ASX release

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MINERAL RESOURCES AND ORE RESERVES UPDATE

Fortescue Metals Group Ltd (Fortescue, ASX: FMG) presents the attached Mineral Resources and Ore Reserves statements for its Operating and Development Properties as at 30 June 2022.

The report updates the Mineral Resource and Ore Reserve estimates in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) as required by the Australian Securities Exchange. The annual summary will be included in Fortescue's FY22 Annual Report which should be read in conjunction with the enclosed statement (Mineral Resources and Ore Reserves Update).

Summary of Mineral Resources and Ore Reserves - Hematite

	Reporting basis	30 June 2022 Million tonnes	30 June 2022 Fe %	30 June 2021 Million tonnes	30 June 2021 Fe %
Ore Reserves	**(Dry product)**	**1,986**	**57.4**	**2,082**	**57.4**
Mineral Resources					
- Operating	(Dry in-situ)	5,166	56.2	5,367	56.3
- Development	(Dry in-situ)	8,382	57.1	8,296	57.0
Total Resources	**(Dry in-situ)**	**13,548**	**56.8**	**13,663**	**56.7**

Summary of Mineral Resources and Ore Reserves - Magnetite

	Reporting basis	30 June 2022 Million tonnes (in-situ)	30 June 2022 Mass recovery %	30 June 2022 Fe %	30 June 2021 Million tonnes (in-situ)	30 June 2021 Mass recovery %	30 June 2021 Fe %
Ore Reserves	**(Dry in-situ)**	**844[1]**	**29.6**	**67.3[2]**	**716[1]**	**29.4**	**67.0[2]**
Mineral Resources	**(Dry in-situ)**	**6,184**	**22.7**	**30.6**	**5,448**	**22.7**	**30.4**

[1] 844mt dry in-situ (FY21: 716mt) is equivalent to 250mt dry product (FY21: 211mt). [2] Product grade.

Commenting on the updated statements, Fortescue Chief Executive Officer, Elizabeth Gaines, said "We are pleased to report 2.0 billion tonnes of hematite Ore Reserves and 13.5 billion tonnes of hematite Mineral Resources, underpinning a long mine life and enabling flexibility to continue to optimise the mine plan.

"The Iron Bridge Magnetite Project, our joint venture with Formosa, is making significant progress towards first production in the March 2023 quarter, and the magnetite Ore Reserves have increased to 844 million tonnes (in-situ). Significantly, the magnetite Mineral Resources have increased to 6.2 billion tonnes primarily due to the inclusion of the maiden Mineral Resource for the South Star deposit of 0.9 billion tonnes."

Mineral Resources and Ore Reserves update

Deposit types include Bedded Iron (BID), Channel Iron (CID) and Detrital Iron (DID) mineralisation. The magnetite properties refer to the Iron Bridge Magnetite Project.

Fortescue's hematite Ore Reserves at 30 June 2022 is estimated to be 1,986 million tonnes (mt) at 57.4% Fe of dry product, a decrease of 96mt compared to the Ore Reserve estimate at 30 June 2021 largely reflecting depletion due to iron ore sales during the financial year.

Aa at 30 June 2022, the Mineral Resources for the Operating Properties (Chichester, Solomon and Western Hubs, including Flying Fish) is estimated to be 5,166mt at an average Fe grade of 56.2%, a decrease of 201mt over 30 June 2021, with no change to the proportion of higher confidence Measured and Indicated Mineral Resources (68 per cent).

As at 30 June 2022, the Mineral Resources for the Development Properties is estimated to be 8,382mt at an average Fe grade of 57.1 per cent. Updates have been completed for deposits in the Nyidinghu and Pilbara Other Hubs as a result of exploration drilling, with an overall increase of 86mt compared to 30 June 2021. Updated estimates have been produced for the Nyidinghu deposit, and the Mindy South and Wonmunna deposits in the Pilbara Other Hub. A Mineral Resource estimate has been estimated for the new Triton deposit also in the Pilbara Other Hub. The additional tonnes include high grade BID in the Brockman and Marra Mamba Iron Formations.

Magnetite Mineral Resources as at 30 June 2022 are estimated to be 6,184mt with an average mass recovery of 22.7%, an increase of 736mt compared to 30 June 2021. The increase is primarily due to the addition of a maiden Mineral Resource estimate for the South Star deposit which comprises 898mt and occurs along strike to the south of the Glacier Valley area.

Magnetite Ore Reserves at 30 June 2022 are estimated to be 844mt (in situ) with an average mass recovery of 29.6%, resulting in an estimated 250mt of magnetite concentrate at an average Fe grade of 67.3%. This is an increase of 128mt (in situ) compared to 30 June 2021 and is a result of increased confidence in the underlying Mineral Resource from infill drilling.

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FY22

MINERAL RESOURCES AND ORE RESERVES UPDATE

ABN 57 002 594 872

We are Fortescue

Mineral Resources Operating Properties – Hematite

The locations of the Fortescue Metals Group Ltd (Fortescue) Operating Properties Mineral Resources (Cloudbreak, Christmas Creek, Kutayi, Eliwana, Firetail, Flying Fish, Kings and Queens) are shown in Figure 1.

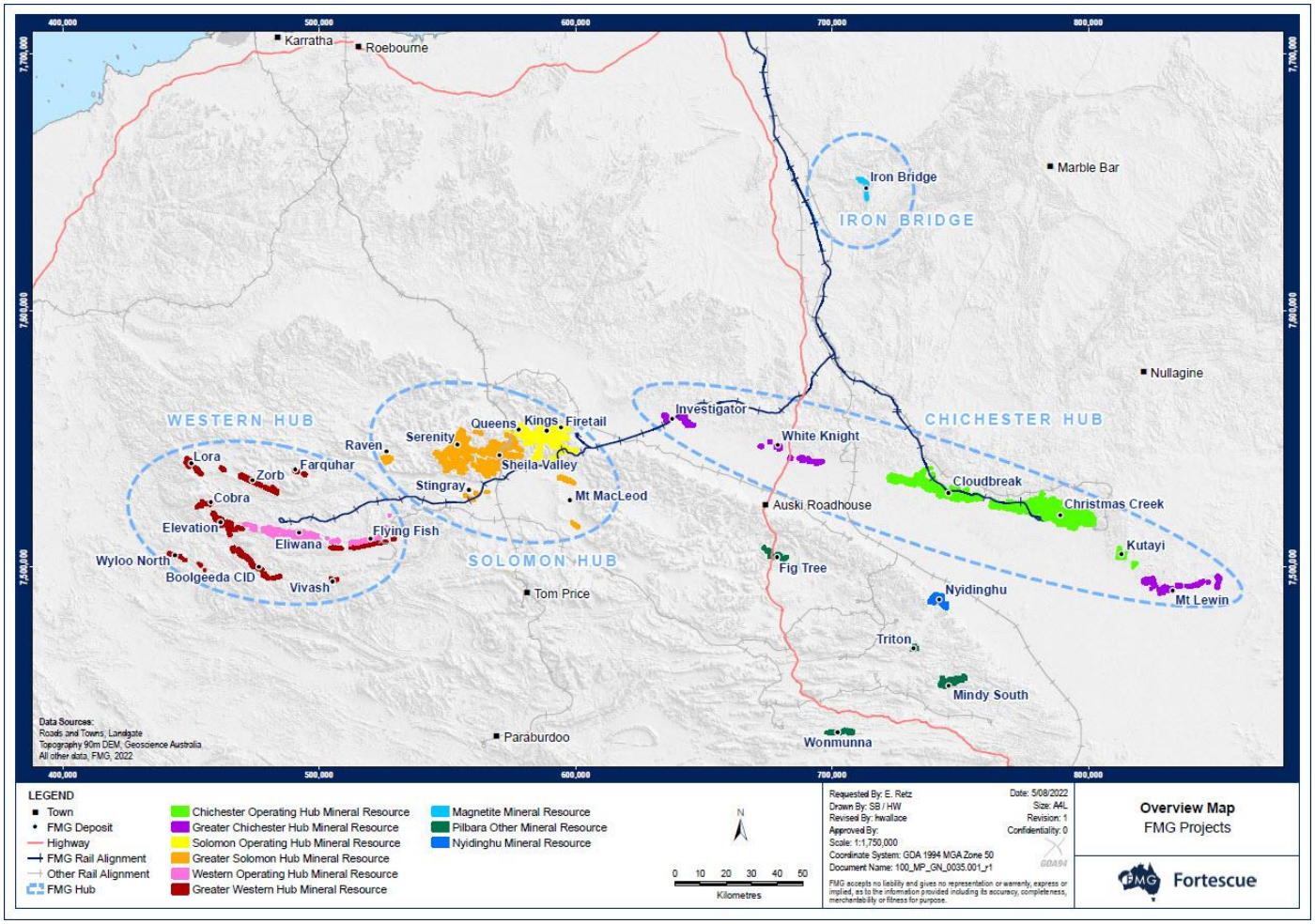

Figure 1: Fortescue Mineral Resource and operations overview

As at 30 June 2022, the total Mineral Resource for the Chichester, Solomon and Western Hubs, including Flying Fish, is estimated to be 5,166 million tonnes (mt) at an average Fe grade of 56.2%, a decrease of 201mt over that stated in the prior year. There was no change in the proportion of higher confidence Measured and Indicated Mineral Resources (68 per cent)

The total Chichester Hub Mineral Resource is estimated to be 2,288mt at an average Fe grade of 56.3%, with 81 per cent of the tonnage in the Measured and Indicated Mineral Resource categories.

The total Solomon Hub Mineral Resource is estimated to be 1,981mt at an average Fe grade of 55.3%, with 66 per cent of the tonnage in the Measured and Indicated Mineral Resource categories.

The total Western Hub Mineral Resource is estimated to be 897mt at an average Fe grade of 58.1%, with 37 per cent of the tonnage in the Measured and Indicated Mineral Resource categories.

A program of diamond drilling is currently underway at Kings with the aim of providing sufficient data to allow densities to be reviewed for future Mineral Resource reporting. A similar program of diamond drilling is planned for Kutayi and densities will be reviewed once this has been completed.

Table 1*:* Mineral Resources Operating Properties – Hematite – as at 30 June 2022

	June 2022						June 2021					
	In-situ Tonnes (mt)	Iron Fe %	Silica SiO_2 %	Alumina. Al_2O_3 %	Pho P %	LOI %	In-situ Tonnes (mt)	IronFe %	Silica SiO_2 %	Alumina Al_2O_3 %	PhosP %	LOI %
Cloudbreak												
Measured	493	57.0	5.78	3.26	0.057	8.2	452	56.7	5.91	3.37	0.056	8.5
Indicated	198	55.9	6.66	3.45	0.058	8.1	255	56.1	6.63	3.37	0.063	8.0
Inferred	68	55.7	6.28	3.90	0.063	8.6	100	56.3	6.17	3.62	0.056	7.8
Total	**759**	**56.6**	**6.05**	**3.37**	**0.058**	**8.2**	**808**	**56.5**	**6.17**	**3.40**	**0.058**	**8.2**
Christmas Creek												
Measured	515	56.6	6.54	3.16	0.050	7.9	379	56.7	6.42	3.20	0.050	7.9
Indicated	650	56.2	6.56	3.63	0.052	7.8	812	56.2	6.62	3.60	0.051	7.8
Inferred	364	55.7	6.78	3.78	0.055	7.9	379	55.6	7.01	3.80	0.054	7.8
Total	**1,529**	**56.2**	**6.60**	**3.51**	**0.052**	**7.9**	**1,571**	**56.1**	**6.67**	**3.55**	**0.052**	**7.8**
Sub-total Chichester Hub												
Measured	1,008	56.8	6.17	3.21	0.053	8.1	832	56.7	6.14	3.29	0.053	8.2
Indicated	848	56.1	6.58	3.59	0.053	7.9	1,068	56.2	6.62	3.54	0.054	7.9
Inferred	432	55.7	6.70	3.80	0.056	8.0	479	55.7	6.83	3.76	0.055	7.8
Total	**2,288**	**56.3**	**6.42**	**3.46**	**0.054**	**8.0**	**2,379**	**56.3**	**6.50**	**3.50**	**0.054**	**8.0**
Firetail												
Measured	9	57.4	7.40	3.71	0.119	6.1	7	57.3	7.42	3.69	0.119	6.2
Indicated	126	57.4	7.33	2,85	0.124	7.1	127	57.7	7.20	3.76	0.124	6.9
Inferred	73	55.9	7.73	3.90	0.111	7.6	100	56.1	7.96	3.76	0.108	7.4
Total	**207**	**56.9**	**7.48**	**3.25**	**0.119**	**7.2**	**234**	**57.0**	**7.53**	**3.21**	**0.117**	**7.1**
Kings and Queens												
Measured	379	55.2	7.85	3.26	0.080	9.3	298	55.4	7.87	3.25	0.081	9.0
Indicated	785	55.3	8.12	3.36	0.084	8.8	908	55.0	8.20	3.30	0.082	9.2
Inferred	609	54.8	8.77	3.74	0.076	8.3	494	54.6	8.93	3.82	0.075	8.5
Total	**1,773**	**55.1**	**8.29**	**3.47**	**0.080**	**8.8**	**1,700**	**54.9**	**8.36**	**3.44**	**0.080**	**9.0**
Sub-total Solomon Hub												
Measured	388	55.2	7.84	3.27	0.081	9.3	305	55.4	7.86	3.26	0.082	9.0
Indicated	911	55.6	8.01	3.29	0.089	8.6	1,035	55.3	8.08	3.23	0.087	9.0
Inferred	682	55.0	8.66	3.76	0.080	8.3	594	54.8	8.77	3.81	0.080	8.3
Total	**1,981**	**55.3**	**8.20**	**3.44**	**0.084**	**8.6**	**1,934**	**55.2**	**8.26**	**3.41**	**0.084**	**8.8**
Eliwana												
Measured	234	59.2	5.34	2.75	0.129	6.3	290	59.3	5.39	2.76	0.128	6.1
Indicated	42	57.7	6.85	3.04	0.098	6.5	50	57.7	7.06	2.93	0.099	6.4
Inferred	477	57.7	6.34	3.49	0.102	6.9	539	57.8	6.29	3.45	0.102	6.8
Total	**752**	**58.1**	**6.06**	**3.24**	**0.110**	**6.7**	**880**	**58.3**	**6.04**	**3.19**	**0.110**	**6.5**

Flying Fish												
Measured	29	58.3	5.40	2.50	0.062	8.0	29	58.3	5.40	2.50	0.062	8.0
Indicated	31	59.9	4.80	2.06	0.060	6.8	43	60.2	4.77	2.00	0.06	6.5
Inferred	86	57.2	6.18	3.40	0.054	7.5	103	57.3	6.14	3.45	0.055	7.3
Total	**145**	**58.0**	**5.73**	**2.94**	**0.057**	**7.5**	**175**	**58.2**	**5.68**	**2.94**	**0.057**	**7.2**
Sub-total Western Hub												
Measured	262	59.1	5.34	2.72	0.122	6.5	319	59.2	5.39	2.74	0.122	6.3
Indicated	73	58.6	5.97	2.62	0.082	6.6	93	58.8	6.00	2.50	0.081	6.4
Inferred	562	57.6	6.32	3.48	0.094	7.0	643	57.7	6.27	3.45	0.095	6.9
Total	**897**	**58.1**	**6.01**	**3.19**	**0.101**	**6.8**	**1,055**	**58.3**	**5.98**	**3.15**	**0.102**	**6.7**
Total Mineral Resources Operating Properties - Hematite												
Measured	1.659	56.8	6.43	3.15	0.071	8.1	1,456	57.0	6.34	3.16	0.074	7.9
Indicated	1.832	55.9	7.27	3.40	0.072	8.2	2,195	55.9	7.28	3.35	0.071	8.3
Inferred	1.676	56.0	7.37	3.68	0.078	7.8	1,716	56.2	7.29	3.66	0.078	7.6
Total	**5.166**	**56.2**	**7.03**	**3.41**	**0.074**	**8.0**	**5,367**	**56.3**	**7.03**	**3.40**	**0.074**	**8.0**

Notes in reference to table

- LOI is Loss On Ignition.
- Chichester Hub Mineral Resources are quoted above a cut-off of 53.5% Fe, Solomon Hub and Western Hub Mineral Resources are quoted above a cut-off grade of 51.5% Fe.
- The Measured Mineral Resource estimate includes mine stockpiles totalling approximately 73mt.
- Mineral Resources are reported inclusive of Ore Reserves.
- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Chichester Hub Deposits – Cloudbreak, Christmas Creek and Kutayi

Geology

The Cloudbreak, Christmas Creek and Kutayi deposits lie within the Chichester Ranges, in northern Western Australia. Iron mineralisation is primarily hosted by the Nammuldi Member which is the lowest member of the late Archaean aged Marra Mamba Iron Formation (MMIF). The Nammuldi Member is characterised by extensive, thick and podded iron rich bands, separated by equally extensive units of siliceous and carbonate rich chert and shale. The Nammuldi Member in the Chichester Range is interpreted to be up to 60 metres (m) in true thickness. Underlying the Nammuldi Member rocks are black shales and volcanic rocks belonging to the Jeerinah Formation. Extended periods of tectonic activity have variably folded and faulted these rocks and induced weak metamorphism. Subsequent erosion and hardcapping or lateritic processes have altered the rocks, with present outcrop of Nammuldi Member rocks occurring along a ridge of low-lying hills (relief up to 30m) throughout the prospect areas. These ridges are recognised as the Chichester Ranges.

Drilling within the Chichester prospects has indicated that the Nammuldi target horizons extend below cover away from the hills, with mineralisation intersected more than 6 kilometres (km) down-dip from the outcrop. In these regions, the target iron formation is often overlain by Tertiary age colluvium and alluvium (younger than 65 million years). The colluvium comprises both cemented and un-cemented detrital products of iron enriched material, banded iron formation (BIF), chert and shale within a matrix of finer grained sediments (including clays). Percolation of groundwater through the weathering profiles has precipitated both calcrete and ferricrete, creating resistant horizons within the extensive regolith. The Tertiary sediments thicken towards the south (i.e. towards the Fortescue Marsh), becoming progressively finer grained and more clay dominant, with some recognised calcareous zones. A simplified geological cross section through the Chichester Ranges is shown in Figure 2.

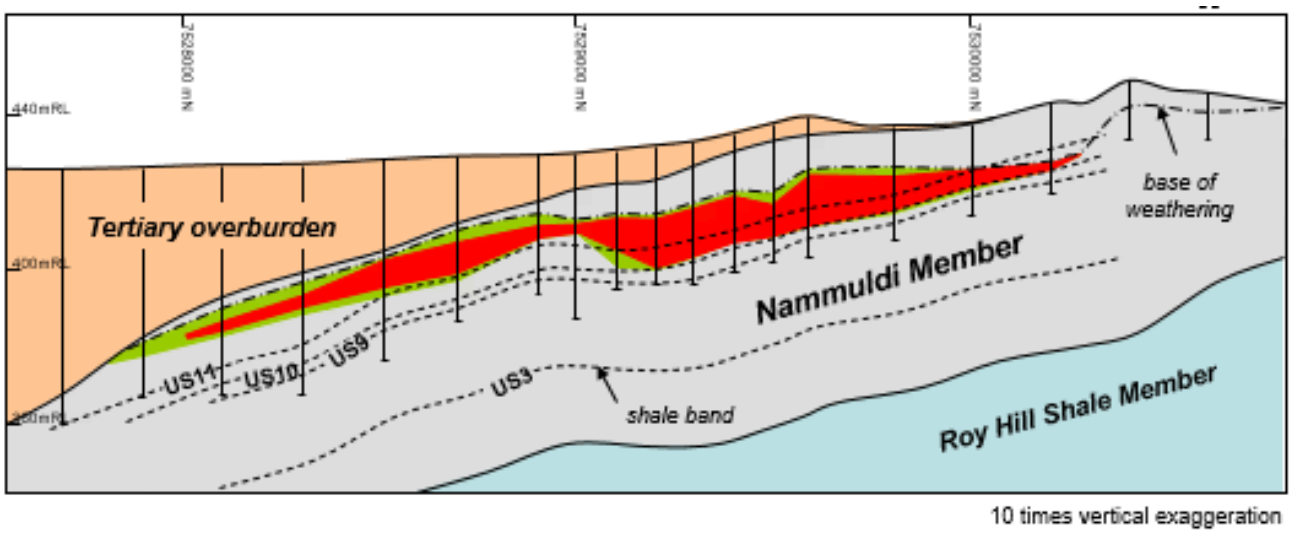

Figure 2: Simplified schematic geological section through the Chichester Ranges

Structure

The structural geology of the area is predominantly concealed with limited exposure in outcrop. However, small scale faulting and folding (metre offsets) are observed in some outcrops, and larger-scale faults are interpreted from aero-magnetics and regional mapping, plus drilling results. In places faults may be the conduit for the mineralisation (hypogene model).

Iron mineralisation styles

Iron mineralisation characteristically comprises hematite, goethite and ocherous goethite, with variable degrees of alteration between these minerals. The main gangue minerals are kaolinite, quartz and gibbsite, with minor amounts of carbonates, either calcite or dolomite.

Iron is enriched in the parent BIF (iron layers banded with cherts and lesser carbonates) by processes of supergene and/or hypogene enrichment. In both processes, the original iron, which is present as magnetite bands within the BIF, is oxidised to hematite and goethite. Contemporaneous with the iron enrichment, the original gangue minerals are partially to fully leached out or may be replaced by iron minerals. These processes increase the iron content of the BIF depending upon the degree of enrichment. A volume loss of up to 35 per cent can occur with enrichment due to loss of gangue minerals.

Microplaty hematite (MplH) is recognised in varying degrees throughout Fortescue's Chichester Range deposits. This is interpreted to occur due to hypogene enrichment of the MMIF in proximity to tectonic structures (faults or tight folds), which have allowed upward fluid flow, and low-grade metamorphism of the parent rock, resulting in extensive hematite mineralisation.

The majority of the iron mineralisation at the Chichester deposits, is interpreted to be martite-goethite resulting from supergene enrichment of a magnetite-rich BIF (oxidised to martite) parent rock.

Hardcapping (ferricrete development) of portions of the mineralisation has been identified in mapping and drilling. This process, which occurred during latter stages of geological development (Tertiary), has changed the physical and geochemical properties of the upper portions of the mineralisation (up to 10m thickness). Hardcapped material, which can be quite vuggy, typically has a higher density, being pervasively cemented by goethite and commonly has vitreous goethite included in the matrix. An associated increase in gangue content may be seen in hardcap due to the near surface processes of ferricretisation.

Current drainage

Ephemeral drainages dissect the Chichester Ranges, generally draining in a southerly direction (i.e. towards the Fortescue Marsh) and are often associated with alluvial deposits characterised by silt and sand sized sediments. These shallow drainages become more meandering and braided on the shallower topography towards the Fortescue March. The Fortescue Marsh is a wide shallow basin (up to 13km wide) associated with a widening of the Fortescue River, which during flood events fills with water and can remain filled for extended periods. The surface of this feature comprises Quaternary clay-rich sediments.

Data and Mineral Resource estimation

The Mineral Resource estimate for each deposit is based primarily on reverse circulation (RC) drilling. In addition, numerous diamond core holes have been drilled; some of these were twinned with RC drill holes to verify geological and grade continuity, with the remainder drilled to provide material for metallurgical test work, as downhole geophysical calibration holes or to provide data for density updates. Drill hole spacing ranges from 800m × 200m down to 25m × 25m depending on the stage of development ahead of mining. Drill hole collar locations were surveyed using a base station differential GPS with collar accuracies to within 5cm (laterally and vertically).

Exploration RC samples, along with most samples from 25m × 25m infill drilling, were collected over 1m intervals using cone splitters from which approximately 3kg of material was collected and subsequently pulverised to produce a sub-sample for analysis. Field quality control procedures involved insertion of assay standards and collection of duplicate samples at the rig. Sample pulps were analysed for Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, Mn/MnO, P, S, As, Pb, Zn, Cu and Cl by X-Ray Fluorescence (XRF) analysis and 3-point Loss on Ignition (LOI; at 371, 650 and 1,000°C; since July 2019 the measurement at 371°C has been replaced by one at 425°C to assist in determination of goethite content) by thermogravimetric methods. This is considered close to a total whole rock analysis.

Geochemical assays, geological logging and downhole geophysical data are used to define geological domains within each deposit. 3D wireframes were then used to code the drilling data and define samples within each geological domain. Model limits were controlled by drill hole data extents and tenement boundaries. Statistical analysis of each analyte confirmed that each domain was statistically discrete and justified the use of hard boundaries for grade estimation.

A categorical indicator method was used to define iron mineralisation within each stratigraphic unit. For Cloudbreak and Christmas Creek the regional resource models (RRM) were constructed using a 25mE × 25mN × 1mRL parent block size with sub-celling to 12.5mE × 12.5mN × 1mRL to aid in following the folded domains and to allow integration of local resource models which were constructed with a parent block size of 12.5mE × 12.5mN × 1mRL and no sub-celling. At Kutayi, the RRM was constructed using 50mE × 100mN × 1mRL parent blocks. All estimation within the mineralised and waste domains was undertaken using Ordinary Kriging (OK) at parent cell scale with hard boundaries applied between domains, grades within the Roy Hill Shale are estimated using inverse distance techniques. Multiple estimation search passes were used to allow estimation into areas of sparser drilling. Validation of the block estimates (using visual, statistical and trend analysis methods) shows good correlation of the input data to the estimated grades and that estimated grades honour trends in the input data.

The mineralised domains demonstrate sufficient geological and grade continuity to support the definition of Mineral Resources and Ore Reserves and the classification applied under the 2012 JORC Code. Drill spacing and data integrity, geological and grade continuity, estimation quality and mineralisation continuity (based on semivariogram ranges) were assessed to determine Mineral Resource classifications. A peer review process, whereby each model is reviewed at key stages of the model development, ensures the integrity and quality. Additionally, a final review of each model is conducted by the Competent Person.

For Mineral Resource reporting, the Cloudbreak and Christmas Creek RRM were regularised to a 12.5mE × 12.5mN × 1mRL block size prior to merging with the local resource models (LRM). The resulting combined models were then depleted for all mining based on the surveyed mined surfaces as at 30 April 2022. Areas where mining has been completed and confirmed that no ore remains were excluded from the Mineral Resource reporting. Similarly, as part of Fortescue's ongoing review process, heritage restricted areas (where appropriate) have been excluded from the Mineral Resource. Adjustments were then made to the Measured Mineral Resources to subtract the mined tonnage (assumed at average grade) for May and June 2022, and to add in the stockpiled tonnes as at the end of June 2022. As such, the reported Mineral Resources are considered to be depleted for all mining to end June 2022.

Solomon Hub Deposits – Firetail, Kings and Queens

Geological setting

The Solomon Project area is situated approximately 60km to the north of the Tom Price township in the northern Hamersley ranges (Figure 1). Outcropping geology in the project area is dominated by the Dales Gorge, Whaleback Shale and Joffre Members of the Brockman Iron Formation which hosts large bedded iron deposits (BID) throughout the Hamersley Province. The Firetail deposit comprises the majority of BID tonnes at Solomon, where geologically favourable environments have allowed for the formation and preservation of large tonnages of bedded iron mineralisation.

Incised into the bedrock geology are regional palaeochannel systems, predominantly one to two kilometres in width, and stretching for tens of kilometres. During the Miocene period, deep chemical weathering and erosion of iron rich material into these fluvial channels has formed channel iron deposits (CID). The CID is subdivided into an upper 'hard CID' and a lower 'ochreous CID', there is also a semi-continuous middle CID layer which is difficult to detect with RC drilling. Clay lenses within the CID are observed as semi-discrete bands, often several meters thick. The clay lenses are somewhat discontinuous and of a poddy nature although often traceable between drill holes. CID of approximately 40km strike length is preserved in the Kings CID system, with an additional 25km of CID located in the Serenity deposit to the west. Other CID occurrences are also known throughout the Solomon project area. The material overlying the CID (and other areas) has been eroded from adjacent mineralised and un-mineralised bedrock. This clastic material is concentrated into horizons of elevated iron grade termed detrital iron deposits (DID), which forms part of the sequence of overlying late Tertiary aged alluvial and colluvial deposits. A simplified geological section through the Solomon deposit is shown in Figure 3.

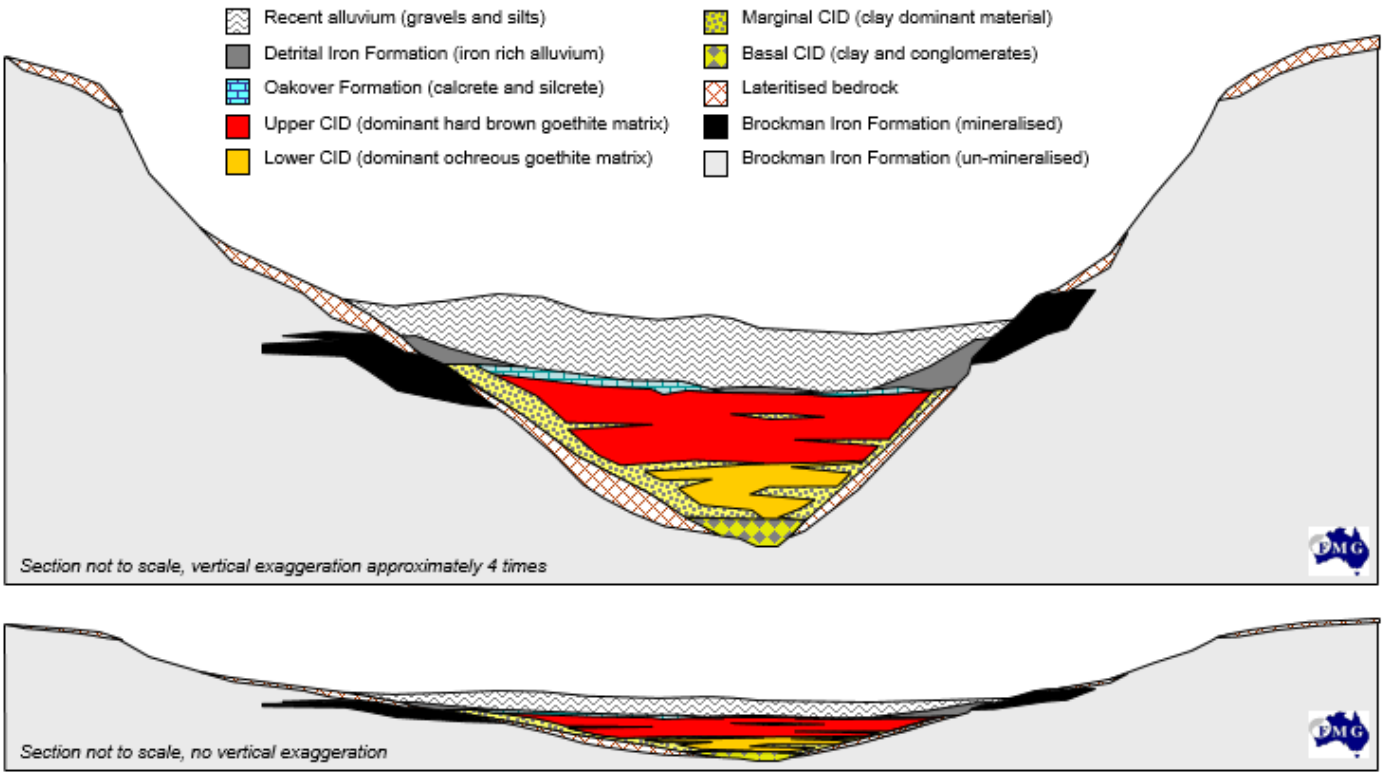

Figure 3: Simplified cross section through the Solomon Deposit

Data and Mineral Resource estimation

The Mineral Resource estimate for each deposit is based primarily on reverse circulation (RC) drilling. In addition, diamond core holes have been drilled to provide material for metallurgical test work, some to twin with RC drill holes to verify the geological and grade continuity or to provide data for density updates. Several RC/RC twins were also drilled to confirm geological and grade continuity. No major biases were identified. Drill hole spacing ranges from 400m × 100m down to 25m × 25m, depending on the stage of development ahead of mining. Drill hole collar locations were surveyed using a base station differential GPS with collar accuracies to within 10cm (laterally and vertically).

Exploration RC samples, along with most samples from 25m × 25m spaced drill holes, were collected over 1m intervals using cone splitters from which approximately 3kg of material was collected and subsequently pulverised to produce a sub-sample for analysis. Field quality control procedures involved insertion of assay standards and collection of duplicate samples at the rig. Sample pulps were analysed for Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, Mn/MnO, P, S, As, Pb, Zn, Cu and Cl by XRF and 3-point LOI (at 371, 650 and 1,000°C, since July 2019 the measurement at 371°C has been replaced by one at 425°C (to assist in determination of goethite content) by thermogravimetric methods. This is considered close to “a total analysis”.

Geochemical assays and geological logging data were used to define geological domains within each deposit (Table 2). 3D wireframes were then used to code the drilling data and define samples within each geological domain. Model limits were controlled by drill hole data extents and tenement boundaries. Statistical analysis of each analyte confirmed that each domain was statistically discrete and justified the use of hard boundaries for grade estimation.

Table 2*:* Geological Domains within the Solomon regional resource models

Firetail North	Firetail South	Kings	Queens
Detritals	Detritals	Detritals	Detritals
CID Lower	Hardcap	Hardcap (CID)	Oakover
J1	CID Lower	CID Upper	Hardcap
J2	Joffre	CID Lower	CID Upper
J3	Whaleback Shale	Bedded	CID Lower
Whaleback Shale	D4	Joffre	Peat
D4	D3	Whaleback Shale	Bedded
D3	D2	D4	Dolerite Dykes
D2	D1	D3	
D1	Mt. McRae Shale	D2	
Mt. McRae Shale		D1	
		Mt. McRae Shale	

A categorical indicator method was used to define iron mineralisation within each stratigraphic unit. The block models were constructed using a parent block size appropriate for the drill hole spacing. In the Firetail South area, sub-celling to 5.0mE × 5.0mN × 0.25mRL was used in the regional resource model, in Kings and Firetail North a minimum block size of 12.5mE × 12.5mN × 1mRL was used and in the Queens area parent cells of 50mE × 25mN × 1mRL with sub-celling to 12.5mE × 12.5m N × 1mRL was used. All estimation was undertaken using inverse distance or ordinary kriging at parent cell scale. Hard boundaries were applied between all estimation domains, with multiple search passes used in areas of sparser drilling. Validation of the block models (using visual, statistical and trend analysis methods) shows good correlation of the input data to the estimated grades and that the estimated blocks honour the trends in the input sample data.

The mineralised domains demonstrate sufficient geological and grade continuity to support the definition of Mineral Resources and Ore Reserves and the classification applied under the 2012 JORC Code. Drill spacing and data integrity, geological and grade continuity, estimation quality and mineralisation continuity (based on semivariogram ranges) were assessed to determine Mineral Resource classifications. A peer review process, whereby each model is reviewed at key stages of the model development, ensures the integrity and quality of each model. Additionally, a final review of each model is conducted by the Competent Person.

For Mineral Resource reporting, the Firetail, Kings and Queens regional resource models were regularised to a 12.5mE × 12.5mN × 1mRL block size prior to merging with the local models. The resulting combined models were then depleted for all mining based on the surveyed mined surfaces as at 30 April 2022. Areas where mining has been completed and confirmed that no ore remains, were excluded from the Mineral Resource reporting. Similarly, as part of Fortescue's ongoing review process, heritage restricted areas (where appropriate) have been excluded from the Mineral Resource. Adjustments were then made to the Measured Mineral Resources to subtract the mined tonnage (assumed at average grade) for May and June 2022, and to add in the stockpiled tonnes as at the end of June 2022. As such, the reported Mineral Resources are considered to be depleted for all mining to end June 2022.

Western Hub Deposits – Eliwana and Flying Fish

Project location

The Eliwana and Flying Fish deposits are located approximately 65 to 100km north-west of Tom Price and 80 to 120km west of Fortescue's Solomon operations in the Pilbara region of Western Australia (Figure 1).

Geology

The Eliwana deposit occurs on the southern limb of the Jeerinah anticline in the western Hamersley Province. The deposit covers a narrow zone that follows the outcrop of mineralised Brockman and Marra Mamba Iron Formations, with Tertiary sediments in the valleys separating these formations. Iron mineralisation predominantly occurs as bedded iron deposits (BID) with some detrital iron deposits (DID). The mineralisation, which occurs at surface and extends to depths of 350m below surface (Figure 4), is variably distributed across an area of approximately 40km along strike and 3.5km across strike.

