	274445.41	7457097.87	490.58	-90	360	LR1	4	24	20	14.4	10.2	4.9	19.0	2
FBRC208	274445.41	7457097.87	477.08	-90	360	LR1	25	30	5	7.9	7.3	6.3	22.4	2
FBRC209	274448.34	7456901.69	478.51	-90	360	LR1	7	41	34	11.7	10.1	4.9	18.7	2
FBRC214	274651.56	7456997.39	494.81	-90	360	LR1	9	11	2	8.8	13.0	7.0	16.9	2
FBRC214	274651.56	7456997.39	490.31	-90	360	LR1	14	15	1	11.8	10.9	5.5	21.6	2
FBRC214	274651.56	7456997.39	485.81	-90	360	LR1	18	20	2	11.8	5.2	6.0	25.0	2
FBRC221	274251.41	7457100.04	490.96	-90	360	LR1	13	15	2	8.2	6.1	5.7	26.5	2
FBRC049	275587.44	7457220.33	497.99	-90	360	FB3	8	9	1	11.6	5.4	4.9	18.3	2
FBRC049	275587.44	7457220.33	481.49	-90	360	FB3	10	40	30	11.4	9.7	4.6	17.4	2
FBRC057	278796.41	7457996.02	521.56	-90	360	FB3	0	1	1	10.6	10.9	6.2	22.6	2
FBRC059	278435.56	7458244.44	530.69	-90	360	FB3	0	4	4	13.6	8.3	5.6	22.2	2
FBRC060	278491.64	7458157.97	532.34	-90	360	FB3	0	4	4	19.0	13.5	3.9	16.3	2
FBRC060	278491.64	7458157.97	517.84	-90	360	FB3	5	28	23	14.5	14.5	4.4	19.1	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC060	278491.64	7458157.97	503.84	-90	360	FB3	30	31	1	8.9	18.0	4.8	20.5	2
FBRC060	278491.64	7458157.97	498.84	-90	360	FB3	32	39	7	12.4	11.6	5.6	21.1	2
FBRC061	278536.08	7458081.87	517.69	-90	360	FB3	0	31	31	13.1	12.7	4.7	19.5	2
FBRC061	278536.08	7458081.87	499.19	-90	360	FB3	32	36	4	8.4	14.7	5.3	22.1	2
FBRC061	278536.08	7458081.87	495.69	-90	360	FB3	37	38	1	7.9	13.7	5.9	21.9	2
FBRC061	278536.08	7458081.87	493.69	-90	360	FB3	39	40	1	11.8	11.8	5.6	20.6	2
FBRC062	278584.13	7457990.50	521.06	-90	360	FB3	0	11	11	9.8	9.8	4.4	18.3	2
FBRC062	278584.13	7457990.50	511.56	-90	360	FB3	13	17	4	9.4	12.7	5.6	21.7	2
FBRC062	278584.13	7457990.50	508.06	-90	360	FB3	18	19	1	9.0	13.3	5.9	20.9	2
FBRC062	278584.13	7457990.50	505.06	-90	360	FB3	21	22	1	7.5	9.5	6.7	24.0	2
FBRC063	278633.65	7457902.40	517.55	-90	360	FB3	1	11	10	8.3	11.8	4.6	18.5	2
FBRC063	278633.65	7457902.40	507.05	-90	360	FB3	16	17	1	8.7	8.9	6.5	23.3	2
FBRC064	278691.68	7457814.60	511.42	-90	360	FB3	0	22	22	10.8	9.8	4.1	16.5	2
FBRC065	278223.63	7458220.10	527.60	-90	360	FB3	2	3	1	13.7	11.2	6.2	18.4	2
FBRC065	278223.63	7458220.10	523.10	-90	360	FB3	4	10	6	11.8	9.2	6.3	21.4	2
FBRC066	278255.42	7458157.84	529.87	-90	360	FB3	0	10	10	21.7	13.7	4.0	13.7	2
FBRC066	278255.42	7458157.84	514.87	-90	360	FB3	11	57	46	13.3	11.8	5.1	20.2	2
FBRC067	278310.82	7458060.55	507.78	-90	360	FB3	3	40	37	12.9	11.9	4.6	19.1	2
FBRC068	278370.44	7457981.70	513.85	-90	360	FB3	0	27	27	14.5	12.4	4.6	18.4	2
FBRC068	278370.44	7457981.70	496.35	-90	360	FB3	28	34	6	11.6	10.9	3.9	16.0	2
FBRC069	278413.99	7457883.51	512.18	-90	360	FB3	0	28	28	12.7	11.7	4.9	18.1	2
FBRC070	278468.11	7457808.39	513.76	-90	360	FB3	0	22	22	12.7	11.0	4.4	18.0	2
FBRC071	278507.87	7457713.29	507.19	-90	360	FB3	0	28	28	11.3	10.7	4.4	18.0	2
FBRC072	278545.40	7457656.97	511.66	-90	360	FB3	0	16	16	10.8	11.3	4.6	18.7	2
FBRC075	278096.29	7458046.02	503.68	-90	360	FB3	1	37	36	11.6	10.8	4.6	18.5	2
FBRC075	278096.29	7458046.02	483.18	-90	360	FB3	39	40	1	7.2	7.8	5.1	19.3	2
