BLACK CANYON

ASX Announcement

5 October 2021 ASX:BCA

Maiden Manganese Mineral Resource for the LR1 Prospect at Flanagan Bore

HIGHLIGHTS

- **Inferred Mineral Resource Estimate (MRE) for LR1 of 15Mt @ 11.3% Mn;**
- **Thick, continuous intervals of manganese mineralisation encountered from surface in previous drilling, with the Mineral Resource remaining open along strike and down-dip;**
- **Only 1km of strike drill tested to date, with potential additions from a further 10km of folded strike;**
- **Drilling planned to extend the LR1 Mineral Resource and discover more manganese mineralisation across multiple targets at the Flanagan Bore Project; and**
- **Commencement of discovery and Mineral Resource drilling expected in November, ahead of planned MRE updates and scoping level study activities.**

Manganese explorer, **Black Canyon** (ASX: BCA) is pleased to announce its maiden, JORC-compliant Mineral Resource for the LR1 deposit of **15Mt @ 11.3% Mn** (Inferred), containing 2.0Mt of manganese, based on historic drill data. The LR1 deposit is part of Black Canyon's Flanagan Bore Project in the eastern Pilbara region of Western Australia, and is located just 375km southeast of Port Hedland with access via the Newman to Port Hedland road.

The Flanagan Bore Project 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), whereby Black Canyon can earn up to a 75% interest in the Carawine Project tenements.

Black Canyon Executive Director, Brendan Cummins, said: *"We are very pleased with this maiden Mineral Resource at the LR1 Prospect. It represents a solid first step at the Flanagan Bore Project where we believe significant manganese mineralisation remains to be discovered. This is only the start, as we commence discovery and Mineral Resource drilling activities across multiple targets at Flanagan Bore over the coming months with the intention to add significant quality tonnage.*

"At the conclusion of our initial field evaluations at Flanagan Bore, the identification of widespread outcropping manganese-enriched shales with confirmatory thickness and grade from previous drilling have now been validated with this initial Mineral Resource estimation. Limited previous drilling has only tested a small section of the prospective manganese enriched horizon with potential upside related to interpreted fold thickening at FB1, FB2 and FB3."

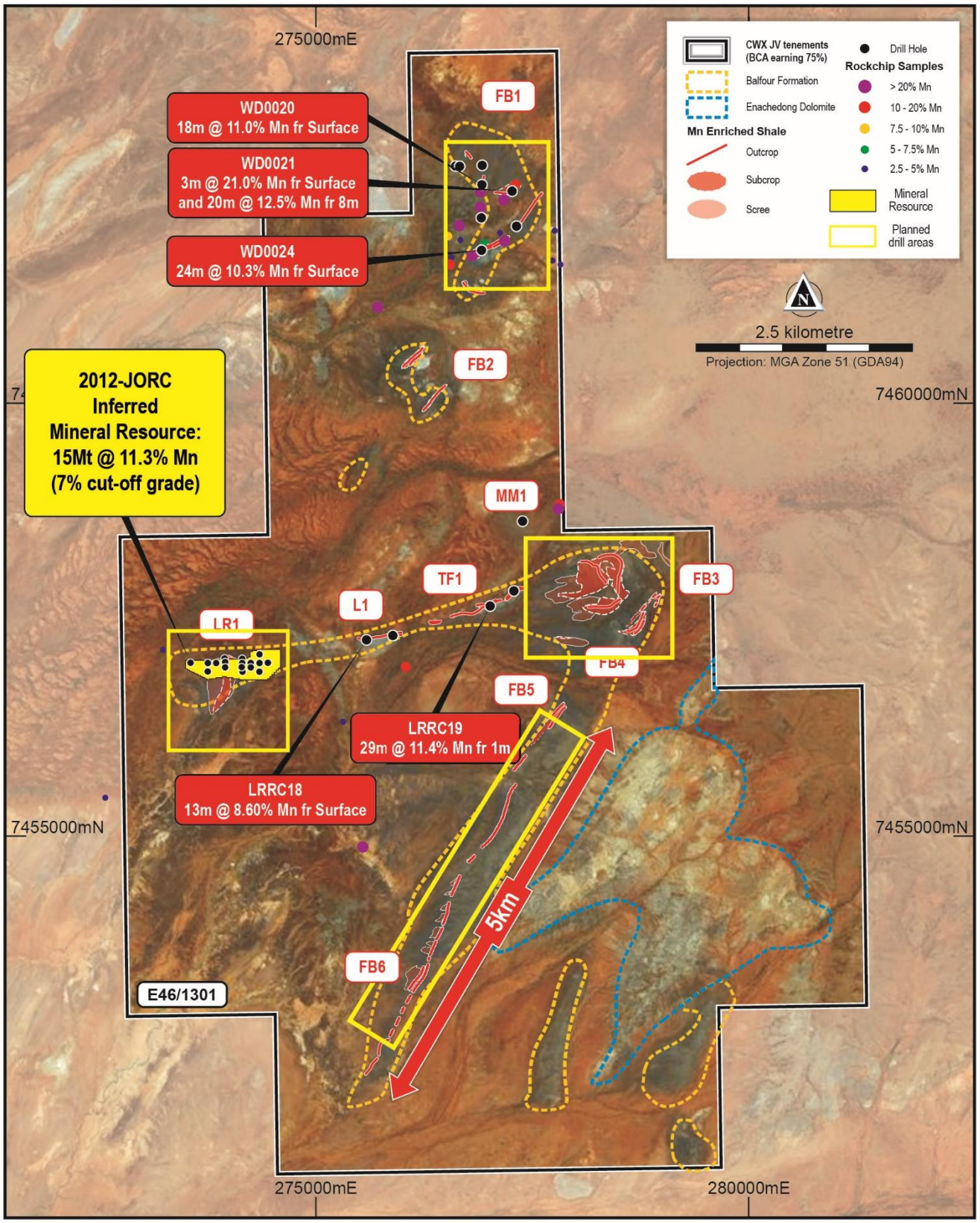

Figure 1. Flanagan Bore Project with the LR1 MRE outline and planned drill areas over prospective manganese targets (Black Canyon Earning to 75%)

LR1 Mineral Resource Estimate

Previous reverse circulation (RC) drill results from the LR1 Prospect have been reviewed and validated for the MRE, which 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).

Table 1 displays the Mineral Resource estimated for the LR1 deposit. Importantly, the Mineral Resource is from surface and remains open down dip to the south and along strike. The deleterious elements of Fe, Si and Al are comparable to those of the Butcherbird manganese operation which bodes well for potential product quality. As expected for this style of stratabound manganese mineralisation, LR1 has a consistent grade profile and at lower Mn cut-off grades, is still able to deliver a 10% Mn Mineral Resource. This continuity and uniformity is demonstrated when selecting a 3% Mn cut-off grade, where the tonnage increases to 20Mt while the Mn grade is 9.6% Mn. The grade tonnage curves are presented in Figures 2 and 3 and an oblique and cross-section views of the deposit is presented in Figures 4 and 5.

*Table 1. Mineral Resource Estimate for LR1 prospect October 2021**

Summary of Mineral Resources(1)

Mineral Resource Category	ZONE	Material (Mt)	In Situ Mn (Mt)	Mn (%)	Fe (%)	Si (%)	Al (%)
Inferred	2	15	2	11.3	9.6	19.3	5.2
Grand Total		**15**	**2**	**11.3**	**9.6**	**19.3**	**5.2**

Notes:

(1) Mineral resource reported at a cut-off grade of 7% Mn.

* refer below, JORC Table 1, Sections 1 to 3 and Appendix 1 for further details.

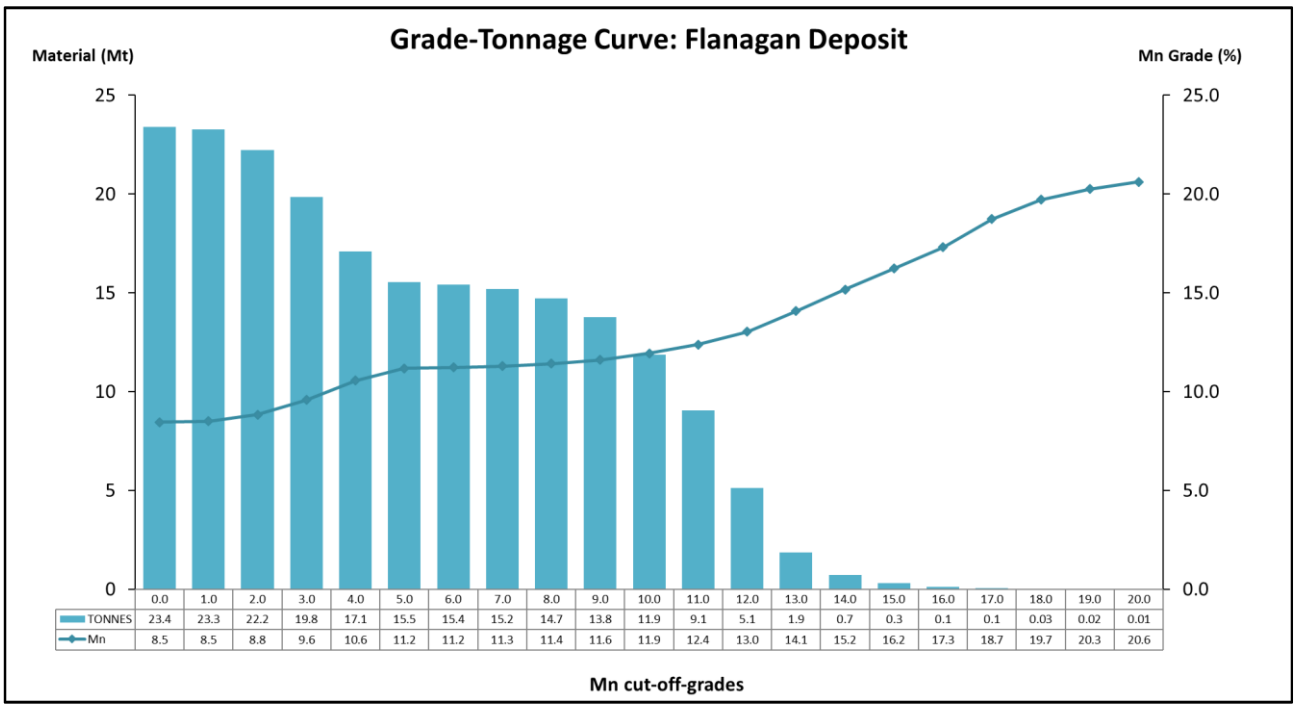

Figure 2. LR1 Mineral Resource grade-tonnage curve

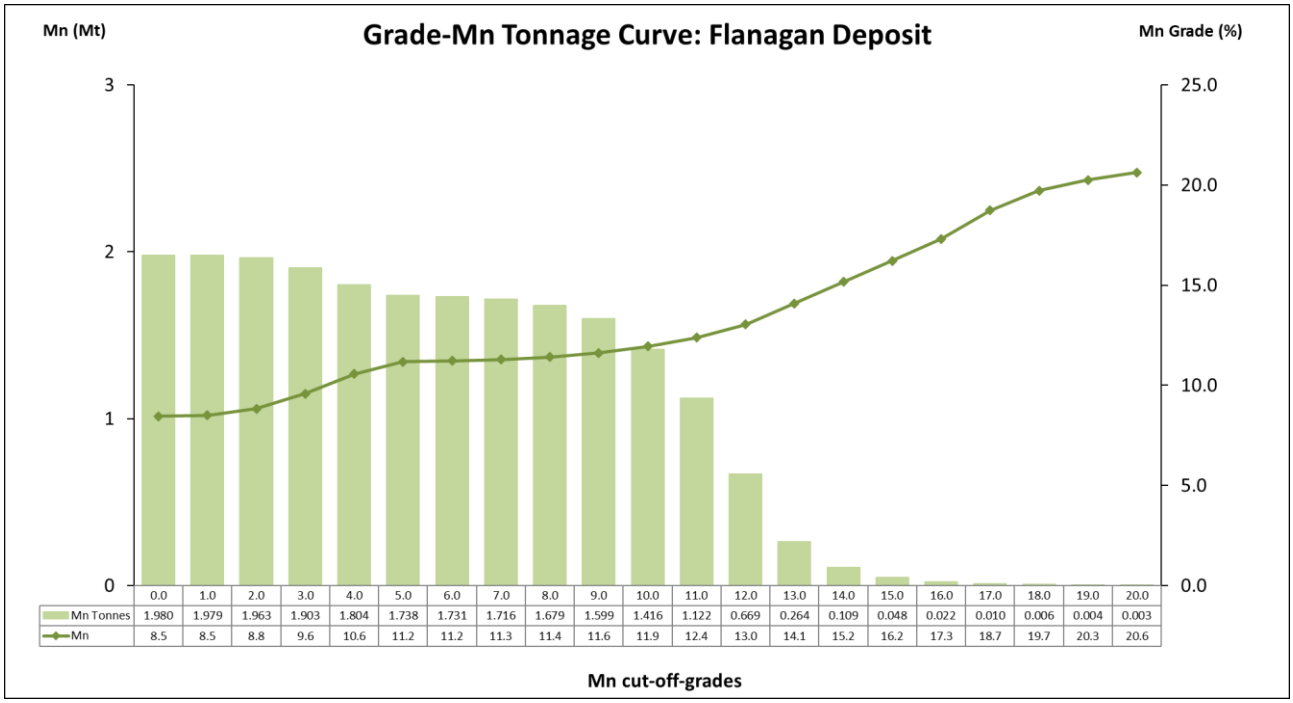

Figure 3. LR1 Mineral Resource grade-contained metal tonnage curve

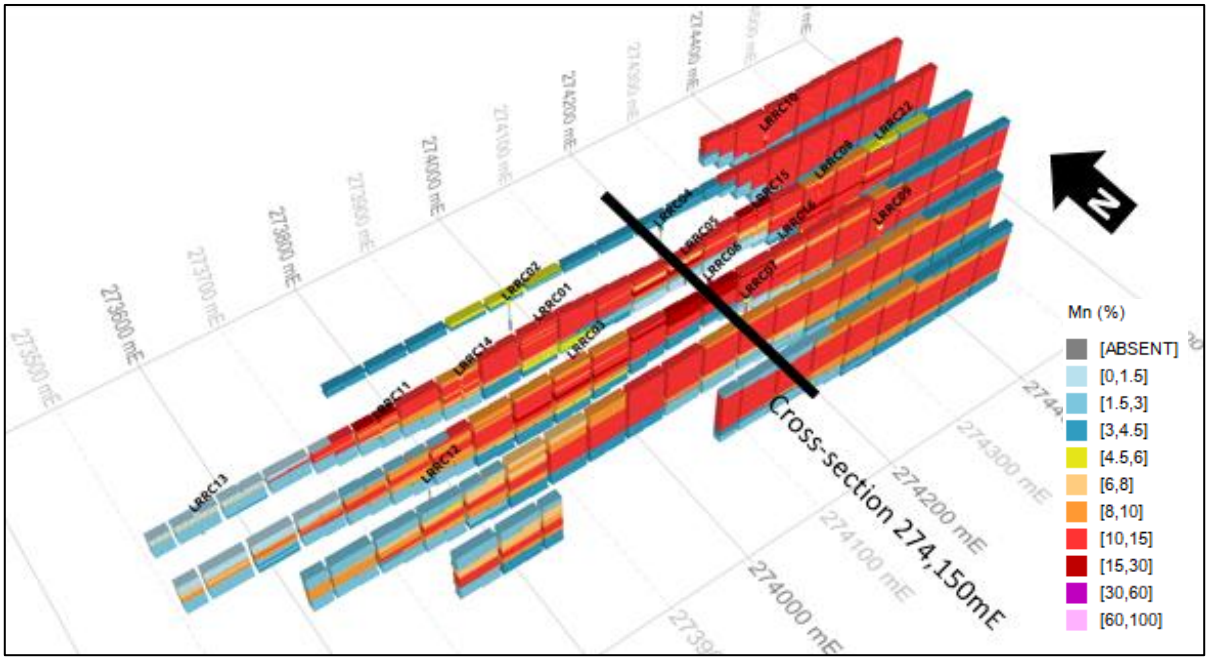

Figure 4. Oblique view of the MRE model coloured on Mn grade (%) (2x vertical exaggeration). Labels ("LRRC01-22) represent historic drillholes used in the estimate

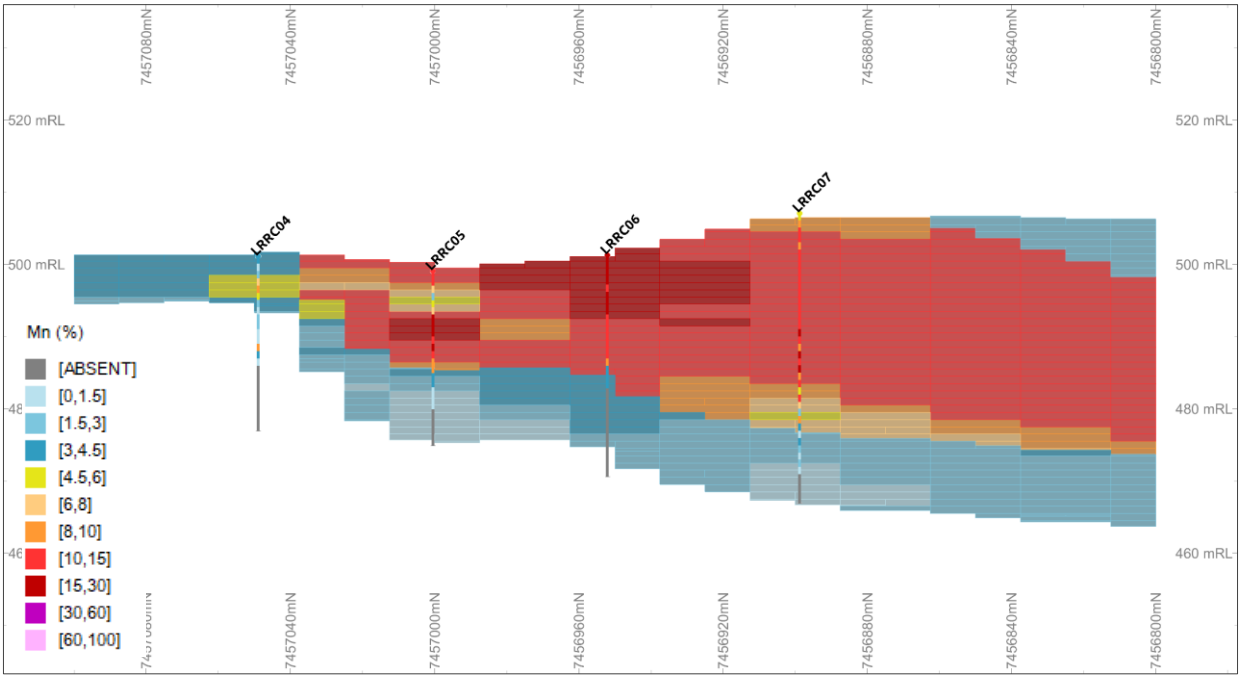

Figure 5. Type section 274,150mE (looking east) showing MRE model cells and drill holes coloured on Mn grade (%) (2x vertical exaggeration)

LR1 Mineral Resource remains open

The mineralisation at Flanagan Bore is associated with shallowly dipping manganese-enriched shale units that are folded about a regional scale anticline that appears to be semi-continuous along 10 km of strike around the nose at FB3 and associated fold limbs (Figure 1). The MRE completed at LR1 currently extends over 1 km of strike with further manganese shale outcrops located along the limb at targets L1 and TF1. The FB3 and FB4 targets show a potential 400 m long thickened fold nose. The planned drilling program is designed to test these structural targets to increase the mineralised footprint and test for fold nose thickening.

Manganese-enriched shales identified across several prospect areas planned to be drilled are summarised below:

- **FB1/FB2 Prospects,** which comprise folded manganese shales with the thicker more prominent bands of manganese-enriched shale forming topographic rises. Drill data from eight previous drill holes located across a 1000 m x 900 m footprint at the FB1 prospect confirm grade and thickness potential (refer to ASX announcement 10 June 2021);
- **FB3/FB4 Prospects,** which show widespread areas of outcropping and sub-cropping manganese-enriched shale exposed over a strike of 400 m and mapped down dip a further 650 m. This target has not been previously drill tested;
- **FB5/FB6 Prospects,** outcropping and sub-cropping manganese-enriched shale exposed over a strike of 5 km dipping shallowly to the northwest. This prospect has not been drill tested;
- **LR1 Prospect,** 900 m x 200 m zone has been previously drill tested and the subject of this MRE announcement has additional surface mineralisation identified up to 500 m south of the drilled area (refer to ASX announcement 17 May 2021).

The Company is looking forward to this next phase of exploration that is expected to improve the understanding of the potential of Flanagan Bore. An RC drill rig is planned to be mobilised immediately upon receipt of the results of a Heritage Survey that is currently scheduled for mid-October.

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 more 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 and Ripon deposits. These deposits have a number of associated mineralisation styles such as supergene-enrichment, lateritic and fault hosted deposits

The Collier Group Mn deposits 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 overlies carbonate sequences ranging from calcareous shales and dolomite of the underlying Enacheddong Dolomite. The sequence is also intruded by cross-cutting dolerite.

In detail, the geology at LR1 can be separated into three primary units, the upper unmineralised Balfour shale, the manganese mineralised Balfour shale and the lower basal shale unit. The upper unmineralised shale is brown grey in colour and occurs from surface up to 10 m in depth intermittently across the project area.

The manganiferous shale unit contains a supergene (manganese) enriched shale that is located between surface and 37 m depth gently dipping to the south, progressively thickening to the east-south-east. The manganese enriched layers are confined to distinct banding within the Balfour shale and there are also minor occurrences of interbedded red/brown shales intermixed within saprolitic clay bands.

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 synformal structure with a nose closure located to the east. 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.

Current drilled extents of the LR1 prospect are positioned along a small section of one limb of the synclinal structure indicating significant potential for further manganese exploration in the local region.

The LR1 resource comprises 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 1 is brown in colour, generally gently dipping in the north and flattens to the south.

Zone 2 is the high grade, brown grey, Balfour shale unit that is enriched with manganese. 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.

Generally, the mineralisation strikes east-west and is still open on the southern, eastern and western ends of the deposit. The basement consists of background material that outcrops in the northern area of the deposit. The basement 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 MRE is based on historic data 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 the quality and accuracy of the data is sufficient to support the MRE in the form and context in which it is reported.

Drilling was completed using reverse circulation (RC) drilling for the Flanagan Bore project by Consolidated Global Investments Limited 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 late 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 was to target areas of high prospectivity which coincide with manganese outcrops and targets generated from remote sensing.

A total of 22 drill holes were drilled on E46/1301, and 17 of these the drill holes were within the immediate boundary defined for the resource estimate (refer to Appendix 2).

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 metre 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 recent 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 6). 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 6. Drill rig spoil from hole LRRC03 (EOH 42) with samples laid in 20m columns

Sample analysis method - XRF

The determination of oxide assays was via whole rock fusion (XRF – fused disc) analysis completed by ALSCHEMEX using method ME-XRF26. The oxides analysed are outlined in Table 2 in addition to the conversion factor used to convert oxides assay results to elemental results.

Table 2. 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 1m intervals for all drill holes which is considered good practise to provide a 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. Information regarding the nature of the sampling process is limited given that the 17 RC drill holes were completed historically by Consolidated Global Investment (CGI).

Effectively, there is an averaging over the length of the sample interval down hole (in this case being 1m) 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

Cut-off grades

The Mineral Resource stated for LR1 was estimated using a cut-off grade of 7% Mn. The selection of an Mn cut-off grade used for reporting the Mineral Resource 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 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 deposit has been assigned a JORC classification of Inferred, 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.

All drillhole sampling has been carried out at regular 1 metre intervals down hole. The use of industry standard laboratory and the drilling, sampling and assaying procedures overall have fully supported the development of an Inferred Mineral Resource estimate. There has been some QAQC data collected to support the assaying process which 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

The Company has not undertaken metallurgical testwork on material from the LR1 Mineral Resource areas. However, the Mn, Fe, Si and Al assay results that are reported as part of the LR1 Mineral Resource compare favourably with the closest operational manganese enriched shale mine – Butcherbird, located south of Newman and owned by ASX-listed company Element25 Ltd. The Company intends to undertake benchtop scale metallurgical processing (beneficiation and ore sorting) from representative core samples that are planned to be drilled at the LR1 and FB3 targets. The objectives of the test work will be to establish material characteristics, recoveries, potential flowsheet design and product marketability. No mining studies have been undertaken but the Company intends to investigate the potential economic viability of the project with an initial Scoping Study once further work is completed and results from the planned drill program and metallurgical test work have been evaluated.

Statement of Mineral Resources

The Mineral Resource reported at a cut-off grade of 7% Mn for the LR1 prospect is presented in Table 3. This table conforms to guidelines set out in the JORC (2012). The JORC Classification outline is presented in Figure 7.

At a cut-off grade of 7% Mn the Flanagan Bore project comprises a total Inferred Mineral Resource of 15 Mt @ 11.3% Mn for contained Mn of 2 Mt.

Table 3. Mineral Resource Estimate for LR1 prospect September 2021

Summary of Mineral Resources[1]

Mineral Resource Category	ZONE	Material (Mt)	In Situ Mn (Mt)	Mn (%)	Fe (%)	Si (%)	Al (%)
Inferred	2	15	2	11.3	9.6	19.3	5.2
Grand Total		**15**	**2**	**11.3**	**9.6**	**19.3**	**5.2**

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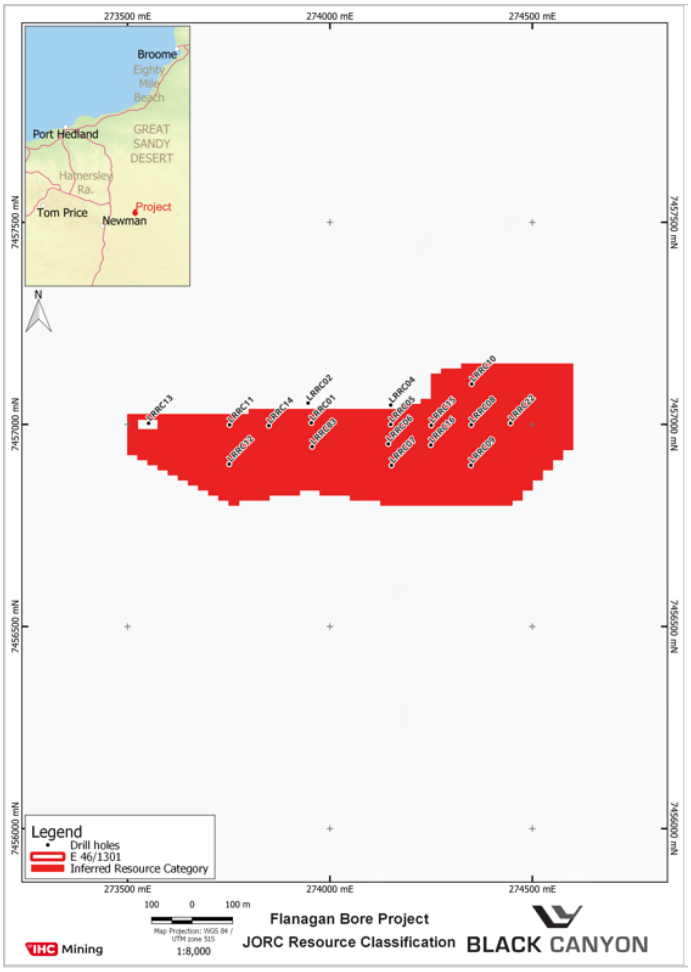

Figure 7. JORC Classification for LR1

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

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Competent Person Statement

The information in this report that relates to previous 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.

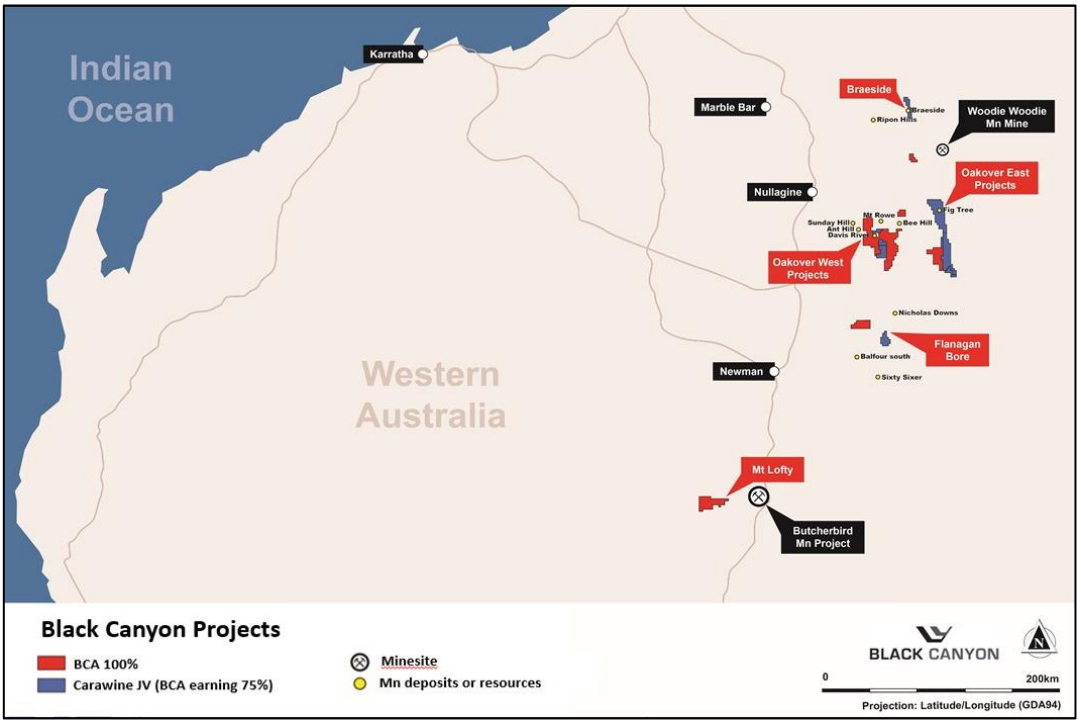
The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Greg Jones, (Consultant to Black Canyon and Geological Services Manager for IHC Mining). Mr Jones is a Fellow of the Australian Institute of Mining 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 Persons 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.

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 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 applied directly for another exploration license adjacent to the Carawine Project that would increase the total land holdings to over 1950km^2 on grant. 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.

The Company has also secured the Lofty Range manganese project located immediately to the west of the Butcherbird manganese deposit being developed by Element 25.

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



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.* *Historic drilling makes up the entirety of drill holes for the Flanagan Bore project which were drilled by CGI during their 2012 exploration campaign.* *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 are reported within text file 'LRP_WADG4_ASS2014A.txt' which details an assay description of 'LOI (TGA), Whole Rock by Fusion (XRF)' showing assay code ME-XRF26. The following job numbers are also described PH12172669, PH12191196 and PH12191197 which can be used as reference if required going forward for the Flanagan Bore project.* *QA/QC data provided for LR1 comprise duplicate sample intervals and insertion of samples with blank sample intervals which were noted by IHC within the raw assay text file provided. This equates to a total of 15 duplicate samples and a further 11 inserted samples which appear to be two sets of standard material (5 samples and 6 samples) which is within industry standard of total submission rate of 1 in 20. Unfortunately no CRM values were recorded for the standard samples*
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).*	*Drill type for all drilling completed at LR1 prospect was done using reverse circulation technique at 90 degree angle to collect 1 m samples as RC chips. Drill diameter is considered to be 4 to 5.5 inches as per standard RC sizing.* *Drill company was NDRC Pty Ltd which were contracted by CGI for the 2012 Little Richards exploration campaign.*

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.*	*Historic reports state industry standard methods of sample collection appropriate to the time of undertaking.* *The recovery percentage of individual samples were not recorded when logged however this is not considered significant at this stage of the project.*
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 all drill holes.* *Logging of individual 1 metre intervals was completed using logging code dictionary ('GeolCodes.txt') 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 a Inferred Mineral Resource estimate.* *Drill holes were geologically logged in their entirety.*

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 undertaken.* *The historic drill data is reported to the Western Australian Mines Department. Historic reports were accessed by the Company using WAMEX where raw files were received.* *It is reasonably assumed RC drill sampling was completed using industry standard methods of sample collection appropriate for this stage of the project. Documentation of specific sampling methodology is limited within the historic reports.* *Information surrounding specific assaying methodology and techniques for the historic 2012 RC 1 m samples is limited. 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.* *The assay results are reported within text file 'LRP_WADG4_ASS2014A.txt' which details an assay description of 'LOI (TGA), Whole Rock by Fusion (XRF)' showing assay code ME-XRF26. The following job numbers are also described PH12172669, PH12191196 and PH12191197 which can be used as reference if required going forward for the Flanagan Bore project.*
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.*	*All samples were analysed at ALS Perth, Western Australia utilising XRF analysis which is considered industry standard for manganese ores.* *Elements 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.* *Quality assurance was conducted by inserting 15 duplicate samples and a further 11 standard sample of the 515 individual samples.* *The duplicate samples achieved acceptable reproducibility with no significant sample bias observed within the limited dataset.*

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.* *No twin holes present at this stage of exploration.* *All historic data was stored digitally using separate .txt files for collar, assay and lithology.* *Adjustment of oxides to primary element was completed using 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 surveyed by GPS with an accuracy of +/-5 m and 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 MRE 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 MRE as reported.* *It is recommended further works 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.*	*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 was to target areas of high prospectivity which coincide with manganese outcrops identified using remote sensing.* *Variography has demonstrated current drill spacing supports an Inferred Mineral Resource classification at this stage of exploration.* *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.*	*Drill lines were drilled east-west along strike of the primary mineralisation trend. All drilling completed at 90 degrees (vertical).* *The mineralisation is relatively flat lying exhibiting a gentle dip to the south, south-east.* *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 MRE. No 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 owned 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), which gives Black Canyon Limited the right to earn an initial 51% interest and up to 75% interest in the Carawine projects, including E 46/1301.* *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.* *Early reconnaissance work completed by CGI delineated many occurrences of manganese enriched outcroppings of the*

Criteria	Explanation	Comment
		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 recently completed a ground reconnaissance exercise to map the outcroppings of 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.*
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 Collier Basin which is overlain by Quaternary cover.* *The LR1 prospect can be separated into three primary units, the upper unmineralised Balfour shale, the mineralised Balfour shale and the lower basal shale unit. The upper unmineralised shale is brown grey in colour and occurs from surface up to 10 m in depth intermittently across the project area.* *The manganiferous shale unit contains a supergene enriched manganiferous horizon which exhibits thickness range between 15 m to 37 m depth gently dipping to the south, progressively thickening to the east-south-east. The manganese layers are confined to distinct banding within the Balfour and there are also minor occurrences of interbedded red/brown shales intermixed within saprolitic clay bands.* *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 could be a large anticline 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.* *Current drilled extents of the LR1 prospect is positioned at the extents of one arm of the anticline 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 Figure 7.* *A complete listing of drill holes and their corresponding coordinates, elevation and depth is listed in* ***Appendix 2***
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 deposit is mostly flat lying exhibiting a gentle dip of mineralisation to the south, south-east therefore 90 degree 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.*
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 additional RC and diamond drill programs to expand the known manganese mineralisation and provide core samples for future metallurgical testwork.*

Criteria	Explanation	Comment
	areas, provided this information is not commercially sensitive.	

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.*	*Original data in the form of individual text files ('.txt') 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 recently completed a site reconnaissance visit (mid-2021) to visually inspect historic collars and stored samples at individual collar positions.* *This was completed by the Executive Director Mr Cummins, and Exploration Manager of Black Canyon Limited, both of whom are current members of the AIG. Mr Cummins is Competent Person for the Exploration Results used as a basis for the MRE.* *The Competent Person Greg Jones has not yet been able to visit the site, however given his experience with the style of mineralisation in question, site visits to other manganese stratabound deposits, in addition to the extensive photography 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 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.*	*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.* *Zones were identified as Zone 1, 2 and 200 in the resource estimation process. Zone 1 is from surface while Zone 2 is between Zone 1 and the basement (Zone 200). Zone 1 consists of background low grade manganese shale with grades lower than 5% Mn. Zone 2 is the main mineralised manganese enriched Balfour shale unit of grades typically greater than 5% Mn. Zone 2 contains minor instances of lower grade interbedded shales and these have not been excluded given their thin and discontinuous nature.* *The basement (Zone 200) is a very low grade unit below Zone 2. Zone 200 was defined by IHC Mining as being from the lower boundary of Zone 2 to the end of hole. However, this is currently arbitrary due to the lack of sampling in some of the drill holes.*

Criteria	Explanation	Comment
		The basement has been used to control the grade interpolation, preventing high grade Mn values from being pushed into the un-sampled and low grade areas of the deposit. *More drilling, logging and sampling should be used to further refine the contact between the basement and Zone in future. There are isolated low grade patches occasionally associated with the unmineralised Balfour shale lithology within the Zone 2.* *The geology can be separated into three primary rock types; the unmineralised Balfour shale, mineralised Balfour shale and the basal unit. The overburden typically consist of low grade shale unit and the mineralisation is hosted by the Balfour shale which occasionally outcrops on surface. The basement has been used to control the interpolation, preventing high grade Mn values from interpolating into the un-sampled and low grade areas of the deposit.* *The upper domain, Zone 1 is defined from surface up to 10 m depth. Zone 1 comprises the brownish unmineralised Balfour shale lithology. Zone 1 is brown in colour, generally gently dipping in the north and flattens to the south. Zone 2 is the high grade , brown grey, Balfour shale unit which is enriched with manganese. The mineralised zone generally strikes east-west forming a semi-basin like structure which outcrops on surface and gently dips to the south and constricted by some structure to the north.* *Occasional low grade Mn intercepts in Zone 2 are associated with Balfour shale lithology consisting of unmineralised interbedded shale or ferruginous material.* *Generally the mineralisation strikes east-west and is still open on the southern, eastern and western ends of the deposit. The basement consist background material which outcrops on surface in the northern area of the deposit. The basement has been used to control the interpolation of high grade Mn values into the un-sampled and low grade area of the deposit.*
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 deposit from the most easterly point to the most westerly point is approximately 1.1 km along strike. It is approximately 250 m to 350 m north – south across strike.* *The average thickness of the manganiferous shale is approximately 15 m to 37 m thick. The deposit is thickest in the south eastern quadrant of the deposit and thins to the north-west.*

Criteria	Explanation	Comment
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.* *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.*	*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. Information regarding the nature of the sampling process is limited given that the 21 RC drill holes were completed historically by Consolidated Global Investment (CGI).* *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 a maiden JORC 2012 Mineral Resource estimate for the LR1 prospect.* *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 25 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 were used to control the grade interpolation.*
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.*

Criteria	Explanation	Comment
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. 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 explanation of the basis of the metallurgical assumptions made.*	*The material targeted for extraction is predominantly manganese. 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.*
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*	*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 study.*

Criteria	Explanation	Comment
	have not been considered this should be reported with an explanation of the environmental assumptions made.	
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 BD was applied to the model using an assumed average manganiferous shale BD value of 2.4. This is considered adequate for this stage of exploration and used generally in industry for manganese enriched styles of mineralisation.* *It is recommended that future studies include investigations for determining a new BD value to convert volume to tonnes for the manganiferous shale.*
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 classification of the LR1 deposit was based on the following criteria: drill hole spacing, appropriate grade constraints and domain controlled variography.* *The classification of the Inferred 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 the maiden Mineral Resource estimate for the deposit.*

Criteria	Explanation	Comment
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 with production data, where available.*	*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 LR1 deposit within the tenement area.* *There has been no production to date.*

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

Hole id	East (WGS84)	North (WGS84)	Rl	Dip	Azimuth	EOH (m)	From depth	To depth	Interval	Mn %	Fe %	Al %	Si %	Zone
LRRC01	273954	7457004	506	-90	360	36	0	2	2	14.7	18.7	3.9	13.3	2.0
LRRC01	273954	7457004	503	-90	360	36	3	6	3	13.1	11.9	4.7	17.8	2.0
LRRC01	273954	7457004	492	-90	360	36	7	23	16	11.7	9.4	5.0	18.3	2.0
LRRC01	273954	7457004	482	-90	360	36	24	26	2	8.9	11.2	6.2	21.5	2.0
LRRC02	273946	7457053	502	-90	360	24	2	3	1	8.6	7.0	4.4	17.7	200.0
LRRC03	273956	7456945	499	-90	360	42	0	11	11	11.1	8.9	4.4	17.0	2.0
LRRC03	273956	7456945	491	-90	360	42	12	15	3	12.5	9.5	4.9	17.7	2.0
LRRC03	273956	7456945	482	-90	360	42	16	28	12	13.6	8.6	5.3	19.5	2.0
LRRC03	273956	7456945	474	-90	360	42	29	31	2	7.5	8.4	6.2	22.0	2.0
LRRC04	274150	7457048	497	-90	360	24	4	5	1	9.7	18.0	7.9	13.0	200.0
LRRC04	274150	7457048	489	-90	360	24	12	13	1	9.0	6.9	7.1	24.0	200.0
LRRC05	274150	7457000	498	-90	360	24	0	3	3	11.3	14.1	4.1	14.7	2.0
LRRC05	274150	7457000	489	-90	360	24	6	14	8	13.8	8.6	5.5	20.6	2.0
LRRC06	274144	7456952	494	-90	360	30	0	15	15	15.8	9.4	4.6	18.3	2.0
LRRC07	274152	7456899	495	-90	360	40	1	24	23	12.4	9.6	4.8	18.4	2.0
LRRC07	274152	7456899	481	-90	360	40	25	27	2	9.5	8.3	6.6	23.3	2.0
LRRC07	274152	7456899	479	-90	360	40	28	29	1	8.1	7.7	8.7	22.9	2.0
LRRC08	274349	7456999	502	-90	360	42	0	1	1	9.4	13.8	5.1	20.2	2.0
LRRC08	274349	7456999	482	-90	360	42	2	39	37	12.9	9.9	5.2	19.8	2.0
LRRC09	274348	7456899	498	-90	360	42	2	12	10	10.9	9.7	5.0	19.0	2.0
LRRC09	274348	7456899	491	-90	360	42	13	16	3	15.9	11.4	4.8	18.0	2.0
LRRC09	274348	7456899	478	-90	360	42	17	37	20	10.3	8.1	4.9	17.7	2.0
LRRC10	274350	7457100	501	-90	360	20	0	3	3	13.3	16.1	4.1	14.7	2.0
LRRC10	274350	7457100	491	-90	360	20	4	19	15	12.8	8.6	5.1	19.5	2.0
LRRC11	273752	7456999	499	-90	360	18	0	7	7	11.7	7.6	4.4	15.3	2.0
LRRC11	273752	7456999	492	-90	360	18	8	12	4	12.1	8.9	5.4	19.0	2.0
LRRC11	273752	7456999	488	-90	360	18	13	15	2	10.6	10.8	6.0	20.3	2.0
LRRC12	273751	7456902	489	-90	360	24	11	18	7	12.6	9.9	5.6	19.7	2.0
LRRC12	273751	7456902	481	-90	360	24	20	24	4	9.6	9.8	6.2	22.2	2.0
LRRC13	273552	7457003	499	-90	360	18	5	6	1	7.1	7.7	5.4	21.2	2.0
LRRC14	273849	7456997	494	-90	360	30	0	18	18	10.5	8.3	5.0	18.6	2.0
LRRC14	273849	7456997	483	-90	360	30	20	21	1	18.8	14.5	4.0	15.4	2.0
LRRC14	273849	7456997	481	-90	360	30	22	23	1	7.4	10.1	6.9	23.2	2.0
LRRC14	273849	7456997	478	-90	360	30	25	26	1	9.2	6.3	6.7	24.5	2.0
LRRC15	274250	7456998	500	-90	360	24	0	15	15	13.6	8.7	5.0	20.4	2.0
LRRC15	274250	7456998	491	-90	360	24	16	17	1	7.6	9.1	6.3	22.2	2.0
LRRC15	274250	7456998	488	-90	360	24	18	21	3	8.8	7.7	6.8	23.6	2.0
LRRC16	274249	7456949	501	-90	360	36	0	4	4	13.0	21.9	3.9	14.5	2.0
LRRC16	274249	7456949	498	-90	360	36	5	6	1	7.6	10.6	5.7	22.7	2.0
LRRC16	274249	7456949	482	-90	360	36	8	34	26	11.7	9.2	5.4	20.1	2.0
LRRC22	274446	7457003	504	-90	360	42	1	2	1	8.1	6.3	6.3	21.4	1.0
LRRC22	274446	7457003	484	-90	360	42	7	36	29	11.9	11.3	5.1	19.4	2.0