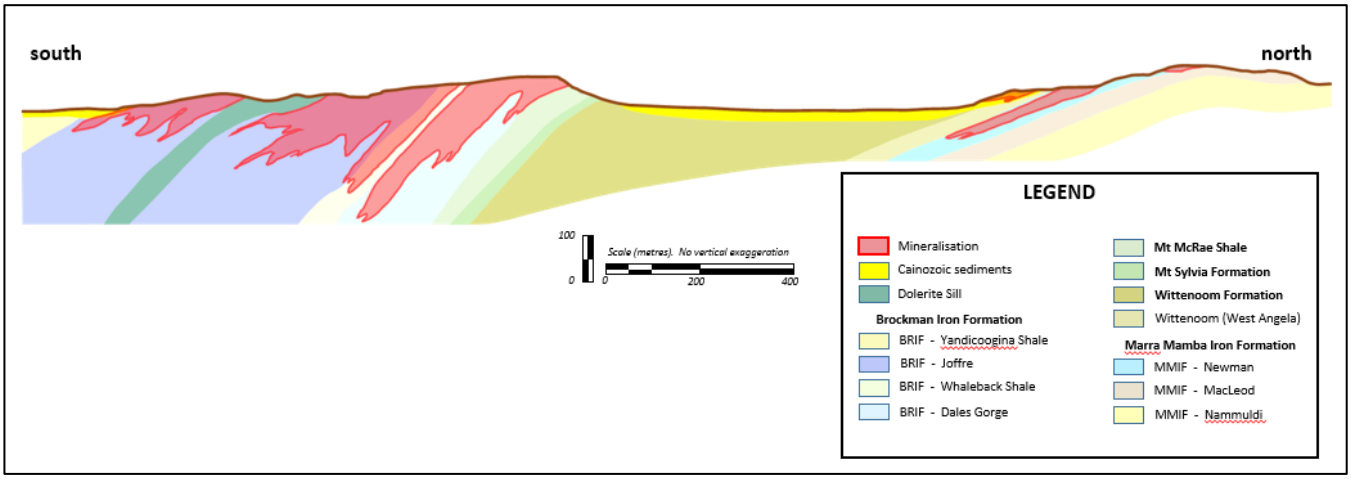

Figure 4: Eliwana schematic geological cross section

Mineralisation within the Flying Fish area is predominantly BID with some DID. Channel iron deposits (CID) occur in the area but are not considered economic. Mineralisation is hosted by the Mount Newman and MacLeod Members of the Marra Mamba Iron Formation, there is minor mineralisation in the West Angela Member of the Wittenoom Formation. The majority of the detrital mineralisation is found as Red Ochre Detritals (ROD). Geological mapping of the area has been completed by Fortescue Exploration geologists.

The Marra Mamba Iron Formation outcrops in the north and dips towards the south around 15 to 20 degrees. Tertiary sediments occur in the valley. Minor occurrences of the Oakover Formation are mapped outcropping in the western portion of the project area. The main area of mineralisation occurs over an area 11km along strike and 400m across strike. Mount Newman Mineralisation occurs at surface in the north and at depths up to 200m to the south. The thickness of mineralisation averages 20m throughout the deposit and is found up to 50m in areas. Mineralisation in the Mount Macleod is occurring across the Flying Fish deposit with the largest mineralised footprint found in the south-west of the project area. This area covers 1km in length and 200m across strike. The ROD mineralisation occurs in a series of pods ranging in size from 100-300m except for the central part of the ore body which extends over 2km trending in a north-east direction averaging 200m across strike. Mineralised thicknesses in this unit are between 20m to 190m.

Data and Mineral Resource estimation

Drill samples at Eliwana and Flying Fish are primarily from reverse circulation (RC) drilling with samples of approximately 3kg collected at 1m intervals using cone splitters. The drill spacing is variable across the deposits depending on the development stage and ranges from 800m × 100m down to 50m × 25m.

All data is captured electronically and passes extensive quality assurance and quality control (QAQC) procedures. QAQC is an ongoing analysis and includes validation of drill hole collar coordinates, field standards, laboratory standards, field duplicates, twin holes, as well as 'round robin' checks between laboratories. Results of the QAQC show that good precision and accuracy has been achieved and that no systematic bias is evident. Sample pulps were analysed for Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, Mn/MnO, P, S, As, Pb, Zn, Cu and Cl by XRF and 3-point LOI (at 371, 650 and 1,000°C; since July 2019 the measurement at 371°C has been replaced by one at 425°C to assist in determination of goethite content) by thermogravimetric methods. This is considered close to a total whole rock analysis.

Geochemical assays and geological and geophysical (natural gamma) logging data were used to define geological domains within each deposit. 3D wireframes were then used to code the drilling data and define samples within each geological domain. Model limits were controlled by drill hole data extents and tenement boundaries. Statistical analysis of each analyte confirmed that each domain was statistically discrete and justified the use of hard boundaries for grade estimation.

A categorical indicator method was used for most deposits to define iron mineralisation within each stratigraphic unit. The resource models were constructed using a parent block size which is nominally half the dominant drill spacing for each deposit, with sub-celling along domain boundaries. Estimation within the mineralised domains was undertaken using Ordinary Kriging (OK) at the parent cell scale with hard boundaries applied between domains. Multiple estimation search passes were used to allow estimation into areas of sparser drilling. Validation of the block estimates (using visual, statistical and trend analysis methods) shows good correlation of the input data to the estimated grades and that estimated grades honour trends in the input data.

The mineralised domains demonstrate sufficient geological and grade continuity to support the definition of Mineral Resources and Ore Reserves and the classification applied under the JORC Code. Drill spacing and data integrity, geological and grade continuity, estimation quality and mineralisation continuity (based on semivariogram ranges) were assessed to determine Mineral Resource classifications. A peer review process, whereby each model is reviewed at key stages of the model development, ensures the integrity and quality of each model. As part of Fortescue's ongoing review process, heritage restricted areas (where appropriate) have been excluded from the Mineral Resource. Additionally, a final review of each model is conducted by the Competent Person.

Ore Reserves Operating Properties – Hematite

Ore Reserves

Fortescue hematite Ore Reserves are based on integrating contributions from the various mine-sites and assembling bedded iron deposit (BID) and channel iron deposit (CID) into blended saleable products at the port.

The BID products are West Pilbara Fines (WPF), Fortescue Blend (FB) and Super Special Fines (SSF). The CID product is Kings Fines (KF). Within the primary BID and CID product streams, controlled blending of non-primary ore types, occurs on an opportunistic basis to optimise product outcomes.

Due to the deposit integration inherent in the Ore Reserve, the following supporting data is comprehensive and addresses the Ore Reserve generation process collectively for all deposits.

Mining models

Mining models consist of regularised regional resource models (RRM) overprinted with local resource models. Application of reconciliation grade adjustment factors to incorporate historical mining losses and dilution into the in-situ estimates is used to generate estimates of Run of Mine (ROM) ore. Conversion of ROM to Product by the ore processing facilities (OPFs) is achieved by the application of OPF upgrade factors. This process is summarised as:

1. The regional resource models are regularised to a block size consistent with both the RRM and the local model block size (typically 12.5m × 12.5m × 1m).
2. The local models are created with an origin and orientation consistent with the RRM.
3. Merged models are then created by over printing the RRM with the local models.
4. The merged models are regularised to a block size consistent with the selective mining unit (SMU) that is appropriate to the mining method that will be applied for each style of deposit and/or area (e.g. 25m × 25m × 3m).
5. Factoring of in-situ grades is based on reconciliation between the underlying regularised models (regional or local resource model) and actual diluted plant feed, back-calculated from sales. Twelve months of historical model performance is used to derive factored grades in the mining models. Grade adjustment factors for Fe and major impurities (SiO_2 and Al_2O_3) are typically minor.
6. Application of respective OPF mass yield and upgrade factors. The Chichester mining models and Solomon CID mining models incorporate theoretical OPF yields and upgrade factors based on metallurgical test-work, incorporating future mining areas, calibrated to historical results. The Firetail and Eliwana OPFs are operating in “dry” mode and therefore have no upgrade factors applied.

Scheduling inventory

Pit optimisation software is used to determine how the mining inventory varies as a function of ore cut-off grade (Fe) and limiting strip-ratio for selected ultimate pit wall slopes.

A combination of selected Fe cut-off and limiting strip ratio is then used to identify the starting geometry for the pit design. Higher strip-ratio peripheral shells are used to identify where ramps should be located without unnecessarily compromising value.

Due to the large lateral extensions and flat and shallow nature of the deposits in the Chichesters it is not feasible, nor necessary, to maintain detailed ultimate pit designs for the entire deposits. Ore Reserve planning is carried out using Lerchs-Grossman pit optimisation geometries (with conservative slope angles incorporating ramp allowances) to generate inventories based on limiting strip ratios.

Detailed pit designs are developed closer to the time of mining of the deposit parts, incorporating the required ramp and wall geometries to facilitate safe, practical and efficient mining.

Mining at Solomon and Eliwana is by conventional drill and blast followed by load and haul, and Ore Reserve ultimate pit designs/optimisations are generated and used as the bounding geometry for Ore Reserves estimation.

In all cases, Inferred material is converted to waste, generating mining costs but contributing no revenue and are excluded from the stated Ore Reserve estimate.

Mine scheduling

Mine scheduling is integrated across all Fortescue properties to maximise value. Chichester mineralisation is combined with Solomon BID (principally from Firetail) and with Eliwana, to manufacture the BID blended products – West Pilbara Fines, Fortescue Blend and Super Special Fines. The Kings Fines CID product is predominantly sourced from the Kings and Queens deposits and will include a proportion of BID and detrital iron deposit (DID) mineralisation incidental to mining the CID channels.

Scheduling aims to maintain the target blended ore quality and maximise net present value (NPV). In general terms this equates to deferring higher strip ratio, higher mining cost mineralisation until later in the collective scheduled mine life. A leading edge linear programming tool is used to identify the integrated mining sequence that will deliver the maximum NPV for the nominated constraints. Major constraints include the nominated ore tonnage and blend quality and the maximum OPF treatment rates that, in turn, are matched to the logistics capacity of the Fortescue rail and port system.

Blending between sites takes advantage of impurity synergies that maximise the ore supply relative to products being sourced from single sites. The proportion of each of the collective BID and CID products will change with time depending on the respective ore quality being delivered from individual deposits. The constituent products are manufactured at the port by blending individual trains onto port stockpiles.

The scheduling inventory is initially collected into ore “bins” based on Fe and impurity cut-offs. Since mineralisation distributions and presentation varies with time, so too may the shorter term effective ore cut-off grade. The Ore Reserve cut-off can be approximated by an Fe-only cut-off that closely approximates that portion of the scheduling inventory that is converted into product over the life of the Ore Reserve schedule (see below).

Financial Analysis

The scheduling programme utilises unit revenue (per product brand) and cost (per deposit per activity) information to allow an NPV to be targeted and to allow relative NPV values to be assigned to schedule alternatives, however these do not constitute a robust valuation. Further financial analysis to determine more realistic absolute financial indicators and sensitivity analysis is performed separately using the quantity and quality data extracted from the scheduler. This analysis is performed by Fortescue’s Finance team using audited business valuation models and assumptions.

Sensitivity analysis of the main financial drivers was carried out on the base case valuation and was demonstrated to be robustly NPV positive under all cases tested.

Ore Reserve statement

The Fortescue hematite Ore Reserve is quoted on a dry product basis after processing, as of 30 June 2022. Individual BID deposits included in the Ore Reserve include Cloudbreak, Christmas Creek, Kutayi, Firetail, Eliwana and Flying Fish. The Kings and Queens Ore Reserves are principally CID mineralisation.

Due to opportunistic blending and stockpiling, the Ore Reserve is not reported at a fixed cut-off. However, the reported Ore Reserve quantity and quality can be closely approximated by the ROM Fe cut-off grades shown in Table 3:

Table 3: ROM Cut-Off grades by Site

Site	Approximate ROM Cut-Off Grade (%Fe)
Cloudbreak	53.0
Christmas Creek	53.0
Kutayi	54.5
Firetail	51.5
Kings	52.5
Queens	53.5
Eliwana	56.0
Flying Fish	57.0

The Chichester Hub (Cloudbreak and Christmas Creek deposits) contains 1,078mt at an average Fe grade of 57.2%, a net decrease of 216mt due to depletion (-ve), more conservative metallurgical factors and reconciliation factors (-ve). Proved Ore Reserve constitutes 56 per cent of the Chichester Ore Reserve, a slight increase from 2021. While the Cloudbreak and Christmas Creek deposits are quoted separately for historical reasons, they effectively represent a single deposit with ore generally directed to the most proximal of the three available ore processing facilities (OPFs).

The Ore Reserve estimate for the Solomon Hub is 682mt at an average Fe grade of 56.9%, an increase of 115mt mainly due to increased revenue forecast, slightly improved mineral resource tonnes and grades along with pit design modifications. Proved Ore Reserves comprise 32 per cent of the tonnage in the total Solomon Reserve.

The Ore Reserve for the Western Hub (Eliwana and Flying Fish) deposit is estimated to be 227mt at an average Fe grade of 60.1%. The Flying Fish and Eliwana deposits effectively represent a single deposit with ore mined from both these directed to the same OPF (Dry Processing).Proved Ore Reserves comprise 85 per cent of the tonnage in the total Eliwana Ore Reserve, a decrease of 7 per cent compared to previous reporting.

As part of Fortescue's ongoing review process, heritage restricted areas (where appropriate) have been excluded from the Ore Reserves.

Ore Reserves are summarised in Table 4 below.

Table 4*:* Ore Reserves Operating Properties – Hematite – as at 30 June 2022

	June 2022						June 2021					
	Product Tonnes (mt)	Iron Fe %	Silica SiO2 %	Alumina Al2O3 %	Phos P %	LOI %	Product Tonnes (mt)	Iron Fe %	Silica SiO2 %	Alumina Al2O3 %	Phos P %	LOI %
Cloudbreak												
Proved	291	57.6	5.15	2.69	0.055	7.83	329	57.4	5.28	2.82	0.054	8.37
Probable	99	56.7	5.66	2.88	0.061	8.03	204	56.9	5.76	2.90	0.061	8.05
Total	**389**	**57.3**	**5.28**	**2.74**	**0.057**	**7.88**	**533**	**57.2**	**5.47**	**2.86**	**0.057**	**8.25**
Christmas Creek												
Proved	316	57.0	6.27	2.89	0.046	7.91	259	56.8	6.42	2.98	0.046	7.83
Probable	373	57.2	6.08	3.08	0.050	7.56	502	56.9	6.30	3.14	0.049	7.60
Total	**688**	**57.1**	**6.17**	**2.99**	**0.048**	**7.72**	**761**	**56.9**	**6.34**	**3.08**	**0.048**	**7.68**
Sub-total Chichester Hub												
Proved	606	57.3	5.74	2.80	0.050	7.87	588	57.1	5.79	2.89	0.051	8.13
Probable	471	57.1	6.00	3.04	0.052	7.66	706	56.9	6.14	3.07	0.053	7.73
Total	**1,078**	**57.2**	**5.85**	**2.90**	**0.051**	**7.78**	**1,294**	**57.0**	**5.98**	**2.99**	**0.052**	**7.91**
Firetail												
Proved	2	58.9	6.51	2.70	0.133	5.48	2	59.2	6.24	2.79	0.128	5.47
Probable	62	58.8	5.90	2.44	0.117	6.68	64	59.3	5.72	2.35	0.117	6.68
Total	**64**	**58.9**	**5.92**	**2.44**	**0.117**	**6.64**	**66**	**59.3**	**5.73**	**2.37**	**0.117**	**6.64**
Kings and Queens												
Proved	215	56.4	6.63	2.69	0.078	9.46	144	57.1	6.36	2.66	0.077	8.75
Probable	402	56.8	6.52	2.86	0.080	8.82	357	56.8	6.51	2.57	0.076	9.18
Total	**618**	**56.7**	**6.56**	**2.80**	**0.079**	**9.04**	**501**	**56.9**	**6.47**	**2.60**	**0.076**	**9.06**
Sub-total Solomon Hub												
Proved	218	56.5	6.63	2.69	0.078	9.42	146	57.2	6.36	2.66	0.077	8.71
Probable	464	57.0	6.44	2.81	0.085	8.54	421	57.2	6.39	2.54	0.082	8.81
Total	**682**	**56.9**	**6.50**	**2.77**	**0.083**	**8.82**	**567**	**57.2**	**6.38**	**2.57**	**0.081**	**8.78**
Western Hub												
Proved	194	60.1	4.63	2.58	0.125	6.07	203	60.0	4.77	2.63	0.132	5.89
Probable	33	60.2	4.21	2.40	0.080	6.47	18	59.7	4.93	2.76	0.104	5.97
Total	**227**	**60.1**	**4.57**	**2.56**	**0.118**	**6.12**	**221**	**60.0**	**4.78**	**2.64**	**0.130**	**5.90**
Total Ore Reserves Operating Properties – Hematite												
Proved	1,018	57.6	5.71	2.73	0.071	7.85	937	57.7	5.66	2.80	0.072	7.74
Probable	969	57.2	6.15	2.91	0.069	8.04	1,146	57.1	6.21	2.87	0.064	8.10
Total	**1,986**	**57.4**	**5.92**	**2.82**	**0.070**	**7.94**	**2,082**	**57.4**	**5.96**	**2.84**	**0.068**	**7.94**

Notes in reference to table

- LOI is Loss On Ignition.
- The diluted mining models used to report the 2022 Ore Reserves are based on regional Mineral Resource models completed in 2016 for Christmas Creek, 2016 for Cloudbreak, 2018 for Firetail, 2019 for Queens, 2017 for Kings, 2019 for Kutayi and 2019 for Eliwana. The regional models for the operating sites were updated for local pit areas as infill drilling is completed, with updates included through to 2022.
- Diluted mining models are validated by reconciliation against historical production.
- Ore Reserves are inclusive of ore stockpiles at the mines which total approximately 61.1mt on dry product basis.
- The Chichester Ore Reserve is inclusive of the Cloudbreak, Christmas Creek and Kutayi BID deposits. Selected Christmas Creek Ore Reserves will be directed to the Cloudbreak OPF to optimise upgrade performance and optimise Cloudbreak and Christmas Creek OPF utilisation.
- The Western Hub Ore Reserve is inclusive of the Eliwana and Flying Fish deposits. Selected Flying Fish Ore Reserves will be directed to the Dry OPF at Eliwana

Mineral Resources Development Properties – Hematite

Updates have been completed for deposits in the Nyidinghu and Pilbara Other Hubs as a result of exploration drilling. As part of Fortescue's ongoing review process, areas identified as containing sites of heritage significance (where appropriate) have been excluded from the Mineral Resource. This update is an overall increase of 86mt to the Development Properties Mineral Resources and is reported in accordance with the JORC Code. As of June 30 2022 the total Mineral Resource for development properties, which excludes and is additional to the operating properties, is estimated to be 8,382mt at an average Fe grade of 57.1%.

There has been no change to the stated Mineral Resources in the Greater Chichester Hub. The Greater Chichester Hub contains the deposits Investigator, White Knight and Mount Lewin, and is estimated to be 433mt at an average Fe grade of 56.84%. These deposits were announced on 18 August 2017 and 8 January 2015. Details of the Mineral Resources including commentary on the JORC Table 1 assessment criteria can be found in the original announcements. Fortescue confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Fortescue confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Nyidinghu location and geology

An updated Mineral Resource estimate has been produced for Nyidinghu. The Mineral Resource estimate is reported in accordance with the JORC Code and is classified as Measured, Indicated and Inferred. Infill drilling in the project area has led to an increase of the tonnes classified as Indicated from 575mt to 963mt, an increase of 388mt. The Nyidinghu deposit is estimated to be 2,461mt at an average Fe grade of 57.5%.

Nyidinghu is located approximately 40km south of our operations at Christmas Creek and 100km northwest of Newman in the central Pilbara region of Western Australia, Figure 5.

Mineralisation within the Nyidinghu deposit occurs as DID, CID and BID. BID mineralisation is hosted by the Joffre, Whaleback Shale and Dales Gorge members of the Brockman Iron Formation. The bedded stratigraphy is broken up into fault blocks controlled by two generations of northeast and northwest striking faults which show vertical displacements in the order of 50m to 100m. The majority of the mineralisation is associated with the BID and occurs as a supergene zone near the base of the overburden. The CID mineralisation overlies much of the BID material and generally trends northeast. The mineralisation extends to the eastern, western and southern tenement boundaries, resulting in mineralisation dimensions of approximately 7km in a northwest southeast direction and 4.5km in the northeast southwest direction. The mineralisation remains open to the north. Mineralisation occurs from surface and extends to depths of up to 300m. The BID mineralisation has an average thickness of 85m.

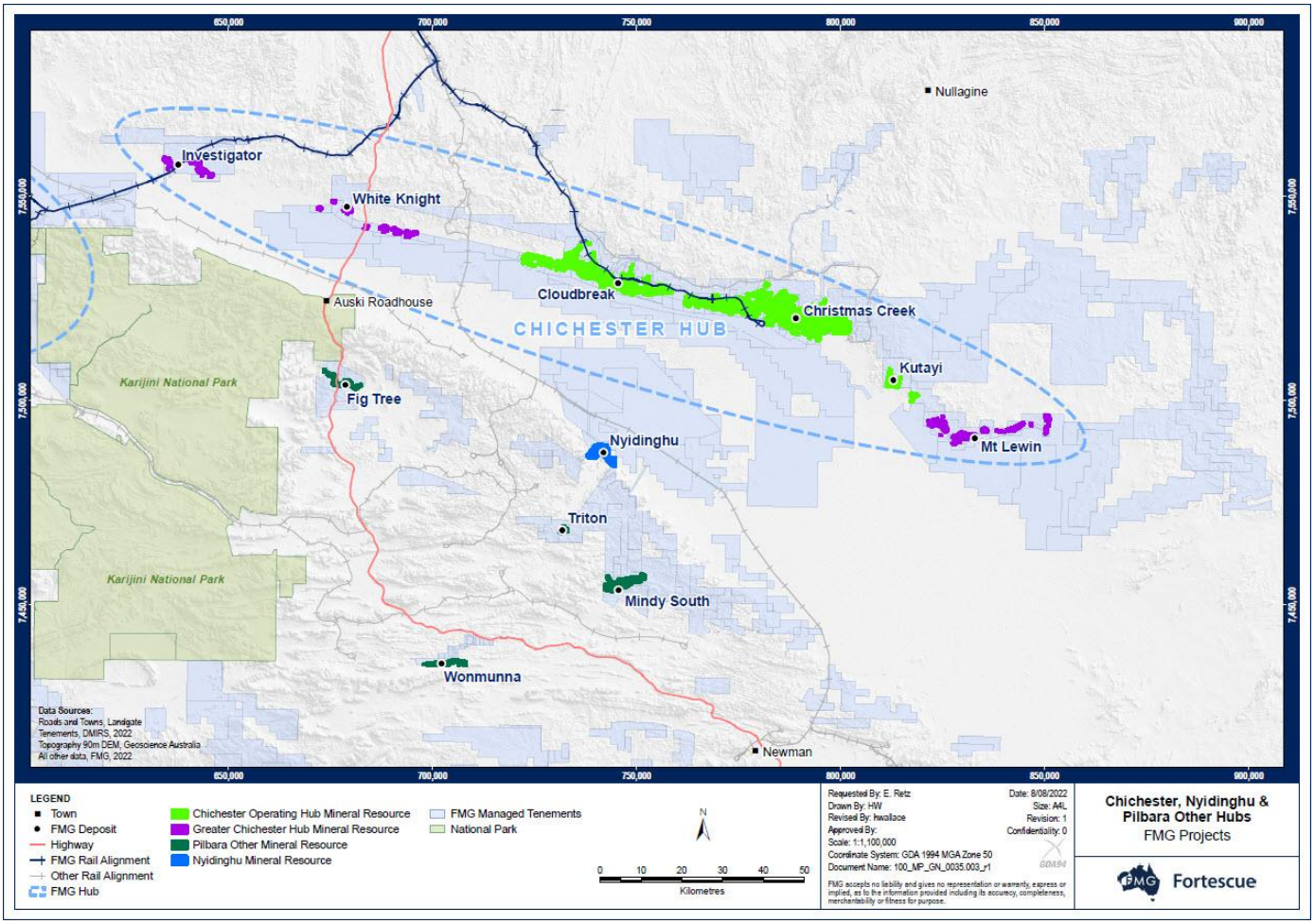

Figure 5: Chichester, Nyidinghu and Pilbara Other Hub deposits

Pilbara Other Hub location and geology

New and updated estimates have been produced for deposits in the Pilbara Other Hub. A Mineral Resource estimate has been produced for the new Triton deposit and updated Mineral Resource estimates have been produced for the Mindy South and Wonmunna deposits. Areas identified as containing new sites of heritage significance have been excluded from reporting at Fig Tree. The Mineral Resource estimates are reported in accordance with the JORC Code and are classified as Inferred. Overall there is an increase of 374mt to the Pilbara Other Hub to 1,112mt at an average Fe grade of 57.9%.

Mindy South is located approximately 55km northwest of Newman and 75km south of our Cloudbreak operations in the central Pilbara region of Western Australia. Triton is located approximated 65km south of Cloudbreak. Wonmunna is located approximately 75km west of Newman and 100km southwest of Cloudbreak. Fig Tree is located approximately 75km southwest of Cloudbreak, Figure 5.

Mindy South and Triton are located in the eastern Hamersley Ranges in a zone of highly folded Brockman Iron Formation. Mineralisation at Mindy South occurs as predominantly BID with minor DID. The BID mineralisation is hosted by the Joffre, Whaleback Shale and Dales Gorge Members of the Brockman Iron Formation. Mineralisation is distributed variably within an area of approximately 10km along strike and 2km across strike. Mineralised pods range from 200m to 3500m along strike and 200m to 600m across strike. BID mineralisation occurs at surface and extends of depth of up to 120m below surface.

The BID mineralisation has an average thickness of 30m. DID mineralisation overlies the BID and has an average thickness of 10m. Mineralisation at Triton occurs as BID within the Joffre Member of the Brockman Iron Formation. Mineralisation occurs as a series of pods ranging from 400m to 1,500m along strike and 350m to 500m across strike. Mineralisation occurs at surface and extends to depths of around 100m below surface.

Wonmunna is in the eastern Hamersley Province on the southern limb of the regional Wonmunna Anticline, mineralisation occurs as BID with some DID. The BID mineralisation is hosted by the Dales Gorge Member of the Brockman Iron Formation and the Newman, MacLeod and Nammuldi Members of the Marra Mamba Iron Formation. Minor BID mineralisation is also hosted by the West Angela Member of the Wittenoom Formation. Mineralisation covers an area approximately 10km along strike and 800m across strike. The Marra Mamba mineralisation extends to depths of up to 130m with an average thickness of 25m and the Dales Gorge mineralisation extends to depths of 210m with an average thickness of 45m.

Mineralisation within the Fig Tree deposit is hosted by buried CID. The CID is in a valley bounded by hills of Brockman Iron Formation. The channel covers an area of 13km in length and the average width of mineralisation across the valley is 500m. The mineralisation extends to depths of up to 70m.

Greater Solomon Hub location and geology

Mineral Resources at Serenity and Sheila Valley in the Greater Solomon Hub are updated to exclude tonnes within areas identified as containing new sites of heritage significance. The Greater Solomon Hub is estimated to be 2,416mt at an average Fe grade of 56.8%.

There has been no change to the stated Mineral Resources in the remaining deposits Mount MacLeod, Stingray, Cerberus and Raven in the Greater Solomon Hub, these were announced on 21 August 2020 and 20 May 2014. Details of the Mineral Resources including commentary on the JORC Table 1 assessment criteria can be found in the original announcements. Fortescue confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Fortescue confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

The Serenity and Sheila Valley deposits are located approximately is 20-50km west of our Solomon operations in the Pilbara region of Western Australia, Figure 6. Mineralisation within these deposits is hosted by buried CID, BID and DID. Outcropping geology in the area is the Dales Gorge, Whaleback Shale and Joffre Members of the Brockman Iron Formation which contain BID mineralisation. Incised into this bedrock geology are large channel systems which contain the DID and CID mineralisation. The width of mineralisation across the valleys is up to 2km. Mineralisation occurs from surface and up to depths of approximately 200m. The defined mineralised units are between 20m and 150m thick with an average thickness of 30m.

The deposits consist of a series of northwest-southeast trending valleys between 5km and 20km in length with a central north-south channel. The width of mineralisation across the valley is up to 2km. Mineralisation occurs from surface and up to depths of approximately 200m. The defined mineralised units are between 20m and 150m thick with an average thickness of 30m.

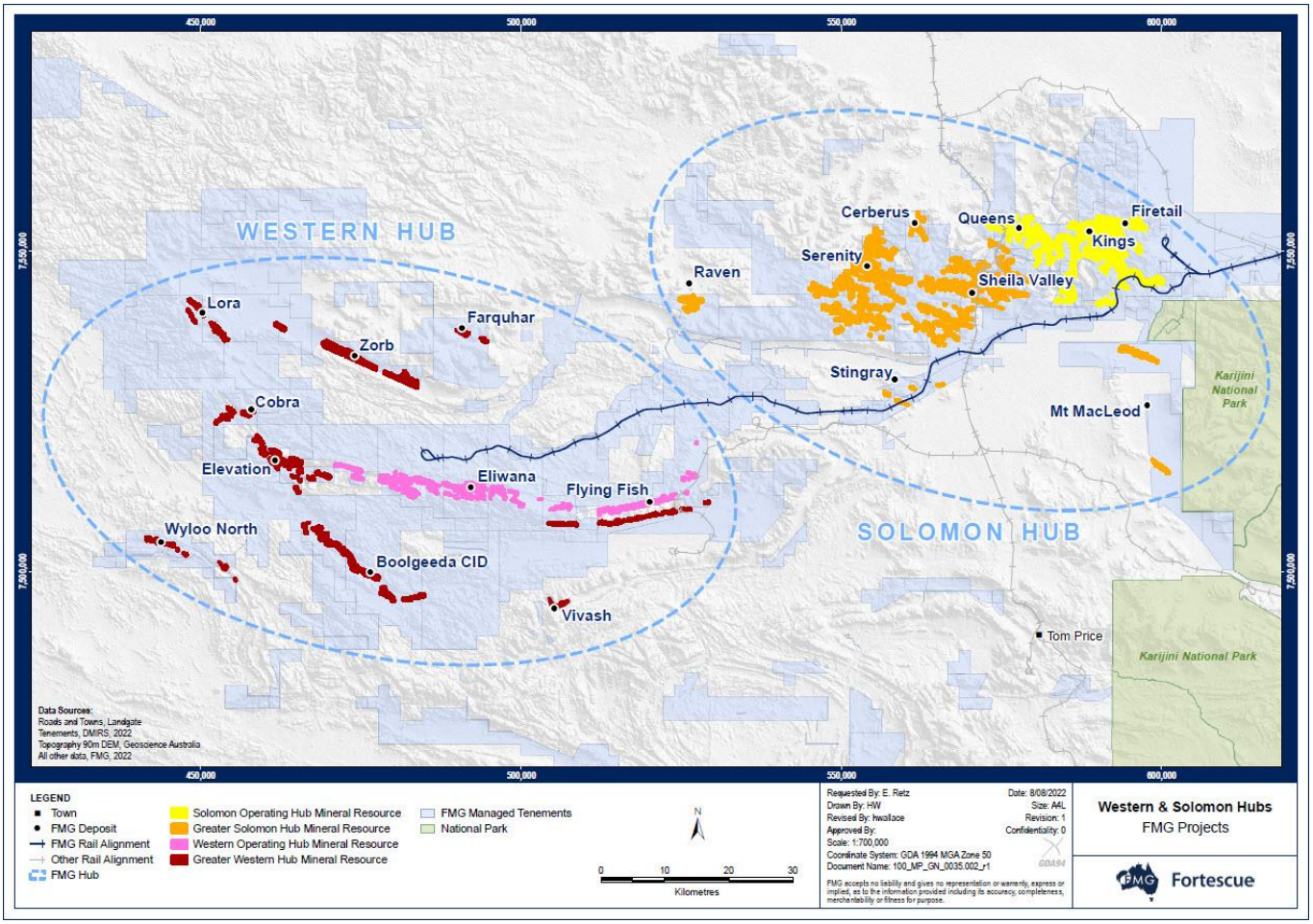

Figure 6: Western and Solomon Hub deposits

Greater Western Hub location and geology

Mineral Resources at the Elevation deposit in the Greater Western Hub are updated to exclude tonnes within areas identified as containing new sites of heritage significance. The Greater Western Hub is estimated to be 1,960mt at an average Fe grade of 56.8%.

There has been no change to the stated Mineral Resources in the remaining deposits Flying Fish South, Cobra, Lora, Zorb, Farquhar, Boolgeeda CID, Vivash and Wyloo North in the Greater Western Hub, these were announced on 21 August 2020, 17 August 2018 and 18 August 2017. Details of the Mineral Resources including commentary on the JORC Table 1 assessment criteria can be found in the original announcements. Fortescue confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Fortescue confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The Elevation deposit is located approximately is 25km west of our Eliwana operations in the Pilbara region of Western Australia on the western margin of the Hamersley Basin, Figure 6. The deposit contains BID and CID mineralisation with minor detrital iron deposit (DID) mineralisation within the project area.

The BID mineralisation is hosted by the Joffre, Whaleback Shale and Dales Gorge Members of the Brockman Iron Formation and the Newman and Nammuldi members of the Marra Mamba Iron Formation. The CID occurs as a series of mesas rising to 70m above the valley floor, mineralisation occurs at surface and to depths of 60m. The BID mineralisation occurs in a series of pods ranging from 200m to 2km along strike east to west and 200m to 600m across strike and occur from surface to depths of up to 100m.

Data

Drill samples are from Reverse Circulation (RC) drilling rigs with cone splitters. At Nyidinghu RC drill holes have been drilled predominantly on a 50m × 100m and 100m × 100m spaced grid, with some areas on a 25m × 25m, 50m × 50m and 100m × 200m spaced grid. At the Pilbara Other Hub projects RC drill holes have been drilled on a nominal 100m × 100m, 200m × 100m and 400m × 100m spaced grid. At the Greater Solomon Hub projects RC drill holes have been drilled on a nominal 100m × 100m, 200m × 100m and 400m × 100m spaced grid, with some areas with some areas on a 25m × 25m and 50m × 50m spaced grid at Serenity. At the Greater Western Hub projects RC drill holes have been drilled on a nominal 200m × 100m and 400m × 100m spaced grid, with some areas on a 100m × 50m and 100m × 100m spaced grid.

All data is captured electronically and must pass extensive quality assurance and quality control (QAQC) procedures. QAQC is an ongoing analysis and includes validation of drill hole collar coordinates, field certified reference materials (CRM), laboratory CRM, field duplicates, twin holes as well as 'round robin' checks between laboratories. No major issues were identified with precision, accuracy, or bias. The estimations incorporate all the validated RC holes drilled in the area by Fortescue that have collar and assay information loaded into the acQuire database. Geological logging, geochemistry and geophysical data were used to identify the stratigraphic units which were then modelled in 3D.

Grades estimated in the models were Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, K_2O, TiO_2, Na_2O, S and LOI total. However, only Fe, SiO_2, Al_2O_3, P and LOI total are quoted here as the other elements are not considered significant. Variography and detailed statistics using Snowden Supervisor software were used to determine the estimation parameters for the grade modelling. Ordinary Kriging and inverse distance methods were used as modelling techniques to estimate grades. Estimation was done using Maptek Vulcan software.

Density has been derived from down-hole geophysical measurements throughout the deposits, bulk density measurements on diamond core has also been used for projects where this work has been completed. At Nyidinghu down-hole geophysical measurements and bulk density measurements have been used to derive the applied density values. The Pilbara Other Hub deposits down-hole geophysical measurements have been compared with down-hole geophysical measurements and bulk density measurements on diamond core drilled at the analogous Solomon and Eliwana deposits. The Greater Solomon Hub deposits down-hole geophysical measurements have been compared with down-hole geophysical measurements and bulk density measurements on diamond core drilled at the nearby and analogous Solomon deposits. The Greater Western Hub deposits down-hole geophysical measurements have been compared with down-hole geophysical measurements and bulk density measurements on diamond core drilled at the nearby and analogous Eliwana deposit. Average rounded densities by geological unit and mineralisation have been applied globally to the models.

The cut-offs used to report these Mineral Resources vary slightly across the deposits to deliver similar grades to our current production specifications. At Nyidinghu all BID and CID is reported at greater than or equal to 52% Fe, and all DID is reported at greater than or equal to 54% Fe. At Mindy South and Triton all BID is reported at greater than or equal to 50% Fe, and all DID is reported at greater than or equal to 54% Fe. At Wonmunna BID is reported at greater than or equal to 50% Fe and 54% Fe within different stratigraphic units, and all DID is reported at greater than or equal to 54% Fe. At Fig Tree all CID is reported at greater than or equal to 54% Fe.

At Serenity all CID and BID is reported at greater than or equal to 50% Fe, and all DID is reported at greater than or equal to 54% Fe. At Sheila Valley all BID is reported at greater than or equal to 50% Fe, and all DID and CID is reported at greater than or equal to 54% Fe. At Elevation all BID is reported at greater than or equal to 50% Fe, all DID is reported at greater than or equal to 54% Fe, and CID is reported at greater than or equal to 54% Fe and 53% Fe within different parts of the project area.

