ASX Announcement

ASX ANNOUNCEMENT **ASX: PLG**
28 March 2023

Mineral Resource and Exploration Target reported for Cockatoo Island

Highlights:

- **Maiden Inferred Mineral Resource estimate of 24.5Mt grading 34.3 Fe% reported at Magazine**
- **Exploration Target reported for the Switch Pit, comprising the Seawall Haematite and High-Wall Haematite iron bands:**
  - **Seawall Haematite: 0.38 Mt to 6.6 Mt grading 66% Fe;**
  - **High-Wall Haematite: 0.1 Mt to 1.9 Mt grading 55% to 65% Fe; and**
  - **The Exploration Target highlights the potential to host considerable high-grade Direct Ship Ore (DSO) Fe mineralisation**

  The potential quantity and grade of the Switch Pit iron mineralisation is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if future exploration will result in an estimation of a Mineral Resource.
- **Transhipment Services Australia has finalised its barge loading and transhipping engineering design and capital cost estimate, confirming the viability of accessing international markets via a low capital barge loading facility**

Pearl Gull Iron Limited (**ASX: PLG**) ("**Pearl Gull**" or "**the Company**") is pleased to report a maiden Inferred Mineral Resource for Magazine Deposit and an Exploration Target for Switch Pit on Cockatoo Island, along with the results of the transhipment study.

Pearl Gull's Chairman, Russell Clark, commented:
"Following the IPO in 2021, and completion of the drilling program outlined in our prospectus, we are very pleased to announce an Inferred Mineral Resource at the Magazine deposit. Magazine has the potential to expand further and provides the opportunity to support a larger tonnage operation with beneficiation. The Exploration Target highlights the potential for significant high-grade mineralisation and provides continuing exploration potential."

Registered Address
Pearl Gull Iron
ACN 621 103 535
ABN 62 621 103 535

Level 2, 87 Colin Street
West Perth, WA 6005
www.pearlgulliron.com.au

Directors
Russell Clark – Non-Executive Chairman
Jonathan Fisher – Non-Executive Director
Alexander Passmore – Non-Executive Director

E: admin@pearlgulliron.com.au
P: +61 8 6383 7988

Projects
Switch Pit
Magazine Pit

Shares on Issue	204.5M
Share Price	3.4c (37 Mar 2023 close)
Market Cap	$7.0M
ASX Code	PLG

"We have also confirmed the ability to reach international markets with a low CAPEX transhipping design which will underpin the ongoing resource development work."

Mineral Resource Overview

CSA Global Pty Ltd (CSA Global), an ERM Group company, has reported a maiden Inferred Mineral Resource estimate (MRE) on the Magazine deposit, located on Cockatoo Island. The Magazine deposit is located wholly within Mining Lease M04/235-I, held by Pearl Gull Limited. The MRE has been reported in accordance with the guidelines of the JORC Code [1] (2012).

The MRE is presented in Table 1.

Table 1: Magazine Mineral Resource by classification reported above a 25% Fe cut-off (1 March 2023)

Deposit	Classification	Tonnes (Mt)	Fe %	SiO_2 %	Al_2O_3 %	P %	S %	Mn %	CaO %	MgO %	Na_2O %	LOI %
Magazine	Inferred	24.5	34.3	46.3	2.7	0.01	0.00	0.01	0.01	0.42	0.01	1.04
	Total	**24.5**	**34.3**	**46.3**	**2.7**	**0.01**	**0.00**	**0.01**	**0.01**	**0.42**	**0.01**	**1.04**

Notes:

- *Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).*
- *Data is reported to significant figures and differences may occur due to rounding..*

The Mineral Resource incorporates all historical and recent drilling data completed from 2008 through 2021. A total of 31 drillholes, including 27 reverse circulation percussion (RCP) holes and four diamond core holes for a total of 3,483.3m was used to inform the MRE. The Mineral Resource estimate details are provided in Appendix 1 of this Announcement. The JORC Table 1 is included as Appendix 2 to this Announcement. A full list of the drill hole collar details in provided in Appendix 3.