FBRC076	278138.34	7457952.90	500.70	-90	360	FB3	0	43	43	10.3	10.2	3.9	15.7	2
FBRC076	278138.34	7457952.90	476.70	-90	360	FB3	45	46	1	7.6	9.6	4.7	17.7	2
FBRC077	278196.89	7457867.87	520.44	-90	360	FB3	0	4	4	8.5	9.9	4.0	17.1	2
FBRC077	278196.89	7457867.87	508.94	-90	360	FB3	5	22	17	12.0	10.6	4.2	16.2	2
FBRC078	278244.12	7457783.10	511.17	-90	360	FB3	0	22	22	11.7	11.2	4.3	17.5	2
FBRC079	278286.02	7457705.80	518.59	-90	360	FB3	0	6	6	10.5	11.8	4.9	20.6	2
FBRC079	278286.02	7457705.80	501.09	-90	360	FB3	7	34	27	10.3	10.6	4.1	16.1	2
FBRC080	278342.16	7457610.32	515.90	-90	360	FB3	0	9	9	12.7	11.8	4.6	18.5	2
FBRC080	278342.16	7457610.32	509.90	-90	360	FB3	10	11	1	9.2	10.5	5.1	19.7	2
FBRC080	278342.16	7457610.32	503.40	-90	360	FB3	12	22	10	9.6	11.2	4.4	17.1	2
FBRC081	278372.38	7457558.22	511.73	-90	360	FB3	0	16	16	10.6	10.5	4.5	17.3	2
FBRC082	278014.87	7457777.85	510.35	-90	360	FB3	0	16	16	9.2	9.7	4.6	17.8	2
FBRC083	277963.66	7457859.33	517.49	-90	360	FB3	0	1	1	7.3	5.5	2.7	11.6	2
FBRC083	277963.66	7457859.33	482.99	-90	360	FB3	24	46	22	10.4	9.7	3.7	14.9	2
FBRC084	277922.75	7457935.80	516.10	-90	360	FB3	0	3	3	7.6	6.4	3.1	13.0	2
FBRC084	277922.75	7457935.80	490.10	-90	360	FB3	27	28	1	7.1	9.5	5.8	20.8	2
FBRC086	278059.99	7457691.06	507.31	-90	360	FB3	1	22	21	9.4	9.8	4.2	16.5	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC087	278114.08	7457600.33	515.73	-90	360	FB3	0	2	2	10.3	9.7	4.5	19.5	2
FBRC087	278114.08	7457600.33	504.23	-90	360	FB3	3	22	19	9.5	9.8	4.6	17.1	2
FBRC088	278166.15	7457511.83	515.08	-90	360	FB3	0	3	3	12.5	9.8	5.1	21.4	2
FBRC088	278166.15	7457511.83	502.08	-90	360	FB3	7	22	15	9.9	9.6	4.5	17.0	2
FBRC089	277943.05	7457516.09	489.95	-90	360	FB3	22	28	6	9.5	8.8	4.2	15.7	2
FBRC090	277893.39	7457586.72	489.84	-90	360	FB3	23	28	5	8.1	8.4	4.6	17.1	2
FBRC091	277845.14	7457658.35	487.97	-90	360	FB3	27	28	1	8.2	8.2	4.8	17.7	2
FBRC093	277745.59	7457843.24	502.53	-90	360	FB3	2	23	21	9.6	9.7	4.4	16.8	2
FBRC094	277694.18	7457932.93	513.17	-90	360	FB3	0	3	3	8.3	7.3	3.9	17.1	2
FBRC094	277694.18	7457932.93	509.17	-90	360	FB3	4	7	3	7.9	10.1	5.4	22.1	2
FBRC094	277694.18	7457932.93	505.67	-90	360	FB3	8	10	2	7.7	10.5	6.0	23.6	2
FBRC094	277694.18	7457932.93	503.17	-90	360	FB3	11	12	1	8.0	9.3	6.3	23.8	2
FBRC097	277519.65	7457830.31	509.16	-90	360	FB3	3	4	1	7.8	7.5	3.2	13.4	2
FBRC097	277519.65	7457830.31	495.66	-90	360	FB3	5	29	24	11.9	10.7	4.6	17.2	2
FBRC099	278784.70	7457649.79	511.31	-90	360	FB3	1	20	19	10.1	10.1	4.3	16.7	2
FBRC100	278828.41	7457565.24	516.65	-90	360	FB3	1	10	9	9.2	9.8	4.8	18.5	2
FBRC100	278828.41	7457565.24	510.15	-90	360	FB3	11	13	2	8.3	11.0	5.6	20.3	2
FBRC101	278606.50	7457544.30	508.32	-90	360	FB3	1	22	21	10.4	9.7	4.2	16.0	2
FBRC102	278662.32	7457456.12	511.88	-90	360	FB3	0	22	22	9.9	9.2	4.2	16.5	2
FBRC103	278711.99	7457370.86	515.26	-90	360	FB3	0	18	18	10.3	10.1	5.0	19.0	2
FBRC105	278443.07	7457438.69	508.87	-90	360	FB3	0	22	22	10.7	9.7	4.2	16.3	2
FBRC106	278497.38	7457350.14	510.99	-90	360	FB3	0	22	22	10.8	9.5	4.1	15.6	2
FBRC107	278544.73	7457265.70	510.41	-90	360	FB3	0	22	22	9.8	9.2	4.3	16.7	2
FBRC108	278582.63	7457173.91	513.04	-90	360	FB3	0	12	12	9.3	9.7	4.9	18.7	2
FBRC109	278638.28	7457097.07	516.95	-90	360	FB3	0	1	1	7.4	10.7	3.2	13.9	2
FBRC109	278638.28	7457097.07	512.95	-90	360	FB3	4	5	1	7.1	8.6	6.1	22.6	2
FBRC109	278638.28	7457097.07	509.95	-90	360	FB3	7	8	1	7.3	7.3	6.1	22.2	2
FBRC110	278269.61	7457337.90	515.50	-90	360	FB3	0	4	4	7.9	7.8	4.2	17.5	2
FBRC110	278269.61	7457337.90	504.00	-90	360	FB3	5	22	17	9.4	9.9	4.3	16.6	2
FBRC111	278315.26	7457255.69	506.55	-90	360	FB3	0	22	22	9.7	9.7	4.2	16.0	2
FBRC112	278367.47	7457162.88	507.23	-90	360	FB3	0	22	22	10.2	9.4	4.2	15.9	2
FBRC113	278407.68	7457078.02	506.63	-90	360	FB3	0	22	22	9.9	9.0	4.2	16.2	2
FBRC114	278469.02	7456987.92	509.01	-90	360	FB3	0	15	15	9.5	9.2	4.6	17.7	2
FBRC115	278284.72	7456899.83	504.86	-90	360	FB3	0	22	22	9.9	9.0	4.2	16.0	2
FBRC116	278245.33	7456971.37	504.75	-90	360	FB3	0	22	22	9.9	9.5	4.2	16.0	2
FBRC117	278188.46	7457069.96	505.23	-90	360	FB3	0	22	22	9.5	10.0	4.4	16.6	2
FBRC118	278151.19	7457142.25	504.34	-90	360	FB3	0	24	24	9.0	9.1	4.3	16.4	2
FBRC119	278101.52	7457230.16	500.77	-90	360	FB3	8	22	14	8.9	9.2	4.5	16.8	2
FBRC120	278045.05	7457327.02	496.06	-90	360	FB3	17	22	5	9.0	9.4	4.4	16.1	2
FBRC121	278002.45	7457405.47	493.93	-90	360	FB3	20	22	2	8.9	10.0	4.4	15.9	2
FBRC125	277923.96	7457141.33	488.31	-90	360	FB3	23	28	5	9.4	9.1	4.2	15.1	2
FBRC126	277970.59	7457052.34	492.56	-90	360	FB3	20	22	2	8.7	8.4	4.5	16.5	2
FBRC127	278018.13	7456965.09	503.79	-90	360	FB3	0	22	22	8.7	9.5	4.5	16.5	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC224	278670.34	7458042.54	523.33	-90	360	FB3	0	1	1	11.7	10.1	5.3	22.4	2
FBRC225	278722.03	7457952.40	521.48	-90	360	FB3	0	1	1	8.6	6.7	4.2	18.7	2
FBRC226	278771.12	7457866.66	516.56	-90	360	FB3	0	10	10	9.9	10.7	4.4	17.8	2
FBRC226	278771.12	7457866.66	508.56	-90	360	FB3	11	15	4	9.2	11.0	5.8	21.5	2
FBRC228	278273.95	7458326.55	524.28	-90	360	FB3	0	9	9	24.0	12.1	6.5	10.4	2
FBRC228	278273.95	7458326.55	510.78	-90	360	FB3	18	21	3	9.8	14.9	8.6	16.8	2
FBRC229	278323.10	7458240.08	529.83	-90	360	FB3	2	4	2	12.5	7.7	5.6	23.4	2
FBRC229	278323.10	7458240.08	525.83	-90	360	FB3	6	8	2	10.2	10.1	5.8	22.9	2
FBRC229	278323.10	7458240.08	520.33	-90	360	FB3	12	13	1	7.1	8.1	6.9	25.0	2
FBRC229	278323.10	7458240.08	518.33	-90	360	FB3	14	15	1	7.0	5.1	7.3	26.8	2
FBRC230	278373.18	7458153.12	533.11	-90	360	FB3	0	1	1	29.9	11.7	4.0	9.3	2
FBRC230	278373.18	7458153.12	529.11	-90	360	FB3	4	5	1	11.7	18.1	4.3	18.2	2
FBRC230	278373.18	7458153.12	519.11	-90	360	FB3	6	23	17	14.5	12.4	4.7	19.6	2
FBRC230	278373.18	7458153.12	506.11	-90	360	FB3	27	28	1	8.7	12.5	5.5	22.9	2
FBRC230	278373.18	7458153.12	504.11	-90	360	FB3	29	30	1	10.2	12.9	5.8	21.0	2
FBRC230	278373.18	7458153.12	501.11	-90	360	FB3	31	34	3	9.1	11.3	6.3	22.2	2
FBRC231	278420.62	7458068.03	515.79	-90	360	FB3	0	37	37	15.1	12.8	4.4	18.3	2
FBRC231	278420.62	7458068.03	491.79	-90	360	FB3	38	47	9	8.2	12.9	4.6	18.2	2