Mineral Resource

The estimate at Nyidinghu has been classified as a Measured, Indicated and Inferred Mineral Resource. The estimates at Mindy South, Triton, Wonmunna and Fig Tree in the Pilbara Other Hub have been classified as Inferred Mineral Resources. The estimate at Serenity in the Greater Solomon Hub has been classified as an Indicated and Inferred Mineral Resource, and the estimate at Sheila Valley has been classified as an Inferred Mineral Resource. The estimate at Elevation in the Greater Western Hub has been classified as an Inferred Mineral Resource. These estimates are all reported in accordance with the JORC Code. The classification is derived from consideration of the confidence in geological and mineralisation continuity, sample spacing, sample statistics, estimation parameters, interpretational uncertainties, mapping and the potential for economic extraction.

The Mineral Resource inventory compared with the previous reporting period for the deposits within each reporting Hub is shown in the following tables. The Mineral Resource inventory for Nyidinghu is shown in Table 5. The Mineral Resource inventory for the Pilbara Other Hub is shown in Table 6. The Mineral Resource inventory for the Greater Solomon Hub is shown in Table 7. The Mineral Resource inventory for the Greater Western Hub is shown in Table 8.

Table 5: Nyidinghu Hub Mineral Resources Development Properties - Hematite - at 30 June 2022

	June 2022						June 2021					
Project	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**
Nyidinghu Measured												
Nyidinghu	22	59.7	3.53	2.09	0.141	8.1	22	59.7	3.56	2.08	0.140	8.1
Nyidinghu Indicated												
Nyidinghu	963	57.9	4.57	3.10	0.149	8.6	575	58.0	4.60	2.97	0.148	8.5
Nyidinghu Inferred												
Nyidinghu	1,476	57.2	5.09	3.35	0.145	8.8	1,878	57.1	5.17	3.41	0.148	8.8
Nyidinghu Combined												
Total	**2,461**	**57.5**	**4.87**	**3.24**	**0.147**	**8.7**	**2,475**	**57.3**	**5.02**	**3.30**	**0.148**	**8.7**

Notes in reference to table

- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Table 6: Pilbara Other Hub Mineral Resources Development Properties - Hematite - at 30 June 2022

	June 2022						June 2021					
Project	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**
Pilbara Other Inferred												
Mindy South	596	57.8	7.28	2.65	0.131	6.8	279	58.1	7.25	2.54	0.134	6.6
Triton	73	58.4	6.38	2.27	0.120	7.2	-	-	-	-	-	-
Wonmunna	261	59.7	4.32	2.89	0.085	6.8	266	58.7	5.08	3.24	0.085	7.0
Fig Tree	182	55.7	7.20	1.88	0.078	10.9	193	55.7	7.23	1.86	0.077	10.9
Total	**1,112**	**57.9**	**6.51**	**2.56**	**0.111**	**7.5**	**738**	**57.7**	**6.46**	**2.61**	**0.101**	**7.9**

Notes in reference to table

- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Table 7: Greater Solomon Hub Mineral Resources Development Properties - Hematite - at 30 June 2022

	June 2022						June 2021					
Project	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**
Greater Solomon Indicated												
Serenity	254	56.6	6.70	3.45	0.082	8.3	254	56.6	6.70	3.45	0.083	8.3
Greater Solomon Inferred												
Serenity	1,043	56.4	7.51	3.81	0.083	7.2	1,146	56.4	7.53	3.83	0.082	7.1
Sheila Valley	684	56.9	6.82	4.05	0.086	7.0	847	57.1	6.69	4.06	0.087	6.9
Cerberus	76	56.7	6.53	4.48	0.076	7.1	76	56.7	6.53	4.48	0.076	7.1
Mt MacLeod	201	57.4	4.95	3.02	0.057	8.7	201	57.4	4.95	3.02	0.057	8.7
Stingray	36	58.5	5.05	2.56	0.052	8.2	36	58.5	5.05	2.56	0.052	8.2
Raven	122	58.8	5.73	2.76	0.112	6.9	122	58.8	5.73	2.76	0.112	6.9
Sub Total	**2,162**	**56.8**	**6.88**	**3.76**	**0.082**	**7.3**	**2,427**	**56.9**	**6.87**	**3.79**	**0.083**	7.2
Greater Solomon Combined												
Total	**2,416**	**56.8**	**6.86**	**3.72**	**0.082**	**7.4**	**2,682**	**56.9**	**6.85**	**3.76**	**0.083**	**7.3**

Notes in reference to table

- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Table 8: Greater Western Hub Mineral Resources Development Properties - Hematite - at 30 June 2022

	June 2022						June 2021					
Project	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**	**In-situ Tonnes (mt)**	**Iron Fe %**	**Silica SiO_2 %**	**Alumina Al_2O_3 %**	**Phos P %**	**LOI %**
Greater Western Indicated												
Cobra	99	59.1	5.32	2.45	0.162	7.1	99	59.1	5.32	2.45	0.162	7.1
Greater Western Inferred												
Flying Fish South	154	57.7	6.74	3.21	0.115	6.8	154	57.7	6.74	3.21	0.115	6.8
Vivash	96	58.7	6.21	3.03	0.104	6.2	96	58.7	6.21	3.03	0.104	6.2
Elevation	324	57.2	5.52	2.95	0.085	8.8	332	57.2	5.50	2.96	0.085	8.9
Cobra	96	57.3	6.82	3.10	0.130	7.4	96	57.3	6.82	3.10	0.130	7.4
Lora	174	58.6	5.50	3.12	0.154	6.9	174	58.6	5.50	3.12	0.154	6.9
Zorb	337	54.6	6.57	3.14	0.040	11.2	337	54.6	6.57	3.14	0.040	11.2
Farquhar	58	58.7	5.19	3.12	0.117	7.2	58	58.7	5.19	3.11	0.118	7.2
Boolgeeda	490	55.4	5.92	2.84	0.043	11.4	490	55.4	5.92	2.84	0.043	11.4
Wyloo North	131	59.6	5.85	2.66	0.116	5.6	101	60.4	5.38	2.60	0.107	5.0
Sub Total	**1,860**	**56.7**	**6.03**	**2.99**	**0.081**	**9.1**	**1,868**	**56.7**	**6.02**	**2.99**	**0.081**	9.1
Greater Western Combined												
Total	**1,960**	**56.8**	**5.99**	**2.96**	**0.085**	**9.0**	**1,968**	**56.8**	**5.99**	**2.96**	**0.085**	**9.0**

Notes in reference to table

- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Mineral Resources for Development Properties as of 30 June 2022 are shown in Table 9. In accordance with the requirements of the JORC Code for reporting Mineral Resources, Table 1 Checklist of Assessment and Reporting Criteria for each estimate is provided in the attachment.

Table 9: Total Mineral Resources Development Properties - Hematite - at 30 June 2022

	June 2022						June 2021					
	In-situ Tonnes (mt)	Iron Fe %	Silica SiO_2 %	Alumina Al_2O_3 %	Phos P %	LOI %	In-situ Tonnes (mt)	Iron Fe %	Silica SiO_2 %	Alumina Al_2O_3 %	Phos P %	LOI %
Greater Chichester												
Measured	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	433	56.4	7.10	3.77	0.058	7.0	433	56.4	7.10	3.77	0.058	7.0
Total	**433**	**56.4**	**7.10**	**3.77**	**0.058**	**7.0**	**433**	**56.4**	**7.10**	**3.77**	**0.058**	**7.0**
Greater Solomon												
Measured	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	254	56.6	6.70	3.45	0.082	8.3	254	56.6	6.70	3.45	0.083	8.3
Inferred	2,162	56.8	6.88	3.76	0.082	7.3	2,427	56.9	6.87	3.79	0.083	7.2
Total	**2,416**	**56.8**	**6.86**	**3.72**	**0.082**	**7.4**	**2,682**	**56.9**	**6.85**	**3.76**	**0.083**	**7.3**
Greater Western												
Measured	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	99	59.1	5.32	2.45	0.162	7.1	99	59.1	5.32	2.45	0.162	7.1
Inferred	1,860	56.7	6.03	2.99	0.081	9.1	1,868	56.7	6.02	2.99	0.081	9.1
Total	**1,960**	**56.8**	**5.99**	**2.96**	**0.085**	**9.0**	**1,968**	**56.8**	**5.99**	**2.96**	**0.085**	**9.0**
Nyidinghu												
Measured	22	59.7	3.53	2.09	0.141	8.1	22	59.7	3.56	2.08	0.140	8.1
Indicated	963	57.9	4.57	3.10	0.149	8.6	575	58.0	4.60	2.97	0.148	8.5
Inferred	1,476	57.2	5.09	3.35	0.145	8.8	1,878	57.1	5.17	3.41	0.148	8.8
Total	**2,461**	**57.5**	**4.87**	**3.24**	**0.147**	**8.7**	**2,475**	**57.3**	**5.02**	**3.30**	**0.148**	**8.7**
Pilbara Other												
Measured	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	1,112	57.9	6.51	2.56	0.111	7.5	738	57.7	6.46	2.61	0.101	7.9
Total	**1,112**	**57.9**	**6.51**	**2.56**	**0.111**	**7.5**	**738**	**57.7**	**6.46**	**2.61**	**0.101**	**7.9**
Total Mineral Resources Development Properties - Hematite												
Measured	22	59.7	3.53	2.09	0.141	8.1	22	59.7	3.56	2.08	0.140	8.1
Indicated	1,317	57.7	5.04	3.12	0.137	8.5	929	57.7	5.25	3.05	0.132	8.3
Inferred	7,043	57.0	6.23	3.28	0.098	8.1	7,345	56.9	6.19	3.37	0.099	8.1
Total	**8,382**	**57.1**	**6.04**	**3.25**	**0.104**	**8.1**	**8,296**	**57.0**	**6.08**	**3.33**	**0.103**	**8.1**

Notes in reference to table

- The Greater Chichester Mineral Resources includes the Investigator, White Knight and Mount Lewin deposits.
- The Greater Solomon Mineral Resource includes the Serenity, Sheila Valley, Mount MacLeod, Cerberus, Stingray and Raven deposits.
- The Greater Western Mineral Resources includes the Flying Fish South, Vivash, Cobra, Lora, Zorb, Farquhar, Elevation, Boolgeeda CID and Wyloo North deposits.
- The Pilbara Other Mineral Resources includes the Fig Tree, Mindy South, Triton and Wonmunna deposits.
- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Mineral Resources – Magnetite

Geology and mineralisation

Iron mineralisation at Iron Bridge occurs primarily within the Pincunah Member which outcrops across the entire project tenement. It is often masked by cemented caps of ferruginous weathered BIF, silcrete and detritus. A surficial weathered zone forms in upper (20–60 m) horizons dominated by maghemite and kenomagnetite, hematite and goethite after magnetite.

The hangingwall of the Pincunah Member comprise undifferentiated rocks of the Kangaroo Caves Formation and is composed of BIF bands interlayered with laminated, micro to mesobanded shales and chert. BIF units are up to 15 m in thickness and occur most commonly immediately adjacent to the Pincunah Member contact, while the remainder of the formation is dominated by shales and cherts.

The footwall of the Pincunah Member consists of a sequence of shale and sandstone layers, termed the Eastern Shale and Quartzite, grading upwards into the sandstones and conglomerates of the Corboy Formation. Outcrop of the contact is marked by a high-relief zone of silicification before transitioning into white interbedded shale and sandstone beds with fine scale mesobanding and laminations.

Primary mineralisation occurs as disseminated grains and aggregates of magnetite micro-bands with subordinate gangue phases at concentrations of 30–60% magnetite (by volume). Lower grade mineralisation occurs within gangue dominant micro-bands with similar texture to primary mineralisation with a range of 1–30% magnetite.

Secondary magnetite occurrences are observed in association with quartz and stilpnomelane as well as monomineralic cross-cutting veins and generally forms coarser sub-euhedral grains.

Pincunah Member mineralisation has been geologically defined into Western, Middle and Eastern units according to assay results and geophysical logging. Each unit is interpreted to be conformable within the Pincunah Member and adjacent stratigraphy and are intersected across the entire lease. The Western and Eastern units comprise the high-grade mineralised domains, while the Middle zone is typically lower grade and often barren.

The interpretation of the geological surfaces relied on geomorphological expression, airborne and downhole geophysical logging, and assays, further aiding the delineation between the mineralised Eastern and Western Pincunah units and the barren Middle zone of the Pincunah Member. Fault contacts were interpreted from high resolution aeromagnetic surveys and where possible confirmed in outcrop.

Data

The Mineral Resource estimate for each deposit is based primarily on reverse circulation (RC) drilling. In addition, several PQ diamond core holes have been drilled for geometallurgical testwork and to verify geological and grade continuity. Drill traverses of the Pincunah Member are predominantly oriented east-west from North Star North to South Star and oriented southwest-northeast within the West Star area. Drill hole spacing ranges from 800m × 200m down to 25m × 25m depending on the stage of development ahead of mining. Drill hole collar locations were surveyed using a base station differential GPS with collar accuracies to within 5cm (laterally and vertically). The majority of holes have been surveyed using downhole gyro to eliminate magnetic interference from the magnetite-bearing BIFs.

Drilling completed from 2008 to 2017 are drilled westward or down dip of mineralisation based on a previous geological interpretation. Recent holes and those within the Eastern Pincunah, which account for the majority of drilled metres, are largely drilled perpendicularly to the current geological interpretation.

RC drill sampling was conducted under the supervision of Fortescue personnel, with whole sample processing through rig-mounted cone splitters to produce two 3–5 kg splits per 2m interval.

Separate assay (standard XRF, SatMagan, Davis Tube Recovery test (DTR)) and quality assurance/quality control (QAQC) samples were split. Most RC sample intervals were logged as being dry with very little groundwater encountered.

The 2m RC samples were dried and crushed to 3.35mm and subsampled with one 150g subsample used for standard XRF assay over 2m. A second 150g subsample was composited with an adjacent sample (i.e. 4m composite) for Povey pulsed pulverising to a nominal P_{98} of 53µm for DTR and sizing analysis.

The following analytes have been assayed: Fe, SiO_2, Al_2O_3, P, MnO/Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, As, Ba, Cl, Co, Cr, Cu, Ni, Pb, Sn, Sr, V, Zn, Zr, FeO, Satmagan/magnasat (Fe_3O_4), and three loss on ignitions (LOIs) at 371°C, 650°C and 1,000°C, plus total LOI.

DTR concentrate and tails samples are collected from the Davis Tube process and then assayed using XRF, and reported analyses include all listed elements for each of DTR concentrate and tails grades.

Mineral Resource estimation

A block model was constructed based on a parent block size of 20m(E) x 25m(N) x 10m(RL) with a minimum sub-block size of 4m(E) x 5m(N) x 2.5m(RL) to ensure adequate volume resolution. A parent block size of 40m(E) x 100m(N) x 10m(RL) was used for the South Star area. The parent block sizes are based on the nominal drillhole spacing along with consideration of the geometry of the mineralisation and the results of a kriging neighbourhood analysis.

All variables were estimated using ordinary block kriging (parent cell estimates) with dynamic anisotropy used to locally adjust the orientation of the search ellipse and variogram models due to variations in the dip and strike of the mineralised zone between each fault block. The initial search ellipse ranges were defined based on the results of the variography and assessment of the data coverage for each domain. For the purposes of the estimation, the domain and oxide boundaries were treated as hard boundaries.

To ensure the DTR concentrate and tails grade estimates account for the different sample support caused by the mass recovery, these variables were estimated as accumulations (concentrate accumulation = variable x mass recovery; tails accumulation = variable x (1 – mass recovery)). In addition, separate mass recovery estimation runs were performed for each full set of accumulation variables so that both the mass recovery and accumulation estimates used identical samples during interpolation and prevent over-smoothing of one variable in comparison to the other. The concentrate and tails grades were then back-calculated by dividing the block estimated accumulation with the paired estimated mass recovery. The final mass recovery estimate in the block model uses all available mass recovery data.

The Mineral Resource has been classified as a combination of Measured, Indicated and Inferred Resources. The classification was developed, based on an assessment of the nature and quality of the drilling and sampling methods; drill spacing and orientation; confidence in the understanding of the underlying geological and grade continuity; analysis of the QAQC data; confidence in the estimate of the mineralised volume; and results of the model validation.

Mineral Resource statement

The Mineral Resource for the North Star, Eastern Limb, West Star and Glacier Valley deposits (69 per cent Fortescue) was completed by Snowden Mining Industry Consultants Pty Ltd in 2022. The remodelling of the resource resulted in an upgrade to the Indicated and Inferred Resources to higher confidence classifications, compared with the previous model. These changes resulted from an improved geological interpretation for the Eastern limb area derived from mapping, geophysics and new assay data from the drilling completed in 2021, and changes to the Mineral Resource classification such that the revised classification aligns with the additional drilling and is consistent with the geological and geostatistical confidence.

As part of Fortescue's ongoing review process, a group of heritage sites in the southern portion of the Glacier Valley area have been excluded from the Mineral Resource using engineered shapes to account for the pit slope.

Further to the above, the magnetite Mineral Resource now includes the maiden Mineral Resource for the South Star deposit which is located along strike and to the south of Glacier Valley (Figure 7) across two tenements, E45/4025 and E45/3084. One of these tenements, E45/4025, is held by Fortescue through its wholly owned subsidiary FMG Pilbara Pty Ltd. The drilling program undertaken during 2021 across E45/3084 and E45/4025 tenements has identified a Mineral Resource of 898Mt at 22% mass recovery above a 9% mass recovery cut-off.

All 2022 magnetite Mineral Resources are reported within a high revenue factor pit shell (US$200/t) to constrain the reportable resource to mineralisation that has reasonable prospects for economic extraction by open-pit mining and adjusted for depletion of mined oxide tonnes.

As of 30 June 2022, the total magnetite Mineral Resource, which includes South Star, is estimated to be 6,184mt at an average mass recovery of 22.7%, reported above a 9% mass recovery cut-off.

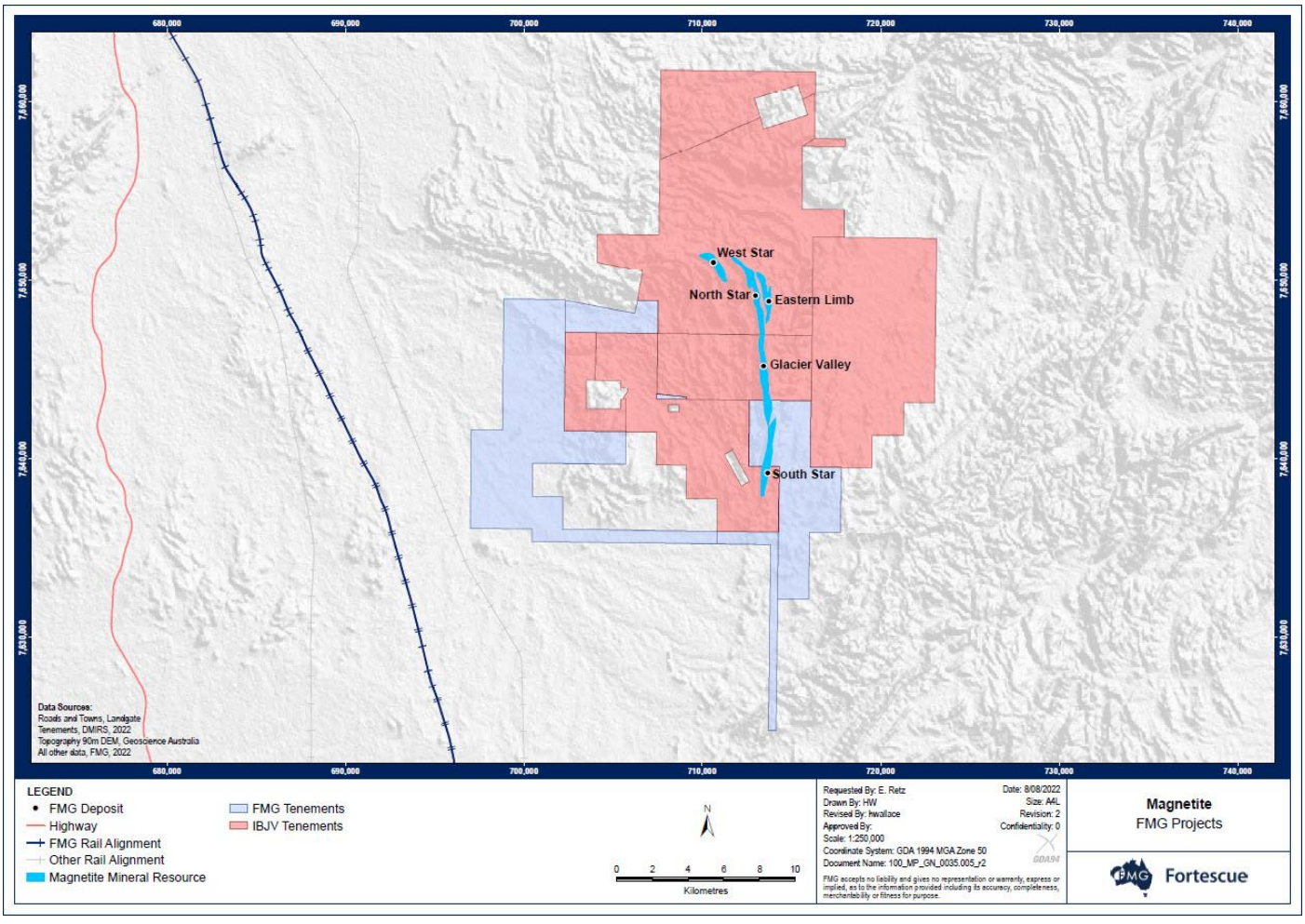

Figure 7: Magnetite Mineral Resource outline

Table 10: Mineral Resources Operating Properties – Magnetite – as at 30 June 2022

	June 2022							June 2022						
	In-situ tonnes (Mt)	Fortescue proportion	Fortescue attributable tonnes (Mt)	DTR mass recovery (%)	In-situ Iron (% Fe)	In-situ Silica (% SiO_2)	In-situ Alumina (% Al_2O_3)	In-situ tonnes (Mt)	Fortescue proportion	Fortescue attributable tonnes (Mt)	DTR mass recovery (%)	In-situ Iron (% Fe)	In-situ Silica (% SiO_2)	In-situ Alumina (% Al_2O_3)
North Star and Eastern Limb (M45/1226)														
Measured	260	69%	179	25.2	31.3	41.4	2.85	109	69%	75	25.0	33.2	40.2	2.06
Indicated	764	69%	527	24.6	30.2	41.3	2.70	825	69%	569	24.5	30.3	41.3	2.74
Inferred	2,300	69%	1,587	23.8	29.8	41.7	2.85	2,217	69%	1,530	24.2	29.8	41.5	2.84
Total	**3,324**	**69%**	**2,294**	**24.1**	**30.0**	**41.6**	**2.81**	**3,150**	**69%**	**2,174**	**24.3**	**30.1**	**41.4**	**2.79**
Glacier Valley (M45/1244 & M45/1226)														
Measured	54	69%	37	25.4	35.0	39.3	1.61	-	-	-	-	-	-	-
Indicated	272	69%	188	23.7	33.1	39.2	1.71	191	69%	132	23.7	33.4	39.4	1.73
Inferred	1,033	69%	712	19.4	31.5	40.0	2.15	1,480	69%	1,021	20.3	31.9	39.6	1.94
Total	**1,359**	**69%**	**938**	**20.5**	**32.0**	**39.8**	**2.04**	**1,671**	**69%**	**1,153**	**20.6**	**32**	**39.6**	**1.92**
West Star (M45/1226)														
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	602	69%	416	20.3	28.0	43.9	3.41	627	69%	433	20.6	28.1	43.8	3.36
Total	**602**	**69%**	**416**	**20.3**	**28.0**	**43.9**	**3.41**	**627**	**69%**	**433**	**20.6**	**28.1**	**43.8**	**3.36**
South Star (E45/3084)														
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	302	69%	208	25.9	32.3	40.9	0.63	-	-	-	-	-	-	-
Total	**302**	**69%**	**208**	**25.9**	**32.3**	**40.9**	**0.63**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
South Star (E45/4025)														
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	596	100%	596	20.7	32.2	40.3	1.07	-	-	-	-	-	-	-
Total	**596**	**100%**	**596**	**20.7**	**32.2**	**40.3**	**1.07**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total Mineral Resources Operating Properties - Magnetite														
Measured	314	-	217	25.3	31.9	41.0	2.64	109	-	75	25.0	33.2	40.2	2.06
Indicated	1,037	-	715	24.4	31.0	40.8	2.44	1,016	-	701	24.3	30.9	41.0	2.55
Inferred	4,833	-	3,519	22.2	30.4	41.4	2.41	4,324	-	2,984	22.3	30.3	41.2	2.61
Total	**6,184**	**-**	**4,451**	**22.7**	**30.6**	**41.3**	**2.43**	**5,448**	**-**	**3,760**	**22.7**	**30.4**	**41.1**	**2.59**

Notes in reference to table

- Magnetite Mineral Resources are reported above a 9% mass recovery cut-off, based on Davis Tube Recovery (DTR) test work.
- Oxide mineralisation above 9% mass recovery comprises approximately 7% of the total Mineral Resource tonnage.
- FY22 magnetite Mineral Resources are reported within a high revenue factor pit shell (US$200/t) to constrain the resource to mineralisation that has reasonable prospects for economic extraction by open-pit mining; for FY21, a high revenue factor pit shell was used to demonstrate potential open-pit mining at depth but was not used to constrain the resource reporting.
- Mineral Resources are reported on a dry-tonnage basis.
- Mineral Resources are reported inclusive of Ore Reserves.
- Figures have been rounded and as a result may not add up to the totals quoted.

Ore Reserves – Magnetite

Ore Reserves

Fortescue magnetite Ore Reserves are from the Iron Bridge project and have been estimated from Measured and Indicated Mineral Resources from within the North Star, Eastern Limb and Glacier Valley deposits. Iron Bridge Ore Reserves are based on the onsite processing of fresh magnetite mineralised material into a saleable concentrate product that is pumped by slurry pipeline to port.

The Ore Reserves estimate was developed in March and April 2022 by the Iron Bridge technical team on the basis of the 2022 resource model using detailed information on mining, geotechnical and metallurgical processing parameters and latest cost assumptions, aligned with the proposed operations strategy.

Mining models

Iron Bridge technical team completed dilution and ore loss modelling using 2022 resource model. The objective of this study was to gain an understanding of the dilution impact of different block sizes by comparing regularised models against the resource model and to recommend a practical Selective Mining unit size (SMU) size.

It is observed that most of the dilution is expected at the transition zones from orebody to hanging wall & footwall, i.e., along dip direction (E-W). The orebody in general is found to be very homogenous with minimal internal waste along strike (N-S) and vertical direction.

Based on the study, 20m x 25m x 10m SMU size was considered for the mining model used for subsequent Ore Reserve work. The selected block size is representative for the mining fleet planned for operations. The origin and orientation of mining model is consistent with the 2022 resource model.

In-situ grades, DTR mass recovery and concentrate grades were estimated in the resource model and were regularised as part of mining model generation. Concentrate tonnes were calculated prior to regularisation in the resource model as In-situ tonnes X DTR Mass Recovery. Combination of weighted average and highest weight aggregation method is used for regularisation. In-situ grades and mass recovery were weighted by In-situ tonnes, while concentrate grades were weighted by concentrate tonnes. Any spatial flagging used highest weight by volume aggregation method.

The ore bodies planned to be mined (North Star, Eastern Limb, and Glacier Valley deposits) are bulk deposits and while some ore loss and dilution may occur along the edges, this edge dilution is accounted for in the regularisation process. No additional dilution and ore loss factor has been applied in the absence of full production and sales history.

Scheduling inventory

A combination of direct-block scheduling (DBS) methodology and conventional pit optimisation software were used to determine the ultimate pit geometry that provides the highest value for a deposit considering parameters such as slope angles, mining, processing, and selling costs, cut-off grades, product prices and plant recoveries.

A combination of incremental value analysis, physical operating constraints and strip ratios are then used to identify the geometry of mining cutbacks inside the final selected pit.

Detailed pit designs were developed for Ultimate pit and mining cutbacks using the guidance from the above-described analysis. The decision on design for internal cutbacks was guided by the combination of above analysis and early operational designs & development strategy. All the designs considered the following key points:

- Geotechnical parameters recommended for the batter heights and angles as well as the berm width
- The size of major mining fleet adopted for the mining operation
- Minimum area for a safe and practical mining and related operation

Scheduling inventory is reported within the detailed ultimate and pit cutback designs, using non-oxide (fresh and transitional) Measured and Indicated Mineral Resource categories as ore, while all non-oxide Inferred Resource class and all oxide resource (irrespective of Mineral Resource category) treated as waste, generating mining costs but contributing no revenue and are excluded from the stated Ore Reserve estimate.

Mine scheduling

A commercial linear programming software package was used to model the mining sequence, the Ore Processing Facility (OPF) and different ore feeds to maximise Net Present Value (NPV) for the nominated parameters and constraints. Major constraints include the nominated concentrate product tonnage and grade specifications, matched to the logistics capacity of the slurry pipeline and port. The material selection to satisfy processing requirements is based on a cut-off grade (on DTR mass recovery) ore definition, derived from mining, processing, and selling costs.

Grade bins by rock type and mass recovery are created to facilitate grade-based blending within specified constraints. The scheduling allows selective stockpiling and reclaiming of targeted quality material at different periods throughout a mine's life to meet shorter term blending requirements. Since mineralisation distributions and presentation will vary with time, so too may the shorter-term effective ore cut-off grade. The Ore Reserve cut-off can be approximated by a DTR mass recovery cut-off that closely reproduces that portion of the scheduling inventory that is converted into specification product over the life of the Ore Reserve schedule. No material with a DTR mass recovery lower than 17% was treated as ore.

Within the North Star mining pits, mining within 100m of the Pilbara Leaf Nosed Bat (PLnB) cave identified as Cave 13 is prohibited by the current Ministerial Approval (Condition 10) until such time it can be demonstrated that ground disturbing activity in the area maintains the viability of populations of PLnB. Baseline environmental studies and data collection are significantly advanced for the Glacier Valley resource and an amendment to the existing Part IV approval is currently being sought for an extension of the mine, waste rock landform, and associated infrastructure for the Glacier Valley deposit. The amended proposal was referred on 27 July 2022 and is awaiting a decision, on the level of assessment, by the Environmental Protection Authority (Western Australia).

At this stage, neither of the above is expected to have a material impact on Ore Reserves as plans have been developed and actions underway to address each of the points. As part of the mine scheduling process, appropriate access delays applied to ore inventory in North Star mining pit within 100m of PLnB cave and Glacier Valley mining area to model the timeframe required for approvals.

Financial Analysis

The scheduling programme utilises revenue and cost (per deposit per activity) information to allow an NPV to be targeted and to allow relative NPV values to be assigned to schedule alternatives, however these do

not constitute a robust valuation. Further financial analysis to determine more realistic absolute financial indicators and sensitivity analysis is performed separately using the quantity and quality data extracted from the scheduler. This analysis is performed by Fortescue's Finance team using audited business valuation models and assumptions.

Sensitivity analysis of the main financial drivers was carried out on the base case valuation and was demonstrated to be robustly NPV positive under all cases tested.

Ore Reserve statement

All Magnetite Ore Reserves are classified as Probable Reserves due to the lack of full-scale production history as no sales or production have occurred for Magnetite as at 30 June 2022 and are quoted on a dry in-situ tonnes basis prior to processing. As at 30 June 2022, Ore Reserves for the project total 844mt at an average mass recovery of 29.6 per cent for a 67.3% Fe grade product, as summarised in Table 11. The Ore Reserve is reported above a 17% mass recovery cut-off grade and includes only non-oxide material.