Note

1. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

Switch Pit Exploration Target

Based on 2021 Pearl Gull diamond drilling core and field mapping observations, mining consultant CSA Global has estimated an iron Exploration Target[2] for Switch Pit, comprising the Seawall haematite and the High-Wall haematite lens, summarised in Table 2.

Table 2: Switch Pit Exploration Target

Deposit	Fe %	Minimum Case (Mt)	Medium Case (Mt)	Maximum Case (Mt)
Seawall Haematite	66	0.38	1.7	6.6
High-Wall Haematite	55 to 65	0.1	0.5	1.9
Total		**0.48**	**2.2**	**8.5**

Notes:

- *The grades are average estimates based on visual examination of the drill assays.*
- *The High-Wall haematite comprises interpreted eight lenses of approximately 1–2 m thicknesses.*

Detailed discussion around the Exploration Target including drill hole collar information is provided in Appendix 4 of this Announcement. The Exploration Target JORC Table 1 is included as Appendix 5 to this Announcement.

The potential quantity and grade of the Switch Pit iron mineralisation is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if future exploration will result in an estimation of a Mineral Resource.

Transhipping

The ability of Pearl Gull to access international markets rapidly and cost effectively was a key work plan throughout 2022, running in parallel with the ongoing resource development activities.

Transhipment Services Australia ("TSA") has finalised its engineering design and capital estimate of A$13.5 million, confirming low-cost barge loading and transhipment as a viable, capital effective approach.

The proposed Barge Loading Facility ("BLF") is located within the existing port security limits of Cockatoo Island (see Figure 1). The BLF location has been selected due to its proximity to the Ocean Going Vessel (OGV) anchorage location, the projects existing resource deposits, haul road access and favourable depth near shore for construction of a marine facility.

Note

2. An Exploration Target is defined as "a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource" (JORC Code 2012, page 9).