FBRC231	278420.62	7458068.03	481.79	-90	360	FB3	52	53	1	7.8	6.9	5.9	21.6	2
FBRC232	278472.14	7457980.62	510.34	-90	360	FB3	2	41	39	13.0	11.2	4.3	17.5	2
FBRC233	278522.28	7457895.22	521.87	-90	360	FB3	0	9	9	13.4	11.0	4.4	18.4	2
FBRC233	278522.28	7457895.22	511.87	-90	360	FB3	10	19	9	10.1	10.9	4.5	17.6	2
FBRC233	278522.28	7457895.22	504.37	-90	360	FB3	21	23	2	7.8	9.9	4.6	17.6	2
FBRC234	278555.78	7457827.92	513.16	-90	360	FB3	0	22	22	11.9	10.7	4.1	16.6	2
FBRC235	278602.33	7457757.19	514.78	-90	360	FB3	0	14	14	12.0	10.5	4.1	17.0	2
FBRC235	278602.33	7457757.19	493.78	-90	360	FB3	15	41	26	9.6	9.8	4.0	15.5	2
FBRC237	278144.85	7458139.65	516.78	-90	360	FB3	0	22	22	12.0	11.0	5.0	20.5	2
FBRC237	278144.85	7458139.65	503.28	-90	360	FB3	24	25	1	7.9	9.9	6.3	24.0	2
FBRC238	278202.34	7458051.83	521.11	-90	360	FB3	0	12	12	15.8	11.7	4.5	17.6	2
FBRC238	278202.34	7458051.83	502.61	-90	360	FB3	13	36	23	12.2	10.5	4.3	17.0	2
FBRC238	278202.34	7458051.83	488.61	-90	360	FB3	38	39	1	8.2	11.5	4.3	16.4	2
FBRC238	278202.34	7458051.83	485.61	-90	360	FB3	40	43	3	7.8	8.8	4.8	18.5	2
FBRC239	278248.11	7457965.49	501.08	-90	360	FB3	0	51	51	12.3	11.2	3.8	15.8	2
FBRC240	278293.19	7457883.68	501.44	-90	360	FB3	0	45	45	11.0	11.1	4.0	16.3	2
FBRC240	278293.19	7457883.68	476.94	-90	360	FB3	46	48	2	7.4	10.4	4.6	17.7	2
FBRC241	278349.27	7457791.21	504.18	-90	360	FB3	0	40	40	10.9	10.3	4.2	16.7	2
FBRC242	278397.52	7457705.30	517.43	-90	360	FB3	1	11	10	12.0	10.8	4.5	19.0	2
FBRC242	278397.52	7457705.30	493.43	-90	360	FB3	12	48	36	11.2	10.3	4.0	16.1	2
FBRC243	278449.69	7457619.49	495.60	-90	360	FB3	0	48	48	10.0	10.0	4.2	16.8	2
FBRC243	278449.69	7457619.49	469.60	-90	360	FB3	49	51	2	7.3	10.0	4.8	17.9	2
FBRC245	278001.15	7457995.12	511.86	-90	360	FB3	0	14	14	9.5	10.6	4.6	18.3	2
FBRC245	278001.15	7457995.12	503.36	-90	360	FB3	15	16	1	11.0	14.8	5.2	19.1	2
FBRC246	278058.06	7457906.87	518.48	-90	360	FB3	0	3	3	15.4	13.6	3.9	15.1	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC246	278058.06	7457906.87	497.48	-90	360	FB3	4	41	37	10.2	10.3	3.9	15.2	2
FBRC246	278058.06	7457906.87	477.48	-90	360	FB3	42	43	1	7.0	9.7	4.9	18.1	2
FBRC247	278103.26	7457815.57	494.23	-90	360	FB3	0	51	51	10.2	10.4	4.0	15.8	2
FBRC247	278103.26	7457815.57	467.23	-90	360	FB3	52	53	1	7.4	9.0	4.9	18.8	2
FBRC248	278155.68	7457731.68	495.87	-90	360	FB3	0	49	49	10.0	10.3	3.9	15.6	2
FBRC249	278205.31	7457646.49	496.19	-90	360	FB3	0	48	48	10.0	10.1	4.1	16.0	2
FBRC250	278252.98	7457564.21	517.77	-90	360	FB3	0	1	1	9.7	8.7	3.9	15.2	2
FBRC250	278252.98	7457564.21	490.27	-90	360	FB3	2	54	52	9.9	9.9	4.1	15.8	2
FBRC251	278287.29	7457509.27	491.74	-90	360	FB3	0	52	52	10.0	9.8	4.1	15.9	2
FBRC251	278287.29	7457509.27	464.24	-90	360	FB3	53	54	1	7.1	10.3	4.5	17.2	2
FBRC254	277833.42	7457893.85	507.69	-90	360	FB3	0	18	18	12.3	9.7	3.9	15.2	2
FBRC254	277833.42	7457893.85	483.69	-90	360	FB3	30	36	6	8.3	9.8	4.4	16.6	2
FBRC254	277833.42	7457893.85	477.19	-90	360	FB3	39	40	1	7.0	8.5	5.1	18.9	2
FBRC255	277876.52	7457808.84	509.92	-90	360	FB3	5	8	3	10.2	11.5	4.5	17.1	2
FBRC255	277876.52	7457808.84	506.92	-90	360	FB3	9	10	1	12.3	10.7	5.0	19.0	2
FBRC255	277876.52	7457808.84	469.42	-90	360	FB3	25	69	44	10.1	10.0	3.9	15.1	2
FBRC256	277927.96	7457726.93	473.72	-90	360	FB3	24	62	38	10.1	9.9	3.7	14.8	2
FBRC257	277607.93	7457883.09	503.68	-90	360	FB3	0	21	21	14.0	10.1	4.2	16.7	2
FBRC257	277607.93	7457883.09	490.18	-90	360	FB3	23	26	3	7.5	8.3	6.1	22.1	2
FBRC258	277710.88	7457714.21	442.62	-90	360	FB3	52	91	39	10.0	10.0	3.8	14.9	2
FBRC258	277710.88	7457714.21	420.62	-90	360	FB3	92	95	3	7.4	9.9	4.7	18.0	2
FBRC259	278913.98	7457817.60	521.98	-90	360	FB3	0	1	1	8.1	8.5	2.8	14.0	2
FBRC259	278913.98	7457817.60	519.48	-90	360	FB3	2	4	2	8.6	12.9	4.1	16.4	2
FBRC259	278913.98	7457817.60	516.48	-90	360	FB3	5	7	2	7.7	10.6	6.1	22.9	2
FBRC259	278913.98	7457817.60	510.48	-90	360	FB3	11	13	2	8.8	8.2	6.4	22.7	2
FBRC260	278951.76	7457758.13	516.68	-90	360	FB3	4	9	5	11.2	12.4	5.3	19.7	2
FBRC260	278951.76	7457758.13	511.68	-90	360	FB3	11	12	1	7.1	10.5	6.4	23.0	2
FBRC261	278978.13	7457707.35	514.82	-90	360	FB3	7	8	1	10.2	10.0	5.5	20.3	2
FBRC262	278831.58	7457761.25	514.33	-90	360	FB3	0	15	15	10.4	10.2	4.3	17.2	2
FBRC263	278866.46	7457702.81	516.06	-90	360	FB3	0	12	12	9.2	9.9	4.6	17.7	2
FBRC263	278866.46	7457702.81	506.56	-90	360	FB3	15	16	1	7.2	9.2	5.3	19.4	2
FBRC264	278689.80	7457606.45	508.50	-90	360	FB3	0	25	25	10.6	9.9	4.2	16.2	2
FBRC265	278740.60	7457529.74	514.96	-90	360	FB3	0	15	15	13.0	10.2	4.2	16.8	2
FBRC265	278740.60	7457529.74	505.96	-90	360	FB3	16	17	1	7.8	10.7	4.4	17.0	2
FBRC266	278772.85	7457461.58	517.41	-90	360	FB3	0	9	9	9.2	10.1	4.6	17.4	2
FBRC266	278772.85	7457461.58	510.41	-90	360	FB3	10	13	3	7.7	9.4	5.8	21.4	2
FBRC266	278772.85	7457461.58	506.41	-90	360	FB3	15	16	1	7.7	6.9	6.8	23.9	2
FBRC267	278799.69	7457416.95	518.98	-90	360	FB3	0	4	4	7.9	9.4	5.1	19.6	2
FBRC267	278799.69	7457416.95	513.48	-90	360	FB3	7	8	1	9.1	6.5	6.6	23.8	2
FBRC268	278513.57	7457510.47	504.53	-90	360	FB3	0	30	30	10.8	9.9	4.0	15.5	2
FBRC268	278513.57	7457510.47	487.53	-90	360	FB3	31	33	2	7.8	10.7	4.2	16.4	2
FBRC268	278513.57	7457510.47	484.03	-90	360	FB3	35	36	1	7.3	9.9	4.8	18.0	2
FBRC269	278558.03	7457439.23	506.64	-90	360	FB3	0	29	29	10.8	9.7	4.2	16.1	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC269	278558.03	7457439.23	489.64	-90	360	FB3	31	32	1	7.3	9.4	4.8	18.0	2
FBRC270	278606.07	7457362.86	510.44	-90	360	FB3	0	25	25	10.8	9.7	4.3	16.2	2
FBRC270	278606.07	7457362.86	491.44	-90	360	FB3	31	32	1	7.3	6.8	6.2	22.2	2
FBRC271	278653.12	7457275.80	515.58	-90	360	FB3	0	12	12	10.0	10.0	4.8	18.5	2
FBRC271	278653.12	7457275.80	507.58	-90	360	FB3	13	15	2	7.8	11.2	4.8	17.7	2
FBRC272	278702.25	7457190.77	516.26	-90	360	FB3	0	2	2	8.2	7.8	3.9	16.7	2
FBRC273	278358.45	7457390.39	499.56	-90	360	FB3	1	36	35	9.5	9.7	4.3	16.1	2
FBRC274	278400.51	7457308.15	503.61	-90	360	FB3	0	30	30	9.8	9.3	4.1	15.6	2
FBRC274	278400.51	7457308.15	487.11	-90	360	FB3	31	32	1	8.0	10.5	4.4	16.3	2
FBRC275	278454.10	7457220.13	506.31	-90	360	FB3	0	27	27	10.2	9.5	4.2	16.0	2
FBRC275	278454.10	7457220.13	489.31	-90	360	FB3	30	31	1	7.5	10.5	4.5	17.3	2
FBRC276	278502.79	7457140.55	509.34	-90	360	FB3	0	19	19	9.7	9.6	4.4	16.7	2
FBRC277	278545.18	7457053.47	510.93	-90	360	FB3	0	13	13	8.9	10.3	5.1	18.9	2
FBRC278	278134.13	7457376.84	494.18	-90	360	FB3	9	36	27	9.7	9.7	4.1	15.6	2
FBRC279	278172.92	7457295.82	516.69	-90	360	FB3	0	1	1	14.8	9.4	5.6	18.6	2
FBRC279	278172.92	7457295.82	501.19	-90	360	FB3	2	30	28	9.4	9.7	4.1	15.7	2
FBRC280	278228.12	7457202.04	496.15	-90	360	FB3	2	40	38	9.6	9.6	4.2	15.9	2
FBRC280	278228.12	7457202.04	474.65	-90	360	FB3	42	43	1	7.2	9.5	4.9	18.1	2
FBRC281	278281.53	7457118.15	500.44	-90	360	FB3	0	34	34	9.6	9.4	4.2	16.0	2
FBRC282	278326.76	7457036.29	504.07	-90	360	FB3	0	25	25	9.7	9.1	4.2	15.9	2
FBRC282	278326.76	7457036.29	489.07	-90	360	FB3	26	29	3	8.0	9.8	4.4	16.7	2
FBRC282	278326.76	7457036.29	486.07	-90	360	FB3	30	31	1	7.0	10.4	4.5	17.7	2
FBRC283	278382.67	7456944.27	504.47	-90	360	FB3	5	18	13	9.6	9.1	4.3	16.3	2
FBRC284	277887.44	7457408.23	463.16	-90	360	FB3	27	77	50	9.4	9.5	4.0	15.3	2
FBRC285	277959.99	7457278.61	489.05	-90	360	FB3	22	30	8	9.5	9.1	4.0	15.2	2
FBRC286	278029.89	7457156.43	479.66	-90	360	FB3	11	59	48	9.5	9.5	4.2	15.8	2
FBRC287	278147.06	7456949.50	497.41	-90	360	FB3	0	36	36	9.6	9.7	4.2	16.1	2
FBRC288	278192.24	7456875.95	499.63	-90	360	FB3	0	30	30	9.7	9.5	4.2	15.9	2
FBRC288	278192.24	7456875.95	482.63	-90	360	FB3	31	33	2	7.6	10.8	4.4	16.8	2
FBRC288	278192.24	7456875.95	480.13	-90	360	FB3	34	35	1	8.1	10.3	4.4	17.0	2
FBRC289	277645.00	7457626.00	444.71	-90	360	FB3	64	72	8	10.5	9.3	3.8	14.6	2
FBRC290	277708.00	7457540.00	451.22	-90	360	FB3	51	72	21	10.5	9.4	3.7	14.6	2
FBRC291	277809.00	7457542.00	462.22	-90	360	FB3	32	72	40	10.0	9.7	3.9	15.1	2
FBRC292	277976.00	7457634.00	475.13	-90	360	FB3	22	60	38	9.8	9.8	3.8	15.1	2
FBRC293	278013.00	7457571.00	511.27	-90	360	FB3	4	5	1	9.1	8.1	6.2	21.0	2
FBRC293	278013.00	7457571.00	480.77	-90	360	FB3	10	60	50	9.5	9.6	4.0	15.2	2
FBRC293	278013.00	7457571.00	453.77	-90	360	FB3	61	63	2	7.2	11.2	4.4	16.8	2
FBRC294	278059.00	7457506.00	475.61	-90	360	FB3	15	65	50	9.6	9.6	3.9	15.1	2
FBRC304	277387.00	7457857.00	510.01	-60	330	FB3	1	7	6	11.1	10.8	4.3	18.7	2
FBRC305	277401.00	7457838.00	499.77	-60	330	FB3	0	27	27	13.7	10.5	4.4	17.6	2
FBRC305	277401.00	7457838.00	483.77	-60	330	FB3	29	30	1	8.1	9.4	6.4	23.7	2
FBRC306	277417.00	7457817.00	494.03	-60	330	FB3	0	37	37	12.7	10.6	4.7	18.7	2
FBRC306	277417.00	7457817.00	474.03	-60	330	FB3	38	39	1	10.0	10.7	6.0	21.7	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC307	277444.00	7457779.00	476.74	-60	330	FB3	15	57	42	10.3	9.4	4.5	16.7	2
FBRC308	277286.00	7457829.00	514.45	-60	330	FB3	0	5	5	13.9	12.3	4.3	16.9	2
FBRC308	277286.00	7457829.00	508.95	-60	330	FB3	7	9	2	9.3	10.2	5.2	21.9	2
FBRC308	277286.00	7457829.00	505.45	-60	330	FB3	11	12	1	8.3	4.9	6.8	25.4	2
FBRC309	277306.00	7457811.00	505.54	-60	330	FB3	0	19	19	12.5	10.8	4.9	19.2	2
FBRC310	277316.00	7457798.00	511.82	-60	330	FB3	1	4	3	11.5	8.3	4.3	17.4	2
FBRC310	277316.00	7457798.00	498.32	-60	330	FB3	5	27	22	12.1	10.5	4.9	19.9	2
FBRC310	277316.00	7457798.00	485.82	-60	330	FB3	28	29	1	7.3	11.2	6.1	23.5	2
FBRC311	277332.00	7457767.00	510.42	-60	330	FB3	1	3	2	9.1	8.7	3.6	16.7	2
FBRC311	277332.00	7457767.00	494.42	-60	330	FB3	4	32	28	12.1	10.9	5.0	20.1	2
FBRC311	277332.00	7457767.00	474.42	-60	330	FB3	33	43	10	11.8	11.8	5.0	18.8	2
FBRC313	277236.00	7457740.00	504.21	-60	330	FB3	1	19	18	11.9	12.3	4.8	18.4	2
FBRC314	277243.00	7457719.00	497.88	-60	330	FB3	0	31	31	12.3	10.6	4.7	18.6	2
FBRC315	277131.00	7457711.00	512.47	-60	330	FB3	1	2	1	7.3	9.8	4.5	18.2	2
FBRC316	277144.00	7457691.00	512.54	-60	330	FB3	0	1	1	7.4	12.4	3.3	13.9	2
FBRC316	277144.00	7457691.00	499.54	-60	330	FB3	3	24	21	12.2	11.6	5.0	19.2	2
FBRC316	277144.00	7457691.00	487.54	-60	330	FB3	25	26	1	9.1	12.1	5.5	20.4	2
FBRC317	277157.00	7457667.00	492.31	-60	330	FB3	0	39	39	12.3	10.7	4.5	17.6	2
FBRC318	276933.00	7457652.00	510.18	-60	330	FB3	0	5	5	10.3	11.3	4.5	17.7	2
FBRC319	276946.00	7457630.00	511.43	-60	330	FB3	0	2	2	9.1	11.2	3.4	14.1	2
FBRC319	276946.00	7457630.00	498.43	-60	330	FB3	3	25	22	12.1	10.7	5.0	20.1	2
FBRC320	276959.00	7457612.00	494.22	-60	330	FB3	1	33	32	12.0	11.0	4.8	19.2	2
FBRC321	276975.00	7457587.00	491.76	-60	330	FB3	12	26	14	11.4	9.9	4.6	17.9	2
FBRC321	276975.00	7457587.00	470.26	-60	330	FB3	27	54	27	12.3	10.1	4.4	16.6	2
FBRC323	276755.00	7457566.00	508.44	-60	330	FB3	1	2	1	8.1	12.0	4.0	16.1	2
FBRC323	276755.00	7457566.00	506.44	-60	330	FB3	3	4	1	7.6	18.4	3.7	13.1	2
FBRC324	276765.00	7457545.00	507.96	-60	330	FB3	0	4	4	8.9	7.4	3.9	15.8	2
FBRC324	276765.00	7457545.00	501.46	-60	330	FB3	5	12	7	10.6	10.6	5.0	20.2	2
FBRC324	276765.00	7457545.00	496.46	-60	330	FB3	13	14	1	7.3	9.2	6.2	23.5	2
FBRC324	276765.00	7457545.00	494.46	-60	330	FB3	15	16	1	9.0	5.8	6.5	24.7	2
FBRC325	276784.00	7457527.00	501.32	-60	330	FB3	2	15	13	11.1	8.9	4.1	16.8	2
FBRC325	276784.00	7457527.00	493.32	-60	330	FB3	16	17	1	7.7	9.9	5.1	19.5	2
FBRC325	276784.00	7457527.00	490.32	-60	330	FB3	19	20	1	7.6	7.6	5.4	21.3	2
FBRC326	276788.00	7457495.00	502.90	-60	330	FB3	5	8	3	11.6	8.5	4.2	16.6	2
FBRC326	276788.00	7457495.00	491.90	-60	330	FB3	9	26	17	11.6	9.8	4.5	17.9	2
FBRC326	276788.00	7457495.00	481.90	-60	330	FB3	27	28	1	9.9	11.1	6.0	22.2	2
FBRC326	276788.00	7457495.00	479.40	-60	330	FB3	29	31	2	11.4	11.0	5.3	20.6	2
FBRC326	276788.00	7457495.00	475.90	-60	330	FB3	32	35	3	13.7	10.0	5.4	20.7	2
FBRC327	276553.00	7457513.00	508.10	-60	330	FB3	0	1	1	8.2	4.4	2.9	13.2	2
FBRC327	276553.00	7457513.00	502.10	-60	330	FB3	4	9	5	9.0	7.6	4.2	17.8	2
FBRC328	276567.00	7457488.00	507.25	-60	330	FB3	0	2	2	7.8	6.3	3.6	14.9	2
FBRC328	276567.00	7457488.00	502.75	-60	330	FB3	3	8	5	11.0	9.2	4.0	17.2	2
FBRC328	276567.00	7457488.00	490.75	-60	330	FB3	9	26	17	13.5	10.9	4.7	18.4	2

Hole id	East (WGS84)	North (WGS84)	RI	Dip	Azi	Deposit	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
FBRC328	276567.00	7457488.00	479.25	-60	330	FB3	27	31	4	14.9	12.9	4.9	18.1	2
FBRC329	276578.00	7457470.00	506.15	-60	330	FB3	1	3	2	8.0	7.3	3.9	15.8	2
FBRC329	276578.00	7457470.00	503.65	-60	330	FB3	4	5	1	8.0	7.7	4.1	18.2	2
FBRC329	276578.00	7457470.00	495.65	-60	330	FB3	7	18	11	12.0	11.7	4.7	18.9	2
FBRC329	276578.00	7457470.00	482.65	-60	330	FB3	19	32	13	14.1	10.9	4.9	18.4	2
FBRC329	276578.00	7457470.00	472.15	-60	330	FB3	33	39	6	9.7	9.8	5.9	21.7	2
FBRC330	276583.00	7457452.00	504.92	-60	330	FB3	3	4	1	7.3	7.1	3.1	15.4	2
FBRC330	276583.00	7457452.00	497.42	-60	330	FB3	5	17	12	10.4	8.9	4.8	20.3	2
FBRC330	276583.00	7457452.00	478.42	-60	330	FB3	18	42	24	13.9	12.3	4.9	18.3	2
FBRC331	276402.00	7457442.00	495.89	-60	330	FB3	11	12	1	10.9	8.4	4.6	16.8	2
FBRC331	276402.00	7457442.00	481.39	-60	330	FB3	13	39	26	12.6	10.4	5.0	18.7	2
FBRC332	276403.00	7457421.00	489.85	-60	330	FB3	17	18	1	7.3	6.8	5.7	20.4	2
FBRC332	276403.00	7457421.00	470.85	-60	330	FB3	21	52	31	11.7	9.9	5.2	19.2	2
FBRC332	276403.00	7457421.00	453.85	-60	330	FB3	53	54	1	8.0	8.3	5.1	19.2	2
FBRC333	276400.00	7457395.00	463.94	-60	330	FB3	28	60	32	10.8	9.5	4.7	17.3	2
FBRC334	276203.00	7457443.00	505.62	-60	330	FB3	1	2	1	8.2	17.2	5.5	19.4	2
FBRC336	276198.00	7457393.00	505.57	-60	330	FB3	0	3	3	8.4	12.9	5.6	21.3	2
FBRC336	276198.00	7457393.00	494.07	-60	330	FB3	4	22	18	10.5	9.0	4.5	18.5	2
FBRC337	276196.00	7457366.00	490.90	-60	330	FB3	1	32	31	11.3	9.2	4.8	18.4	2
FBRC338	275989.00	7457343.00	504.51	-60	330	FB3	2	4	2	7.8	8.0	3.0	14.0	2
FBRC338	275989.00	7457343.00	501.01	-60	330	FB3	6	7	1	10.2	10.5	4.4	18.5	2
FBRC339	275994.00	7457313.00	507.55	-60	330	FB3	0	2	2	10.4	6.0	3.0	11.8	2
FBRC339	275994.00	7457313.00	492.55	-60	330	FB3	5	27	22	11.1	9.2	4.6	17.8	2
FBRC340	275991.00	7457296.00	498.08	-60	330	FB3	6	12	6	9.9	8.7	4.5	18.3	2
FBRC340	275991.00	7457296.00	483.58	-60	330	FB3	13	34	21	12.2	9.0	4.7	17.8	2
FBRC341	275993.00	7457265.00	474.86	-60	330	FB3	18	45	27	12.0	10.4	5.1	18.9	2
FBRC342	275801.00	7457299.00	505.81	-60	330	FB3	1	2	1	7.5	6.7	3.2	13.7	2
FBRC342	275801.00	7457299.00	502.31	-60	330	FB3	4	6	2	10.1	7.5	3.9	16.3	2
FBRC342	275801.00	7457299.00	496.81	-60	330	FB3	10	11	1	7.0	10.6	4.6	17.5	2
FBRC343	275798.00	7457276.00	503.74	-60	330	FB3	3	4	1	9.4	8.2	3.6	15.2	2
FBRC343	275798.00	7457276.00	497.74	-60	330	FB3	5	14	9	10.4	8.7	4.1	16.2	2
FBRC343	275798.00	7457276.00	490.74	-60	330	FB3	15	18	3	10.8	8.7	4.7	17.7	2
FBRC343	275798.00	7457276.00	483.74	-60	330	FB3	19	28	9	10.9	11.9	5.6	20.2	2
FBRC343	275798.00	7457276.00	477.74	-60	330	FB3	29	30	1	7.3	10.5	6.6	23.1	2
FBRC344	275800.00	7457250.00	488.75	-60	330	FB3	6	31	25	12.1	10.7	4.8	18.2	2
FBRC344	275800.00	7457250.00	473.25	-60	330	FB3	32	36	4	14.3	9.8	5.1	19.3	2
FBRC345	275589.00	7457221.00	494.02	-60	330	FB3	4	21	17	11.3	8.8	4.1	16.2	2
FBRC345	275589.00	7457221.00	476.02	-60	330	FB3	22	39	17	15.5	11.1	4.9	18.7	2
FBRC345	275589.00	7457221.00	465.02	-60	330	FB3	41	42	1	9.9	9.6	6.4	22.7	2
FBRC346	275588.00	7457170.00	458.45	-60	330	FB3	34	60	26	9.7	8.8	4.6	16.5	2