Table 11: Ore Reserves Operating Properties - Magnetite as at 30 June 2022

	June 2022						June 2021					
	In-situ tonnes (mt)	DTR mass recovery %	Product tonnes (mt)	Product iron Fe %	Product silica SiO_2 %	Product alumina Al_2O_3 %	In-situ tonnes (mt)	DTR mass recovery %	Product tonnes (mt)	Product iron Fe %	Product silica SiO_2 %	Product alumina Al_2O_3 %
North Star and Eastern Limb												
Proved	-	-	-	-	-	-	-	-	-	-	-	-
Probable	642	30.0	193	67.1	5.60	0.30	595	29.7	177	67.0	5.62	0.29
Total	**642**	**30.0**	**193**	**67.1**	**5.60**	**0.30**	**595**	**29.7**	**177**	**67.0**	**5.62**	**0.29**
Glacier Valley												
Proved	-	-	-	-	-	-	-	-	-	-	-	-
Probable	202	28.4	57	68.0	4.54	0.15	122	28.2	34	67.	5.62	0.29
Total	**202**	**28.4**	**57**	**68.0**	**4.54**	**0.15**	**122**	**28.2**	**34**	**67.**	**5.62**	**0.29**
Total Ore Reserves Operating Properties – Magnetite												
Proved	-	-	-	-	-	-	-	-	-	-	-	-
Probable	844	29.6	250	67.3	5.35	0.27	716	29.4	211	67.0	5.62	0.29
Total	**844**	**29.6**	**250**	**67.3**	**5.35**	**0.27**	**716**	**29.4**	**211**	**67.0**	**5.62**	**0.29**

Notes in reference to table

- All current magnetite Ore Reserves fall within the IBJV. As per the Iron Bridge Project agreements, Fortescue owns 69 per cent of the reported Total Magnetite Ore Reserve estimates within the IBJV.
- Magnetite Ore Reserves are derived from Measured and Indicated Mineral Resources reported within a defined pit design.
- Magnetite Ore reserves are based on Mass Recovery expressed as a 17 per cent Davis Tube Recovery (DTR) cut-off.
- Magnetite Ore Reserves are reported on an in-situ dry-tonnage basis.
- Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

Competent Person's Statements

Competent Person's Statements - Operating Properties Hematite

The information in this report that relates to Chichester and Solomon Hub Mineral Resources is based on information compiled by Mr David Frost-Barnes, a Competent Person who is a Member of The Australasian Institute of Mining & Metallurgy. Mr Frost-Barnes is a full-time employee and shareholder of Fortescue Metals Group Ltd. Mr Frost-Barnes has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Frost-Barnes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Western Hub Mineral Resources is based on information compiled by Mr Stuart Robinson who is a Fellow of The Australasian Institute of Mining and Metallurgy, Mr Nicholas Nitschke, Ms Erin Retz and Mr David Frost-Barnes who are Members of The Australasian Institute of Mining and Metallurgy. Mr Robinson, Mr Nitschke, Ms Retz and Mr Frost-Barnes are full-time employees and shareholders of Fortescue Metals Group Ltd. Mr Robinson, Mr Nitschke, Ms Retz and Mr Frost-Barnes have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 Robinson, Mr Nitschke, Ms Retz and Mr Frost-Barnes consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Hematite Ore Reserve is based on information compiled and reviewed by Mr Santhosh Mulky and Mr Mudit Tandon. All Competent Persons are Members of The Australasian Institute of Mining and Metallurgy. Mr Santhosh Mulky and Mr Mudit Tandon are shareholders and full-time employees of Fortescue Metals Group Ltd. Mr Santhosh Mulky and Mr Mudit Tandon have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Santhosh Mulky and Mr Mudit Tandon consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Competent Person's Statement - Development Properties Hematite

The information in this report that relates to Exploration Targets, Exploration Results and Mineral Resources for Developing Properties is based on information compiled by Mr Stuart Robinson who is a Fellow of The Australasian Institute of Mining and Metallurgy, and Mr Nicholas Nitschke, Ms Erin Retz and Mr Stuart Badock who are Members of The Australasian Institute of Mining and Metallurgy. Mr Robinson, Mr Nitschke, Ms Retz and Mr Badock are full time employees and shareholders of Fortescue Metals Group Ltd. Mr Robinson, Mr Nitschke, Ms Retz and Mr Badock have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 Robinson, Mr Nitschke, Ms Retz and Mr Badock consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Competent Person's Statements - Operating Properties Magnetite

The information in this report that relates to magnetite Mineral Resources is based on information compiled by Mr John Graindorge who is a Member of the Australasian Institute of Mining & Metallurgy and Chartered Professional (Geology). Mr Graindorge is a full-time employee and shareholder of Fortescue Metals Group Ltd. Mr Graindorge has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Graindorge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to magnetite Ore Reserves is based on information compiled by Mr Mudit Tandon who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Tandon is a full-time employee and shareholder of Fortescue Metals Group Ltd. Mr Tandon has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Tandon consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1: JORC Code, 2012 Edition – Table 1

Chichester Hub Deposits – Cloudbreak, Christmas Creek and Kutayi

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposits are sampled using Reverse Circulation (RC) and Diamond drill holes (DD). Drill hole spacing ranges from 800m × 200m to a staggered 50m × 50m pattern. In the area of the original test pit this was reduced to 12.5m × 12.5m (plus some at 6.5m × 6.5m). Drilling for local resource models uses a 25m × 25m pattern (where achievable). RC samples only are used for resource estimation. Approximately 30% of holes are downhole geophysically logged. Initial exploration holes were assayed from collar to end of hole. Partway through the exploration program the sampling regime was modified and analysis was restricted to samples with visually higher Fe, subsequent infill holes are sampled in a similar manner. This may mean that not all potentially mineralised material has been analysed.
	All holes are surveyed by qualified surveyors using a Base station Differential GPS, with collar accuracies to within 5 centimetres (laterally and vertically). Analytical standards were used to assist in checking laboratory results. Field duplicates are used to assist with determining sampling quality at the rig. Geophysical probes are calibrated on a regular basis (using static methods and specific calibration holes).
	For RC drilling, samples from 0.5m or 1m intervals pass through cyclone and cone splitter, 2-3kg sample collected in calico bag (~6-7% of samples total volume). Samples from mineralised zones (plus ~3-4m above and below), as selected, are sent for analysis.
Drilling techniques	Standard face sampling hammer drilling samples from ~130mm or ~140mm diameter RC drill holes used for Resource Estimation. Over 600 diamond drill holes have been completed. Some of these were drilled as twins to RC holes, the rest were drilled to provide samples for metallurgical test work, to provide geotechnical information, for downhole geophysical data calibration purposes or to provide density data, they were not incorporated into regional or local models. Most holes were PQ size, core was not oriented as the majority of the holes were drilled vertically. No diamond drill hole data has been used for grade estimation. Drilling of large diameter (Bauer) holes (0.78 or 1m) commenced during the Exploration phase and ceased in ~2010. These holes were limited to shallow parts of the deposit (by working depth of rigs). Samples were primarily used for metallurgical test work, data from these holes was not used in creation of any model.
Drill sample recovery	The quality of each sample is recorded at the time of logging and categorised as either poor, moderate or good.
	No significant issues with sample collection system identified during Exploration drilling or subsequent infill programs. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	There is assumed to be no expected relationship between sample recovery and grade.
Logging	Geological logging was completed by personnel experienced in iron mineralisation, logging is considered to be adequate for resource estimation.
	Quantitative – chemical analysis of samples logged as mineralised, downhole geophysical surveys of approximately 30% of drill holes. Qualitative – logging is completed over the whole drill hole, based on this 'ore' ±3-4m surrounding waste is submitted for analysis. Detailed texture logging of infill drilling ceased during 2017, a smaller data set is now collected. There is some risk of material being mis-logged and therefore not analysed.
	Effectively 100% for RC during Exploration, limited to mineralised intersections ±3-4m surrounding waste during infill programs.
Sub-sampling techniques and sample preparation	The majority of diamond holes were drilled to provide material for metallurgical testwork. No assays from diamond holes were used in the estimates.
	Samples are collected in labelled bags from each 1m of drilling, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are

Criteria	Commentary
	collected using the same technique as dry samples, with thorough cleaning of equipment between samples. Wet samples are allowed to dry before being processed. For drill rigs using riffle splitters, once wet samples are encountered, the splitter is changed to a chisel splitter. Larger samples are collected and later split.
	All sub-sample preparation undertaken by the laboratory performing the sample analysis.
	Field QC procedures involved the use of certified reference material as assay standards together with the collection of duplicate samples.
	During Exploration drilling, field (rig) duplicates were collected at a rate of 1 in 20 samples at Cloudbreak and Christmas Creek, and at a rate of 3 in 100 samples at Kutayi. Analysis of duplicates did not indicate that there were any issues. QA/QC reports are available. For infill drilling, field (rig) duplicates were originally collected every 50 samples, subsequently increased to every 33 samples. Sample numbers are pre-determined, therefore it is possible that not all duplicates will be analysed. Monthly QA/QC reports are now routinely prepared.
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
Quality of assay data and laboratory tests	Various laboratories have been used, including SGS (Christmas Creek and Perth), Ultra Trace (now Bureau Veritas) and Intertek (Cloudbreak, Christmas Creek, Mt Webber, and Perth) and Genalysis (Perth). All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation (or conform with NATA accreditation). All chemical analysis by XRF using 'standard iron ore suite' (reported as Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, MnO (Exploration) or Mn (infill), P and S). Also 3-point LOI (371, 650 & 1,000°C, the analysis at 371ºC was replaced by one at 425ºC in July 2019) by thermogravimetric methods. This is considered to be close to “a total analysis”. From early 2013 As, Pb, Zn, Cu and Cl were also routinely included in sample analysis.
	Details of geophysical tools used for downhole geophysical analysis are available in the drill hole database.
	Exploration (Cloudbreak and Christmas Creek) - Field (rig) duplicates collected 1 in 20 samples. Standards submitted at 1 in every 50 samples. Analysis of duplicates and standards did not indicate that there were any issues. QA/QC reports were prepared. Exploration (Kutayi) - Field (rig) duplicates collected 3 in 100 samples. Standards submitted at 1 in every 100 samples. Analysis of duplicates and standards did not indicate that there were any issues. QA/QC reports were prepared. Infill - Field (rig) duplicates collected 1 in 50 samples. Standards submitted at 1 in every 100 samples (historically). Since ~Q1 2009, field duplicates collected 1 in 33 samples and standards submitted 1 in 50. Sample numbers for duplicates & standards are pre-determined, if they occur in waste in a drill hole they may not end up being submitted to the laboratory for analysis. QA/QC is performed on laboratory analyses prior to accepting the data in the acQuire database. Monthly QA/QC reports are now routinely prepared. Concerns over the quality of a few of the historical standards have been raised. Through investigation it appears that this is due to standard preparation methods, size of standards, and homogenisation issues (similar problems have not been noted in newer standards). Also issues with inadequate round-robin testing resulting in over-precise certified values.
Verification of sampling and assaying	Significant intersections have been visually inspected by senior Fortescue personnel and by independent consultants.
	Approximately 40 RC drill holes were twinned with diamond drill holes. In general there was good correlation between both grade and geology.
	Several different methods/systems have been used to store sample data (including GBIS and an ‘in-house’ system). The sample data is now stored in customised acQuire drill hole databases, which include a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual data validation.
	Conversion of MnO% to Mn% for grade estimation has been made where necessary (mainly exploration data). Samples with analytes reporting below detection limits are given the value of half the detection limit of that analyte.
Location of data points	All holes were surveyed by qualified surveyors using a Base station Differential GPS, with collar accuracies to within 5 centimetres (laterally and vertically) (or better at Kutayi) or Real Time Kinematic GPS with collar accuracies to within 10-30mm (laterally and vertically).

Criteria	Commentary
	Holes for which there is no collar survey data, or where the collar RL is significantly different from the topographic surface, are excluded from regional and local modelling.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The Cloudbreak and Christmas Creek deposits lie within UTM zone 50, The Kutayi deposit lies within UTM zone 51. Drill hole collar elevations are also validated against local topographic data.
	The topography was created from 1 metre contours from LIDAR data (Cloudbreak and Christmas Creek) and 2 metres from a Landgate 20 metre DEM (Kutayi). Vertical accuracy of the LIDAR data is ±0.2 metres.
Data spacing and distribution	NOTE: No Exploration Results Reported. Data spacing reported below is for reported Mineral Resources. Exploration Drilling - Ranges from 800m × 200m down to staggered 50m × 50m. In the area of the test pit this was reduced to 12.5m × 12.5m (plus some at 6.5m × 6.5m). Infill Drilling - Infill commences at 100m × 100m (where Exploration drilling missing), with subsequent infill at 50m × 50m and 25m × 25m. All RC holes were drilled vertically.
	Considered adequate for Resource Modelling. Studies demonstrated that Mineral Resource Classification is closely related to drill hole spacing.
	Samples are not composited prior to analysis.
Orientation of data in relation to geological structure	Sampling considered unbiased in terms of possible geological structures. Drilling is perpendicular to (ie vertical) main geological structure controlling mineralisation (bedding, horizontal).
	No sampling bias is apparent.
Sample security	Consignment notes (sample submission information) generated for each batch of samples. Samples trucked to Perth laboratories, samples delivered directly to site laboratories.
Audits or reviews	Several audits have been undertaken with varying recommendations. Those relating to Exploration drilling concluded that there were no major risk factors relating to the sampling and assaying of the Exploration data. An audit of grade control drilling at Cloudbreak highlighted the lack of routine formal QA/QC reporting. Preparation of monthly QA/QC reports is now standardised and implemented across all operational sites. An independent audit of the CC Resource model has been conducted and found no fatal flaws, in process or output.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The Cloudbreak deposit is located within the following 100% owned Fortescue Exploration and Mining Leases: E45/2497, E45/2498, E46/0590, M45/1082, M45/1083, M45/1102, M45/1103, M45/1104, M45/1105, M45/1106, M45/1107, M45/1124, M45/1125, M45/1126, M45/1127, M45/1128, M45/1138, M45/1139, M45/1140, M45/1141, M45/1142, M45/1263, M46/0356, M46/0357, M46/0401, M46/0402, M46/0404, M46/0407, M46/0408, M46/0409, M46/0410, M46/0411, M46/0449, M46/0450, M46/0451, M46/0452, M46/0453, M46/0454 & M46/542. The Cloudbreak project area is within the external boundaries of the Nyiyaparli and Palyku native title determinations. In 2005, Fortescue entered into comprehensive Land Access Agreements (LAA) with the Nyiyaparli and Palyku Traditional Custodians. The LAAs facilitate the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The LAAs also provide the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. On 15 December 2016, an Indigenous Land Use Agreement (**ILUA**) between Fortescue and the Nyiyaparli People was registered on the National Native Title Tribunal's (NNTT's) Register of Indigenous Land Use Agreements. On 20 March 2020 a subsequent Body Corporate ILUA between Fortescue and Karlka Nyiyaparli Aboriginal Corporation RNTBC was registered on the NNTT's Register of Indigenous Land Use Agreements. On 3 November 2017, an ILUA between Fortescue and Palyku People was registered on the NNTT's Register of Indigenous Land Use Agreements. The Christmas Creek deposit is located within the following 100% owned Fortescue Exploration and Mining Leases: E46/0566, E46/0612, M46/0320, M46/0321, M46/0322, M46/0323, M46/0324, M46/0325, M46/0326, M46/0327, M46/0328, M46/0329, M46/0330, M46/0331, M46/0332, M46/0333, M46/0334, M46/0335, M46/0336, M46/0337, M46/0338, M46/0339, M46/0340, M46/0341, M46/0342, M46/0343, M46/0344, M46/0345, M46/0346, M46/0347, M46/0348, M46/0349, M46/0350, M46/0351, M46/0352, M46/0353, M46/0354, M46/0355, M46/0402, M46/0403, M46/0405, M46/0406, M46/0412, M46/0413, M46/0414, M46/0415, M46/0416, M46/0417, M46/0418, M46/0419, M46/0420, M46/0421, M46/0422, M46/0423, M46/0424 and M46/0534. The Christmas Creek project area is within the external boundaries of the Nyiyaparli native title determination. In 2005, Fortescue entered into a comprehensive Land Access Agreement with the Nyiyaparli Traditional Custodians (**Nyiyaparli LAA**). The Nyiyaparli LAA facilitates the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The Nyiyaparli LAA also provides the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. On 15 December 2016, an ILUA between Fortescue and the Nyiyaparli People was registered on the NNTT's Register of Indigenous Land Use Agreements. On 20 March 2020 a subsequent Body Corporate ILUA between Fortescue and Karlka Nyiyaparli Aboriginal Corporation RNTBC was registered on the NNTT's Register of Indigenous Land Use Agreements. To ensure compliance with the *Aboriginal Heritage Act 1972* (WA)(**AHA**) Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. Within the Christmas Creek mining and resource area heritage surveys have identified places that are highly significant to the Nyiyaparli People; and in some instances, neighbouring Traditional Custodian groups. This includes the ethnographic place Mankarlyirrkurra (ETH-NYI11-001), and Heritage Restricted Zones associated with Kakutungutanta CB10-093 (HRZ-0132) and CB09-292 (HRZ-0005) which have been excluded from the Mineral Resources and Ore Reserves. Fortescue Marsh has significance to the Nyiyaparli People and neighbouring Traditional Custodian groups. The creek lines that run through the Christmas Creek mining and resource area towards Fortescue Marsh and the quality/flow of water entering the marsh system are important to the Traditional Custodian groups. In accordance with the Nyiyaparli LAA Fortescue has an obligation to minimise impact to creeks and wherever possible, when creeks must be temporarily diverted for mining purposes they should be re-established following completion of the project operations. Fortescue has agreed not to undertake exploration or mining operations on the Fortescue Marsh without the consent of the Nyiyaparli People and is committed to ensuring the flow and quality of water entering the marsh system is not affected by mining activities. Most notably this is focused on the protection of known ethnographic 'Yintha' sites along the Marsh edges, which are fed by creek flows into the Marsh. This is currently managed by consultation with the Nyiyaparli People and the implementation of various water management methods including monitors, diversions, containments and conveyance. These water

Criteria	Commentary
	management methods must be continued and maintained during the development of the Christmas Creek mine to ensure compliance with the Nyiyaparli LAA. The Kutayi deposit is located with the 100% owned Fortescue Leases E46/0567 & M46/0533. The Kutayi project is within the external boundaries of the Nyiyaparli native title determination. On 15 December 2016, an ILUA between Fortescue and the Nyiyaparli People was registered on the NNTT's Register of Indigenous Land Use Agreements. On 20 March 2020 a subsequent Body Corporate ILUA between Fortescue and Karlka Nyiyaparli Aboriginal Corporation RNTBC was registered on the NNTT's Register of Indigenous Land Use Agreements.
	The tenure is currently in good standing and no impediments are known to exist.
Exploration done by other parties	Both BHP and Hancock Prospecting Pty Ltd (HPPL) have undertaken exploration for iron within the project boundaries. No historical data has been used by Fortescue.
Geology	The majority of the iron mineralisation is hosted by the Nammuldi Member which is the lowest member of the late Archaean aged Marra Mamba Iron Formation (MMIF). The Nammuldi Member is characterised by extensive, thick and podded iron rich bands, separated by equally extensive units of siliceous and carbonate rich chert and shale. The Nammuldi Member in the Chichester Range is interpreted to be up to 60m in true thickness. Underlying the Nammuldi Member rocks are black shales and volcanic rocks belonging to the Jeerinah Formation. Limited iron mineralisation also occurs in the overlying CID and Tertiary alluvial material.
Drill hole information	Collar details of the RC holes used in the Cloudbreak, Christmas Creek and Kutayi estimates are not reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation of Cloudbreak and Christmas Creek please refer to: *Section 3 Estimation and Reporting of Mineral Resources*
Relationship between mineralization widths and intercept lengths	No exploration results are being reported. Please refer to: Orientation of data in relation to geological structure in Section 1 Sampling Techniques and Data for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The Mineral Resource extents are shown in the release.
Balanced reporting	No exploration results are being reported
Other substantive exploration data	No exploration results are being reported.
Further work	Further infill drilling is planned for at all deposits. Extensions to known mineralisation may exist at all deposits.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Since 2011 all drill hole data has been captured and stored in customised acQuire drill hole databases (a secure and industry standard system). Field (texture) logging data is captured electronically, assay and downhole geophysical data are uploaded directly from source files. Sample numbers are unique to each site and pre-numbered and barcoded sample bags are used. These methods are all aimed at minimising data errors. Exploration data older than this has been transferred between a number of different data storage systems, there is a risk that some of it may have been lost or compromised in the process (but this data only represents a small subset of the overall data used for regional and local modelling).
	All drill hole data used to update the resource models are reviewed by Fortescue geologists. Complete drill holes and individual samples are excluded if any problems with the data are noted (eg erroneous drill hole co-ordinates, suspect assays, missing texture data etc). Data exclusion is considered to be minimal. The acQuire drill hole databases include semi-automated validation procedures designed to minimise data errors.
Site visits	Site visits were undertaken by senior Fortescue personnel and by independent consultants during Exploration drilling programs. Site visits by the current Competent Person and resource modelling/estimation geologist(s) are undertaken on a semi-regular basis to discuss drilling/modelling progress and any other issues.
Geological interpretation	For the updated regional resource models at Cloudbreak and Christmas Creek, four geological zones were interpreted on the basis of geochemistry: overburden, hanging wall, ore zone and footwall. There is some risk of mis-interpretation in areas of wider spaced drilling where assay data is limited, this is not considered to be material. In future model updates texture logging from the wider spaced drilling should also be reviewed to refine definition of the overburden/hanging wall contact. For the local resource models, 4 major strat units may be present: Overburden (1000), CID (3000), Nammuldi (7400) & Roy Hill Shale. These are further sub-divided on the basis of Fe and Mn grades into 4 geozones: xx00 – waste, xx01 (high Fe/low Mn), xx02 (low Fe/high Mn) & xx03 (high Fe/high Mn). In addition, up to 14 geological zones are interpreted on the basis of geochemistry and downhole geophysical logging: overburden (separating out CID where possible), U8, U7U, U7l, U6, U6l, U5, U5l, U4, U3, U2, U1 & Roy Hill Shale At Kutayi, 8 stratigraphic units have been interpreted: detritals, Nammulid (U1, U2, U3, U4, U5) and Jeerinah Formation.
	Interpretation is based on geochemistry of RC drill samples and downhole gamma logging plus diamond core photographs where available.
	The updated regional resource models are an alternative interpretation of the drill hole data used to create earlier regional resource models and incorporate additional drill hole data.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	There are a number of factors which have an impact of geological and grade continuity: • Faults (geology and grade) – minor impact • Creeks (grade and to a lesser extent geology) – slightly more significant impact (evidenced by a reduction of iron grades at both sites and erosion of the ore body, primarily at Christmas Creek but also locally at Cloudbreak) • Late stage hardcapping/weathering of mineralisation • Localised late stage supergene Mn mineralisation
Dimensions	Cloudbreak and Christmas Creek - Up to ~80km along strike and up to 5km plan width. Upper limit of mineralised domain is located between 0m to 125m below the surface. Lower limit of mineralised domain is located between 1m and 130m below the surface. The average thickness of the mineralised domain is 7.0m and the range of thickness is 1m to 28m. Kutayi – Mineralisation occurs in an area covering approximately 4.5km (N-S) and 3.5km (E-W). Mineralisation extends from surface to depths of up to around 50m. The defined mineralised units are approximately between 1m and 40m thick.
	Grade estimation using ordinary kriging (mineralised) & waste material (inverse distance for Roy Hill Shale) was completed using Vulcan™ software for 14-18 analytes (see above).

Criteria	Commentary
Estimation and modelling techniques	Drill hole sample data was flagged using three dimensional wireframes. Variography undertaken on 1m drill hole composites in unfolded space. Initial variography on Fe indicator values (<40% Fe & SiO_2>20% = 0, >40% Fe & SiO_2 <20% = 1), was used to create wireframe solids of areas within the ore zone with indicator values >0.45 (note these indicator values were selected after substantial testing to get the 'best' fit of block grade Fe distribution vs the composite data distribution). The drill hole composites were re-flagged using these solids to give 'high grade' and 'low grade' data sets. Additional variography was then undertaken for Fe, SiO_2, Al_2O_3, P and LOI on these data sets. Variograms were generally robust (low nuggets, long horizontal ranges and short Z ranges), 'low grade' variography was used for waste domains. A separate Mn indicator was also created (at 1%) and used to control estimation of Mn. Quantitative kriging neighbourhood analysis used to establish optimum search and estimation parameters. Each geological domain was interpolated separately, the ore zone domain was separately interpolated for high and low grade areas. Mn modelled separately with no geological domaining.
	Reconciliation of previous model against production showed a loss of tonnage, decreased iron grade and increased contaminant grades. Preliminary reconciliation of the updated models against historic production shows a marked improvement.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, Mn/MnO, P, S, LOI371/LOI425, LOI650 and LOI1000 has been estimated. Pb, As, Cl and Cu have also been estimated but as they are not sampled at the same density as the previously discussed analytes, they are not considered as accurate. A program of selected analysis of waste material for potentially deleterious elements (eg Se, As) has commenced (these are not currently included in the regional resource models). Routine analysis for arsenic (by Intertek) is now part of the grade control drilling program, this data will be included in future models when sufficient information is available to allow interpolation.
	Following kriging neighbourhood analysis, statistical investigations and discussions with Fortescue staff, for Cloudbreak and Christmas Creek, a parent block size of 25m × 25m × 1m was selected (drill hole spacing varies from 800m × 200m to 6.25m × 6.25m in some small areas). To allow for integration of local resource models and to aid in following the folded geometry of the geological domains, sub-celling to 12.5m × 12.5m × 1m was allowed. For the local resource models a block size of 12.5m × 12.5m × 1m is used (drill hole spacing nominally 25m × 25m). For Kutayi, a parent block size of 50mE × 100mN × 1m was selected (reflecting half the nominal drill hole spacing and orientation of mineralisation).
	No selective mining units were assumed in these estimates.
	No assumptions about correlations between variables were made in these estimates.
	Drill hole samples were geologically flagged using the interpreted domain wireframes. These domains were used as hard boundaries to select samples populations for variography and estimation.
	For both regional resource models, some element grades were top-cut during estimation based on coefficient of variation values higher than 1.2.
	All resource models (regional and local) are validated as follows: • Block model geology vs geological surfaces; • Visual comparison of block grades vs drill hole data (all analytes, using 25m or 50m sections); • Review of average grades by geology (blocks vs composites); • Grade Trend plots on eastings, northings and elevation for all analyses (100m slices (eastings & northings), 1m slices (vertically)); • Block total assay check; • Un-estimated block check; • Reconciliation against production (where possible).
Moisture	The tonnages are estimated on a dry basis.
Cut-off parameters	Cut-offs were not used to define domains, they are used to report Mineral Resources.
Mining factors or assumptions	The models are considered suitable for the current mining method (drill & blast nominally on 3m benches).

Criteria	Commentary
Metallurgical factors or assumptions	It has been assumed that current ore processing facilities (OPF's) will continue to be used in the future.
Environmental factors or assumptions	A program of waste characterisation sampling is now in place as part of the requirements allowing mining. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	For Cloudbreak and Christmas Creek, the densities within the regional and local models are now based 'dry core' densities (regional models) or estimated from downhole geophysical gamma density data (collected by PWS/WSG) with a dry bulk density (DBD) conversion applied (local models). Densities in use at Kutayi are derived from unconverted downhole geophysical gamma density data with average values applied to waste and mineralised material by stratigraphy. A program to obtain sufficient information to change to estimated densities with a DBD conversion factor is planned. Densities in all resource models are dry.
Classification	Overall regional resource model limits were designed to minimise extrapolation of drilling data, all material within the model boundaries could at least be classified as Inferred. The following range of criteria were considered in determining the final resource classification over each model: • Geological and mineralisation continuity; • Data quality; • Drill hole spacing; • Modelling technique; • Estimation properties including search strategy, number of informing data and average distance of data from blocks; The Mineral Resource classification methodology used also incorporated a number of parameters derived from the kriging algorithms in combination with drill hole spacing and continuity and size of mineralised domains. Appropriate account has been taken of all these factors in creation of the updated resource models. Block model validations show good correlation of the drill hole data to the estimated grades.
	The Mineral Resource classification reflects the views of the Competent Person.
	An external audit of both the CB and CC regional resource models has been completed, no fatal flaws were identified. Several external audits of the local resource model modelling process have been undertaken.
Audits or reviews	Statistical/geostatistical procedures have not been used to quantify the relative accuracy of the resources. However, comparisons between regional and local models show that on average tonnage and grades are similar (in some areas local models show reduced tonnages when compared with the regional models, in other areas the opposite is the case). An external audit of the resource estimation process used in the Chichester hub was completed during FY21, no significant issues were noted.
Discussion of relative accuracy/ confidence	Regional resource models are global in that they include as much of each deposit as is covered by sufficient drilling to support geological and grade continuity.
	Comparisons with production data are available for mined areas. Currently these only cover limited areas of the resources. The updated resource models show an improved reconciliation against production data.

JORC Code, 2012 Edition – Table 1

Solomon Hub Deposits – Firetail, Kings and Queens

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposits are sampled using Reverse Circulation (RC) and Diamond drill holes (DD). Approximate drill hole spacings are as follows: Firetail – 200m × 100m, 50m × 50m, infilled to approximately 50m × 25m and 25m × 25m where possible. Kings – 400m × 100m, 200m × 100m, 100m × 100m, 100m × 25m and 25m × 25m. Queens – 400m × 50m and 100m × 50m. Infill drilling uses a 25m × 25m pattern. RC samples only are used for resource estimation. Where possible, all holes undergo downhole geophysical logging.
	All holes are surveyed by qualified surveyors using a Base station Differential GPS, with collar accuracies to within 3-10 centimetres (laterally and vertically). Analytical standards used to assist in checking laboratory results. Field duplicates are used to assist with determining sampling quality at the rig. Geophysical probes are calibrated on a regular basis (using static methods and specific calibration holes).
	RC drilling, samples from 1m intervals pass through cyclone and cone splitter, 2-3kg sample collected in calico bag (~6-7% of samples total volume). Samples from mineralised zones (plus ~5m above and below), as selected by a geologist, are sent for analysis, all other samples are moved to a bag farm.
Drilling techniques	Standard face sampling hammer drilling samples from ~130mm or ~140mm diameter RC drill holes used for Resource Estimation. All holes are drilled vertically with the exception of 14 inclined holes at Firetail North targeting Joffre mineralisation. Diamond drill holes were drilled as twins to RC holes, for metallurgical test work, to provide geotechnical information, for downhole geophysical data calibration purposes or to provide density data, they were not incorporated into resource or local models. Core size was predominantly PQ with some 6 inch holes. With exception of the geotechnical holes, all diamond holes were drilled vertically, the core was not oriented. Drilling of large diameter (Bauer) holes (0.78m or 1m) commenced during the Exploration phase and ceased in ~2010. These holes were limited to shallow parts of the deposit (by working depth of rigs). Samples were primarily used for metallurgical test work, data from these holes was not used in estimation.
Drill sample recovery	The quality of each sample is recorded at the time of logging and categorised as either poor, moderate or good.
	No major issues with sample collection system identified during drilling. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	Twin holes were drilled to compare grades, no significant sample bias was identified.
Logging	Geological logging was completed by geologists experienced in iron mineralisation, logging is considered to be adequate for resource estimation.
	Detailed geological logging captured the following qualitative and quantitative information: mineralogy, sample quality, colour and numerous physical characteristics. This data is relevant for both mineral resource estimation and future mining and processing.
	100% of drilled meters logged.
Sub-sampling techniques and sample preparation	Majority of diamond holes drilled to provide material for density determination and for metallurgical test work. Whole core was used for metallurgical test work. No assays from diamond holes were used in the estimates.
	Samples are collected in labelled bags from each 1m of drilling, which are stored onsite or sent for analysis. These samples are collected using a cone or multi-tier riffle splitter of dry cuttings installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of gear between samples. Wet samples are allowed to dry before being processed. For drill rigs using riffle splitters, once wet samples are encountered, the splitter is changed to a chisel splitter. Larger samples are collected and later split.
	All sub-sample preparation undertaken by the laboratory performing the sample analysis.
	Coarse standards were inserted at rates of 1 per 50 samples.
	Field (rig) duplicates were collected at a rate of 1 in 33 samples.

Criteria	Commentary
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
Quality of assay data and laboratory tests	All samples were sent to SGS Perth, Ultra Trace (now Bureau Veritas) or the on-site laboratory for analysis. All laboratories now have National Association of Testing Authorities, Australia (NATA) accreditation (or conform with NATA accreditation). The standard analytes tested were Fe, SiO_2, Al_2O_3, P, MnO/Mn, MgO, CaO, TiO_2, Na_2O, S and K_2O by X-ray Fluorescence (XRF) and a 3 point LOI thermogravimetric analysis at 371 (425ºC since July 2019), 650 and 1000 degrees Celsius. The 3 point LOI was not undertaken for all samples with only the LOI 1000 being completed. A three point LOI was subsequently carried out on all samples with a Fe grade greater than 3%. This is considered to be close to "a total analysis". From early 2013 As, Pb, Zn, Cu and Cl have also routinely been included in sample analysis.
	Details of geophysical tools used for down hole geophysical analysis are available in the drill hole database.
	Field duplicates were collected 3 in 100 samples. Standards submitted at 1 in every 50 samples. Analysis of duplicates and standards did not indicate there any major issues. QA/QC reports were prepared for the project areas. Concerns over the quality of a few of the historical standards have been raised. Through investigation it appears that this is due to standard preparation methods, size of standards, and homogenisation issues (similar problems have not been noted in newer standards). Also issues with inadequate round-robin testing resulting in over-precise certified values.
Verification of sampling and assaying	Significant intersections have been visually inspected by senior Fortescue personnel and by independent consultants.
	Twin holes have been completed to check the variance of the ore body and sampling. Results show good correlation between the original RC hole and the twin hole.
	Sample data is now stored in customised acQuire drill hole databases, which include a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual data validation.
	Conversion of MnO% to Mn% for grade estimation has been made where necessary (mainly exploration data). Samples with analytes reporting below detection limits are given the value of half the detection limit of that analyte.
Location of data points	Drill hole collar locations have been surveyed using a differential GPS (by Navaids Pty Ltd and VEKTA Pty Ltd during exploration), currently all hole collars are surveyed using high precision Trimble R10 GNSS with RTK correction from the base station, with an accuracy of better than ±10 cm for Easting and Northing and RL for the majority of drill holes. Downhole survey data is available for drill holes which have been down hole geophysically surveyed by PWS (now WSG), as the majority of drill holes are vertical and less than 200m in total depth, deviations from vertical are negligible. Collar survey data is validated against planned coordinates and dtm surface. Holes for which there is no collar survey data, or where the collar RL is significantly different from the topographic surface, are excluded from Resource and GC Modelling.
	Grid co-ordinates are Map grid of Australia (GDA94), heights are in Australia Height Datum. Area is within UTM zone 50, AusGeoid98 used to obtain separation between GDA94 spheroid and the Geoid.
	The topography was created from 1 metre contours from LIDAR data. Vertical accuracy of the LIDAR data is ±0.2 metres.
Data spacing and distribution	Firetail: Drill hole data on nominal 200m × 100m spacing for assays and geology with 100m × 50m, 50m × 50m, 50m × 25m and 25m × 25m sections of infill and some more sparsely drilled 400m × 100m areas. Kings: Drill hole data on nominal 200m × 100m spacing for assays and geology with 100m × 50m and 50m × 50m sections of infill and some more sparsely drilled 400m × 100m areas. The drilling is on an imprecise grid spacing with three different grid orientations. Queens: Drill hole data on nominal 200m × 50m spacing for assays and geology with 100m × 50m sections of infill and some more sparsely drilled 400m × 100m areas. The drilling is on an imprecise grid spacing with two different grid orientations. For all deposits infill drilling is on a nominal 25m × 25m grid.

Criteria	Commentary
	This level of data density is sufficient to define geological and grade continuity for a mineral resource estimate. Locally, the drilling pattern may be inadequate to fully define bedded mineralisation. In some areas, there are also uncertainties in detritals/bedded interface.
	No sample compositing was conducted for this estimation.
Orientation of data in relation to geological structure	Firetail: Drilling grid oriented perpendicular to the local bearing of mineralisation, all but 14 holes are vertical (the inclined holes were drilled to test for mineralisation in the Joffre). This results in no significant sampling bias. Kings & Queens: Drill hole data have been drilled as vertical holes in grid orientations sub-parallel to the local bearing of the orebody, and thus the mineralisation (paleochannel). This results in no significant sampling bias.
	No sampling bias is apparent.
Sample security	Use of consignment notes (sample submission information), direct delivery to site laboratories.
Audits or reviews	Fortescue has had a sampling audit by Snowden (in the Chichester's), there were no major risk factors relating to the sampling and assaying of the data. Similar rigs and splitter systems were utilised in this area.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The Firetail deposit is located within the following 100% owned Fortescue Exploration and Mining Leases: E47/1319, E47/1334, E47/1447, E47/3762, M47/1413 (M47/1546 Pending), M47/1431 (M47/1545 Pending), M47/1453 (M47/1543 Pending), M47/1473 (M47/1549 Pending), M47/1570 and M46/1617. The Kings deposit is located within the following 100% owned Fortescue Exploration and Mining Leases: E47/1011, E47/1333, E47/1334, E47/1532, E47/3762, M47/1409 (M47/1542 Pending), M47/1411 (M47/1541 Pending), M47/1431 (M47/1545 Pending), M47/1453 (M47/1543 Pending), M47/1474 (M47/1550 Pending), M47/1475 (M471554 Pending), M47/1511 (Pending), M47/1570 and M47/1607 (Pending). The Queens deposit is located within the following 100% owned Fortescue Exploration and Mining Leases: E47/1333, E47/1821, E47/3762, M47/1410 (M47/1540 Pending), M47/1411 (M47/1541 Pending), M47/1493 (Pending), M47/1573 and M47/1577.
	The Solomon project area intersects both the Eastern Guruma and Yindjibarndi #1 native title determinations. In 2009, Fortescue entered into an LAA with Wintawari Guruma Aboriginal Corporation on behalf of the Eastern Guruma native title holders (Wintawari LAA). The Wintawari LAA facilitates the certain grant of all required Fortescue tenure and includes comprehensive Aboriginal heritage identification and management procedures. The LAAs also provide the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. Fortescue does not have an agreement with the Yindjibarndi native title holders over the tenure associated with the Solomon Mineral Resource and Ore Reserve; however, Fortescue conducts regular heritage surveys and consultation with Yindjibarndi people through Wirlu-Murra Yindjibarndi Aboriginal Corporation (WMYAC) and Yindjibarndi Ngurra Aboriginal Corporation (YNAC). In partnership with the WMYAC, Fortescue has delivered contracts for road maintenance, earthworks, airport transfers & across various operational sites in the Pilbara, including the Solomon project, providing a valuable revenue stream for the community and a variety of job opportunities.
	The tenure is currently in good standing and no impediments are known to exist.
Exploration done by other parties	Both BHP and Hamersley Iron have undertaken exploration for iron within the project boundaries. No historical data has been used by Fortescue.
Geology	Mineralisation within the Solomon area is hosted by buried Channel Iron Deposits (CID), Bedded mineralisation (BID and Detrital mineralisation (DID). Outcropping geology in the area is the Dales Gorge, Whaleback Shale and Joffre Members of the Brockman Iron Formation which contain the BID mineralisation. Incised into this bedrock geology are the large Channel systems which contain the DID and CID mineralisation.
Drill hole information	Collar details of the RC holes used in these estimates are not reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation of Mineral Resources for these deposits please refer to: *Section 3 Estimation and Reporting of Mineral Resources*
Relationship between mineralization widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure* in *Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The Mineral Resource extents are shown in the release.
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Further work	Further infill drilling is planned for all deposits. Extensions to known mineralisation may exist in all deposit areas.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Sample data is stored using a customised acQuire database (a secure and industry standard system), which includes a series of automated electronic validation checks.
	Only trained personnel perform further manual validation which passes on the data in order to confirm results reflect field collected information and geology. In order to ensure integrity of the database, any changes to the database only occur after a review of the suggested changes are authorised, and these changes can only be performed by a single person. Prior to modelling, further validation was performed on the dataset being used. No issues were uncovered in this final validation step.
Site visits	Site visits, by both the Competent Person and resource modelling/estimation geologist(s), are undertaken on a semi-regular basis to discuss drilling/modelling progress and issues.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron mineralisation. Geology over the majority of the deposit is relatively straight forward. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, this is not considered to be material.
	Geological interpretation based on geological logging and geochemistry of RC drill samples.
	The stratigraphy of the deposits is well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the resource estimates. Further close spaced drilling may improve the confidence in the stratigraphic interpretation of the BID mineralisation in the Kings & Queens deposits.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	Kings & Queens: The major source of error is at detrital/bedded and detrital/CID interfaces. The structure and stratigraphy is unknown in the bedded material over much of the deposits.
Dimensions	Firetail: The bedded mineralisation has a strike length of 7km and outcrops on the north and south limbs of an anticline. Mineralisation is strata bound, has an average thickness of 20m and extends to a depth of 100m below surface in places. Kings: The CID mineralisation has a strike length of 20km and a width of 1 - 2km. Though the CID mineralisation outcrops in the southeast corner of the deposit, the majority of the CID mineralisation is buried and occurs at depths of up to 40m below surface and the defined mineralised units have a thickness of between 1m and 65m. Queens: The CID mineralisation has a strike length of 10km and a width of 0.5 - 1km. The CID mineralisation is buried and occurs at depths of up to 60m below surface and the defined mineralised units are between 1m and 65m thick.
Estimation and modelling techniques	Inverse distance (un-mineralised) and ordinary kriging (mineralised) were used to estimate grades. Estimation was undertaken using Vulcan™ software. The model areas extend half the distance of drill spacing away from the drilling. Kriging parameters were derived from semivariograms using Supervisor software. The deposit was domained by stratigraphy, local orientation of the paleochannel, and mineralised/un-mineralised zones.
	Comparison with previous resource estimates generally showed an increase in tonnes with slight decrease in Fe grades together with a slight increase in contaminant grades. Reconciliation of production data against the models (Firetail and Kings) is reasonable.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, Al_2O_3, SiO_2, TiO_2, CaO, MgO, Na_2O, K_2O, Mn/MnO, P, S, LOI 371 (425 since July 2019), LOI 650 and LOI 1000 has been estimated. A program of selected analysis of waste material for potentially deleterious elements (eg Se, As) has commenced (these are not currently included in the regional resource models). Routine analysis for As, Zn, Pb, Cu and Cl is now part of the grade control drilling program, this data will be included in future models when sufficient information is available to allow interpolation.
	Firetail: Ordinary kriging into parent cells of 25mE × 25mN × 1mRL. In Firetail South, sub blocking down to 5m × 5m × 0.25m was used along domain boundaries to better define the domain interface.

Criteria	Commentary
	Kings: Ordinary kriging into block sizes of 12.5m × 12.5m × 1m and panel sizes of 50mE × 100mN × 1mRL and 100mE × 50mN × 1mRL. Queens: Ordinary kriging into parent cells of 50mE × 25mN × 1mRL. Sub blocking down to 12,5m × 12.5m × 1m was used along domain boundaries to better define the domain interface. For the local resource models a parent block size of 12.5m × 12.5m × 1m was used.
	No selective mining units were assumed in these estimates.
	No assumptions about correlations between variables were made in these estimates, however significant correlation between certain variables was noted during statistical analysis of the drilling data.
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator cut-offs for Fe, SiO_2 and Al_2O_3 for the individual stratigraphic units. These cut-offs were based on data population statistics and visual validation. A 'geozone' code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Grades were top-cut for estimation based on high coefficient of variation values as well as other statistical characteristics of the distributions for the Firetail and Queens regional resource models. Grade cutting is not used in local resources models nor in the Kings regional resource model.
	Visual validation of the block model coding of the geozones was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the geozones and grade were completed in Vulcan™ by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are well within an acceptable range. Trend analysis graphs have been created for each of the mineralised geozones. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a particular slice in space. The trend analysis charts show that overall, the model grade is consistent with the raw data. Areas with a large number of samples correlate much better with the model grade than do areas with few samples.
Moisture	The tonnages are estimated on a dry basis.
Cut-off parameters	Cut-offs were not used to define domains, they are used to report Mineral Resources.
Mining factors or assumptions	It has been assumed that current mining methods will continue to be used in the future, the block size in the models is appropriate for this.
Metallurgical factors or assumptions	It has been assumed that current ore processing facilities (OPF's) will continue to be used in the future.
Environmental factors or assumptions	A program of waste characterisation sampling is now in place as part of the requirements allowing mining. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	Firetail & Kings: Density has been determined from physical diamond core measurement throughout the deposit. Average densities by geological unit and mineralisation have been assigned globally to the model. Physical density measurements are measured from diamond PQ core. Density measurements are taken at least 4 weeks after the core has been drilled to drive off any excessive moisture. Although the core has not been oven dried the core has been dried in the high temperatures, high evaporation rates and low humidity of the Pilbara would have driven off any free moisture. No good quality down hole geophysics density is available in the Kings area, therefore no comparisons could be made with the diamond measurement. Queens: Density has been calculated from physically measured diamond core and down hole geophysical gamma-gamma measurements collected from Queens. Average 'dry core' densities (~10% less than the historical core measurements) by geological unit and mineralisation have been applied globally to the model. A program to allow estimation of downhole gamma density data into the models (with subsequent conversion to dry in-situ values) is progressing and updates to the densities used in Kings and Queens is anticipated. It is unlikely that sufficient data will be collected from Firetail to allow a similar exercise.

Criteria	Commentary
	Where used, the down hole geophysical probes measure the in-situ bulk density which accounts for void spaces. The measurements are grouped by geological domains.
	The densities used are similar to known densities for current and historic mines, of similar geology and mineralisation, across the Pilbara.
Classification	Firetail & Kings: The Mineral Resources are classified as Measured, Indicated and Inferred. This takes into account drill spacing and data integrity, geological complexity, and estimation risk and mineralisation continuity based on the semi-variogram ranges of influence. Queens: The Mineral Resource is classified as Indicated and Inferred. This takes into account drill spacing and data integrity, geological complexity, and estimation risk and mineralisation continuity based on the semi-variogram ranges of influence.
	Appropriate account has been taken of all these factors in creation of the updated resource models. Block model validations show good correlation of the drill hole data to the estimated grades.
	The Mineral Resource classification reflects the views of the Competent Person.
Audits or reviews	An external audit of the updated Kings regional resource model has been completed, no major issues with the model were identified, internal peer reviews of the other models have been completed. Several external audits of the local resource modelling process have been undertaken.
Discussion of relative accuracy/ confidence	Statistical/geostatistical procedures have not been used to quantify the relative accuracy of the resources. However, comparisons with local resource models show that on average tonnage and grades are comparable (in some areas grade control models show reduced tonnages when compared with the regional resource models, in other areas the opposite is the case).
	Regional resource models are global in that they include as much of each deposit as is covered by sufficient drilling to support geological continuity.
	An external audit of the resource estimation methodology used by Fortescue at the Solomon Project has been undertaken by a respected Consultancy group. Overall, the methods used to categorise the Kings and Firetail Mineral Resource estimates were considered to be fair, reasonable and consistent with industry standards in the iron ore sector. Recommendations included further twin hole drilling; deeper drill holes to be down hole surveyed; statistical comparison to use de-clustered sample data; additional bulk density measurements required using other techniques.

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Western Hub Deposits – Eliwana and Flying Fish

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposits were sampled using Reverse Circulation (RC) and Diamond Drill holes (DD). Over 6,600 RC holes have been drilled and used in the models. Over 250 diamond drill holes have also been completed in the area these were used for bulk density, geotechnical, metallurgical test work and density measurement. No diamond drill samples were used for the Mineral Resource grade estimate. RC samples sent for analytical work were selected based on potential ore-grade material with a reasonable envelope both above and below this interval. Where possible, most holes undergo down-hole geophysical logging.
	Analytical standards were used to assist in checking laboratory results. Field duplicates were used to assist with determining sampling quality at the rig. Geophysical probes were calibrated on a regular basis using static methods and specific calibration holes. Drill hole locations were determined by survey contractors.
	All samples were taken on 1m intervals from reverse circulation drill holes. A sample weighing approximately 1 to 3 kilograms was collected for each metre which was transported to a commercial laboratory and then pulverised for XRF analysis.
Drilling techniques	Reverse circulation drill holes of approximately 140mm diameter were completed using a standard face sampling hammer, the majority of these are vertical. All diamond holes were triple tube and had either a PQ or 6 inch drill bit size. A number of diamond holes were drilled on an angle some of these were orientated using core barrel mounted tools.
Drill sample recovery	The quality of the RC samples from each metre drilled was recorded by the logging geologist at the time of drilling and categorised as either poor, moderate or good (with the majority being recorded as good). Core recovery was recorded during geotechnical logging for all diamond holes and was considered to be of an acceptable level.
	No major issues with the sample collection system were identified during drilling. For RC holes, minimal loss of fines was achieved through the use of an automated sample collection and splitting system. Triple tube sampling was used for diamond holes to minimise core loss.
	There is assumed to be no expected material relationship between sample recovery and grade.
Logging	Logging was completed by geologists, metallurgists and geotechnical engineers experienced in iron ore mineralisation. The standard of logging is suitable to support an estimate of Mineral Resources.
	Stratigraphy, mineralogy, recovery, hardness, colour, moisture and sample quality were recorded qualitatively for both RC and diamond holes. Geotechnical logging was completed on diamond holes. Chip trays from RC holes were collected on an intermittent basis and diamond holes have been photographed. Down-hole televiewer data for RC and diamond holes has also been interpreted for geotechnical purposes.
	All drill holes were geologically logged.
Sub-sampling techniques and sample preparation	RC drill samples are collected in labelled bags, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of sampling system between samples. Wet samples are allowed to dry before being processed.
	The sample collected from the cone splitter represents approximately 6 to 7% of the total sample interval. Cone splitters are the preferred splitting system used by Fortescue as they generally give the most representative sample in both dry and wet conditions.
	At the laboratory, samples were weighed, dried and pulverised to either 90% passing through 106 microns (Ultra Trace and SGS) or 85% passing through 75 microns (Genalysis).
	Field standards (approximately 1 in 100 samples) and laboratory standards (1 per lab job) were used as a quality control measure at different sub-sampling stages.
	Rig duplicate samples are taken at an average of 3 rig duplicate samples per approximately 100 samples sent to the laboratory. An analysis of these duplicate samples indicates that they are of good quality and repeatable.

Criteria	Commentary
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
Quality of assay data and laboratory tests	All samples were sent to SGS, Genalysis or Ultra Trace laboratories for analysis. All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation. The standard elements tested were Fe, SiO2, Al2O3, P, MnO/Mn, MgO, CaO, TiO2, Na2O, S and K2O by X-ray Fluorescence (XRF) and a three point LOI thermo gravimetric analysis at 371 (425 from July 2019), 650 and 1000 degrees Celsius. This is considered a total analysis. As, Pb, Zn, Cu and Cl have also routinely been analysed in more recent sample submission.
	No geophysical tools were used to determine any element concentrations used in the estimate.
	Field duplicates were collected at a rate of approximately 3 in 100 samples. Standards are submitted at approximately 1 in every 100 samples. Analysis of duplicates did not indicate any major issues. Analysis of laboratory standard results indicates high confidence in XRF analysis at each laboratory. Analysis of field standards have indicated results are generally acceptable however issues with laboratory sample preparation and standard certification have been noted. Field standard and duplicate results are monitored for all laboratory submissions and reported on monthly and annually. Ongoing discussions with field personnel and laboratory staff are completed in order to mitigate any issues.
Verification of sampling and assaying	Significant intersections have been visually verified by Fortescue's Exploration and Resource Geology Managers.
	An RC/RC twin hole study has been completed on over 50 sets of holes throughout the project area. In general the level of grade and geology correlation between holes noted was acceptable.
	Sample data is stored using a customised acQuire database, which includes a series of automated electronic validation checks. Fortescue data entry procedures are documented and readily available. Only trained personnel perform further manual validation in order to confirm results reflect field collected information and geology.
	Samples returning below detection limit values were given the result of half the detection limit for the relevant analyte(s). Missing data was set to -99 and those samples were excluded from statistical analysis and estimation.
Location of data points	Drill hole collar locations have been surveyed using a differential GPS by Down Under Surveys, with an accuracy of better than 3 cm for Easting and Northing and 5 cm in elevation. Downhole surveys have been completed on approximately 12% of drill holes. Collar survey data is validated against planned coordinates and the topographic surface.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The project area lies inside UTM zone 50.
	The topography was created from 0.5m or 2m contours produced from 1 metre LIDAR data. Vertical and horizontal accuracy of this data is ±0.15 metres.
Data spacing and distribution	The grade estimate used predominantly vertical RC drill holes which occur nominally on 50 × 25m, 50 × 50m, 100 × 50m, 100 × 100m, 200 × 100m, 400 × 100m and minor 800 × 100m spacings with some more sparsely drilled areas for assays and geology.
	This level of drill spacing is sufficient to establish the degree of geological and grade continuity required for a Mineral Resource estimate and the classification applied as deemed by the Competent Person.
	No sample compositing was conducted for this estimation.
Orientation of data in relation to geological structure	Drill holes have been predominantly drilled as vertical holes in drill lines sub-perpendicular to the local bearing of the ore body. The mineralisation is sub-horizontal and these vertical holes are sufficient to imply geological and grade continuity.
	No material relationship is apparent between sampling bias and geological orientation.
Sample security	To ensure sample security consignment notes (sample submission information) have been used and direct delivery to site laboratories has been carried out.
Audits or reviews	All sampling has been carried using Fortescue standard procedures.
	For analogous deposits Fortescue has had a sampling audit conducted by Snowden. For this project there were no major risk factors relating to the sampling and assaying of the data. Similar rigs and splitter systems

Criteria	Commentary
	were utilised in this deposit.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	FMG Pilbara Pty Ltd is a wholly owned subsidiary of Fortescue Metals Group Ltd and owns 100% of all mineral rights in the tenements which cover the Eliwana area: E47/3760 (Pending), E47/4440 (Pending), E47/4441 (Pending), E47/4442 (Pending), E47/4443 (Pending), M47/1509 (M47/1553 Pending), M47/1522 (M47/1603 Pending), M47/1523 (M47/1606 Pending), M47/1524 (M47/1605 Pending), M47/1537 (M47/1604 Pending), M47/1586 and M47/1587. FMG Pilbara Pty Ltd is a wholly owned subsidiary of Fortescue Metals Group Ltd and owns 100% of all mineral rights in the tenements which cover the Flying Fish area: E47/1302, E47/1373, M47/1526 (M47/1601 Pending) and M47/1600 (Pending).
	The Eliwana mining project is within the external boundaries of the Puutu Kunti Kurrama and Pinikura (PKKP) native title determination. In 2010, Fortescue entered into a comprehensive Land Access Agreement with the PKKP Traditional Custodians (PKKP LAA). The PKKP LAA facilitates the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The PKKP LAA also provides the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. Other Western Hub tenements are within the PKKP and Eastern Guruma native title determinations. Fortescue has current Land Access Agreements with the PKKP native title holders and Wintawari Guruma Aboriginal Corporation on behalf of the Eastern Guruma native title holders.
	The tenure is currently generally in good standing and no impediments are known to exist.
Exploration done by other parties	Exploration work prior to Fortescue within the Eliwana project area has been conducted since the mid-1970s. Several companies have held ground within the region including Robe River Mining Company Pty. Ltd., Hamersley Iron Pty. Ltd., Talisman Mining Ltd. and De Beers Australia Exploration Ltd. No historical data has been used by Fortescue. There is no known historical data within the Flying Fish project area.
Geology	The Eliwana project is situated on the southern limb of the Jeerinah anticline in the western Hamersley Province. Geographically, the Eliwana deposit covers a relatively narrow (average width of approximately 2km) zone which follows the outcropping of mineralised Marra Mamba and Brockman Iron Formations. Mineralisation within the Flying Fish deposit is a hosted Detrital Iron Deposit (DID) and Bedded Iron Deposit (BID). Outcropping geology in the project is Marra Mamba Hills. Bedded mineralisation is found within the Mount Newman and MacLeod units of the Marra Mamba Iron Formation.
Drill hole Information	Collar details of the RC drill holes used in the Eliwana and Flying Fish models are not being reported here. Significant intersections have been released previously.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation of Eliwana and Flying Fish please refer to: *Section 3 Estimation and Reporting of Mineral Resources.*
Relationship between mineralisation widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure* in *Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The Mineral Resource extents are shown in the report.
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	The density work carried out at Eliwana and Flying Fish is discussed in: *Section 3 Estimation and Reporting of Mineral Resources.*

Criteria	Commentary
	Geological surface mapping of the Eliwana and Flying Fish projects has been carried out by Fortescue geologists. Dip and strike measurements, stratigraphy and mineralisation have been recorded into a database.
	Down hole geophysics has been undertaken on some drill holes including: televiewer, natural gamma, magnetic susceptibility and gamma gamma density.
	The estimated groundwater level has been recorded in most RC drill holes.
Further Work	Further infill drilling and metallurgical test work is planned for both Eliwana and Flying Fish. Extensions to known mineralisation may occur in the area.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Field logging and sampling data is captured electronically utilising standard templates ensuring data integrity.
	Data is uploaded and stored in an industry standard database (acQuire) that has inbuilt validation checks. Any manual validation or changes are only completed by trained and authorised personnel.
Site visits	The Competent Person and Competent Persons team conducts regular site visits to inspect the model area, RC drill hole logging and sampling practices. Discussions are held regularly with site geologists.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron mineralisation. Geology over the majority of the deposit is relatively straight forward. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however, this is not considered to be material.
	Geological interpretation is based on geological logging, down hole geophysics and geochemistry of RC drill samples.
	The stratigraphy at Eliwana and Flying Fish is reasonably well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. Extrapolation of mineralisation has been restricted to approximately half of the nominal drill spacing.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	The main factors impacting the geological and grade continuity include the stratigraphy, structure, erosion, and weathering. The grade and geological continuity is generally good compared with analogous areas.
Dimensions	At Eliwana mineralisation is distributed variably within an area of approximately 40km in an east west direction and 3.5km in a north south direction. Mineralisation occurs at surface and extends to depths of up to 350 metres below the ground surface. The reported tonnes and grade in the Mineral Resource occur at depths of up to 350 metres. At Flying Fish mineralisation is predominantly bedded iron deposits (BID) with some detrital iron deposits (DID). Channel iron deposits (CID) occur in the area but are not considered economic. Mineralisation is hosted by the Mount Newman and MacLeod Members of the Marra Mamba Iron Formation, there is minor mineralisation in the West Angela Member of the Wittenoom Formation. The majority of the detrital mineralisation is found as Red Ochre Detritals (ROD). The Marra Mamba Iron Formation outcrops in the north and dips towards the south around 15 to 20 degrees. Tertiary sediments occur in the valley. The main area of mineralisation occurs over an area 11km along strike and 400m across strike. Mount Newman Mineralisation occurs at surface in the north and at depths up to 200m to the south. The thickness of mineralisation averages 20m throughout the deposit and is found up to 50m in areas. Mineralisation in the Mount Macleod is occurring across the Flying Fish deposit with the largest mineralised footprint found in the south-west of the project area. This area covers 1km in length and 200 metres across strike. The ROD mineralisation occurs in a series of pods ranging in size from 100m to 300m except for the central part of the ore body which extends over 2km trending in a north-east direction averaging 200m across strike. Mineralised thicknesses in this unit are between 20m to 190m.
	Ordinary kriging was used to estimate all mineralised domains and inverse distance cubed for all waste domains in the older regional models, for recent local models grades in both mineralised and waste domains were estimated by kriging. Estimation was done using Vulcan software. Mineralisation was extrapolated

Criteria	Commentary
Estimation and modelling techniques	approximately half the distance of drill spacing away from the drilling. The deposit was domained by stratigraphy, local strike/orientation and mineralised/un-mineralised zones.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, LOI Total, LOI 371 (LOI425 since July 2019), LOI 650 and LOI 1000 has been estimated. In addition, As, Pb, Zn, Cu and Cl are also estimated where this data is available.
	Size and orientation of parent blocks reflected predominantly half to a quarter of the nominal drill spacing and orientation of mineralisation. Sub blocking was used along domain boundaries to better define the domain interface.
	Up to three estimation passes were used for each element, gradually increasing search ellipse distances with each pass. Search distances along strike and across strike varied between each domain. These were primarily defined by sample spacing within each domain and determined by neighbourhood iterative tests.
	No assumptions behind the modelling of selective mining units have been made.
	Correlation between some elements has been noted during statistical analysis. Similar variogram parameters were achieved for mineralised domains that had elements with a noted correlation.
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator thresholds for Fe, SiO_2 and Al_2O_3 for the individual stratigraphic units. These thresholds were based on data population statistics and visual validation. A domain code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Some element grades were top-cut during estimation based on coefficient of variation values higher than 1.2.
	Visual validation of the block model coding of the domains was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the domains and grade were completed in Vulcan by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are within an acceptable range. Trend analysis graphs have been created for each of the mineralised domains. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a particular slice in space. The trend analysis charts show that overall, the model grade is consistent with the raw data and shows no bias. Areas with a large number of samples correlate much better with the model grade than do areas with few samples.
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	Cut-offs were not used to define domains, they are used to report Mineral Resources.
Mining factors or assumptions	It is assumed that mining will be carried out with medium to large scale mining equipment, bench heights may vary depending on mining studies. These methods will be similar to analogous Fortescue deposits such as Firetail where conventional: truck & shovel/excavator; drill & blast and; grade control methods are used. The impact of dilution will be assessed as part of the mining studies.
Metallurgical factors or assumptions	It has been assumed that current ore processing facilities (OPF's) will continue to be used in the future.
Environmental factors or assumptions	Fortescue has an extensive environmental and heritage approvals process. Waste will be formed as dumps or into mining voids. In the case of acid and fibre mitigation, Fortescue has industry standard procedures. Where beneficiation may take place, reject is considered to be inert and there are no foreseen problems with tailings disposal. No significant concentrations of environmentally deleterious elements have been identified.
Bulk density	At Eliwana, density in the underlying regional resource models has been applied on a 'strat average' dry core basis. For the recent local resource models, downhole geophysical gamma density data has been

Criteria	Commentary
	estimated into the model and then a DBD conversion factor has been applied to convert this in to an in-situ value. At Flying Fish, density in the underlying resource model has been calculated from down-hole geophysical measurements throughout the deposit. Density values applied to the Flying Fish model have been determined by average accepted gamma-density values. For the recent local resource model, downhole geophysical gamma density data has been estimated into the model and then a DBD conversion factor has been applied to convert this in to an in-situ value.
	Downhole geophysical probes measure the insitu bulk density which accounts for void spaces. These measurements are not corrected for moisture but are validated against known dry bulk densities from diamond core drilled in the area. Downhole geophysical measurements are grouped by geological and mineralisation domains.
	The densities used are similar to known densities for current and historical mines, of similar geology and mineralisation, across the Pilbara.
Classification	The Mineral Resource has been classified as Measured, Indicated and Inferred. This takes into account drill spacing, data integrity, geological complexity, grade estimation quality and interpreted risk.
	The Mineral Resource classification reflects the views of the competent persons.
Audits or reviews	Internal peer reviews have been completed during all stages of the estimate. An external audit of a previous Inferred Mineral Resource for Eliwana was completed by Snowden with no significant flaws identified. Similar processes have been used for this estimate.
Discussion of relative accuracy/ confidence	Estimation uncertainty analysis has been completed on certain areas of the deposit using sub-set estimates and the estimation variance. The volumes of the areas tested are approximately equivalent to annual and quarterly rates of production. The accuracy noted is similar to analogous Fortescue operational deposits and the confidence level of the Mineral Resource is appropriate as deemed by the Competent Person.
	No production data is available at this stage.

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Magnetite Deposits – Iron Bridge

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Exploration results are based on 2 m samples from reverse circulation (RC) drilling with an average sample size of 3–5 kg collected and sent to the Bureau Veritas (formerly Ultra Trace) laboratory for analysis. Each RC sample was crushed to 3.35 mm and sub-sampled with one 150 g sub-sample used for standard XRF sample on the 2 m interval, and a second 150g sub-sample taken and composited with an adjacent sample for DTR analysis. The majority of DTR assay work was conducted at Bureau Veritas in Perth. Spectrolab in Geraldton have been used historically. Field duplicates and certified reference material (standard) samples were included in each head assay sample submission. Standards were included in the DTR assay batches. All diamond drill holes were used for whole core metallurgical or geotechnical test work and are not included in the Mineral Resource estimate, other than to inform the geological interpretation.
Drilling techniques	RC Drilling was completed using Schramm T685W drill rigs for a nominal drill hole diameter of 140 mm (5.5 inches) utilising a standard face sampling hammer bit. PQ3 Diamond drilling (DD) was also carried out for metallurgical sampling and geotechnical investigation and Core Drilling Services have been used for diamond drilling work using a UDR 200 rig. DD holes were orientated by site geologists for structural and geotechnical logging prior to being used for metallurgical test work.
Drill sample recovery	Sample quality and recovery of both RC and diamond drilling was monitored during drilling to ensure that samples were representative and minimise sample quantity variations. A visual assessment of the RC sample quality was recorded for each 2 m interval, with around 99% of intervals logged as being “good”. Snowden notes that the logged sample quality is highly subjective and is considered qualitative and indicative only. RC drilling was carried out with the use of boosted high pressure air to maximise sample quality and quantity. Rig duplicates are used to assess any sample bias which may results from rig sampling methods. Results of duplicate assays show some variation in elemental abundance between primary and duplicates samples, but the variability is random and no bias is evident. Sample recovery of the RC drilling is not quantitative and as such, no assessment can be made of the relationship between sample recovery and assay grade. Diamond core holes (PQ) show close to 100% recovery within fresh rock.
Logging	Trained geologists with experience in iron ore and magnetite mineralisation were employed to perform the geological logging of RC chip samples. Geological logs are recorded for each 2m sample interval. All intervals are logged. Logging is both quantitative and qualitative with measurement of mineral and lithological abundances, as well as recording physical properties of grain size and shape, recovery, moisture level, and some general properties derived from rig performance (hard slow drilling, easy drilling, difficult sampling due to clay etc). All diamond drill core was photographed prior to sampling.
Sub-sampling techniques and sample preparation	Two 3-5 kg RC drilling samples are collected via a rig-mounted cone splitter, equivalent to approximately 6-7% of the total sample for each 2 m interval. Samples were generally collected from the rig as dry samples, with minimal impact from ground water or drilling fluids. Diamond core was only used for metallurgical test work and geotechnical assessment and was not used for systematic sample assaying.

Criteria	Commentary
	At the laboratory the samples are sorted, dried and weighed. They are crushed to 3.35 mm and two 150 g splits taken using a riffle splitter, one for DTR test work and the other for standard XRF analysis. Field duplicates were collected at the drill rig at a rate of approximately 1 field duplicate every 20 m, using the same techniques as the original samples. Results for the field duplicates shows acceptable precision for the main elements with no biases evident. Pulp duplicates were included in the sample batches as part of internal laboratory QAQC procedures. Results show good precision has been achieved for the pulp duplicates. No analysis of sample size has been conducted with respect to the particle size, however given the mineralisation style and grades, the samples sizes are considered appropriate.
Quality of assay data and laboratory tests	All RC samples were assayed at either Ultra Trace or Bureau Veritas (with Ultra Trace doing the actual XRF analysis). Both laboratories are NATA accredited for ISO17025. Fortescue carries out blind audits of all laboratories for comparison of assay results, and Ultra Trace has demonstrated acceptable results in these tests. Assaying is by fused bead XRF with a standard suite of iron ore elements reported. Sample assays after 2012 included an extended suite of elements. Loss-on-ignition (LOI) was determined by thermogravimetric analysis (TGA) and includes the total LOI and splits. The following elements have been assayed: Fe, SiO2, Al2O3, P, MnO/Mn, MgO, CaO, TiO2, Na2O, S, K2O, As, Ba, Cl, Co, Cr, Cu, Ni, Pb, Sn, Sr, V, Zn, Zr, FeO, Satmagan/magnasat (Fe3O4), and three LOI's at 371°C, 650°C, and 1000°C, plus total LOI. The coverage of these elements varies with the secondary elements only assayed after 2012. DTR concentrate and tails samples collected from Davis Tube process were assayed using XRF. Reported analyses include all of the above listed elements for each of concentrate grades and tails grades. Concentrate grades are not available for samples where there was insufficient concentrate recovered during the DTR for XRF analysis. Additional data reported for DTR samples includes, concentrate recovery (mass recovery weight %), tails recovery (weight %), sizing analyses, P100 weights for each pass of pulverising, as well as the overall P80 sizing. A laboratory standard or IBO coarse reference standard is included for each sample batch (approximately 1 per 100 samples). IBO CRM standards have not been used in the assay work in 2014 due to lack of suitable standard material. Assaying of the primary and DTR samples is considered a total assay. Assay totals were checked prior to their use in the resource estimation, with samples falling outside 100% ±2% not used due to concerns with the assay quality. Only a small quantity of samples are excluded due to falling outside these total assay limits. Each laboratory carried out internal checks and sample assays, including the use of standards. Results for these standards and duplicates are statistically validated by both the laboratory and IBJV as part of the QAQC procedures.
Verification of sampling and assaying	Significant intersections have not been independently verified. Drill logging is validated by site geologists against assay data and geophysical signals to verify intersections and interpretations. Senior geologists review the intersections and drilling in cross-section and 3D to verify targets and drilling effectiveness. Diamond core holes are only used for metallurgical and geotechnical sampling and no systematic assaying has been conducted on these holes. As such no statistical comparison with the RC drilling is possible. Data is logged into Toughbook's during drilling and then directly loaded into an AcQuire database to avoid transcription error. No adjustments were made to the data.
Location of data points	Coordinates are in Map Grid Australia format (MGA94) and heights are based on the Australian Height Datum (GDA94). The area lies within UTM Zone 50. A contract surveyor (Down Under Surveys) was commissioned to pick up all drill collars to DGPS accuracy of ±3 cm Easting and Northing, and ±5cm in elevation. Due to magnetic interference dip and azimuth were verified using down hole gyro survey using gyro-smart tools, carried out by Down Under Surveys and Pilbara Wireline Services. 397 drill holes (41% of drill hole collars) do not have any downhole surveying and are therefore assumed to be straight with no deviation; however only 129 of these are inclined with the remainder drilled vertically.

Criteria	Commentary
	Topography was provided to Snowden by IBJV and assumed to be up to date and correct for the purpose of estimation but have not been validated by Snowden. Trial pit is not included hence depletion of ~1mt is not removed from Mineral Resource report, this is not seen as material.
Data spacing and distribution	Drill hole spacing varies from 35m x 35m in the Stage 1 mining area of North Star, to 50 m x 50 m in the remainder of the central part of North Star. In the north of North Star drill spacing is 200 m x 100 m to 400 m x 50 m. In the south of North Star drill spacing is 200 m x 100 m. In Glacier Valley, drill spacing varies from 50 m x 50 m in the main pit area to typically 200 m x 100 m, with some areas of 400 m x 100 m. Eastern Limb has minor 50 m x 50 m spacing with adjacent areas drilled to 100 m x 100 m spacing, and the rest at approximately 200 m x 100 m spacing. At South Star, the drill spacing is nominally 400m × 100m. The level of drill spacing is sufficient for this style of mineralisation to establish the degree of geological and grade continuity to support Mineral Resource classification. 2 m drill hole samples have been composited to 4 m for DTR analysis. Sample compositing was conducted in the laboratory after crushing.
Orientation of data in relation to geological structure	The mineralisation generally dips to the west at 70° to 80°. Drill holes have been drilled at angles (-60°) to both the east and west. Drilling completed from 2008 to 2017 are drilled westward or down dip of mineralisation based on a previous geological interpretation, which has introduced some risk of sampling bias. Recent holes and those within the Eastern Pincunah, which account for the majority of drilled metres, are largely drilled perpendicularly to the current geological interpretation. The risk associated with down-dip drilling has been assessed and incorporated as part of the Mineral Resource classification.
Sample security	Samples are delivered from site to the logistics company's distribution centre for dispatch to the assay laboratory, and samples are tracked during this process Sample tracking is based on sample ID and this is monitored from drill site to laboratory via the AcQuire database. Upon receipt of a sample dispatch at the laboratory, a sample quality check and inventory check are carried out and any missing or damaged samples is communicated, and this is then investigated and reconciled prior to sample processing.
Audits or reviews	No external audit of the sampling and assaying techniques has been carried out. As part of the Mineral Resource estimation in 2019, Snowden reviewed the documented practices employed by IBJV with respect to the RC drilling, sampling, head and DTR assaying and QAQC, and believes that the processes are appropriate, and that the data is of a reasonable quality and suitable for use in Mineral Resource estimation. Where appropriate, risks associated with the drill hole data, such as the orientation, has been incorporated in the Mineral Resource classification scheme.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The deposits are contained within granted leases M45/1226, M45/1244, E45/3084 and E45/4025. M45/1226, M45/1244 and E45/3084 are held in Joint Venture between FMG Magnetite Pty Ltd (69%) and Formosa Steel Iron Bridge (31%). Some of the tenure are also subject to a royalty deed with a third party and a royalty is payable. E45/4025 is held by Fortescue through its wholly owned subsidiary FMG Pilbara Pty Ltd, who hold all mineral rights except for Tantalum and is subject to a royalty deed with a third party and a royalty is payable.
Exploration done by other parties	There is no material data from other parties used in this resource estimation.
Geology	The Iron Bridge mineralisation lies within the Pincunah Member of the Soanesville Group, which is part of the Pilbara Super Group in the East Pilbara Terrane. Regionally the rock sequence is dominated by mafic to andesitic volcanics and volcaniclastics, BIF's and terrigenous clastic sequences intruded by Archaean granitoids. In the project area the rocks have been tightly folded, having a general strike of north-south with a steep sub-vertical dip. The Pincunah Member forms an overturned north-south striking ridge through the North Star area of the deposit, dipping steeply to the west. Several vertical faults have been interpreted to rotate the Pincunah Member to north-west, parallel to the Mount Yule Granite complex in the north-west region of the project area. The hanging wall of the Pincunah Member is the Kangaroo Caves Formation and is composed of BIF bands interlayered with laminated, micro to mesobanded shales and chert. BIF units are up to 15 m in thickness and occur most commonly immediately adjacent to the Pincunah Member contact, while the remainder of the formation is dominated by shales and cherts. The footwall of the Pincunah Member consists of a sequence of shale and sandstone layers, termed the Eastern Shale and Quartzite, passing upwards into the sandstones and conglomerates of the Corboy Formation. Outcrop of the contact is marked by a high-relief zone of silicification before transitioning into white interbedded shale and sandstone beds with fine scale mesobanding and laminations. The main mineralised BIF zones within the Pincunah Member are described as having a relatively limited mineral suite, with magnetite mineralisation overprinting the original lithology. Primary mineralisation occurs as disseminated grains and aggregates of magnetite micro-bands with subordinate gangue phases at concentrations of 30% to 60% magnetite (by volume). Lower grade mineralisation occurs within gangue dominant micro-bands with similar texture to primary mineralisation with a range of 1% to 30% magnetite. The main zones of mineralisation at North Star, Eastern Limb, Glacier Valley, West Star and South Star is the Pincunah Member, which is comprised of sedimentary BIF with magnetite mineralisation, and dips steeply to the west at approximately 70-80°. Mineralisation within the Pincunah Member has been geologically defined into Western, Middle and Eastern units according to assay results and geophysical logging. Each unit is interpreted to be conformable within the Pincunah Member and adjacent stratigraphy and are observable along the entire strike of the project area. The Western and Eastern units comprise the high-grade mineralisation domains, while the Middle zone is typically lower grade and often barren.
Drill hole Information	No exploration results being reported.
Data aggregation methods	No exploration results being reported.
Relationship between mineralisation widths and intercept lengths	No exploration results being reported. The true width of mineralisation is estimated to be approximately 70% of the reported downhole intercept lengths, assuming the mineralisation dips 75° to the west and the drilling is inclined 60° to the east. Drilling oriented to the west (i.e. drilled down-dip) should not be used for thickness calculations.
Diagrams	No exploration results being reported.
Balanced reporting	No exploration results being reported.

Criteria	Commentary
Other substantive exploration data	No exploration results being reported.
Further work	Drilling is continuing as part of ongoing resource definition programs. There is potential for further resources to be reported in adjacent areas and at depth. Fortescue intend to drill an RC program below the current Mineral Resource to verify the Exploration Target within the first 10 years of operation.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	RC drilling data is recorded on Toughbook's with project specific logging templates which capture the data in an AcQuire database. Validation of logging is carried out within the AcQuire database, with a Database Manager ensuring the data is managed appropriately. Validation of logging in relation to cross-sections and assays is carried out when all data has been received and adjustments/corrections are made when required. Assay data QC samples are checked within the AcQuire database to ensure that rig duplicates and lab standards are within acceptable certification tolerances. Anomalous assay results are also visually checked against geological sections. Downhole geophysical data is calibrated against dedicated calibration holes with reporting of calibration results on a weekly basis.
Site visits	Site visits are conducted by the Competent Persons and FMG personnel on a regular basis.
Geological interpretation	The current geological interpretation is supported by a comprehensive geophysical and structural study by Fortescue personnel with site visits to confirm regional observations at outcrop scale. The main geological units from west to east are the Kangaroo Caves Formation, Pincunah Member West, Central and Eastern, and Corboy Formation. Surfaces for the upper and lower contacts of these domains were interpreted by Fortescue. Additionally, vertical fault surfaces were interpreted, which offset the geological domains along strike and in the north-eastern portion of the resource area, rotate the strike of the Pincunah domains towards the northwest. A narrow (approximately 10 m wide), east-west striking mafic dyke has been interpreted in the Glacier Valley area, based primarily on assay data, including elevated CaO, MgO and TiO_2 grades, along with verification from outcrops. The dyke is interpreted to be vertical. Data used to confirm the interpretation of lithological and mineralised domains include gamma readings, magnetic susceptibility, geophysical density, geological and structural logging, aerial photographic and magnetic surveys, field outcrop measurements and laboratory assays. A sub-horizontal oxide domain has been identified through geological logging and geochemical analysis, along with downhole magnetic susceptibility. An interpreted zone of transitional mineralisation, averaging approx. 10 m thick, has been identified beneath the base of oxide surface through boundary analysis of several analytes (Fe of DTR concentrate and tails, and Satmagan Fe_3O_4 of DTR concentrate). This transitional zone, where magnetite is partially oxidised to martite, was interpreted based on a calculated oxidation percentage and coded into the block model. Orientation of geology has been the primary driver behind variography and estimation parameters, particularly where samples are sparse or poorly oriented. All domain boundaries, along with the oxide surface, were treated as hard boundaries for the purposes of resource estimation. The interpretation is based on multiple data sources and is supported in outcrop. Alternative interpretations are unlikely to materially impact the resource.