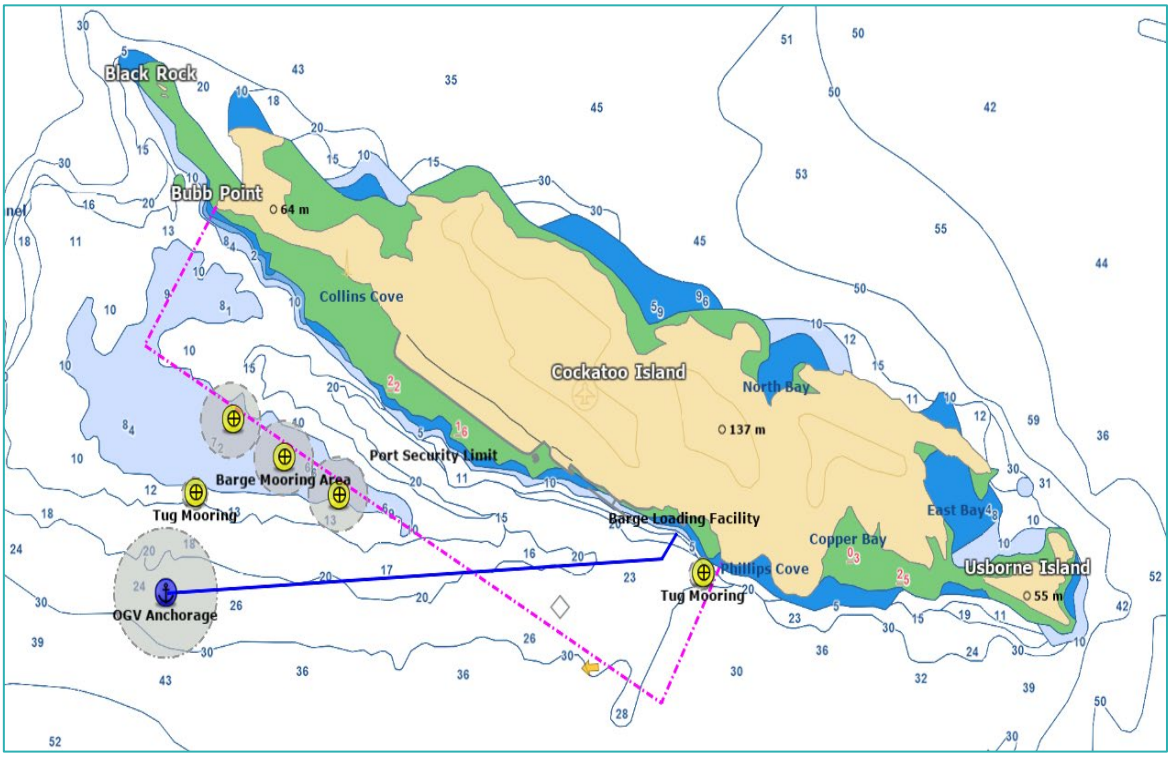

Figure 1: Location Map including the Ocean Going Vessel (OGV) Anchorage

The scope of work undertaken by TSA was extensive and included loading and cycle time analysis, loading and transhipping method statements along with metocean analysis, aids to navigation, mooring and marine transhipment fleet selection. The transhipment scope of works provides the basis for design layout and costing for Pearl Gull.

TSA has prepared indicative estimates from various 3rd party contractors and suppliers for the various major components of the construction. The Capital cost estimate (+/- 30%) is A$13.5m.

Authorised for release to the ASX by the Board of Pearl Gull Iron Limited.

***** ENDS *****

For more information:

Russell Clark
Chairman
Pearl Gull Iron Limited
Tel: +61 8 6383 7988
E: admin@pearlgulliron.com.au

Competent Person Statement

Exploration Results and Exploration Targets
The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Mark Pudovskis. Mr Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pudovskis has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Pudovskis consents to the disclosure of the information in this report in the form and context in which it appears.

Unless otherwise stated, where reference is made to previous releases of exploration results in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results was prepared and first disclosed under the JORC Code 2012 and has been properly and extensively cross-referenced in the text to the date of the original announcement to the ASX.

Mineral Resource Statement
The information in this report that relates to the Magazine Mineral Resources is based on information compiled by Mr Mark Pudovskis and Mr Matt Clark. Mr Mark Pudovskis is a full-time employee of CSA Global and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Matt Clark is a full-time employee of CSA Global and is a Member of the AusIMM. Mr Mark Pudovskis and Mr Matt Clark have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Mark Pudovskis and Mr Matt Clark consent to the disclosure of the information in this report in the form and context in which it appears. Mr Mark Pudovskis assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr Matt Clark assumes responsibility for matters related to Section 3 of JORC Table 1.

Forward-Looking Statements
This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Pearl Gull Iron Limited planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements.

About Pearl Gull
Pearl Gull Iron Limited is an iron ore exploration and development company with mining title over a significant portion of Cockatoo Island. Cockatoo Island is situated off the northwest coast of Western Australia and has a rich history of high-grade iron ore mining since the 1950's. Pearl Gull holds a significant tenure position as well critical infrastructure on Cockatoo Island. Pearl Gull's experienced Board and Management has the skills and track record to progress the various commercialisation opportunities that exist at this world class iron ore project location.

Appendix 1: Summary of Information Material to Understanding the Reporting Estimate of the Magazine Mineral Resource

Geology and geological interpretation

A geological reinterpretation completed in November 2022 by CSA Global confirmed an interpreted gently to moderately folded syncline structure comprising multiple lenses of hematite quartzite/sandstone, broadly consistent to the Reid (1958) stratigraphy and the historical interpretations. A geological and structural plan after Reid (1958) is shown in Figure 2.

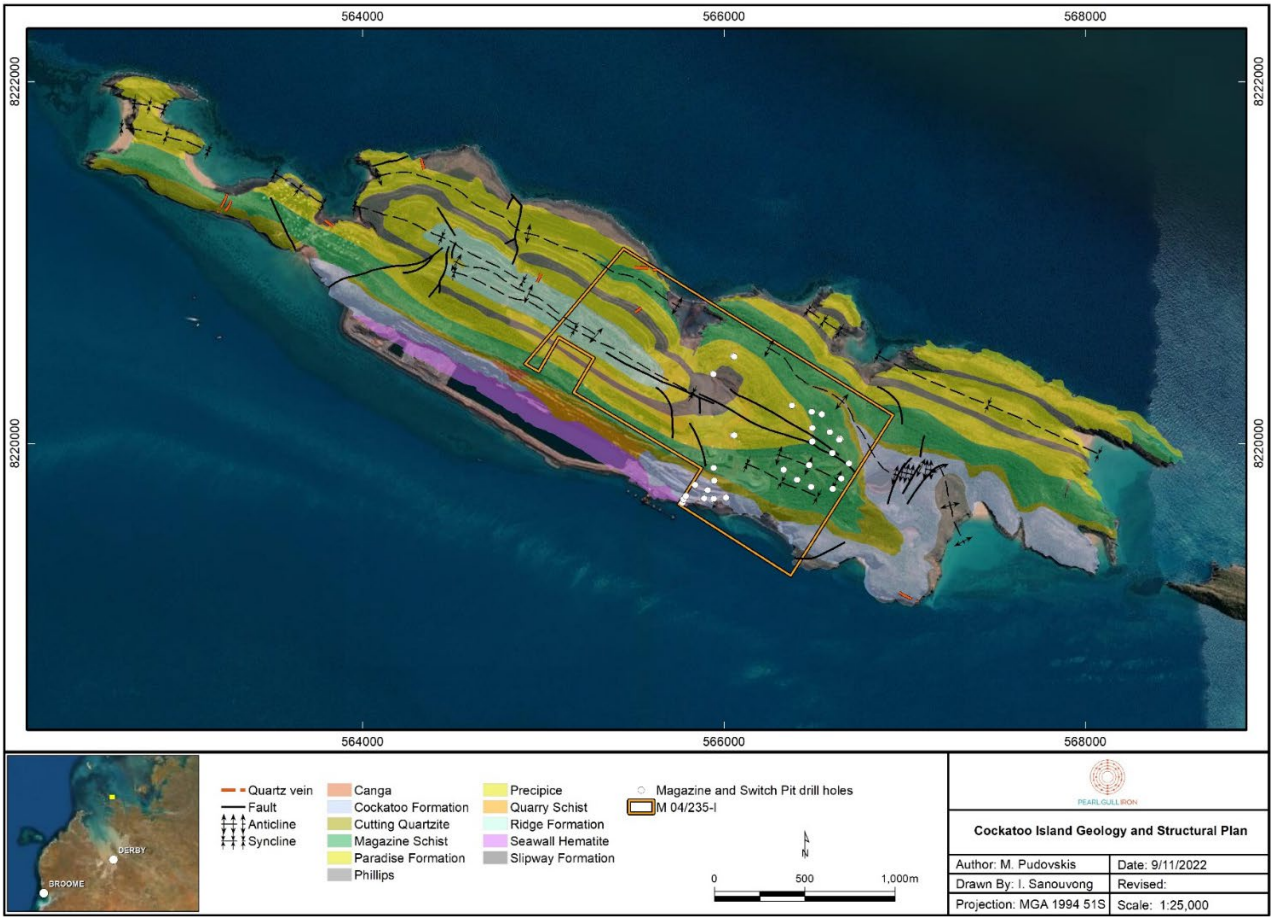

Figure 2: Cockatoo Island geological and structural plan (Reid, 1958)

Sampling and sub-sampling techniques

Reverse circulation percussion (RCP) and diamond core drilling methods were used to collect samples within the Magazine and North Bay areas, respectively. All sampling was by conventional iron ore industry physical methods from a drill rig. No geophysical sondes or handheld instruments were used for sampling.

RCP samples were collected at one metre intervals and subsampled via a three-tier, 10-vane riffle to achieve a target a 2 to 5 kg sample weight. Wet samples were subsampled straight out of the cyclone plastic bag using a PVC spear.

Diamond core was predominantly quarter cut with minor intervals half cut using an electric core saw. Sample intervals, on average between 1 m and 3 m lengths, were marked on the core by the drilling geologist considering lithological and structural features. Sample sizes are considered appropriate to the grain size of the material being sampled.

Samples within hematite quartzites were consigned to Ammtec in Perth during 2006/2007 for sample preparation and WHIMS (Wet High-Intensity Magnetic Separation) analysis.

The 2021 field quality assurance and quality control (QAQC) procedures included the field insertion of certified reference materials (GIOP 44, GIOP84 and GIOP135) standards purchased from Geostats Pty Ltd) having a range of values 59.13% Fe, 53.05% Fe, 62.75% Fe, respectively. In addition, blanks and field duplicates were inserted. Insertion rates targeted 1:20 for duplicates and standards and approximately 1:50 for blanks. Core selected for field duplicate analysis was further cut to quarter core with both quarters submitted individually for analysis.

The 2008 QAQC program included duplicate samples inserted into the sample stream when the hole was intersecting iron mineralisation, resulting in one to two duplicates per hole.

A high-level review of the 2021 QAQC results did not reveal any material concerns. The 2008 duplicate samples were not reviewed by the Competent Person.

The Competent Person considers that the sampling techniques adopted are appropriate for the style of mineralisation.

Drilling techniques

Drilling was completed from May through June 2008 on Magazine and from June through October 2021 for North Bay (northern extent of Magazine) (Figure 3).

Magazine drilling was carried out by Redmond Drilling, operating a modified Hydco 500E RC drill rig with a 5-1/2" face sampling hammer. A total of 26 reverse circulation percussion (RCP) drillholes for 2,481 m were completed with drillholes depths ranging between 30 m and 138 m.

North Bay drilling was completed by Seismic Drilling Australia using a Hanjin D&B-10 CR track mounted rig. A total eight HQ3 drillholes for 1,679.2 m completed on North Bay (depth range between 76.5 m and 313.1 m). Four of the drillholes for a total of 892.3 m intercepted the Magazine deposit and were used in the Mineral Resources Estimate.

Diamond core was orientated using the Reflex line orientation tool. The quality of orientation marks is recorded in the drillhole database.

A total of 31 drillholes including 27 RCP holes and 4 diamond holes for a total of 3,483.3 m was used to inform the Magazine deposit MRE (Figure 3 and Table 3). The drillholes were mostly drilled vertically or at steep dip angles to intercept the stratigraphy at high angles.

The Competent Person considers that the drilling techniques adopted were appropriate for the style of mineralisation and for reporting a Mineral Resource.

Table 3: Magazine deposit drillhole summary

Deposit	Drillholes	No. of drillholes	Metres	Drill type	Drill year
North Bay	21NBDD05 to 21NBDD08	4	892.3	Diamond core HQ3	2021
Magazine	CPRC004 to CPRC022, CPRC026 to CPRC032	26	2,481	RCP	2008
Magazine	BH20	1	110	RCP (Environmental)	2012
Total		**31**	**3,483.3**		

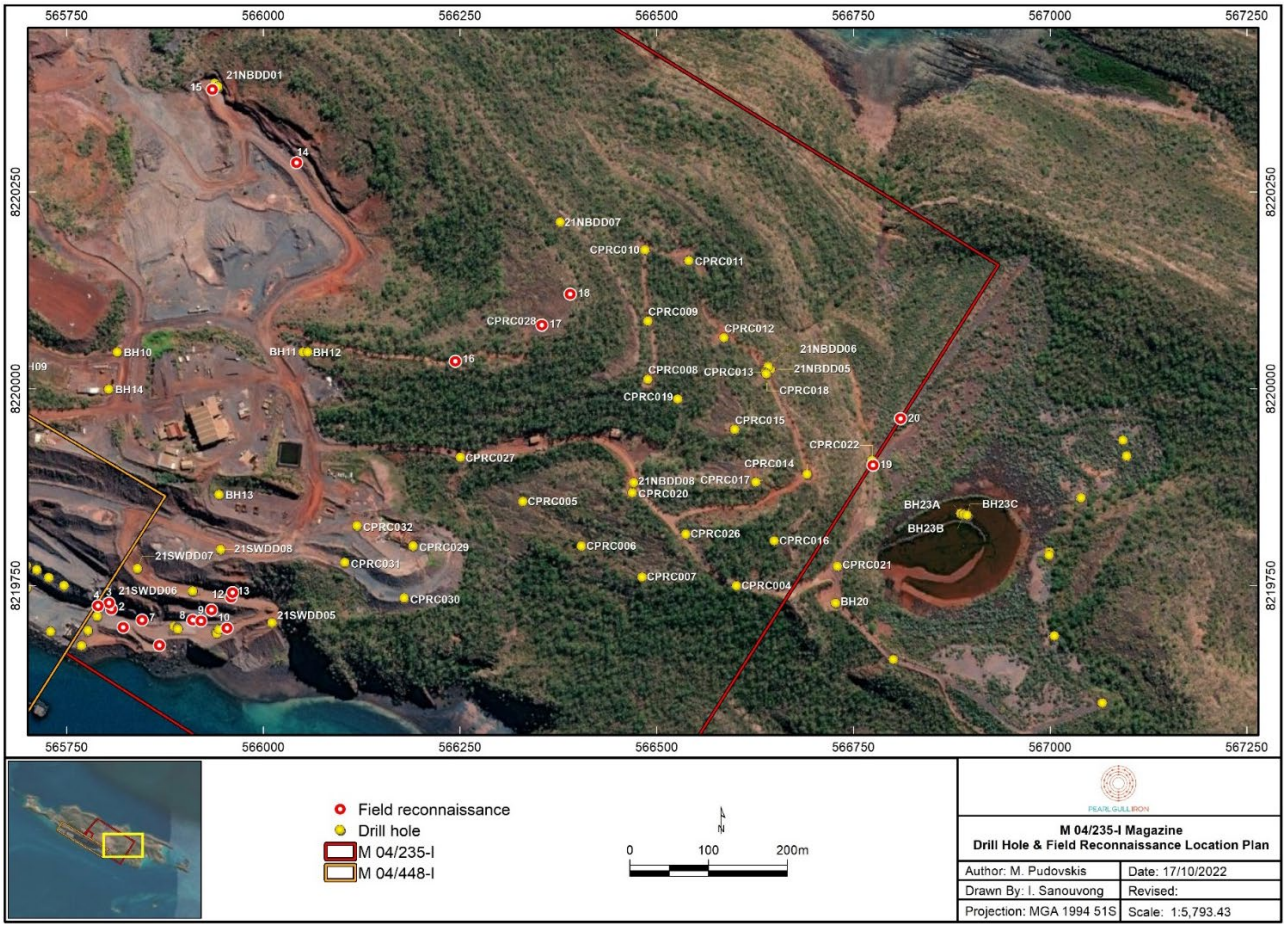

Figure 3: Cockatoo Island Magazine drillhole location plan

Sample Analysis Method

The sample analysis techniques employed for the diamond and RCP samples follow industry standard practice. The 2021 diamond core samples were processed and analysed at SGS Australia in Perth, and the 2008 RCP samples (magnetic and nonmagnetic samples from the Ammtec WHIMS analysis) at Ultratrace Perth. Both laboratories are reputable geochemistry laboratories.

The 2021 diamond core was sent to SGS Australia Perth for preparation and analysis by x-ray fluorescence (XRF) iron ore suite. SGS Codes included CRU20, SPL27, PUL48, XRF78S.

After metallurgical processing at Ammtec, the 2008 RCP magnetic and nonmagnetic hematite quartzite samples were sent to Ultratrace and analysed for Fe, SiO_2, Al_2O_3 P, S, CaO, MgO, MnO, Na_2O, TiO_2, K_2O, