BLACK CANYON

ASX Announcement

17 May 2021 ASX:BCA

Exploration to commence at Pilbara manganese projects

HIGHLIGHTS

- **Black Canyon is well-funded for an aggressive exploration and drilling campaign following its over-subscribed IPO, which raised $5m**
- **On-ground exploration set to start this week on the highly prospective Flanagan Bore Project**
- **Previous reverse circulation (RC) drilling completed at Flanagan Bore in 2012 returned well mineralised intercepts over a broad area highlighting the potential of the project. Significant drill results include:**
  - **37m @ 12.8% Mn from 3m (LRRC08);**
  - **33m @ 11.3% Mn from surface (LRRC16); and**
  - **28m @ 11.9% Mn from 4m (LRRC03)**

Black Canyon (ASX: BCA) is pleased to advise that its exploration campaign targeting manganese in WA's Pilbara region is now underway.

The Company's initial focus is the underexplored Flanagan Bore tenement within its Carawine Projects (Figure 1). The initial program will primarily focus on geochemical surface sampling as well as establishing logistics in preparation for the planned drill program at Flanagan Bore scheduled for early next quarter.

Previous drilling at Flanagan Bore has returned thick intervals of supergene manganese mineralisation (Figure 2 and Table 1 below). These historical drill results contain manganese and iron grades which have similar ranges to the Butcherbird manganese resources currently being developed by Element 25 Ltd and the Sixty Sixer manganese deposit (owned by Firebird Metals with a reported JORC Mineral Resource of 64Mt grading 10% Mn and 9% Fe[1]).

Black Canyon has a farm-in and joint venture agreement with Carawine Resources Ltd (ASX:CWX), giving Black Canyon the right to earn an initial 51% interest and up to 75% in the Carawine Projects.

1. Refer to Section 3.7 of the Firebird Metals Limited Prospectus dated 16 March 2021.

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Black Canyon Executive Director Brendan Cummins said:

“With the successful completion of the heavily over-subscribed IPO and listing less than 2 weeks ago, the Black Canyon team is now ready to commence on-ground activities. The initial program underway this week will assist with the logistics for more detailed field programs in June along with planning for extensional drilling at Flanagan Bore scheduled for early next quarter.

‘We have an extensive, ongoing exploration strategy which we expect will generate strong news flow over the coming months.”

The Company’s continued review of the extensive historic database across the Carawine project tenements continues to highlight new targets including several with the potential for high-grade hydrothermal style mineralisation particularly along the Fig Tree corridor, 35km south of the operating Woodie-Woodie manganese mine.

Flanagan Bore Summary

A detailed review of the previous reverse circulation (RC) drilling completed in 2012 across 4 prospects at Flanagan Bore has highlighted the scale and potential of the project.

The initial RC drill program comprised only 17 holes into the Little Richard prospect (to be renamed LR1) which encountered continuous mineralisation over 1km of strike with widths across strike of between 100m and 200m which remain open to the south and east.

The vertical down hole intersections ranged in thickness from 15m to 37m with an average weighted grade of 12.0% Mn and 10.2% Fe (all drill results are summarised in Table 1).

Significant results from the 2012 program include:

- **LRRC08 - 37m @ 12.8% Mn from 3m**
- **LRRC16 - 33m @ 11.3% Mn from surface**
- **LRRC03 - 28m @ 11.9% Mn from 4m**

The previous drilling activity has only tested a small portion of the manganese-enriched Balfour Formation on the project (Figures 1 and 2). Several kilometres of strike remain to be evaluated in the upcoming field program in addition to several separate outcrops that are also considered prospective.

A further five regional holes were also completed in 2012 identifying significant mineralisation in drill holes LRRC 18 (Lucille Prospect to be renamed L1) and LRRC 19 (Tutti Frutti Prospect to be renamed TF1), supporting the potential for manganese mineralisation to be widespread across the Flanagan Bore project area:

- **LRRC18 - 13m @ 8.62% Mn from surface; and**
- **LRRC19 - 29m @ 11.4% Mn from 1 metre.**

Flanagan Bore shares several key characteristics in common with the Butcherbird manganese deposit of Element 25 (ASX: E25), located 200km to the south-west. They are both hosted in manganese enriched shales that are considered stratigraphic equivalents across the Edmund-Collier and Oakover Basins and drilling has recorded similar grade ranges across broad intervals.

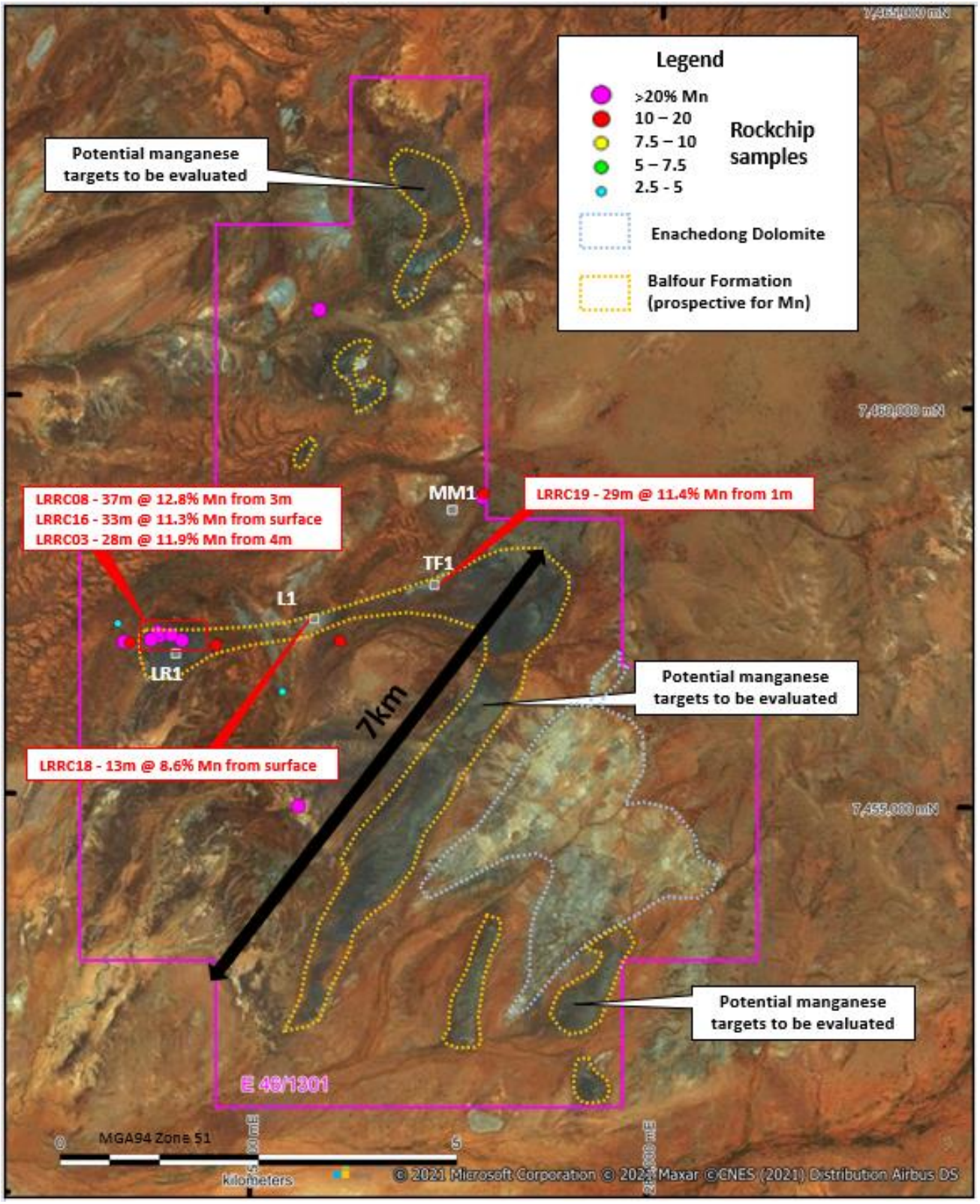

Figure 1. Prospective manganese horizons to be evaluated at Flanagan Bore with previous drill results

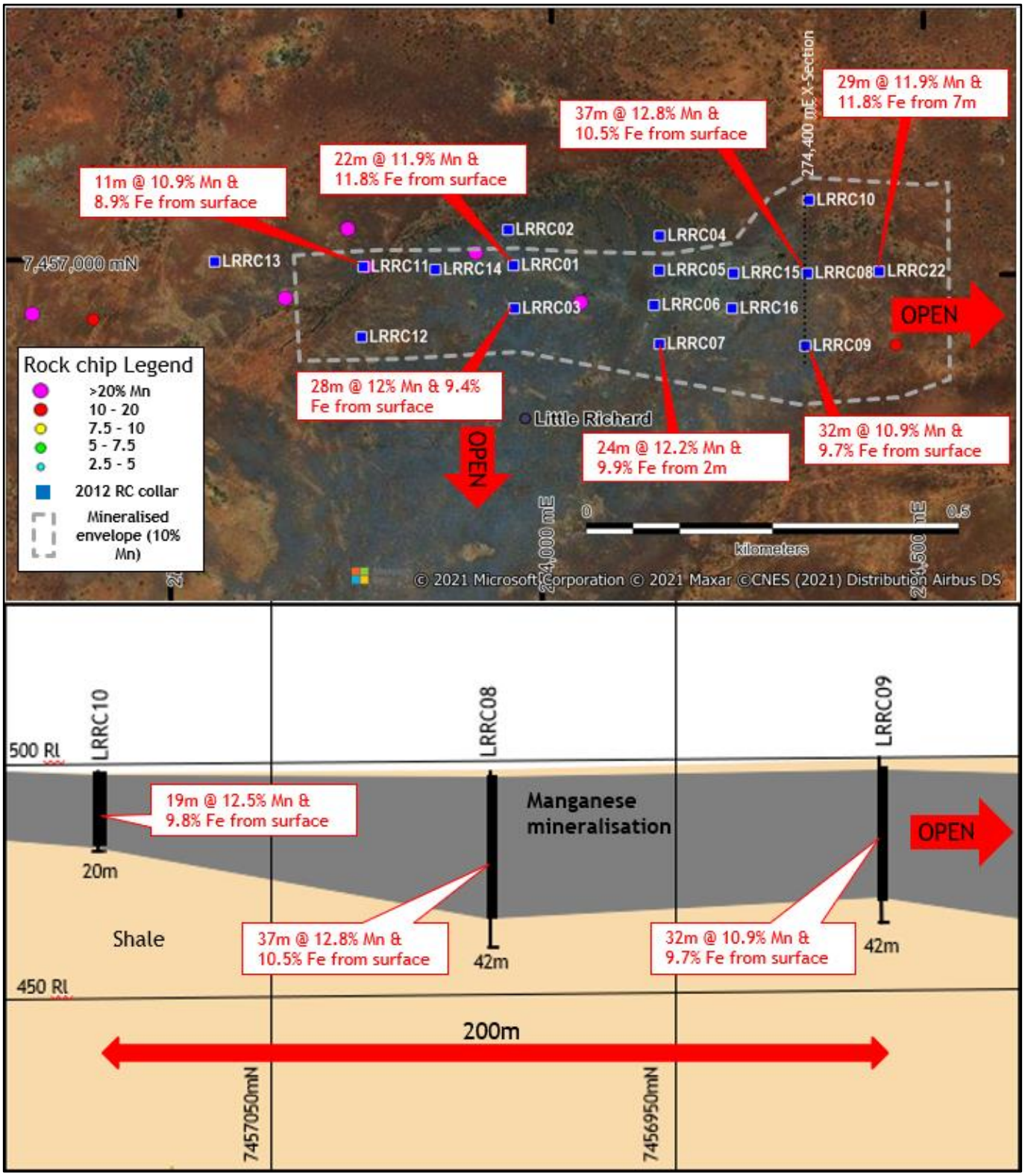

Figure 2. Drill plan and x-section showing the 2012 RC drill collars, previous drill results and + 10% Mn mineralised envelope.

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Summary of Previous Drilling Results at Flanagan Bore

Consolidated Global Investments Limited ("CGI") completed a Reverse Circulation (RC) drilling program in 2012 at the Flanagan Bore Project (E46/784) located 110 kilometres north east of Newman **(WAMEX id A090464)**. This drill program followed up a number of rock chip samples taken from outcropping Balfour Formation shales that returned high values for manganese and iron.

The program consisted of 22 RC vertical holes for a total of 624 metres. Drilling focused on the LR1 prospect (previously identified by outcropping manganiferous shale) with a staggered 200m by 100m grid pattern testing 900m of outcrop strike. All of the drill results are summarised in Table 1.

Drilling and assay results returned from the LR1 Prospect indicate a manganiferous shale extending 700m to the east from holes LRRC11 and LRRC12, with a lateral width increasing to 200m and depth increasing to more than 30 metres at its eastern end. The mineralisation is open to the east and south and potentially increasing in thickness. Of the 17 holes drilled and assayed at the LR1 prospect, 14 returned significant manganese mineralisation from surface or near surface. Further manganese mineralisation was encountered at the L1 and TF1 prospects. As single hole was drilled into the Miss Molly prospect (MM1) but it failed to return any significant mineralisation and was considered poorly located.

In 2014 CGI completed a program of high-level metallurgical test work that provided encouraging results and concluded that the manganese enriched material from LR1 can be upgraded through gravity separation, but it was recognised that the sample media provided for the test work was sub-optimal **(WAMEX id A101591)**. Black Canyon plans to complete its own metallurgical test work early in the field programs to confirm that beneficiation of manganese rich shales at LR1 can produce a moderate to high grade product.

Table 1. Previous drill results from Flanagan Bore RC drilling campaign

Hole ID	Drill hole Collar Information							Interval				
	Prospect	East (GDA94)	North (GDA94)	RL	Depth (m)	Dip	Azimuth	From (m)	To (m)	**Width (m)**	**Mn (%)**	**Fe (%)**
LRRC01	LR1	273954	7457004	507	36	90	360	0	22	**22**	**11.9**	**11.8**
LRRC02	LR1	273946	7457053	504	24	90	360	No significant mineralisation				
LRRC03	LR1	273956	7456945	504	42	90	360	0	28	**28**	**12**	**9.4**
LRRC04	LR1	274150	7457048	501	24	90	360	No significant mineralisation				
LRRC05	LR1	274150	7457000	499	24	90	360	0	12	**12**	**11.7**	**9.8**
LRRC06	LR1	274144	7456952	501	30	90	360	0	15	**15**	**15.8**	**9.8**
LRRC07	LR1	274152	7456899	507	40	90	360	2	26	**24**	**12.2**	**9.9**
LRRC08	LR1	274349	7456999	502	42	90	360	0	37	**37**	**12.8**	**10.5**
LRRC09	LR1	274348	7456899	505	42	90	360	3	35	**32**	**10.9**	**9.7**
LRRC10	LR1	274350	7457100	502	20	90	360	0	19	**19**	**12.5**	**9.8**
LRRC11	LR1	273752	7456999	502	18	90	360	0	11	**11**	**10.9**	**8.9**
LRRC12	LR1	273751	7456902	503	24	90	360	12	24	**12**	**10.3**	**11.0**
LRRC13	LR1	273552	7457003	504	18	90	360	No significant mineralisation				
LRRC14	LR1	273849	7456997	503	30	90	360	0	21	**21**	**10.2**	**8.5**
LRRC15	LR1	274250	7456998	507	24	90	360	0	15	**15**	**13.6**	**9.3**
LRRC16	LR1	274249	7456949	503	41	90	360	0	15	**15**	**11.3**	**11.4**
LRRC17	L1	275588	7457263	508	18	90	360	No significant mineralisation				
LRRC18	L1	275890	7457316	510	24	90	360	0	13	**13**	**8.6**	**9.1**
LRRC19	TF1	277014	7457657	513	30	90	360	1	30	**29**	**11.4**	**11.0**
LRRC20	TF1	277289	7457833	520	18	90	360	0	5	**5**	**10.8**	**11.2**
LRRC21	MM1	277389	7458637	520	18	90	360	No significant mineralisation				
LRRC22	LR1	274446	7457003	505	42	90	360	7	36	**29**	**11.9**	**11.8**

This announcement is approved for release by the Board of Directors

ENDS

For Further Information

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Competent Person Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared 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.

About Black Canyon

Black Canyon has entered into a farm-in and joint venture with ASX listed Carawine Resources Limited 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 1400km^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 utilization in the battery mineral sector and challenging supply conditions.

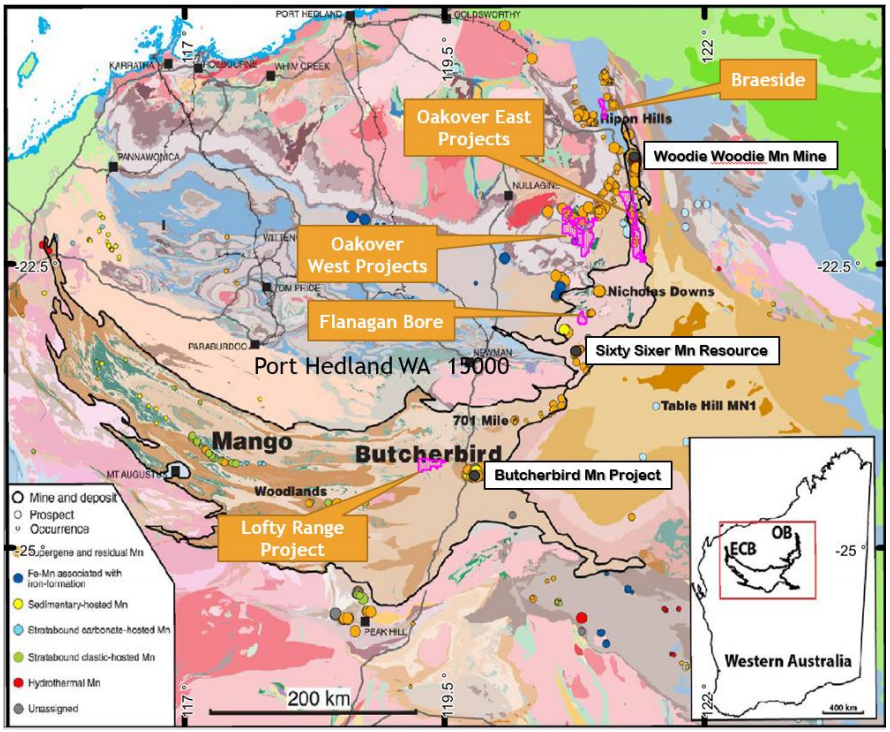

Figure 3. Black Canyon Project locations

APPENDIX 1- JORC Table 1 previous RC drill results from Flanagan Bore

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
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.*	• The historic data is reported to the Western Australian Mines Department and it is a condition of the license that the Tenement holder report information in sufficient detail to enable subsequent parties to reliably use the information • Historic reports have then been accessed from WAMEX and raw files retrieved and entered into a drill data base • The information describes RC drilling and sampling. • In all cases industry standard methods of sample collection appropriate to the period were employed. • In many cases sampling methods are not reported in detail, however it is not expected that measures of representivity are material to the context in which historic results are reported and can be relied upon
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).*	• Historic reports of results from RC drilling are referred to in this release • Where the drill diameter is not reported in the text, it is not considered material to the reader's understanding of the results given the context in which historic results are reported. They are assumed to be standard RC drill diameters
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 of results refer to industry standard methods of sample collection appropriate to the period were employed. • In most cases measures relating to sample recovery are not reported, however these are not expected to materially affect the understanding of the historic results given the context in which they are reported.
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.*	• The results as presented are not intended to imply sufficient quality for the estimation of a Mineral Resources but are used to understand how prospective historic targets maybe and plan future programs. • Where relevant to the understanding of the results reported, results of geological logging have been included in the text of the report. In such cases it has been assumed that a sufficient proportion of each hole was logged to enable to author to report the information.
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.*	• Unless stated otherwise it is assumed that industry standard methods appropriate to the period were used, and where relevant to the understanding of the results these have been reported in the text.

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
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.*	• Historic reports of results refer to industry standard assay procedures and methods used, appropriate to the period to which the data relate, and that this has resulted in appropriate levels of accuracy and precision in the data, especially in regard to the context in which the results have been reported. • The author has not been able to view original documents or assay files but is satisfied that the analysis was completed to an acceptable standard in the context in which the results have been reported
Verification of sampling and assaying	• *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.*	• Unless otherwise stated, the reported intersections from historic drilling have been repeated from the original technical reports as referenced in the text, and where possible verified from accompanying raw data, although in all cases this was not possible. • No historic assay data has been adjusted.
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.*	• Unless otherwise stated the accuracy and quality of location data for drill holes is assumed to be sufficient for the form and context in which the data has been reported.
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.*	• Where relevant and material to the understanding of the results these have included in the body of the report. • The results as presented are not intended to imply sufficient quality for the estimation of a Mineral Resources • Confirmatory drilling will enable the Company to use the drill data in the future for mineral resources estimation
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.*	• Where considered material to the understanding of the results reported, this information has been included in the body of the report.
Sample security	• *The measures taken to ensure sample security.*	• No information regarding sample security is reported, however given the Projects' locations this is not considered a high risk in the context in which the results are reported.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Other than internal review by Company geologists and in the preparation of the IGR, no audits have been completed. • Beyond that completed to date, further audits are not considered to be required given the context in which the historic data is reported, or the stage of the Projects development.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and 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*	• The drill holes were drilled with E46/1301 • The drill holes reported are located within the boundaries of the Black Canyon JV license. • Black Canyon has a farm-in and joint venture agreement with Carawine Resources Ltd (ASX:CWX), giving Black Canyon the right to earn an initial 51% interest and up to 75% in the Carawine Projects

Criteria	JORC Code explanation	Commentary
	reporting along with any known impediments to obtaining a licence to operate in the area.	• The tenements from which the drill holes were completed were and will continue to be subject to native title but access has been previously provided •
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The previous exploration history is described in the body of the report
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The geology and mineralisation is described in the body of the report

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.*
		• Refer to Table 1 in the release for the a summary of the assay results for the historic drilling
		• Unless otherwise stated, this information has not been included because it is either not considered material to the understanding of the results in the context in which they are reported, or complete data is not available.
		• Where selected anomalous drill hole intervals are included, they are included to provide information relating to the tenor of the mineralisation as reported by the previous explorers, based on the opinion of the author of the historic report. They are not intended to represent an entire description of the mineralisation, and in all cases this is disclosed in close proximity to the interval in the text of the report.

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.*	• Only weighted intervals are included in the text. • Manganese intervals have been reported at 5% Mn cut off allowing 1 m of dilution. • No metal equivalent values are used.
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').*	• Unless otherwise stated down hole widths are reported and noted in proximity to the result in the text of the release. • The drill results indicate flat lying mineralisation
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.*	• These have been included in the body of the release where relevant and material to the reader's understanding of the results in regard to the context in which they have been reported.
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.*	• Information considered material to the reader's understanding of the Exploration Results has been reported. In the body of the text significant results have selectively reported to provide the reader with the potential tenor and widths of the mineralisation • Table 1 within the body of the release reports all of the drill hole results including those that failed to encounter significant mineralisation • Maps have been provided in the release to show the locations of the drill holes
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,*	• All information considered material to the reader's understanding and context of the historic Exploration Results has been reported.

Criteria	JORC Code explanation	Commentary
	groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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 areas, provided this information is not commercially sensitive.*	• Planned worked programs to verify the mineralisation are presented in the body of this report

APPENDIX 2- JORC Table 1 historic rock chip samples results from the Flanagan Bore area

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
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.*	• Point surface samples consisting of rock chips of outcropping bedrock, to a nominal 0.5- 2kg weight. • Each sample was described at the site and time of collection to ensure accurate records of sampled material. Samples were selected based on mineralisation / alteration zones, or to distinguish low level alteration indicating potential mineralisation at depth. • The samples are selective but representative of the outcrop from which they were taken. • Rock chip sampling is an industry wide field technique for establishing metal content to understand potential tenor of the underlying mineralisation.
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).	• Not applicable
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.	• Not applicable
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)	• All samples have been logged at the time and location of collection, enabling them to be placed in geological context. • All surface samples have been logged to high detail.

Criteria	JORC Code explanation	Commentary
	photography. • The total length and percentage of the relevant intersections logged.	
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.	• Generally samples were collected dry and consisted of multiple chips dislodged and fractured by a geological pick. • Generally samples were between a nominal 0.5-2kg weight and placed directly in to numbered calico bags at the collection point. • Appropriate assay techniques were designated at the point of collection based on the perspective commodity. • Single point samples.
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.	• It is not known where the Sentinel samples were analysed • The Global Inv samples were analysed at ALS Laboratories using XRF • Samples were assayed by Li-borate fusion XRF (Al2O3, BaO, CaO, Cr2O3, Cu, Fe2O3, K2O, LOI, MgO, Mn, Na2O, P2O5, Pb, SO3, SiO2, TiO2, V2O5). Method C. • ALS laboratories are known to use Internal laboratory standards for each job to ensure correct calibration of elements. • Only relevant and material element results are reported. • The assay data has sufficient quality for reporting in the context in which it appears.
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.	• Assay results summarised in the context of this release have been rounded appropriately. • No assay data has been adjusted.
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 not known how the sample locations were recorded but assumed in 2012 a hand held GPS +/-5m was used. • RL was not recorded and is not relevant to surface point samples. • Coordinates reported are MGA Zone 51. • Location data is considered to be of sufficient quality for reporting of exploration results at this early stage. • The Sentinel result locations were located from geological survey maps (1:250k) with likely poor location control
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.	• Selective sampling based on field observation and outcrops identified as hosting potential for mineralisation. • Should not be considered representative of the rock mass as a whole but an indication of the local grade at surface
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.	• Samples are representative only of the material sampled and based on surface outcrops it is unknown if the samples have a bias related to orientation of structures or mineralised horizons.

Criteria	JORC Code explanation	Commentary
Sample security	• The measures taken to ensure sample security.	• The samples are generally placed in a calico bag and then secured in a polyweave bag that is zip locked. • This is not considered a high risk given the Project location.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Not applicable at this early stage of exploration

Section 2 Reporting of Exploration Results

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

• Criteria	• JORC Code explanation	• Commentary
Mineral tenement and 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 samples were taken from BCA JV license E46/1301) • The samples reported are located within the boundaries of the Black Canyon JV license. • Black Canyon has a farm-in and joint venture agreement with Carawine Resources Ltd (ASX:CWX), giving Black Canyon the right to earn an initial 51% interest and up to 75% in the Carawine Projects. • The tenements from which the samples were taken are subject to native title but are consider non-earth disturbing activities and generally do not require a Heritage Survey
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The samples presented in the release have been collected by previous Companies and collated by BCA
Geology	• Deposit type, geological setting and style of mineralisation.	• The geology and mineralisation is described in the body of the release
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.	• Not applicable to rockchips results
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.	• All sample results are listed in Appendix 3 and shown in the figures within the body of the release.
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').	• No drill widths or intervals reported
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	• See body of the release for geology and visual presentation of surface sample assays.

• Criteria	• JORC Code explanation	• Commentary
	limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.	• All information considered material to the reader's understanding and context of the Exploration Results have been reported. • All rockchip data has been reported in Appendix 3
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.	• Information relating to the most advanced data from the primary prospects on the tenement have been reported. • Surface investigations have been conducted at this tenement and is summarised in the plan within the body of the report. • All information considered material to the reader's understanding and context of the Exploration Results has been reported.
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 areas, provided this information is not commercially sensitive.	• Planned worked programs include surface mapping and geochemical verification • RC drilling and analysis on selected targets

APPENDIX 3- All historic rock chip samples results from the Flanagan Bore Area

Sample_ID	Company	WAMEX	MGA94_51_East	MGA94_51_North	RL	Prospect	Date Sampled	Mn_pct	Fe_pct
3785	Sentinel	A001155	275717	7461130	0	Flanagan Bore	1968	21.6	17.8
3783	Sentinel	A001155	277800	7458803	0	Flanagan Bore	1968	25.7	11.9
3784	Sentinel	A001155	277820	7458850	0	Flanagan Bore	1968	11.4	30.7
452	Global Inv	A093336	271355	7454891	0	Flanagan Bore	2012	0.5	3.7
453	Global Inv	A093336	272568	7455446	0	Flanagan Bore	2012	0.1	4.9
454	Global Inv	A093336	274045	7456953	0	Flanagan Bore	2012	36.2	8
455	Global Inv	A093336	275316	7456327	0	Flanagan Bore	2012	0.1	50.3
456	Global Inv	A093336	276039	7456970	0	Flanagan Bore	2012	16.9	17.3
458	Global Inv	A093336	273903	7457020	0	Flanagan Bore	2012	22.8	20.9
460	Global Inv	A093336	273756	7456998	0	Flanagan Bore	2012	25.7	15.6
461	Global Inv	A093336	273730	7457050	0	Flanagan Bore	2012	35.3	9.0
462	Global Inv	A093336	273234	7457155	0	Flanagan Bore	2012	0.6	44.9
463	Global Inv	A093336	273308	7456926	0	Flanagan Bore	2012	37.6	7.9
464	Global Inv	A093336	273390	7456920	0	Flanagan Bore	2012	15.5	24.6
465	Global Inv	A093336	273648	7456953	0	Flanagan Bore	2012	31.4	10.8
466	Global Inv	A093336	274470	7456901	0	Flanagan Bore	2012	17.5	26.2
473	Global Inv	A093336	275545	7454894	0	Flanagan Bore	2012	30.8	16.8