Criteria	Commentary
Dimensions	North Star comprises three distinct mineralisation style areas, North, Central and South, which are separated by interpreted fault zones. Eastern Limb runs sub-parallel and to the east of North Star. The Northern part of North Star extends approximately 2.4 km in strike length, 200–400 m across strike and has been modelled to a vertical depth of approximately 600 m. The Central part of North Star extends approximately 1.9 km in strike length, 400 m across strike and has been modelled to a vertical depth of approximately 600 m. The Southern part of North Star extends approximately 1 km in strike length, 200 m across strike and has been modelled to a vertical depth of approximately 600 m. Eastern Limb lies approximately 400 m east of North Star and is 2.3 km in strike length, 200–400 m in width and is modelled to a vertical depth of approximately 200 m. Glacier Valley extends approximately 3.4 km in strike length, 200–300 m across strike and has been modelled to a vertical depth of approximately 600 m. West Star is approximately 3.5 km in strike length overall, of which 1.8 km strike length has been modelled. The mineralisation is typically 150–200 m across the strike and has been limited to a depth extent of approximately 200 m. South Star lies immediately south of Glacier Valley and extends approximately 5.2 km in strike length, 400 m across strike and has been modelled to a vertical depth of approximately 500 m.
Estimation and modelling techniques	Block model constructed using a parent block size of 20 m(E) x 25 m(N) x 10 m(RL) and for South Star 40 m(E) x 100 m(N) x 10 m(RL). No rotation of the block model was deemed necessary. The block size is based broadly on the nominal drill hole spacing along with consideration of the geological domains and assessment of the grade continuity, as reflected by a kriging neighbourhood analysis. Sub-celling down to 4 m(E) x 5 m(N) x 2.5 m(RL) was allowed to preserve the resolution of domain and fault boundaries. XRF analyses for Fe, Al_2O_3, SiO_2, Fe_3O_4, Cl, CaO, K2O, MgO, Mn, Na_2O, P, S, TiO_2, three LOI's at 371°C, 650°C, and 1,000°C, plus total LOI were treated as in situ head assays and composited to 2 m. The DTR composite data has been used to estimate recovered concentrate grades for the same suite of elements along with mass recovery (%), P80 sizing (at 53 µm) and five staged grinding oversize weights. DTR samples were composited to 4 m. Estimates were produced using ordinary kriging parent cell estimation for all variables. Dynamic anisotropy was used to locally adjust the orientation of the search ellipse and variogram models due to variations in the dip and strike of the mineralised zone between each fault block. Dynamic anisotropy values were locally estimated for each fault block using the contained domain surfaces as the input data. Grade estimation was completed using Datamine Studio RM software. To ensure the DTR concentrate and tails grade estimates account for the different sample support caused by the mass recovery, these variables were estimated as accumulations (concentrate accumulation = variable x mass recovery; tails accumulation = variable x (1 – mass recovery)). In addition, separate mass recovery estimation runs were performed for each full set of accumulation variables so that both the mass recovery and accumulation estimates used identical samples during interpolation and prevent over-smoothing of one variable in comparison to the other. The concentrate and tails grades were then back-calculated by dividing the block estimated accumulation with the paired estimated mass recovery. The final mass recovery estimate in the block model uses all available mass recovery data. Top-cuts were applied where required to reduce the impact of extreme outliers on the local block estimates. Within the mineralised Pincunah domains, top-cuts were applied to the head Cl assays, along with concentrate CaO, TiO_2, Na_2O and S grades, with typically less than 1% of samples impacted by the top-cut. Due to insufficient samples, no variograms were interpreted for the Kangaroo Caves (domain 1) and Corboy Formation (domain 5) domains. Domain 1 used variogram parameters from Domain 2, while Domain 5 used the variogram parameters from Domain 4. Neither Domain 1 or 5 have been classified and do not form part of the reported Mineral Resource. Search ellipse ranges were based on the results of the variography along with consideration of the drill hole spacing and orientation, with the same search parameters used for all elements to maintain the metal balance and correlations between elements.

Criteria	Commentary
	A three-pass search strategy was used (i.e. if initial search criteria are not met, an expanded search ellipse is used). For head grades, a minimum of eight and maximum of 20 composites was used for the initial search pass, with no more than four composites per drill hole. DTR estimates used a minimum of four and maximum of 12 composites for the initial search pass, with no more than three composites per drill hole. A combined LOI grade was calculated for the concentrates by summing the three estimated concentrate LOI's at 371°C, 650°C, and 1,000°C. Where mass recovery could not be estimated due to sparse data, analysis of the correlation of mass recovery with magnetic susceptibility (MagSus) data was carried out to develop a linear regression to convert estimated MagSus values to a mass recovery equivalent. Median values for each domain were applied for all variables where a block estimate was not possible due to sparse data. Grade estimates were validated against the input drill hole composites (globally and using grade trend plots) and show a reasonable comparison. Block assay totals were also calculated and show that the majority of blocks have an estimated assay total of 100% ±2%. Additionally, a calculated head grade (based on the block estimated concentrate and tails grades, along with the mass recovery) was compared to the estimated block head grade, which showed a good comparison. Sections were produced and checked throughout the model to ensure search parameters, estimation values and boundaries were honoured and appropriate for the sample spacing and orientation. All areas reproduce the trends in the input data. There is no operating mine and no production or reconciliation data currently available.
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 9% mass recovery cut-off applied for the Mineral Resource reporting is based on pit optimisations and mining studies carried out by Fortescue. Snowden validated the cut-off value in 2019 and concluded that the mass recovery cut-off is reasonable, assuming a bulk open pit mining operation with minimal selectivity.
Mining factors or assumptions	Mining of the deposit is planned to use conventional drill and blast open cut mining methods, with limited selectivity. Mining dilution and ore loss are not included in the Mineral Resource estimate, which is considered undiluted. All domains have been estimated, including unmineralised/waste domains.
Metallurgical factors or assumptions	A pilot plant operated on site and vendor test work has been undertaken to support the flowsheet unit operations. Test work has been independently audited and includes: - Extensive geometallurgical test work - Mineralogical characterisation - Carefully selected representative metallurgical holes - Extensive metallurgical comminution test work, DTR test work, batch and pilot test work - Extensive vendor test work - Site based pilot plant - Variability test work - Tunra bulk solids test work. Additional geometallurgical test work and modelling is being undertaken to assist with domaining and mineralogy impacts on throughput for mine planning. Assaying includes a large suite of deleterious elements, along with comminution testwork and staged magnetic separation in line with the plant flow sheet. Mass recovery has been estimated based on DTR results from RC drillhole samples at a 53 µm grind size. Where mass recovery data was not available, a regression based on magnetic susceptibility has been used.
Environmental factors or assumptions	Iron Bridge Stages 1 and 2 have been subject to extensive Environmental baseline studies and had Environmental Impact Statements prepared and assessed by the Environmental Protection Authority (Western Australia) and the Department of Climate Change, Energy, the Environment and Water (Commonwealth). Stage 1 received Commonwealth Approval on 14th June 2013 following a decision by the Environmental Protection Authority not to assess the Project on 6th August 2012.

Criteria	Commentary
	Stage 2 of the Project was assessed under a bilateral agreement between the State and Commonwealth at a Public Environmental Review level. State approval was granted on 9 January 2015, followed by Commonwealth approval on 6 February 2015. Construction of the open cut mine and associated waste and tailings landforms are also subject to assessment and approval by the Department of Mines, Industry Regulation and Safety (DMIRS). To date, the Stage 1 open cut mine, temporary waste rock landform, dry tailings landform and wet tailings storage facility have all been assessed via Mining Proposals and approved for construction. Further amendments to the mine including transition to Stage 2 have also been assessed and approved under the Mining Act. Additional approvals for the ongoing implementation of the Project will be required in the future An amendment to the existing Part IV approval is currently being sought for an extension of the mine, waste rock landform, and associated infrastructure for the Glacier Valley deposit (North Star Extension). the amended proposal was referred on 27 July 2022 and is awaiting a decision, on the level of assessment by the Environmental Protection Authority (Western Australia). Similarly, approval from the Commonwealth will be sought for the North Star Extension. The North Star deposit has undergone several phases of material characterisation work to determine the risk of acid and metalliferous drainage. The work conducted indicates that there is a high likelihood of intersecting potentially acid forming material but that the amount of this material is low compared to the rest of the non-acid forming waste rock. The geochemistry of the material is, however, complicated. Laboratory analyses indicate that there is significant neutralising capacity in the material. Recent investigations show there is a correlation between S and CaO and acid drainage generation, such that inferred Acid Neutralising Capacity (ANC) can be calculated from assay CaO, and the Maximum Potential Acidity (MPA) from assay total sulfur. These values are then used to calculate the neutralisation potential ratio (NPR). At present a conservative but practical approach to classification has been taken and additional work will be completed to improve confidence and inform WRD design parameters.
Bulk density	Bulk density (dry) is determined from physical measurements using in-situ bulk density determination methods, and correlation to downhole geophysical survey data. Downhole geophysical density measurements are related to calliper measurements of hole diameter to ensure the impact of cavities and other hole irregularities on the density measurement are managed. A 2 cm tolerance on expected hole diameter has been applied, with geophysical measurements that exceed this tolerance excluded from the dataset. This accounts for less than 2% of the input data. Correction factors have been developed to convert estimated down hole gamma logged density to a dry density equivalent. Oxide factor: Dry density equivalent = 0.991 x [RC Gamma density] Fresh factor: Dry density equivalent = 0.976 x [RC Gamma density] Where the geophysical density could not be estimated due to insufficient downhole data, the median geophysical density for the domain was applied.
Classification	The Mineral Resource has been classified as a combination of Measured, Indicated and Inferred Resources. The classification was developed based on an assessment of the following criteria: - Nature and quality of the drilling and sampling methods - Drill spacing and orientation - Confidence in the understanding of the underlying geological and grade continuity - Analysis of the QAQC data - A review of the drill hole database and the company's sampling and logging protocols - Confidence in the estimate of the mineralised volume - The results of the model validation. The resource classification scheme adopted for the Iron Bridge Mineral Resource estimate is outlined as follows: - Where the drill spacing was approximately 50 m along strike by 50 m down dip (or less) and the dominant drilling direction was orthogonal to the mineralisation (i.e. predominately drilled towards the east), mineralisation within the Pincunah Formation (i.e. DOMAIN = 2, 3 or 4) was classified as a Measured Resource.

Criteria	Commentary
	· Where the drill spacing was greater than 50 m by 50 m and less than approximately 150 m along strike by 100 m down-dip, with a combination of down-dip and orthogonal drilling, the mineralisation within the Pincunah Formation was classified as an Indicated Resource. · Where the drill spacing was greater than 150 m x 100 m, and/or where the drilling was dominated by down-dip oriented drill holes, the mineralisation within the Pincunah Formation was classified as an Inferred Resource. · All mineralisation within the Pincunah Formation within fault blocks 17 to 30 is classified as an Inferred Resource due to sparse drilling and/or structural complexity. · All material within the Kangaroo Caves (DOMAIN=1) or Corboy Formation (DOMAIN=5) remain unclassified and do not form part of the Mineral Resource. Extrapolation beyond the drilling along strike is limited to approximately 200 m (i.e. half the drill section spacing in the wider spaced areas). The Inferred Resource is extrapolated approximately 100 m below the drilling in some sections. Extrapolation at depth below the base of drilling represents approximately 23% of the Inferred Resource above the reporting cut-off grade. The Mineral Resource classification appropriately reflects the view of the Competent Person.
Audits or reviews	The resource estimate has been peer reviewed as part of Snowden's standard internal peer review process. An audit of the 2022 Mineral Resource estimates for the Iron Bridge deposit (excluding South Star) was carried out by an independent external consultant in June and July 2022. No material issues with the input data, assumptions, and outputs from the Mineral Resource estimation processes were identified by the auditors, who concluded that the overall process for estimation of the Iron Bridge 2022 Mineral Resource is at industry standard (equivalent to or better than peers).
Discussion of relative accuracy/ confidence	The Mineral Resource has been validated both globally and locally against the input composite data. No geostatistical estimate of the relative accuracy using simulation has been made at this stage. Given the relatively sparse data within the Inferred Resource areas, these estimates are considered to be globally accurate. Closer spaced drilling is required to improve the local confidence of the block estimates in these areas. No production data is available for comparison with the Mineral Resource estimate at this stage.

JORC Code, 2012 Edition – Table 1

Combined Hematite Deposits

Section 4 Estimation and Reporting of Ore Reserves

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Mineral Resource estimate for conversion to Ore Reserves</td><td>The Chichester, Eliwana and Solomon individual regional resource models described in Section 3, depleted by mining to 31 May 2022, are the basis for the conversion to Ore Reserves (which are subsequently adjusted for an additional 1 month of mining depletion and ore stockpiling to reflect Ore Reserves position at end of June 2022). These models are regularised, merged with local models and adjusted based on reconciliation history to create the Mining Models that form the basis for Ore Reserve reporting.
Mineral Resources are inclusive of the Ore Reserves quoted here.</td></tr>
<tr><td>Site visits</td><td>Periodic site visits are undertaken by the Competent Person to monitor on-going mining and processing operations relevant to estimation of Ore Reserves.</td></tr>
<tr><td>Study status</td><td>Cloudbreak (CB) and Christmas Creek (CC) Ore Reserves relate to operating properties that have been established for over ten years. The Firetail deposit has been mined and processed for approximately eight years while mining and processing has occurred at the Kings CID deposit for seven years. Routine integrated short, medium and long term planning activities are carried out according to a company planning calendar, including annual life-of-mine (LOM) and Ore Reserve plans. The technical feasibility of mining and processing activities is well understood based on the operating history for both the Chichester and the Solomon deposits. Where possible, material Modifying Factors are derived from actual operating history to maximise the confidence in plan and Reserve outcomes. The Ore Reserve plans include an ore sales product strategy, ore definition and cut-offs, mine and waste designs and schedules, infrastructure designs including roads, drainage, remote crushing, dewatering, tails dams and the like, closure designs and schedules, fleet and manpower requirements, operating and capital costs and financial analysis. Due to the site operating history and the 188mt per annum installed infrastructure, the Chichester and Solomon Ore Reserve estimations are considered to be equivalent or better than a “definitive” feasibility study standard. Shorter term plans (1 to 3 years) are supported by a detailed budgeting process.
Eliwana has been operating since July 2020, with the OPF operating at nameplate capacity. First Ore on train was achieved in December 2020 and has been incorporated into Fortescue’s integrated supply chain. Updates to the material Modifying Factors made in the feasibility study completed in 2018, will occur as ore body knowledge is increased with operational history.
A Feasibility study has been completed to establish the economic viability of Flying Fish and based on the outcomes of the study, a decision for construction and operation of the deposit is made.</td></tr>
<tr><td>Cut-off parameters</td><td>Fortescue produces a number of standard BID and CID blended products that are delivered by rail and assembled at the Fortescue Port Hedland ore stockyards from contributions of each mine-site. A linear programming approach is adopted where “ore bins” are created and the maximum tonnage of blended ore is assembled that meets the product specification of each of the BID and CID brands. Since the quality of mineralisation varies with time at each deposit and site, the cut-off grade(s) can also vary with time to achieve the required product outcome. Due to the methodology, and opportunistic blending, a fixed cut-off is not used for Ore Reserve reporting. However, a Fe cut-off, SiO_2 and Al_2O_3 cut-off for each major ore type per deposit can be applied to approximate the Ore Reserve outcome. The ROM Fe grade that most closely approximates the Ore Reserve for all deposits is 53.5%.
<table>
<tr><th>Site</th><th>ROM Cut-Off Grade (% Fe)</th></tr>
<tr><td>Cloudbreak</td><td>~53.0</td></tr>
<tr><td>Christmas Creek</td><td>~53.0</td></tr>
<tr><td>Kutayi</td><td>~54.5</td></tr>
<tr><td>Firetail</td><td>~51.5</td></tr>
<tr><td>Kings</td><td>~52.5</td></tr>
<tr><td>Queens</td><td>~53.5</td></tr>
<tr><td>Eliwana</td><td>~56.0</td></tr>
<tr><td>Flying Fish</td><td>~57.0</td></tr>
</table></td></tr>
</table>

Criteria	Commentary
Mining factors or assumptions	Both the Chichester and Firetail regional resource models are estimated into parent block and sub-cells and are regularised to a common block size to match the local resource models (typically 12.5m × 12.5m × 1m) to allow for model merging. After regularisation, the regional resource models are merged with local models (built to a common origin and orientation as the regional resource models) to reflect the greatest level of detailed information available for each deposit. Both the Chichester (including Kutayi) and Solomon merged models are then regularised to the most appropriate block size to simulate the expected mining selectivity, dilution and ore loss for the mining method applied at each deposit (eg 25m × 25m × 3m). Chichester pit geometry with an average overall slope angle of approximately 35 degrees are optimised based on the latest available mining models with inferred material classified as waste in the optimisation. However, where applicable, suitable pit designs available from site planning database were used. For the area within the optimised pit geometry but not covered by the pit designs, optimised shells were used. Due to the Chichester ore bodys' flat and shallow nature, optimised pit shells are considered appropriate for mine scheduling. The resulting models are compared with sales data over the prior twelve months to derive reconciliation factors that are then applied to the in-situ regularised tonnage and quality attributes to create the adjusted Run Of Mine (ROM) estimates of tonnage and grade in the "Mining Model". The Mineral Resource models for Eliwana and Flying Fish were regularised to a number of block sizes based on bench height and selective mining unit (SMU) studies. Bench heights range from 5 to 10m dependent on the underlying geology, with lateral extents ranging from 25Nx12.5E m SMU to 25mx25m SMU block sizes. Dilution and mining recovery were modelled by applying the regularisation process to the sub-block geological model. Due to lack of production data to draw conclusion on operational performance in relation to the mining model, no additional reconciliation factor has been applied to adjust the scheduling inventory of Eliwana. Kutayi and Flying Fish are not operational sites, hence, due to non-availability of production data to draw conclusion on operational performance in relation to the mining model, no additional reconciliation factors were applied. Ore loss and dilution achieved by regularisation performed as explained above was considered adequate. Solomon and Eliwana deposits utilise the most up to date designed geometries. Some material, scheduled to be mined at the end of life, contained within pit optimisation shells will be fully designed closer to extraction. The pit designs incorporate dimensions consistent with the scale of mining equipment employed, and geotechnical and operational considerations made. Geotechnical design parameters are based on geotechnical studies in accordance with industry guidelines to the required confidence levels. The underlying data consists of specific geotechnical drilling programs with associated core logging, downhole data collection and laboratory programs, in addition to resource estimation programs that support the geological and structural models. Analysis and reporting is undertaken by a combination of internal and external expertise. The resultant recommended slope design domains and parameters are dependent on the local geological, rock mass, structural and hydrogeological conditions as appropriate. Ore Processing Facility (OPF) upgrade factors (predicted based on test-work and/or reconciled from actual OPF upgrade performance) are then applied to the ROM data to create a "product" data set. There is no beneficiation associated with ore directed to the Firetail (at Solomon) or Eliwana OPFs, so the ROM values constitute the product data set. It is this product dataset that is used as the basis for Ore Reserve plans and Ore Reserve reporting. The LOM plan and final pit shells are optimised with Inferred mineralisation included. For the Ore Reserve schedule, only Measured and Indicated Mineral Resources are reported in the Ore Reserve estimate. Inferred mineralisation is treated as waste for the purposes of scheduling, reporting and financial valuation of the Ore Reserve. This results in a conservative estimate of the Ore Reserve with a higher than optimised, strip ratio. As such, if Inferred mineral resources were utilised as feed to the OPF's, in the Ore Reserve estimation process, then the Ore Reserve estimate and profitability would improve proportionally.
Metallurgical factors or assumptions	Cloudbreak (CB) and Christmas Creek (CC) mineralisation is all treated through 3 existing wet processing plants at a collective Reserve design rate of 100 (wet) mt of product per annum. Processing consists of primary, secondary and tertiary crushing; screening, and downstream beneficiation based on particle sizing and density. Low grade reject is directed to wet tailings disposal facilities. The processes are well tested and the sites have developed an operating history for both mass yield and element upgrades for typical OPF feed to supplement test-work.

Criteria	Commentary
	CC2 OPF has added a Wet High Intensity Magnetic Separation (WHIMS) process to provide the option of the downstream beneficiation conducted by particle sizing and either density or WHIMS. All wet OPF's yields and upgrades are based on recent test work carried out on diamond drill core. This program aims to better predict up-coming mineralisation types. Previous 12 months operating history is then used to augment these factors. Firetail and Eliwana OPFs are dry plants with 100% yield and no upgrading.
Environmental	The Cloudbreak (CB) and Christmas Creek (CC) mines and associated infrastructure were initially approved under the Iron Ore (Fortescue Chichester Pty Ltd) Agreement Act 2006 (State Agreement), CB Ministerial Statement 721 and CC Ministerial Statement 707 and subsequent amendments. Scope of these approvals included mine pits, ore processing facilities, tailings storage facilities, above ground landforms, rail, conveyors, camps, roads, water abstraction and injection infrastructure and other infrastructure associated with mining. Significant changes relative to these primary approvals are subject to assessment by both State and Commonwealth entities including the WA Environmental Protection Authority (EPA), other State authorities and the Department of Climate Change, Energy, the Environment and Water (DCCEEW). Such revision to the Cloudbreak mine was approved by Ministerial Statement 899 in June 2012 and the Federal Approval EPBC 2010/5696 in November 2012. A revised Christmas Creek Proposal was approved by Ministerial Statement 1033 in August 2016 and EPBC 2013/7055 in January 2017. Operating licences (L8199/20 07/2 for CB and L8454/2010/2 for CC) issued by the WA Department of Water and Environmental Regulation (DWER) are in place for both sites. Primary and secondary approvals instruments required to develop and operate the Kutayi Project will be obtained prior to the Financial Investment Decision (FID) and mine construction and operation. An integrated approvals schedule has been built to facilitate Project development and approvals processes. The Kutayi project will require referral under the environmental impact assessment provisions of state and Commonwealth environment legislation; processes commonly referred to as primary approvals. Specifically, the proposal will be referred to the Western Australian (WA) EPA under Part IV of the Environmental Protection Act 1986 (EP Act) and is expected to require formal impact assessment and approval. In addition, the project will trigger several Matters of National Environmental Significance (MNES) and therefore require referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW), under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Required secondary approvals will include a Works Approval and Prescribed Premises (Operating) Licence issued under Part V (Industry Licensing) of the EP Act to construct premises and undertake activities which result in emissions or discharges above specified threshold levels. Under the Rights in Water and Irrigation Act 1914 (RIWI Act), a Permit to Disturb the Bed and Banks, a 26D Permit to Construct or Alter Wells (water supply and aquifer recharge infrastructure) and a 5C Permit to Take Water (for water supply and dewatering purposes) will be sought for the Project. Several mining tenure applications will be required to ensure requisite mining tenure is held prior to implementing the Project. Following the grant of tenure, applications will be made to add relevant tenements to the Iron Ore (Fortescue Chichester Pty Ltd) Agreement Act 2006 (State Agreement). Prior to commencing the Project, approval must also be sought from the Minister for State Development (via DJTSI) under the State Agreement. A Detailed Proposal outlining the Project components and activities will be submitted to DJTSI, once primary approvals (in this instance grant of required mining tenure, addition of tenure to the State Agreement and state and federal impact assessment processes) and finally, a FID are complete. Ore mined at Kutayi will be transported to Christmas Creek for processing and railed to Port facilities for export. Several parallel amendments to existing Christmas Creek approvals instruments will be required to authorise the receipt and processing of ore from a location external to Christmas Creek. The Solomon project was initially referred to the EPA under Part IV of the EP Act in July 2010 and State Ministerial approval was granted in April 2011 subject to the conditions of Ministerial Statement (MS) 862. Subsequent project amendments to MS 862 addressed an increase to the railway footprint (2011) and additional bore field clearing (2013). The project was also assessed and approved by the Department of Climate Change, Energy, the Environment and Water (DCCEEW).under the EPBC Act. A revised Solomon Proposal was approved by MS 1062 in October 2017 and EPBC 2014/7275 in June 2018. The Solomon project is also subject to regulation by the DWER through Part V of the EP Act and Fortescue holds Licences for the mine site (L8464/2010/2) and the power station (L8858/2014/1). Construction and expansion of the mine(s) and associated infrastructure is also subject to assessment and approval by way of Mining

Criteria	Commentary
	Proposals as required under Section 82A(2) of the Mining Act 1978 administered by the Department of Mines, Industry Regulation and Safety. With the consolidation of all Solomon Mining Proposals approved in April 2022, Solomon is now regulated under a single Mining Proposal. Fortescue also holds a number of licences under the Rights in Water and Irrigation Act 1914 for the abstraction of groundwater issued by DWER. Future amendments to existing approvals and licences will be sought on an as required basis as more information is gathered during the course of normal mining and processing operations. The Environmental Review Document (ERD) pertaining to the Eliwana Project, includes a detailed impact assessment and description of proposed mitigation and management measures for the environmental factors identified in the Environmental Scoping Document. The Eliwana Proposals were referred to the Western Australia Environmental Protection Authority (EPA) under Section 38 of the EP Act on the 3rd and 7 July 2017 for the Rail and Mine proposals respectively. The EPA determined both Proposals required assessment under Part IV of the EP Act and set the level of assessment at Public Environmental review (PER). The EPA released its report, recommending the projects be approved, on 29 April and 24 June 2019. The projects were both approved by the WA Minister for the Environment on 14 August 2019, subject to the conditions of MS 1108 and MS 1109. Both Proposals were also referred under Section 68 of the EPBC Act to the DCCEEW on 23 August 2017. The DCCEEW determined that both Proposals had the potential to impact upon Matters of National Environmental Significance and were therefore considered to be controlled actions. Both the Rail and Mine proposal were approved by the Commonwealth Minister for the Environment on 25 September 2019 under Approvals EPBC 2017/8025 and EPBC 2017/8024." Environmental Protection Operating Licence (L9221/2019/1), and a Rights in Water and Irrigation Act 1914 Groundwater abstraction Licence have been issued by DWER to the Eliwana Mine. Construction and expansion of the mine(s) and associated infrastructure is also subject to environmental assessment and approval by way of Mining Proposals, as required under Section 82A(2) of the Mining Act 1978 administered by the Department of Mines, Industry Regulation and Safety. The Eliwana Rail and Mine projects operate under separate Mining Proposals and associated Mine Closure Plans, which are periodically revised to provide for future activities within the mine plan. Current mine expansion environmental approvals work is focused on the Flying Fish: Flying Fish is addressed under a Part IV S.45C application to amend Ministerial Statement 1109 to include mining below water table at Flying Fish. Approval of this S.45C application is expected in FY23Q2. A Part V Works Approval application has been submitted to DWER, seeking construction approval for a wastewater treatment plant and discharge spray field, to support the Flying Fish operations campsite, and a Licence Amendment is under preparation to seek approval for activities associated with the Flying Fish workshop. Grant of the Works Approval Flying Fish preparatory works have been approved under a granted Mining Proposal, while a further Mining Proposal is being prepared seeking approval for operations of Flying Fish Pits.
Infrastructure	All mine sites are well established with all required infrastructure and services already in place. As the centre of gravity of ore mining operations moves further away from existing OPF's, additional remote crushing and ore conveying facilities and associated infrastructure will be established on an as-needed basis to offset higher ore haulage costs. The scheduling optimisation process has included the capex required for mine development and transport for the Kutayi (Chichester hub) and Flying Fish deposits (Western hub).
Costs	The majority of planned capital costs to support operations are sunk. Future capital costs, including sustaining capital are subject to normal annual budget financial analysis standards. Operating costs are derived based on operating history and LOM cost target prediction. Rail freight and port handling costs are internal costs and are forecast based on operating history. Sea freight rates are forecast based on operating history and external sources. OPF treatment costs are based on operating history and LOM cost target prediction. Eliwana operating costs were benchmarked against similar operating Fortescue mine sites. An iron ore fines royalty of 7.5% is payable for non-beneficiated product. For that portion of OPF product that meets the beneficiation criterion the lower royalty of 5% is allowed. The resulting overall average royalty rate is approximately 7.35%. No private royalties are payable.
Revenue factors	Forecast metal prices and exchange rates are based on analysis of internal and external sources. Forecast sales prices and adjustments used to determine Ore Reserves consider market prices for equivalent

Criteria	Commentary
	products, value-in-use assessment plus global industry capacity and consumption trends. The forward price profile is commercially sensitive and is not disclosed. The individual Cloudbreak, Christmas Creek and Firetail BID OPF products are blended at the port to create West Pilbara Fines (WPF), Fortescue Blend (FB) and Super Special Fines (SSF). These products are sold based on Fe content at a price adjustment to the 62% Fe benchmark price. The Kings OPF treats Channel Iron Deposit (CID) plus minor detrital and bedded (DID and BID) ore to produce Kings Fines CID products. The Kings Fines product is sold based on Fe content at a price adjustment to the 62% Fe benchmark price.
Market assessment	The majority of current and future Fortescue iron ore sales are expected to be to Chinese customers with an increasing proportion to other Asian customers. Demand in this market is driven by internal consumption. Fortescue has demonstrated it can compete successfully with other suppliers and adapt products to match changing market requirements. Current Fortescue product blend ratios are maintained over the near term (approx. 5 years) and then determined by schedule optimisation to decide the optimum product ratios to deliver highest Net Present Value (NPV).
Economic	Economic analysis is based on discounted cash flow assessment to derive the NPV of the Ore Reserves plan. The NPV robustness is tested by carrying out a ±10% sensitivity analysis of the major financial drivers (price, foreign exchange rate, opex, capex and discount rate). These sensitivity analyses demonstrate that the Ore Reserves meet the required internal Fortescue investment criteria and deliver positive NPV outcomes. The details of the economic inputs are commercially sensitive and are not disclosed.
Social	The Cloudbreak project area is within the external boundaries of the Nyiyaparli and Palyku native title determination areas. In 2005, Fortescue entered into comprehensive Land Access Agreements (LAA) with the Nyiyaparli and Palyku Traditional Custodians. The LAAs facilitate the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The LAAs also provide the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. On 15 December 2016, an Indigenous Land Use Agreement (ILUA) (Area Agreement) between Fortescue and the Nyiyaparli People was registered on the National Native Title Tribunal's (NNTT's) Register of Indigenous Land Use Agreements. A Body Corporate ILUA between Fortescue and Karlka Nyiyaparli Aboriginal Corporation was registered on 20 March 2020. On 3 November 2017, an ILUA between Fortescue and Palyku People was registered on the NNTT's Register of Indigenous Land Use Agreements. The Christmas Creek and Kutayi project areas are within the external boundaries of the Nyiyaparli native title determination area. In 2005, Fortescue entered into a comprehensive Land Access Agreement with the Nyiyaparli Traditional Custodians (Nyiyaparli LAA). The Nyiyaparli LAA facilitates the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The Nyiyaparli LAA also provides the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. On 15 December 2016, an Indigenous Land Use Agreement (ILUA) (Area Agreement) between Fortescue and the Nyiyaparli People was registered on the National Native Title Tribunal's (NNTT's) Register of Indigenous Land Use Agreements. A Body Corporate ILUA between Fortescue and Karlka Nyiyaparli Aboriginal Corporation was registered on 20 March 2020. To ensure compliance with the Aboriginal Heritage Act 1972 (WA)(AHA) Fortescue consults with the relevant Traditional Custodians groups in the area to protect heritage places. This include undertaking both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. Within the Christmas Creek mining and resource area heritage surveys have identified places that are highly significant to the Nyiyaparli People; and in some instances, neighbouring Traditional Custodians Groups. When estimating the ore reserve, any such place of high significance is excluded with adequate buffer applied to prevent potential disturbance by mining activity in the vicinity of the site. Fortescue Marsh has significance to the Nyiyaparli People and neighbouring Traditional Custodian groups such as Palyku and Banjima. The creek lines that run through the Christmas Creek mining and resource area towards Fortescue Marsh and the quality/flow of water entering the marsh system are important to the Traditional Custodian groups. In accordance with the Nyiyaparli LAA Fortescue has an obligation to minimise impact to creeks and wherever possible, when creeks must be temporarily diverted for mining purposes they should be re-established following completion of the project operations. Fortescue has agreed not to undertake exploration or mining operations on the Fortescue Marsh without the consent of the Nyiyaparli People and is committed to ensuring the flow and quality of water entering the

Criteria	Commentary
	marsh system is not affected by mining activities. Most notably this is focused on the protection of known ethnographic 'Yintha' sites along the Marsh edges, which are fed by creek flows into the Marsh. This is currently managed by consultation with the group and the implementation of various water management methods including monitors, diversions, containments and conveyance. These water management methods must be continued and maintained during the development of Christmas Creek mine to ensure compliance with the Nyiyaparli LAA. The Solomon project area intersects both the Eastern Guruma native title determination area and the Yindjibarndi #1 native title determination area. In 2009, Fortescue entered into an LAA with Wintawari Guruma Aboriginal Corporation on behalf of the Eastern Guruma native title holders (Wintawari LAA). The Wintawari LAA facilitates the certain grant of all required Fortescue tenure and includes comprehensive Aboriginal heritage identification and management procedures. The LAAs also provide the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. Fortescue does not have a comprehensive agreement with the Yindjibarndi native title holders over the tenure associated with the Solomon Mineral Resource and Ore Reserve; however, Fortescue conducts regular heritage surveys and consultation with Yindjibarndi people through Wirlu-Murra Yindjibarndi Aboriginal Corporation (WMYAC) and Yindjibarndi Ngurra Aboriginal Corporation (YNAC). In partnership with the WMYAC, Fortescue has delivered contracts for road maintenance, earthworks, airport transfers & across various operational sites in the Pilbara, including the Solomon project, providing a valuable revenue stream for the Yindjibarndi community and a variety of job opportunities. The Eliwana mining project is within the external boundaries of the Puutu Kunti Kurrama and Pinikura (PKKP) native title determination area. In 2010, Fortescue entered into a comprehensive Land Access Agreement with the PKKP Traditional Custodians (PKKP LAA). The PKKP LAA facilitates the certain grant of all required Fortescue tenure and include comprehensive Aboriginal heritage identification and management procedures. The PKKP LAA also provides the Traditional Custodians with opportunities for training and employment; business opportunities; financial benefits; and consultation on a range of project–related matters. Within the Eliwana mining and resource area heritage surveys have identified places that are highly significant to the PKKP People, and in some instances, neighbouring Traditional Custodian groups. Ore contained within any such place of high heritage importance is hence excluded with adequate buffer when estimating the ore reserve. Where the sites are vibration sensitive, adequate standoff distance is used to prevent damage from the vibration caused by the blasting activity when mining in proximity to the site.
Other	Approvals status is addressed under the environmental section. There are reasonable grounds to assume that required Government approvals will continue to be granted within the timeframes anticipated in the mine schedules supporting the Ore Reserve reporting. There are no material legal agreements or marketing agreements that are anticipated to impact on the Ore Reserve.
Classification	Proved Ore Reserves stated are all derived from Measured Mineral Resources. The majority of Measured Mineral Resources and Proved Ore Reserve are located in areas that have been infill drilled on a close-spaced of at least 50 × 50m pattern Probable Ore Reserves are all derived from Indicated Mineral Resources, and no Inferred Mineral Resource has been converted to Ore Reserve. The Competent Person agrees that the classification properly represents the risk associated with the Ore Reserve estimate and reflects the underlying Mineral Resource classification.
Audits or reviews	No external audit was carried out for the FY22 Ore Reserve estimate however, recommendations made during the external audit carried out for the FY21 Reserve estimate were incorporated to the FY22 Reserve estimation. The internal Fortescue Ore Reserve process includes progressive multi-disciplinary technical peer review and is a sub-set of the annual LOM planning process. No material issues with the input data, assumptions or output from the Ore Reserves Estimation process, were identified during this review. Annual auditing of various aspects of Mineral Resources and Ore Reserves estimation is carried in accordance with the Resources and Reserves Audit Calendar, overseen by the Audit and Risk Management and Sustainability Committee (ARMSC) of Fortescue Board of Directors.
Discussion of relative Accuracy/ confidence	The Fortescue mine sites contributing to Ore Reserves have been active for a number of years at full mining and processing rates with production data collected and reconciled against Mining model predictions. The reconciliation data is used to measure against and, when necessary, recalibrate the Mining models that the Ore Reserves estimates are derived from. The operating history of the last 12 months of mining in the

Criteria	Commentary
	Chichesters and Solomon areas has been incorporated into the reconciliation process and is reflected in the factors applied to the mining models used for this year's Ore Reserves estimate. The Ore Reserve estimation techniques utilised for Eliwana deposits are consistent with those applied at the existing operations. Reconciliation of actual production with planning model estimates for individual deposits is generally within 3 per cent for tonnes and grades on an annual basis. This result is indicative of a robust Ore Reserve estimation process.

Combined Magnetite Deposits

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	The Mineral Resource model for the Iron Bridge Magnetite Project was developed by Snowden geological consultants in conjunction with the Fortescue internal technical team on behalf of IBJV during February and March 2022. The Ore Reserves estimate was developed on the basis of the above Resource Model (Snowden's 2022). Mineral Resources are reported inclusive of Ore Reserves.
Site visits	A site visit was undertaken by the competent person in May 2022. Processing pilot plant, demonstration plant and trial product stockpiles, existing and future pits and waste dump locations were inspected, as well as planned access and product transport routes.
Study status	A Pre-Feasibility study was completed in March 2019 and since then, significant amount of additional work has been undertaken on critical areas (e.g., orebody knowledge, geo-technical, geo-metallurgical test work etc.) to improve confidence and update the material Modifying Factors used in the pre-feasibility study. The updates will continue to occur as ore body knowledge is increased with operational history. The Ore Reserve plans include an ore sales product strategy, ore definition and cut-offs, mine and waste designs and schedules, infrastructure designs including roads, drainage, remote crushing, dewatering, tails dams and the like, closure designs and schedules, fleet and manpower requirements, operating and capital costs and financial analysis.
Cut-off parameters	The processing costs and recoveries were derived from detailed process modelling by Fortescue engineering design team, in addition to the David Tube Recovery (DTR) testwork used routinely to analyse all RC drill samples. Cut-off grades used in the study are 17% DTR Mass Recovery (MR). Stockpiling and reclaim are used in mine plans and final cut-offs are dynamically determined as part of the scheduling process.
Mining factors or assumptions	The Snowden's 2022 Resource model was regularised to 20 m × 25 m × 10 m. A number of alternative SMU dimensions were trialled, and this size was selected based on drill/blast, mining equipment and ore selectivity considerations. This is a standard truck and shovel iron ore operation located in the Pilbara region of Western Australia. Magnetite concentrate product will be transported through a slurry pipeline between Iron Bridge and Port Hedland. The ore bodies planned to be mined in this study are bulk deposits and while some ore loss and dilution may occur along the edges, this edge dilution is accounted for in the regularisation process. No additional dilution and ore loss factor has been applied. The Ore Reserves are reported within a detailed ultimate pit design which complies with geotechnical recommendations and is based on pit optimisation contours. The optimisation was carried out using (non-oxide Fresh and Transitional) Measured and Indicated Mineral Resource categories as ore; with all Inferred Resource Class (including all oxide resource irrespective of Mineral Resource category) treated as waste. Geotechnical design parameters are based on geotechnical studies in accordance with industry guidelines to the required confidence levels. The underlying data consists of specific geotechnical drilling programs with associated core logging, downhole data collection and laboratory programs, in addition to resource estimation programs that support the geological and structural models. Analysis and reporting is undertaken by a combination of internal and external expertise. The resultant recommended slope design domains and parameters are dependent on the local geological, rock mass, structural and hydrogeological conditions as appropriate.
Metallurgical factors or assumptions	The Iron Bridge flow sheet utilises HPGR's and air classification in a dry circuit, which differs from conventional magnetite operations, where ball mills are typically utilised in a wet circuit. There are 8 x HPGR's and associated air classifiers in a grinding circuit, which has a cut point of ~ 85 – 100 microns. This dry circuit operation uses less energy and water than traditional ball mill circuits. The technology being utilised is proven existing technology. The flowsheet does represent a departure from previous conventional norms however, as an example, the technology around the HPGR's and Air Classifier are well proven in the cement clinker industry.

Criteria	Commentary
	A pilot plant is operating on site and vendor test work has been undertaken to support the flow sheet unit operations. The test work has been independently audited and the results of which showed: • Extensive geometallurgical test work • Mineralogical characterisation • Carefully selected representative metallurgical holes • Extensive metallurgical comminution test work, Davis tube recovery test work, batch and pilot test work • Extensive vendor test work • Site based pilot plant and stage 1 demonstration plant • Variability test work • Tunra Bulk solids material handling test work • Extensive ore characterisation and process modelling specifically for crusher • Closed loop slurry pipeline test work • Additional geo-metallurgical test work and modelling is being undertaken to assist with short range domaining and mineralogy impacts on throughput for short term operations planning. • The assaying includes a large suite of deleterious elements.
Environmental	Iron Bridge Stages 1 and 2 have been subject to extensive Environmental baseline studies and had Environmental Impact Statements prepared and assessed by the Environmental Protection Authority (Western Australia) and the Department of Climate Change, Energy, the Environment and Water (Commonwealth). Stage 1 received Commonwealth Approval on 14th June 2013 following a decision by the Environmental Protection Authority not to assess the Project on 6th August 2012. Stage 2 of the Project was assessed under a bilateral agreement between the State and Commonwealth at a Public Environmental Review level. State approval was granted on 9th January 2015, followed by Commonwealth approval on 6th February 2015. Construction of the open cut mine and associated waste and tailings landforms are also subject to assessment and approval by the Department of Mines and Petroleum (DMIRS). To date, the Stage 1 open cut mine, temporary waste rock landform, dry tailings landform and wet tailings storage facility have all been assessed via Mining Proposals and approved for construction. Further amendments to the mine including transition to Stage 2 have also been assessed and approved under the Mining Act. Additional approvals for the ongoing implementation of the Project will be required in the future An amendment to the existing Part IV approval is currently being sought for an extension of the mine, waste rock landform, and associated infrastructure for the Glacier Valley deposit. Extensive environmental studies and impact assessments have been prepared for the amended proposal and submitted for assessment. The amended proposal was referred on 27 July 2022 and is awaiting a decision, on the level of assessment, by the Environmental Protection Authority (Western Australia). Similarly, approval from the Commonwealth will be sought for the North Star Extension. North Star has undergone several phases of material characterisation work to determine the risk of acid and metalliferous drainage. The work conducted indicates that there is a significant risk of intersecting potentially acid forming material but that the amount of this material is low compared to the rest of the non-acid forming waste rock. The geochemistry of the material is, however, complicated. Laboratory analyses indicate that there is significant neutralising capacity in the material. Recent investigations show there is a correlation between S and CaO and acid drainage generation, such that inferred Acid Neutralising Capacity (ANC) can be calculated from assay CaO, and the Maximum Potential Acidity (MPA) from assay total sulfur. These values are then used to calculate the neutralisation potential ratio (NPR). At present a conservative but practical approach to classification has been taken and additional work can be used to improve confidence and WRD design parameters.
Infrastructure	The site is located approximately 145 km south of Port Hedland and 45 km to the east of Great Northern Highway. Access to the mine site is via a dedicated mine site access road that connects to the Great Northern Highway. This enables access for construction and ongoing support to the mining and processing operations.

Criteria	Commentary
	The mine is operated on a fly in fly out basis with personnel flying into a dedicated air strip 23 km from the Iron Bridge mine site and 18 km from the village. Personnel are bussed between the air strip and the village. The existing Japal village has been upgraded as part of the project to house the peak construction and on-going mine operations. The village includes all of the appropriate facilities including dry and wet mess, gym and other lifestyle facilities for operational personnel. All traffic to the Iron Bridge site must pass through the Gatehouse to gain access to the mine. The gatehouse area also includes the first aid and emergency response buildings. This is due to its close proximity to access points to all of the North Star operations including plant, mine and village. As the mine site is located within mountainous terrain the location for the Stage 2 processing plant has been carefully chosen to minimise earthworks and haul distance from the mine. All of the required infrastructure for both the processing plant and mining ancillary items have been combined into an area adjacent to the processing plant giving the ability to combine services and reduce earthworks. The plant infrastructure area includes the following mining and plant infrastructure to enable support to both the mining and processing plant operations. • Main Administration Building and associated Crib Rooms and Ablutions • Control Room • Communications Room • Laboratory • HV/Drill/LV Workshops & Warehouse • HV Workshop Office, Crib Room and Ablutions • Lube Station • HV Go Line • Tyre Workshop • HV Refuelling • LV Refuelling • HV Washdown • LV Washdown • Diesel Fuel Facility • Back-up power station • Water Treatment Facilities • Fixed Plant Workshop • Welding Workshop • Main Warehouse • Explosives Magazines and Compounds Fortescue is responsible for delivering the primary power requirements inclusive of latent capacity transmitted from Fortescue's Solomon power station, together with new generation and transmission which will include large-scale renewable energy supply. Concentrate from the processing plant will be conveyed via a buried slurry pipeline. The pipeline will generally follow the mine site access road and then the Fortescue rail to the Port where it will enter the Iron Bridge concentrate handling facility (CHF). A separate water line will follow the same alignment and return water from the CHF back to the mine.
Costs	Majority of the capital cost for Iron Bridge is Sunk and operating costs have been developed based first principles as part of the operations budget estimates aligned with the production rates and operating strategy for the mine. Costs include allowances for mining, processing, administration, pumping slurry to the port and shipping. Future capital costs, including sustaining capital are subject to normal annual budget financial analysis standards and are based on vendors quotes and estimates aligned with the operation's major maintenance and equipment replacement strategy.

Criteria	Commentary
	All costs used were in the form of AUD and converted to USD as required using a LT exchange rate of US$0.75:AU$1.00. Royalties of 5% have been applied.
Revenue factors	Forecast metal prices and exchange rates are based on analysis of internal and external sources. Forecast sales prices and adjustments used to determine Ore Reserves consider market prices for equivalent products, value-in-use assessment plus global industry capacity and consumption trends. Revenue calculations for the Ore Reserves estimate use forward curve for the period of FY23-FY25 and then a long-term CFR price. The forward price profile is commercially sensitive and is not disclosed.
Market assessment	The primary market is for a premium grade magnetite concentrate is the Chinese iron and steel industry. The concentrate product of Iron Bridge is suitable for pelletising or blending with hematite ores prior to sintering. The market for high grade magnetite concentrate is well established with stable demand and price history.
Economic	The project economic evaluation was based on a mine plan and schedule that incorporates the technical aspects of the project and economic modelling that then uses the physicals from the schedule to calculate the project cashflows and final discounted value. The Ore Reserves mine plan and schedule have been demonstrated to be value accretive and have been stress tested by applying sensitivity factors of +/-10% on the most significant drivers such as concentrate price and costs. The project remains NPV positive under these variations.
Social	The majority of mining tenure has been secured for the port, slurry and return water pipelines; mine site; and Canning Basin pipeline. There is one small area of outstanding tenure for the slurry pipeline pending final negotiation with a third party. As the Project has an existing agreement with the same party for the Stage 1 pipeline at this location, this is not seen as a major risk to finalise. With respect to secondary port approvals these will be subject to provision of detailed design. Given that the PPA has previously approved the Stage 1 IB port infrastructure and that the Stage 2 facility is located within the same location it is expected that this secondary approval will be granted in due course. The Iron Bridge Project (Mine, Port and infrastructure corridors) is located on the Nyamal and Kariyarra native title determinations. All areas required for construction of the Iron Bridge Project including mine, port and infrastructure corridors have been surveyed for Aboriginal heritage. As part of the assessment of the Glacier Valley deposit, the Project has engaged in social surrounds consultation with Nyamal knowledge holders for the area to inform the preparation of a Social Cultural Heritage Management Plan (SCHMP). Social surrounds consultation with Nyamal in relation to implementation of the SCHMP and the Project will be ongoing The Western Australian Department of Water and Environmental Regulation (DWER) administer Part V of the Environmental Protection Act and issue Works Approvals and Operating Licences for the construction and operation of prescribed premises. Appropriate Part V licences for the OPF, TSF and WWTP are in place for Iron Bridge Stage 1 and Stage 2. Further Part V approvals will be sought for Stage 2 infrastructure as required.
Other	The Ministerial Statement under Part IV of the EP Act is in hand to allow for construction of the Stage 2 Mine with 20 GL/a groundwater from Canning basin. The Works Approval under Part V of the EP Act allows for construction of the OPF to produce up to 25 Mtpa of wet concentrate. The airport and its related access road were approved by the EPA through an amendment to the Part IV EP Act Ministerial approval on 22 August 2016. An amendment to the existing Part IV approval is currently being sought for an extension of the mine, waste rock landform, and associated infrastructure for the Glacier Valley deposit. The amended proposal was referred on 27 July 2022 and is awaiting a decision, on the level of assessment, by the Environmental Protection Authority (Western Australia). Baseline environmental studies are significantly advanced for the Glacier Valley resource, whilst studies for South Star and West Star are in the early phases of planning. Approval for the Iron Bridge Stage 2 project is subject to conditions imposed by the Ministers for Environment at both a State and Commonwealth level. Several of these conditions restrict commencement of ground disturbing activities in small areas of the project footprint until certain surveys, studies, subsequent management plans have been completed and Ministerial advice is received. All necessary surveys and studies for Iron Bridge Stage 2 have been completed and have been submitted to the EPA.

Criteria	Commentary
	Preparation and implementation of survey and management plans required to allow access to these small project areas have been progressively submitted and approved. Mining within 100m of the Pilbara Leaf Nosed Bat (PLNB) roost cave identified as Cave 13 is prohibited by the current Stage 2 Ministerial Approval until such time as the Minister considers that the viability of the population of PLNB at North Star can remain viable without the cave. Research and studies in relation to the PLNB remain in progress with intensive habitat searches and genetic analysis of the North Star population continuing in FY22. None of the above is expected to have a material impact on the development schedule for Iron Bridge Stage 2, as plans have been developed and action underway to address each of the points identified
Classification	There is Measured, Indicated and Inferred Resources within the model. The (Fresh) Measured and Indicated Resources within the designed pits have been used as ore inventory for the Ore Reserve mine schedule, with all Inferred Resource Class (including all oxide resource) treated as waste. Ore Reserves are the portion of designed pit ore inventory which was used by the mine schedule as crusher ore feed. All Magnetite Ore Reserves are classified as Probable Reserves due to the lack of full-scale production history as no sales or production have occurred for Magnetite as at 30 June 2022 and are quoted on a dry in-situ tonnes basis prior to processing.
Audits or reviews	An audit of the 2022 Ore Reserve estimate for Iron Bridge was carried out by an independent external consultant in June and July 2022. No material issues with the input data, assumptions, and outputs from the Ore Reserve estimation processes were identified by the auditors, who concluded that the overall process for estimation of the Iron Bridge 2022 Ore Reserve is at industry standard (equivalent to or better than peers). The metallurgical test work was independently audited in 2018. Since then, number of independent reviews and detailed modelling/simulation exercises have been completed for specific parts of the plant to plan and optimise the process plant operating strategy.

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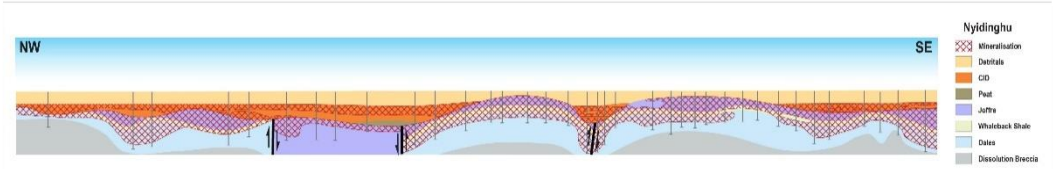
Nyidinghu

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposit is sampled using reverse circulation (RC) and diamond (DD) drill holes. A total of 1,913 RC drill holes for 115,409 2m composite samples were used in the model. Samples sent for element and analytical work were selected based on potential ore-grade material with a reasonable envelope both above and below this interval. Most holes where possible undergo down hole geophysical logging.
	Analytical CRMs were used to assist in checking laboratory results. Field duplicates were used to assist with determining sampling quality at the rig. Geophysical probes were calibrated on a regular basis using static methods and specific calibration holes. Drill hole locations were determined by survey contractors.
	All samples were taken on 2m intervals from reverse circulation drill holes. A sample weighing approximately 1 to 3 kilograms was collected for each metre which was transported to a commercial laboratory and then pulverised for XRF analysis.
Drilling techniques	RC drill holes of approximately 140mm diameter were completed using a standard face sampling hammer. The majority of drill holes are vertical. DD drill holes were drilled as twins to RC drill holes, for metallurgical test work, to provide geotechnical information, for downhole geophysical data calibration purposes or to provide density data. DD holes were not incorporated into the estimate. Core size was predominantly PQ with some 6 inch holes. With exception of the geotechnical holes, all diamond holes were drilled vertically, the core was not oriented.
Drill sample recovery	The quality of each sample sent to the laboratory was recorded by the logging geologist at the time of drilling and categorised as either poor, moderate, or good. More than 90% of samples were recorded as good quality.
	No major issues with the sample collection system were identified during drilling. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	There is assumed to be no expected relationship between sample recovery and grade.
Logging	Geological logging was completed by geologists experienced in iron ore mineralisation. The standard of logging is suitable to support an estimate of Mineral Resources.
	Stratigraphy, mineralogy, chip size, chip shape, chip recovery, hardness, colour, moisture and sample quality were recorded for all drill holes. Chip trays from RC holes were collected on an intermittent basis.
	All drill holes are geologically logged.
Sub-sampling techniques and sample preparation	Drilling samples are collected in labelled bags, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of sampling system between samples. Wet samples are allowed to dry before being processed.
	The sample collected from the cone splitter represents approximately 6 to 7% of the total sample interval. Cone splitters are the preferred splitting system used by Fortescue as they generally give the most representative sample in both dry and wet conditions.
	At the laboratory, samples were weighed, dried and pulverised 85% passing through 75 microns.
	Certified reference materials (CRM) are used in the field (approximately 1 in 100 samples) and laboratory (1 per laboratory job) as a quality control measure at different sub-sampling stages.
	Rig duplicate samples are taken at an average of 3 rig duplicate samples per approximately 100 samples sent to the laboratory. An analysis of these duplicate samples indicates that they are of good quality and repeatable.
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
	All samples were sent to Genalysis/Intertek or SGS laboratory for analysis. All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation. The standard elements tested were Fe,

Criteria	Commentary
Quality of assay data and laboratory tests	SiO_2, Al_2O_3, P, Mn, MgO, CaO, K_2O, TiO_2, Na_2O and S by X-ray Fluorescence (XRF) and a three-point LOI thermo gravimetric analysis at 371, 650 and 1000 degrees Celsius. This is considered a total analysis.
	No geophysical tools were used to determine any element concentrations used in the estimate.
	Analysis of laboratory CRM results indicates high confidence in XRF analysis at each laboratory. Analysis of field CRMs have indicated issues with laboratory sample preparation and CRM certification in the past. Field CRM results are closely monitored and issues are resolved promptly.
Verification of sampling and assaying	Significant intersections have been visually verified by Fortescue's Exploration Managers.
	Twin holes have been completed to check the variance of the orebody. Results show good correlation between the twinned drill holes.
	Sample data is stored using a customised acQuire database, which includes a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual validation in order to confirm results reflect field collected information and geology.
	Samples returning below detection limits were given the result of half the detection limit. Missing data was set to -99 and those samples were excluded from statistical analysis and estimation.
Location of data points	Drill hole collar locations have been surveyed using a Differential Global Positioning System by Down Under Surveys and Fortescue licenced surveyors, with an accuracy of better than 3cm for Easting and Northing and 5cm in elevation. Collar survey data is validated against planned coordinates and the topographic surface. Down hole surveys have been completed on the majority of holes greater than 150m in total depth, most holes are vertical and deviations from vertical are negligible.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The project area lies inside UTM zone 50.
	The topography was created from 0.5 metre contours produced from LIDAR data. Vertical and horizontal accuracy of this data is ±0.15m.
Data spacing and distribution	The grade estimate used RC drill holes which occur on a grid spacing of predominantly 50m × 100m and 100m × 100m, with some areas on a 25m × 25m, 50m × 50m and 100m × 200m for assays and geology.
	This level of drill spacing is sufficient to establish the degree of geological and grade continuity required for an estimate of Mineral Resources.
	Some 1m samples were composited to 2m for this estimation.
Orientation of data in relation to geological structure	Drill holes have been mostly drilled as vertical holes in drill lines sub-perpendicular to the local bearing of the ore body. The mineralisation is sub-horizontal and these vertical holes are sufficient to imply geological and grade continuity.
	No material relationship is apparent between sampling bias and geological orientation.
Sample security	To ensure sample security consignment notes (sample submission information) have been used and direct delivery to Perth laboratories has been carried out.
Audits or reviews	All sampling has been carried using Fortescue standard procedures.
	For analogous deposits, sampling audits have been carried out, which did not highlight any major issues. Similar drill rigs and splitters were used on this deposit as was used on the audited deposits. Fortescue sampling and logging procedures are standard across all sites.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Pilbara Iron Ore Pty Ltd and Chichester Metals Pty Ltd are wholly owned subsidiaries of Fortescue Metals Group Ltd and own 100% of all mineral rights in the tenements which cover the projects within the Nyidinghu Hub: E47/1191, E47/1320, E47/1387, E47/1388 and M47/1461. These are live, granted tenements. Mining Lease application M47/1552 was applied for over the area by Chichester Metals Pty Ltd and is pending grant.
	The tenements are within the Nyiyaparli and Nyiyaparli #3 NTD. Fortescue has a current LAA with the Nyiyaparli People native title holders. Fortescue also has a registered ILUA with Karlka Nyiyaparli Aboriginal Corporation RNTBC. Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works.
	The tenure is currently in good standing and no impediments to obtaining a licence to operate in the area are known to exist.
Exploration done by other parties	BHP have performed exploration for iron ore within the project area. No historical data has been used by Fortescue
Geology	Mineralisation within the deposit is a hosted by CID, BID and minor DID. BID mineralisation is found within the Joffre, Whaleback Shale and Dales Gorge Members of the Brockman Iron Formation.
Drill hole Information	Collar details of the RC drill holes used in the estimate are not being reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation please refer to: *Section 3 Estimation and Reporting of Mineral Resources*.
Relationship between mineralisation widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure in Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The mineralised extents are shown in the release A typical section through the deposit is shown here. 
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	The density work carried out at the project is discussed in: *Section 3 Estimation and Reporting of Mineral Resources*.
	Geological surface mapping of the project has been carried out by Fortescue geologists. Dip and strike measurements, stratigraphy and mineralisation have been recorded into a database.
	Down hole geophysics has been carried out on RC drill holes including natural gamma, magnetic susceptibility and gamma density.
	The estimated groundwater level has been recorded on most RC drill holes.
Further Work	Further infill drilling and metallurgical test work is planned for the project. Extensions to known mineralisation may occur in the area.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Field logging and sampling data is captured electronically utilising standard templates ensuring data integrity.
	Data is uploaded and stored in an industry standard database (acQuire) which includes a series of automated validation checks. Any manual validation or changes are only completed by trained and authorised personnel.
Site visits	The Competent Person and Competent Persons team conducts regular site visits, approximately every two to three months when drilling operations are in progress to inspect the model area, RC drill hole logging and sampling practices. Discussions are held regularly with site geologists.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron ore mineralisation. Geology over the majority of the deposit is relatively well known. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however, this is not considered to be material.
	Geological interpretation is based on geological logging, down hole geophysics and geochemistry of RC drill samples.
	The stratigraphy of the deposit is reasonably well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. Extrapolation of mineralisation has been restricted to approximately half of the nominal drill spacing.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	The main factors impacting the geological and grade continuity include the stratigraphy, structure, erosion and weathering. The grade and geological continuity are generally good compared with analogous areas.
Dimensions	Mineralisation covers an area approximately 7km in length and 4.5km across. DID and CID mineralisation overlies the majority of the BID, the DID mineralisation has an average thickness of 15m and the CID mineralisation 35m. BID mineralisation extends to depths of up to 300m, with an average thickness of 85m.
Estimation and modelling techniques	Ordinary Kriging was used to estimate all mineralised units and inverse distance for all waste domains. Estimation was done using Maptek Vulcan software. Mineralisation was extrapolated approximately half the distance of drill spacing away from the drilling. The deposit was domained by stratigraphy, structure, local strike/orientation and mineralised/un-mineralised zones.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, LOI Total, LOI 371ºC, LOI 650ºC and LOI 1000ºC has been estimated.
	Estimation into parent cells of 25mE × 25mN × 1mRL and 25mE × 50mN × 1mRL was used. Size and orientation of parent blocks reflected half the nominal drill spacing and orientation of mineralisation. Sub blocking down to 6.25mE × 6.25mN × 0.5mRL was used along domain boundaries to better define the domain interface.
	Up to three estimation passes were used for each element, gradually increasing search ellipse distances with each pass. Search distances along strike and across strike varied between each domain. These were primarily defined by sample spacing within each domain and determined by neighbourhood iterative tests.
	No assumptions behind the modelling of selective mining units have been made.
	Correlation between some elements has been noted during statistical analysis. Similar variogram parameters were achieved for mineralised domains that had elements with a noted correlation.
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator thresholds for Fe, SiO_2, Al_2O_3 and Mn for the individual stratigraphic units. These thresholds were based on data population statistics and visual validation. A domain code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Some element grades were top-cut during estimation based on high coefficient of variation values.

Criteria	Commentary
	Visual validation of the block model coding of the domains was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the domains and grade were completed in Vulcan by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are within an acceptable range. Trend analysis graphs have been created for each of the mineralised domains. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a slice in space. These graphs show that overall, the model grade is consistent with the raw data and shows no bias. Areas with many samples correlate much better with the model grade than do areas with few samples.
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	BID and CID is reported at a cut-off of greater than or equal to 52% Fe and DID is reported as a cut-off of greater than or equal to 54% Fe. These cut-offs have been used for analogous Fortescue estimates and represents a similar cut-off to current product specifications.
Mining factors or assumptions	It is assumed that mining will be carried out with medium to large scale mining equipment, bench heights will vary depending on mining studies. These methods will be similar to analogous Fortescue deposits where conventional: truck & shovel/excavator; drill & blast and grade control methods are used. The impact of dilution will be assessed as part of the mining studies.
Metallurgical factors or assumptions	It is assumed that similar metallurgical techniques to analogous Fortescue operations will be utilised. The expectation is that material will be dry processed by screens and crushers, with potential for some wet processing. Final processing methods will be defined by further mining studies.
Environmental factors or assumptions	Fortescue has an extensive environmental and heritage approvals process. Waste will be formed as dumps or into mining voids. In the case of acid and fibre mitigation, Fortescue has industry standard procedures. Where beneficiation may take place, reject is considered to be inert and there are no foreseen problems with tailings disposal. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	Density has been calculated from down-hole geophysical measurements throughout the deposit. Average rounded densities by geological unit and mineralisation have been compared with bulk density measurements collected from diamond core drilled within the project and analogous deposits, then applied globally to the model. Whilst on site down-hole geophysical tools are calibrated fortnightly in a designated test diamond drill hole. A program to allow estimation of downhole gamma density data into the model with subsequent conversion to dry in-situ values is progressing and updates to the densities used is anticipated.
	Down-hole geophysical probes measure the in-situ bulk density which accounts for void spaces. These measurements are validated against known dry bulk densities from diamond core drilled within the deposit. Down-hole geophysical measurements are grouped by geological and mineralisation domains.
	The densities used are similar to known densities for current and historical mines, of similar geology and mineralisation, across the Pilbara.
Classification	The Mineral Resource has been classified as Measured, Indicated and Inferred. This considers drill spacing and data integrity, geological complexity, grade estimation quality, interpreted risk and mineralisation continuity based on the semivariogram ranges of influence.
	The Mineral Resource classification reflects the views of the competent persons.
Audits or reviews	Internal reviews have been completed during all stages of the estimate. An external audit of the estimation process has been completed for analogous deposits with no significant flaws identified.
Discussion of relative accuracy/ confidence	Grade and geological continuity are sufficient for a Measured, Indicated and Inferred Mineral Resource.
	Greater confidence in applied density values will be achieved through further physical density and down-hole geophysical measurements.
	The global estimate is sufficient to assume the grade and geological continuity in the area of the Measured and Indicated Mineral Resource and imply the grade and geological continuity in the area of the Inferred Mineral Resource.
	No production data is available at this stage.

JORC Code, 2012 Edition – Table 1

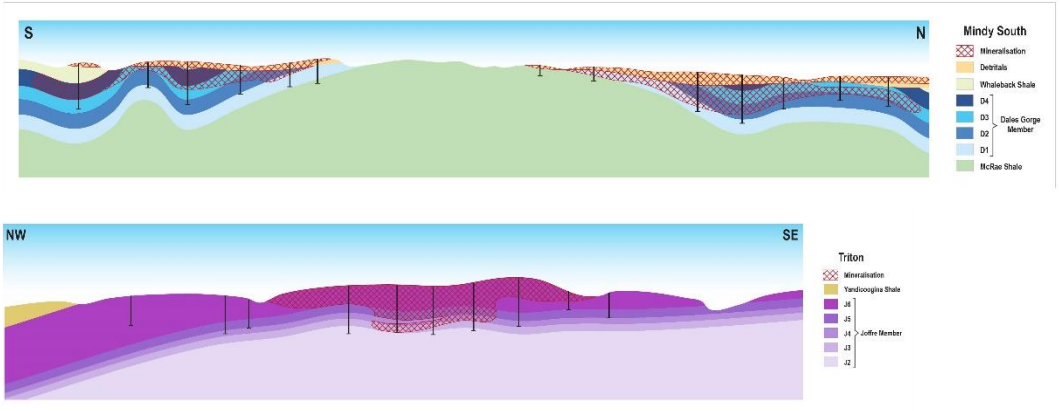
Pilbara Other Hub deposits: Mindy South, Triton, Wonmunna and Fig Tree

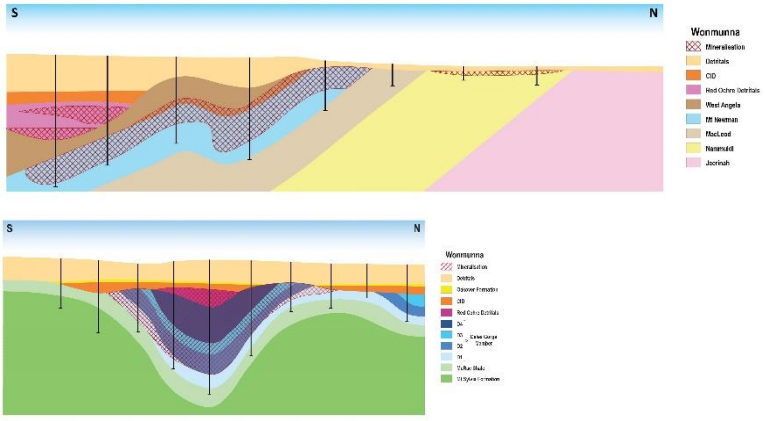
Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposits are sampled using RC drill holes. 1m composite samples were used in the model. Samples sent for element and analytical work were selected based on potential ore-grade material with a reasonable envelope both above and below this interval. Most holes where possible undergo down hole geophysical logging.
	Analytical CRMs were used to assist in checking laboratory results. Field duplicates were used to assist with determining sampling quality at the rig. Geophysical probes were calibrated on a regular basis using static methods and specific calibration holes. Drill hole locations were determined by survey contractors.
	All samples were taken on 1m intervals from reverse circulation drill holes. A sample weighing approximately 1 to 3 kilograms was collected for each metre which was transported to a commercial laboratory and then pulverised for XRF analysis.
Drilling techniques	RC drill holes of approximately 140mm diameter were completed using a standard face sampling hammer. The majority of drill holes are vertical.
Drill sample recovery	The quality of each sample sent to the laboratory was recorded by the logging geologist at the time of drilling and categorised as either poor, moderate, or good. More than 90% of samples were recorded as good quality.
	No major issues with the sample collection system were identified during drilling. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	There is assumed to be no expected relationship between sample recovery and grade.
Logging	Geological logging was completed by geologists experienced in iron ore mineralisation. The standard of logging is suitable to support an estimate of Mineral Resources.
	Stratigraphy, mineralogy, chip size, chip shape, chip recovery, hardness, colour, moisture and sample quality were recorded for all drill holes. Chip trays from RC holes were collected on an intermittent basis.
	All drill holes are geologically logged.
Sub-sampling techniques and sample preparation	Drilling samples are collected in labelled bags, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of sampling system between samples. Wet samples are allowed to dry before being processed.
	The sample collected from the cone splitter represents approximately 6 to 7% of the total sample interval. Cone splitters are the preferred splitting system used by Fortescue as they generally give the most representative sample in both dry and wet conditions.
	At the laboratory, samples were weighed, dried and pulverised 85% passing through 75 microns.
	Certified reference materials (CRM) are used in the field (approximately 1 in 100 samples) and laboratory (1 per laboratory job) as a quality control measure at different sub-sampling stages.
	Rig duplicate samples are taken at an average of 3 rig duplicate samples per approximately 100 samples sent to the laboratory. An analysis of these duplicate samples indicates that they are of good quality and repeatable.
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
Quality of assay data and laboratory tests	All samples were sent to Genalysis/Intertek or SGS laboratory for analysis. All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation. The standard elements tested were Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, K_2O, TiO_2, Na_2O and S by X-ray Fluorescence (XRF) and a three-point LOI thermo gravimetric analysis at 371, 650 and 1000 degrees Celsius. This is considered a total analysis.
	No geophysical tools were used to determine any element concentrations used in the estimate.

Criteria	Commentary
	Analysis of laboratory CRM results indicates high confidence in XRF analysis at each laboratory. Analysis of field CRMs have indicated issues with laboratory sample preparation and CRM certification in the past. Field CRM results are closely monitored and issues are resolved promptly.
Verification of sampling and assaying	Significant intersections have been visually verified by Fortescue's Exploration Managers.
	Twin holes have been completed to check the variance of the orebody at Mindy South. Results show good correlation between the twinned drill holes. No twin holes have been completed at this stage for the Triton, Wonmunna and Fig Tree deposits.
	Sample data is stored using a customised acQuire database, which includes a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual validation in order to confirm results reflect field collected information and geology.
	Samples returning below detection limits were given the result of half the detection limit. Missing data was set to -99 and those samples were excluded from statistical analysis and estimation.
Location of data points	Drill hole collar locations have been surveyed using a Differential Global Positioning System by Down Under Surveys and Fortescue licenced surveyors, with an accuracy of better than 3cm for Easting and Northing and 5cm in elevation. Collar survey data is validated against planned coordinates and the topographic surface. Down hole surveys have been completed on the majority of holes greater than 150m in total depth, most holes are vertical and deviations from vertical are negligible.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The project area lies inside UTM zone 50.
	The topography was created from 0.5 metre, 2 metre and 5 metre contours produced from LIDAR data and 1 metre contours produced from a DEM created from orthophotography. Accuracy of the LIDAR data is ± 0.20m, accuracy of the contours produced from the orthophotography is ± 0.3m.
Data spacing and distribution	The grade estimate used RC drill holes which occur on a grid spacing of predominantly 100m × 100m, 200m × 100m and 400m × 100m for assays and geology.
	This level of drill spacing is sufficient to establish the degree of geological and grade continuity required for an estimate of Mineral Resources.
	No sample compositing was conducted for this estimation.
Orientation of data in relation to geological structure	Drill holes have been mostly drilled as vertical holes in drill lines sub-perpendicular to the local bearing of the ore body. The mineralisation is sub-horizontal and these vertical holes are sufficient to imply geological and grade continuity.
	No material relationship is apparent between sampling bias and geological orientation.
Sample security	To ensure sample security consignment notes (sample submission information) have been used and direct delivery to Perth laboratories has been carried out.
Audits or reviews	All sampling has been carried using Fortescue standard procedures.
	For analogous deposits, sampling audits have been carried out, which did not highlight any major issues. Similar drill rigs and splitters were used on these deposits as was used on the audited deposits. Fortescue sampling and logging procedures are standard across all sites.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	FMG Pilbara Pty Ltd and Pilbara Iron Ore Pty Ltd are wholly owned subsidiaries of Fortescue Metals Group Ltd and owns 100% of all mineral rights in the tenements which cover the projects within the Pilbara Other Hub: E47/1140, E47/1225, E47/1235, E47/1380, E47/1423, E47/1702, E47/3405, E47/3761 and M47/1492. These are live, granted tenements. Mining Lease applications M47/1555, M47/1612 and M47/1634 were applied for over the area by FMG Pilbara Pty Ltd and are pending grant.
	The tenements are within the Banjima People NTD, the Nyiyaparli and Nyiyaparli #3 NTD and the Ngarlawangga People NTD. Fortescue has a current LAA with the Banjima People and the Nyiyaparli People, and a heritage agreement with the Ngarlawangga People native title holders. Fortescue also has a registered ILUA with Karlka Nyiyaparli Aboriginal Corporation RNTBC. Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. Within the Fig Tree project area heritage surveys have identified new places that are highly significant. The ethnographic place Billarybeena has been excluded from the reported Mineral Resources.
	The tenure is currently in good standing and no impediments to obtaining a licence to operate in the area are known to exist.
Exploration done by other parties	Rio Tinto as Hamersley Iron Ltd have performed exploration for iron ore within the Mindy South project area. There is no known historical data in the Triton, Wonmunna and Fig Tree projects areas. No historical data has been used by Fortescue.
Geology	At Mindy South mineralisation within the deposit is a hosted by BID and minor DID. BID mineralisation is found within the Joffre, Whaleback Shale and Dales Gorge Members of the Brockman Iron Formation. At Triton mineralisation within the deposit is a hosted by BID within the Joffre Member of the Brockman Iron Formation. At Wonmunna mineralisation within the deposit is a hosted by BID and DID. BID mineralisation is found within the Dales Gorge Member of the Brockman Iron Formation, the Mount Newman, MacLeod and Nammuldi Members of the Marra Mamba Iron Formation, and the West Angela Member of the Wittenoom Formation. DID occurs as red ochre detritals. Mineralisation within the Fig Tree deposit is hosted by CID. Outcropping geology in the project area is the Brockman Iron Formation. Incised into the bedrock are large channel systems which contain the CID mineralisation.
Drill hole Information	Collar details of the RC drill holes used in the estimate are not being reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation please refer to: *Section 3 Estimation and Reporting of Mineral Resources*.
Relationship between mineralisation widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure in Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The mineralised extents are shown in the release. Typical sections through the Mindy South, Triton and Wonmunna deposits are shown here. 

Criteria	Commentary
	
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	The density work carried out at the project is discussed in: *Section 3 Estimation and Reporting of Mineral Resources*.
	Geological surface mapping of the project has been carried out by Fortescue geologists. Dip and strike measurements, stratigraphy and mineralisation have been recorded into a database.
	Down hole geophysics has been carried out on RC drill holes including natural gamma, magnetic susceptibility and gamma density.
	The estimated groundwater level has been recorded on most RC drill holes.
Further Work	Further infill drilling and metallurgical test work is planned for the projects. Extensions to known mineralisation may occur in the area.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Field logging and sampling data is captured electronically utilising standard templates ensuring data integrity.
	Data is uploaded and stored in an industry standard database (acQuire) which includes a series of automated validation checks. Any manual validation or changes are only completed by trained and authorised personnel.
Site visits	The Competent Person and Competent Persons team conducts regular site visits, approximately every two to three months when drilling operations are in progress to inspect the model area, RC drill hole logging and sampling practices. Discussions are held regularly with site geologists.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron ore mineralisation. Geology over the majority of the deposits is relatively well known. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however, this is not considered to be material.
	Geological interpretation is based on geological logging, down hole geophysics and geochemistry of RC drill samples.
	The stratigraphy of the deposits is reasonably well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. At Wonmunna, an alternative mineralisation geometry has been tested to check the suitability of the method used in modelling. Extrapolation of mineralisation has been restricted to approximately half of the nominal drill spacing.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	The main factors impacting the geological and grade continuity include the stratigraphy, structure, erosion and weathering. The grade and geological continuity are generally good compared with analogous areas.
Dimensions	At Mindy South mineralisation is distributed variably within an area of approximately 10km along strike and 2km across strike. Mineralised pods range from 200m to 3500m along strike and 200m to 600m across strike. BID mineralisation occurs at surface and extends of depth of up to 120m below surface. The Brockman BID mineralisation has an average thickness of 30m DID mineralisation overlies the BID and has an average thickness of 10m. At Triton the mineralisation has a strike length up to 1.5km in length and approximately 500m in width. BID mineralisation extends to depths of up to 100m. At Wonmunna mineralisation covers an area approximately 10km along strike and 80m across strike. Mineralisation occurs at surface and to depths of up to 130m in the Brockman mineralisation with an average thickness of 25m and up to depths of 210m in the Marra Mamba mineralisation with an average thickness of 45m. At Fig Tree mineralisation covers an area approximately 1km in length and 500m across the channel. Mineralisation occurs at surface and to depths of up to 70m. The defined mineralised units are between 5m and 45m thick with an average thickness of 30m.
Estimation and modelling techniques	Ordinary Kriging was used to estimate all mineralised units and inverse distance for all waste domains. Estimation was done using Maptek Vulcan software. Mineralisation was extrapolated approximately half the distance of drill spacing away from the drilling. The deposits were domained by stratigraphy, structure, local strike/orientation and mineralised/un-mineralised zones.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, LOI Total, LOI 371ºC, LOI 650ºC and LOI 1000ºC has been estimated.
	Estimation was conducted into parent cells of various size and orientation to reflect approximately half the nominal drill spacing and orientation of mineralisation. 50mE × 50mN × 1mRL and 200mE × 50mN × 1mRL block sizes were used at Mindy South, 50mE × 50mN × 1mRL at Triton, 100mE × 50mN × 1mRL at Wonmunna, and 200mE × 50mN × 1mRL and 50mE × 200mN × 1mRL at Fig Tree. Sub blocking down to 6.25mE × 6.25mN × 0.5mRL was used along domain boundaries to better define the domain interface.
	Up to three estimation passes were used for each element, gradually increasing search ellipse distances with each pass. Search distances along strike and across strike varied between each domain. These were primarily defined by sample spacing within each domain and determined by neighbourhood iterative tests.
	No assumptions behind the modelling of selective mining units have been made.

Criteria	Commentary
	Correlation between some elements has been noted during statistical analysis. Similar variogram parameters were achieved for mineralised domains that had elements with a noted correlation.
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator thresholds for Fe, SiO_2 and Al_2O_3 for the individual stratigraphic units. These thresholds were based on data population statistics and visual validation. A domain code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Some element grades were top-cut during estimation based on high coefficient of variation values.
	Visual validation of the block model coding of the domains was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the domains and grade were completed in Vulcan by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are within an acceptable range. Trend analysis graphs have been created for each of the mineralised domains. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a slice in space. These graphs show that overall, the model grade is consistent with the raw data and shows no bias. Areas with many samples correlate much better with the model grade than do areas with few samples.
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	At Mindy South and Triton all BID is reported at greater than or equal to 50% Fe, and all DID is reported at greater than or equal to 54% Fe. At Wonmunna BID is reported at greater than or equal to 50% Fe and 54% Fe within different stratigraphic units, and all DID is reported at greater than or equal to 54% Fe. At Fig Tree all CID is reported at greater than or equal to 54% Fe. These cut-offs have been used for analogous Fortescue estimates and represents a similar cut-off to current product specifications.
Mining factors or assumptions	It is assumed that mining will be carried out with medium to large scale mining equipment, bench heights will vary depending on mining studies. These methods will be similar to analogous Fortescue deposits where conventional: truck & shovel/excavator; drill & blast and grade control methods are used. The impact of dilution will be assessed as part of the mining studies.
Metallurgical factors or assumptions	It is assumed that similar metallurgical techniques to analogous Fortescue operations will be utilised. The expectation is that material will be dry processed by screens and crushers, with potential for some wet processing. Final processing methods will be defined by further mining studies.
Environmental factors or assumptions	Fortescue has an extensive environmental and heritage approvals process. Waste will be formed as dumps or into mining voids. In the case of acid and fibre mitigation, Fortescue has industry standard procedures. Where beneficiation may take place, reject is considered to be inert and there are no foreseen problems with tailings disposal. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	Density has been calculated from down-hole geophysical measurements throughout the deposits. Average rounded densities by geological unit and mineralisation have been compared with bulk density measurements collected from diamond core drilled within analogous deposits, then applied globally to the model. Whilst on site down-hole geophysical tools are calibrated fortnightly in a designated test DD or RC drill hole. A program to allow estimation of downhole gamma density data into the model with subsequent conversion to dry in-situ values is progressing for Mindy South and updates to the densities used is anticipated.
	Down-hole geophysical probes measure the in-situ bulk density which accounts for void spaces. These measurements are validated against known dry bulk densities from diamond core drilled in analogous deposits. Down-hole geophysical measurements are grouped by geological and mineralisation domains.
	The densities used are similar to known densities for current and historical mines, of similar geology and mineralisation, across the Pilbara.
Classification	The Mineral Resources have been classified as Inferred. This considers drill spacing and data integrity, geological complexity, grade estimation quality, interpreted risk and mineralisation continuity based on the semivariogram ranges of influence.
	The Mineral Resource classification reflects the views of the competent persons.

Criteria	Commentary
Audits or reviews	Internal reviews have been completed during all stages of the estimate. An external audit of the estimation process has been completed for analogous deposits with no significant flaws identified.
Discussion of relative accuracy/ confidence	Grade and geological continuity are sufficient for Inferred Mineral Resources.
	Greater confidence in applied density values will be achieved through further physical density and down-hole geophysical measurements.
	The global estimate is sufficient to imply the grade and geological continuity in the area of the Inferred Mineral Resource.
	No production data is available at this stage.

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Greater Solomon Hub deposits: Serenity and Sheila Valley

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposits are sampled using RC and DD drill holes. 1m composite samples were used in the model. Samples sent for element and analytical work were selected based on potential ore-grade material with a reasonable envelope both above and below this interval. Most holes where possible undergo down hole geophysical logging.
	Analytical CRMs were used to assist in checking laboratory results. Field duplicates were used to assist with determining sampling quality at the rig. Geophysical probes were calibrated on a regular basis using static methods and specific calibration holes. Drill hole locations were determined by survey contractors.
	All samples were taken on 1m intervals from reverse circulation drill holes. A sample weighing approximately 1 to 3 kilograms was collected for each metre which was transported to a commercial laboratory and then pulverised for XRF analysis.
Drilling techniques	RC drill holes of approximately 140mm diameter were completed using a standard face sampling hammer. The majority of drill holes are vertical. DD drill holes were drilled as twins to RC drill holes, for metallurgical test work, to provide geotechnical information, for downhole geophysical data calibration purposes or to provide density data. DD holes were not incorporated into the estimate. Core size was predominantly PQ. With exception of the geotechnical holes, all diamond holes were drilled vertically, the core was not oriented.
Drill sample recovery	The quality of each sample sent to the laboratory was recorded by the logging geologist at the time of drilling and categorised as either poor, moderate, or good. More than 90% of samples were recorded as good quality.
	No major issues with the sample collection system were identified during drilling. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	There is assumed to be no expected relationship between sample recovery and grade.
Logging	Geological logging was completed by geologists experienced in iron ore mineralisation. The standard of logging is suitable to support an estimate of Mineral Resources.
	Stratigraphy, mineralogy, chip size, chip shape, chip recovery, hardness, colour, moisture and sample quality were recorded for all drill holes. Chip trays from RC holes were collected on an intermittent basis.
	All drill holes are geologically logged.
Sub-sampling techniques and sample preparation	Drilling samples are collected in labelled bags, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of sampling system between samples. Wet samples are allowed to dry before being processed.
	The sample collected from the cone splitter represents approximately 6 to 7% of the total sample interval. Cone splitters are the preferred splitting system used by Fortescue as they generally give the most representative sample in both dry and wet conditions.
	At the laboratory, samples were weighed, dried and pulverised 85% passing through 75 microns.
	Certified reference materials (CRM) are used in the field (approximately 1 in 100 samples) and laboratory (1 per laboratory job) as a quality control measure at different sub-sampling stages.
	Rig duplicate samples are taken at an average of 3 rig duplicate samples per approximately 100 samples sent to the laboratory. An analysis of these duplicate samples indicates that they are of good quality and repeatable.
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
	All samples were sent to Genalysis/Intertek or SGS laboratory for analysis. All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation. The standard elements tested were Fe,

Criteria	Commentary
Quality of assay data and laboratory tests	SiO_2, Al_2O_3, P, Mn, MgO, CaO, K_2O, TiO_2, Na_2O and S by X-ray Fluorescence (XRF) and a three-point LOI thermo gravimetric analysis at 371, 650 and 1000 degrees Celsius. This is considered a total analysis.
	No geophysical tools were used to determine any element concentrations used in the estimate.
	Analysis of laboratory CRM results indicates high confidence in XRF analysis at each laboratory. Analysis of field CRMs have indicated issues with laboratory sample preparation and CRM certification in the past. Field CRM results are closely monitored and issues are resolved promptly.
Verification of sampling and assaying	Significant intersections have been visually verified by Fortescue's Exploration Managers.
	Twin holes have been completed to check the variance of the orebody. Results show good correlation between the twinned drill holes.
	Sample data is stored using a customised acQuire database, which includes a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual validation in order to confirm results reflect field collected information and geology.
	Samples returning below detection limits were given the result of half the detection limit. Missing data was set to -99 and those samples were excluded from statistical analysis and estimation.
Location of data points	Drill hole collar locations have been surveyed using a Differential Global Positioning System by Down Under Surveys, with an accuracy of better than 3cm for Easting and Northing and 5cm in elevation. Collar survey data is validated against planned coordinates and the topographic surface. Down hole surveys have been completed on the majority of holes greater than 150m in total depth, most holes are vertical and deviations from vertical are negligible.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The project area lies inside UTM zone 50.
	The topography was created from 1 metre contours produced from LIDAR data and 5 metre contours produced from Landgate 20 metre DEM. Accuracy of the LIDAR data is ±0.2 metres.
Data spacing and distribution	The grade estimate used RC drill holes which occur on a grid spacing of predominantly 50m × 100m and 100m × 100m, with some areas on a 25m × 25m, 50m × 50m and 100m × 200m for assays and geology.
	This level of drill spacing is sufficient to establish the degree of geological and grade continuity required for an estimate of Mineral Resources.
	No sample compositing was conducted for this estimation.
Orientation of data in relation to geological structure	Drill holes have been mostly drilled as vertical holes in drill lines sub-perpendicular to the local bearing of the ore body. The mineralisation is sub-horizontal and these vertical holes are sufficient to imply geological and grade continuity.
	No material relationship is apparent between sampling bias and geological orientation.
Sample security	To ensure sample security consignment notes (sample submission information) have been used and direct delivery to Perth laboratories has been carried out.
Audits or reviews	All sampling has been carried using Fortescue standard procedures.
	For analogous deposits, sampling audits have been carried out, which did not highlight any major issues. Similar drill rigs and splitters were used on these deposits as was used on the audited deposits. Fortescue sampling and logging procedures are standard across all sites.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	FMG Pilbara Pty Ltd is a wholly owned subsidiary of Fortescue Metals Group Ltd and owns the tenements which cover the projects within the Greater Solomon Hub: E47/1306, E47/1333, E47/1352, E47/1372, E47/1524, E47/1763, E47/1821, M47/1407, M47/1408, M47/1417 and M47/1573. Fortescue owns 100% of all mineral rights in the tenure except for E47/1333 and E47/1372 where we own all mineral rights except for diamonds. These are live, granted tenements. Some of the tenure are subject to a royalty deed with a third party and a royalty is payable. Mining Lease applications M47/1493, M47/1544, M47/1551, M47/1558, M47/1559, M47/1560 and M47/1561 were applied for over the area by FMG Pilbara Pty Ltd and are pending grant.
	The tenements are within the Eastern Guruma NTD. Fortescue has a current LAA with the Wintawari Guruma Aboriginal Corporation on behalf of the Eastern Guruma native title holders. Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. Within the Serenity and Sheila Valley project areas heritage surveys have identified places that are highly significant. The ethnographic places Thurwinya (Mount Sheila), Wilarratarkiangu Marnta (Mount Sylvia) and Pangawinhanha (Split Hill) have been excluded from the reported Mineral Resources.
	The tenure is currently in good standing and no impediments to obtaining a licence to operate in the area are known to exist.
Exploration done by other parties	Both BHP (under The Broken Hill Propriety Company Ltd) and Rio Tinto (under Hamersley Exploration and Hamersley Iron Ltd.) have performed exploration for iron ore within the project boundaries. No historical data has been used by Fortescue.
Geology	Mineralisation within the deposits is hosted by DID, CID and BID. Outcropping geology in the project is the Joffre, Whaleback Shale, and Dales Gorge Members of the Brockman Iron Formation which contain BID mineralisation. Incised into this bedrock geology are large channel systems which contain the DID and CID mineralisation.
Drill hole Information	Collar details of the RC drill holes used in the estimate are not being reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation please refer to: *Section 3 Estimation and Reporting of Mineral Resources*.
Relationship between mineralisation widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure in Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The mineralised extents are shown in the release.
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	The density work carried out at the project is discussed in: *Section 3 Estimation and Reporting of Mineral Resources*.
	Geological surface mapping of the project has been carried out by Fortescue geologists. Dip and strike measurements, stratigraphy and mineralisation have been recorded into a database.
	Down hole geophysics has been carried out on RC drill holes including natural gamma, magnetic susceptibility and gamma density.
	The estimated groundwater level has been recorded on most RC drill holes.
Further Work	Further infill drilling and metallurgical test work is planned for the project. Extensions to known mineralisation may occur in the area.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Field logging and sampling data is captured electronically utilising standard templates ensuring data integrity.
	Data is uploaded and stored in an industry standard database (acQuire) which includes a series of automated validation checks. Any manual validation or changes are only completed by trained and authorised personnel.
Site visits	The Competent Person and Competent Persons team conducts regular site visits, approximately every two to three months when drilling operations are in progress to inspect the model area, RC drill hole logging and sampling practices. Discussions are held regularly with site geologists.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron ore mineralisation. Geology over the majority of the deposits is relatively well known. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however, this is not considered to be material.
	Geological interpretation is based on geological logging, down hole geophysics and geochemistry of RC drill samples.
	The stratigraphy of the deposits is reasonably well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. Extrapolation of mineralisation has been restricted to approximately half of the nominal drill spacing.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	The main factors impacting the geological and grade continuity include the stratigraphy, structure, erosion and weathering. The grade and geological continuity are generally good compared with analogous areas.
Dimensions	At Serenity mineralisation at Serenity occurs in an area covering approximately 18km in a north-south direction and approximately 16km in an east west direction. Mineralisation occurs at surface and occurs at depths of up to approximately 150m. The defined mineralised units are approximately between 5m and 60m thick. At Sheila Valley mineralisation occurs in an area covering approximately 17km in a north-south direction and 20km in an east west direction. The BID mineralisation occurs at from the surface and up to depths of approximately 200m with a total thickness between 20m and 150m. DID mineralisation occurs variably throughout the project and has an average thickness of 10-20m. CID mineralisation occurs under the DID and has an average thickness of 15m.
Estimation and modelling techniques	Ordinary Kriging was used to estimate all mineralised units and inverse distance for all waste domains. Estimation was done using Maptek Vulcan software. Mineralisation was extrapolated approximately half the distance of drill spacing away from the drilling. The deposits were domained by stratigraphy, local strike/orientation and mineralised/un-mineralised zones.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, LOI Total, LOI 371ºC, LOI 650ºC and LOI 1000ºC has been estimated.
	Estimation into parent cells of 200mE × 50mN × 1mRL, 10 mE × 50mN × 1mRL, 50mE × 200mN × 1mRL, 100mE × 25mN × 1mRL, 50mE × 100mN × 1mRL, 50mE × 25mN × 1mRL and 25mE × 100mN × 1mRL was used. Size and orientation of parent blocks reflected half the nominal drill spacing and orientation of mineralisation. Sub blocking down to 6.25mE × 6.25mN × 0.5mRL or 5mE × 5mN × 0.5mRL was used along domain boundaries to better define the domain interface.
	Up to three estimation passes were used for each element, gradually increasing search ellipse distances with each pass. Search distances along strike and across strike varied between each domain. These were primarily defined by sample spacing within each domain and determined by neighbourhood iterative tests.
	No assumptions behind the modelling of selective mining units have been made.
	Correlation between some elements has been noted during statistical analysis. Similar variogram parameters were achieved for mineralised domains that had elements with a noted correlation.

Criteria	Commentary
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator thresholds for Fe, SiO_2 and Al_2O_3 for the individual stratigraphic units. These thresholds were based on data population statistics and visual validation. A domain code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Some element grades were top-cut during estimation based on high coefficient of variation values.
	Visual validation of the block model coding of the domains was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the domains and grade were completed in Vulcan by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are within an acceptable range. Trend analysis graphs have been created for each of the mineralised domains. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a slice in space. These graphs show that overall, the model grade is consistent with the raw data and shows no bias. Areas with many samples correlate much better with the model grade than do areas with few samples.
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	At Serenity all CID and BID is reported at a cut-off of greater than or equal to 50% Fe and DID is reported as a cut-off of greater than or equal to 54% Fe. At Sheila Valley all BID is reported at a cut-off of greater than or equal to 50% Fe, and DID and CID is reported as a cut-off of greater than or equal to 54% Fe. These cut-offs have been used for analogous Fortescue estimates and represents a similar cut-off to current product specifications.
Mining factors or assumptions	It is assumed that mining will be carried out with medium to large scale mining equipment, bench heights will vary depending on mining studies. These methods will be similar to analogous Fortescue deposits where conventional: truck & shovel/excavator; drill & blast and grade control methods are used. The impact of dilution will be assessed as part of the mining studies.
Metallurgical factors or assumptions	It is assumed that similar metallurgical techniques to analogous Fortescue operations will be utilised. The expectation is that material will be dry processed by screens and crushers, with potential for some wet processing. Final processing methods will be defined by further mining studies.
Environmental factors or assumptions	Fortescue has an extensive environmental and heritage approvals process. Waste will be formed as dumps or into mining voids. In the case of acid and fibre mitigation, Fortescue has industry standard procedures. Where beneficiation may take place, reject is considered to be inert and there are no foreseen problems with tailings disposal. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	Density has been calculated from down-hole geophysical measurements throughout the deposits. Average rounded densities by geological unit and mineralisation have been compared with bulk density measurements collected from diamond core drilled at the analogous Solomon deposits, then applied globally to the model. Whilst on site down-hole geophysical tools are calibrated fortnightly in a designated test diamond drill hole. A program to allow estimation of downhole gamma density data into the model with subsequent conversion to dry in-situ values is progressing and updates to the densities used is anticipated.
	Down-hole geophysical probes measure the in-situ bulk density which accounts for void spaces. These measurements are validated against known dry bulk densities from diamond core drilled in analogous deposits. Down-hole geophysical measurements are grouped by geological and mineralisation domains.
	The densities used are similar to known densities for current and historical mines, of similar geology and mineralisation, across the Pilbara.
Classification	The Mineral Resources have been classified as Indicated and Inferred. This considers drill spacing and data integrity, geological complexity, grade estimation quality, interpreted risk and mineralisation continuity based on the semivariogram ranges of influence.
	The Mineral Resource classification reflects the views of the competent persons.
Audits or reviews	Internal reviews have been completed during all stages of the estimate. An external audit of the estimation process has been completed for analogous deposits with no significant flaws identified.
	Grade and geological continuity are sufficient for Indicated and Inferred Mineral Resources.

Criteria	Commentary
Discussion of relative accuracy/ confidence	Greater confidence in applied density values will be achieved through further physical density and down-hole geophysical measurements.
	The global estimate is sufficient to assume the grade and geological continuity in the area of the Indicated Mineral Resource and imply the grade and geological continuity in the area of the Inferred Mineral Resource.
	No production data is available at this stage.

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Greater Western Hub deposits: Elevation

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The deposit is sampled using RC drill holes. 1m composite samples were used in the model. Samples sent for element and analytical work were selected based on potential ore-grade material with a reasonable envelope both above and below this interval. Most holes where possible undergo down hole geophysical logging.
	Analytical CRMs were used to assist in checking laboratory results. Field duplicates were used to assist with determining sampling quality at the rig. Geophysical probes were calibrated on a regular basis using static methods and specific calibration holes. Drill hole locations were determined by survey contractors.
	All samples were taken on 1m intervals from reverse circulation drill holes. A sample weighing approximately 1 to 3 kilograms was collected for each metre which was transported to a commercial laboratory and then pulverised for XRF analysis.
Drilling techniques	RC drill holes of approximately 140mm diameter were completed using a standard face sampling hammer. The majority of drill holes are vertical.
Drill sample recovery	The quality of each sample sent to the laboratory was recorded by the logging geologist at the time of drilling and categorised as either poor, moderate, or good. More than 90% of samples were recorded as good quality.
	No major issues with the sample collection system were identified during drilling. Minimal loss of fines was achieved through the use of an automated sample collection and splitting system.
	There is assumed to be no expected relationship between sample recovery and grade.
Logging	Geological logging was completed by geologists experienced in iron ore mineralisation. The standard of logging is suitable to support an estimate of Mineral Resources.
	Stratigraphy, mineralogy, chip size, chip shape, chip recovery, hardness, colour, moisture and sample quality were recorded for all drill holes. Chip trays from RC holes were collected on an intermittent basis.
	All drill holes are geologically logged.
Sub-sampling techniques and sample preparation	Drilling samples are collected in labelled bags, which are stored onsite or sent for analysis. These samples are collected using a cone splitter installed directly beneath the cyclone. Wet samples are collected using the same technique as dry samples, with thorough cleaning of sampling system between samples. Wet samples are allowed to dry before being processed.
	The sample collected from the cone splitter represents approximately 6 to 7% of the total sample interval. Cone splitters are the preferred splitting system used by Fortescue as they generally give the most representative sample in both dry and wet conditions.
	At the laboratory, samples were weighed, dried and pulverised 85% passing through 75 microns.
	Certified reference materials (CRM) are used in the field (approximately 1 in 100 samples) and laboratory (1 per laboratory job) as a quality control measure at different sub-sampling stages.
	Rig duplicate samples are taken at an average of 3 rig duplicate samples per approximately 100 samples sent to the laboratory. An analysis of these duplicate samples indicates that they are of good quality and repeatable.
	No formal analysis of the appropriateness of sample size compared to grain size has been completed but the sampling regime is considered to be industry best practice.
Quality of assay data and laboratory tests	All samples were sent to Genalysis/Intertek or SGS laboratory for analysis. All laboratories have National Association of Testing Authorities, Australia (NATA) accreditation. The standard elements tested were Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, K_2O, TiO_2, Na_2O and S by X-ray Fluorescence (XRF) and a three-point LOI thermo gravimetric analysis at 371, 650 and 1000 degrees Celsius. This is considered a total analysis.
	No geophysical tools were used to determine any element concentrations used in the estimate.

Criteria	Commentary
	Analysis of laboratory CRM results indicates high confidence in XRF analysis at each laboratory. Analysis of field CRMs have indicated issues with laboratory sample preparation and CRM certification in the past. Field CRM results are closely monitored and issues are resolved promptly.
Verification of sampling and assaying	Significant intersections have been visually verified by Fortescue's Exploration Managers.
	No twin holes have been completed at this stage of the project.
	Sample data is stored using a customised acQuire database, which includes a series of automated electronic validation checks. Fortescue data entry procedures are documented. Only trained personnel perform further manual validation in order to confirm results reflect field collected information and geology.
	Samples returning below detection limits were given the result of half the detection limit. Missing data was set to -99 and those samples were excluded from statistical analysis and estimation.
Location of data points	Drill hole collar locations have been surveyed using a Differential Global Positioning System by Down Under Surveys, with an accuracy of better than 3cm for Easting and Northing and 5cm in elevation. Collar survey data is validated against planned coordinates and the topographic surface. Down hole surveys have been completed on the majority of holes greater than 150m in total depth, most holes are vertical and deviations from vertical are negligible.
	Grid coordinates given for each point are Map Grid of Australia (GDA94) and heights are in the Australian Height Datum. The project area lies inside UTM zone 50.
	The topography was created from 2 metre contours produced from LIDAR data. Vertical and horizontal accuracy of this data is ±0.15 metres.
Data spacing and distribution	The grade estimate used RC drill holes which occur on a grid spacing of 100m × 100m, 200m × 100m, 200m × 50m and 400m × 100m for assays and geology.
	This level of drill spacing is sufficient to establish the degree of geological and grade continuity required for an estimate of Mineral Resources.
	No sample compositing was conducted for this estimation.
Orientation of data in relation to geological structure	Drill holes have been mostly drilled as vertical holes in drill lines sub-perpendicular to the local bearing of the ore body. The mineralisation is sub-horizontal and these vertical holes are sufficient to imply geological and grade continuity.
	No material relationship is apparent between sampling bias and geological orientation.
Sample security	To ensure sample security consignment notes (sample submission information) have been used and direct delivery to Perth laboratories has been carried out.
Audits or reviews	All sampling has been carried using Fortescue standard procedures.
	For analogous deposits, sampling audits have been carried out, which did not highlight any major issues. Similar drill rigs and splitters were used on this deposit as was used on the audited deposits. Fortescue sampling and logging procedures are standard across all sites.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	FMG Pilbara Pty Ltd is a wholly owned subsidiary of Fortescue Metals Group Ltd and owns 100% of all mineral rights in the tenements which cover the projects within the Greater Western Hub: E47/1194, E47/1299, E47/1351, M47/1588, M47/1589, P47/1664, P47/1665 and P47/1666. These are live, granted tenements. Some of the tenure are subject to a royalty deed with a third party and a royalty is payable. Mining Lease application M47/1608 has been applied for over the area by FMG Pilbara Pty Ltd and is pending grant.
	The tenements are within the Puutu Kunti Kurrama People and Pinikura People (PKKP) NTD. Fortescue has a current LAA with the PKKP native title holders. Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. Within the Elevation project area heritage surveys have identified places that are highly significant. The ethnographic place Duck Creek has been excluded from the reported Mineral Resources.
	The tenure is currently in good standing and no impediments to obtaining a licence to operate in the area are known to exist.
Exploration done by other parties	There is no known historical data within the project area.
Geology	Mineralisation within the deposit is a hosted by CID, BID and minor DID. BID mineralisation is found within the Joffre, Whaleback Shale and Dales Gorge Members of the Brockman Iron Formation and the Mount Newman and Nammuldi Members of the Marra Mamba Iron Formation.
Drill hole Information	Collar details of the RC drill holes used in the estimate are not being reported here.
Data aggregation methods	No exploration results are being reported. For methods used in the estimation please refer to: *Section 3 Estimation and Reporting of Mineral Resources*.
Relationship between mineralisation widths and intercept lengths	No exploration results are being reported. Please refer to: *Orientation of data in relation to geological structure in Section 1 Sampling Techniques and Data* for the geometry of mineralisation with respect to drill hole angle.
Diagrams	The mineralised extents are shown in the release.
Balanced reporting	No exploration results are being reported and this is not pertinent to the reporting of Mineral Resources.
Other substantive exploration data	The density work carried out at the project is discussed in: *Section 3 Estimation and Reporting of Mineral Resources*.
	Geological surface mapping of the project has been carried out by Fortescue geologists. Dip and strike measurements, stratigraphy and mineralisation have been recorded into a database.
	Down hole geophysics has been carried out on RC drill holes including natural gamma, magnetic susceptibility and gamma density.
	The estimated groundwater level has been recorded on most RC drill holes.
Further Work	Further infill drilling and metallurgical test work is planned for the project. Extensions to known mineralisation may occur in the area.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Field logging and sampling data is captured electronically utilising standard templates ensuring data integrity.
	Data is uploaded and stored in an industry standard database (acQuire) which includes a series of automated validation checks. Any manual validation or changes are only completed by trained and authorised personnel.
Site visits	The Competent Person and Competent Persons team conducts regular site visits, approximately every two to three months when drilling operations are in progress to inspect the model area, RC drill hole logging and sampling practices. Discussions are held regularly with site geologists.
Geological interpretation	Logging and geological interpretation was completed by geologists experienced in iron ore mineralisation. Geology over the majority of the deposit is relatively well known. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however, this is not considered to be material.
	Geological interpretation is based on geological logging, down hole geophysics and geochemistry of RC drill samples.
	The stratigraphy of the deposit is reasonably well known and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. Extrapolation of mineralisation has been restricted to approximately half of the nominal drill spacing.
	All samples are flagged with their host geological zone, only samples with the same geological zone as the block to be estimated can be used in grade estimation.
	The main factors impacting the geological and grade continuity include the stratigraphy, structure, erosion and weathering. The grade and geological continuity are generally good compared with analogous areas.
Dimensions	Mineralisation is distributed variably within an area of approximately 13km along strike and 2-5km across strike. Mineralisation occurs as a series of pods ranging from 200m to 1500m along strike and 200m to 600m across strike. BID mineralisation occurs at surface and extends of depth of up to 100m. CID comprises mesas rising approximately 70m above the valley floor, the mineralisation occurs at surface and is up to 60m thick.
Estimation and modelling techniques	Ordinary Kriging was used to estimate all mineralised units and inverse distance for all waste domains. Estimation was done using Maptek Vulcan software. Mineralisation was extrapolated approximately half the distance of drill spacing away from the drilling. The deposit was domained by stratigraphy, structure, local strike/orientation and mineralised/un-mineralised zones.
	No assumptions regarding the recovery of by-products have been made.
	The iron ore suite of Fe, SiO_2, Al_2O_3, P, Mn, MgO, CaO, TiO_2, Na_2O, S, K_2O, LOI Total, LOI 371ºC, LOI 650ºC and LOI 1000ºC has been estimated.
	Estimation into parent cells of 50mE × 50mN × 1mRL was used. Size and orientation of parent blocks reflected half the nominal drill spacing and orientation of mineralisation. Sub blocking down to 6.25mE × 6.25mN × 0.5mRL was used along domain boundaries to better define the domain interface.
	Up to three estimation passes were used for each element, gradually increasing search ellipse distances with each pass. Search distances along strike and across strike varied between each domain. These were primarily defined by sample spacing within each domain and determined by neighbourhood iterative tests.
	No assumptions behind the modelling of selective mining units have been made.
	Correlation between some elements has been noted during statistical analysis. Similar variogram parameters were achieved for mineralised domains that had elements with a noted correlation.
	The definition of mineralised zones within each stratigraphic unit was accomplished using an indicator approach. The probability of any zone being mineralised was estimated using appropriate geochemical indicator thresholds for Fe, SiO_2 and Al_2O_3 for the individual stratigraphic units. These thresholds were based on data population statistics and visual validation. A domain code was assigned to each sample, defined by the stratigraphic unit and mineralisation.
	Some element grades were top-cut during estimation based on high coefficient of variation values.

Criteria	Commentary
	Visual validation of the block model coding of the domains was completed prior to estimation. Once estimated, the grade of all elements was also visually validated. Visual validation of both the domains and grade were completed in Vulcan by comparing section and plan slices of the block model against the drill holes. Statistics for the mean grade of the mineralised blocks within each stratigraphic unit were compared to the mean grade of the mineralised samples within each stratigraphic unit. Overall, the mean values between the model and samples are within an acceptable range. Trend analysis graphs have been created for each of the mineralised domains. These have been generated in Northing, Easting and RL, for all elements. The trend analysis graphs show the modelled grade vs. the raw data grade at a slice in space. These graphs show that overall, the model grade is consistent with the raw data and shows no bias. Areas with many samples correlate much better with the model grade than do areas with few samples.
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	BID is reported at a cut-off of greater than or equal to 50% Fe, all DID is reported at greater than or equal to 54% Fe, and CID is reported at greater than or equal to 54% Fe and 53% Fe within different parts of the project area. These cut-offs have been used for analogous Fortescue estimates and represents a similar cut-off to current product specifications.
Mining factors or assumptions	It is assumed that mining will be carried out with medium to large scale mining equipment, bench heights will vary depending on mining studies. These methods will be similar to analogous Fortescue deposits where conventional: truck & shovel/excavator; drill & blast and grade control methods are used. The impact of dilution will be assessed as part of the mining studies.
Metallurgical factors or assumptions	It is assumed that similar metallurgical techniques to analogous Fortescue operations will be utilised. The expectation is that material will be dry processed by screens and crushers, with potential for some wet processing. Final processing methods will be defined by further mining studies.
Environmental factors or assumptions	Fortescue has an extensive environmental and heritage approvals process. Waste will be formed as dumps or into mining voids. In the case of acid and fibre mitigation, Fortescue has industry standard procedures. Where beneficiation may take place, reject is considered to be inert and there are no foreseen problems with tailings disposal. No significant concentrations of environmentally deleterious elements have been identified to date.
Bulk density	Density has been calculated from down-hole geophysical measurements throughout the deposit. Average rounded densities by geological unit and mineralisation have been compared with bulk density measurements collected from diamond core drilled at the analogous Eliwana deposit, then applied globally to the model. Whilst on site down-hole geophysical tools are calibrated fortnightly in a designated test diamond drill hole. A program to allow estimation of downhole gamma density data into the model with subsequent conversion to dry in-situ values is progressing and updates to the densities used is anticipated.
	Down-hole geophysical probes measure the in-situ bulk density which accounts for void spaces. These measurements are validated against known dry bulk densities from diamond core drilled in analogous deposits. Down-hole geophysical measurements are grouped by geological and mineralisation domains.
	The densities used are similar to known densities for current and historical mines, of similar geology and mineralisation, across the Pilbara.
Classification	The Mineral Resource has been classified as Inferred. This considers drill spacing and data integrity, geological complexity, grade estimation quality, interpreted risk and mineralisation continuity based on the semivariogram ranges of influence.
	The Mineral Resource classification reflects the views of the competent persons.
Audits or reviews	Internal reviews have been completed during all stages of the estimate. An external audit of the estimation process has been completed for analogous deposits with no significant flaws identified.
Discussion of relative accuracy/ confidence	Grade and geological continuity are sufficient for an Inferred Mineral Resource.
	Greater confidence in applied density values will be achieved through further physical density and down-hole geophysical measurements.
	The global estimate is sufficient to imply the grade and geological continuity in the area of the Inferred Mineral Resource.
	No production data is available at this stage.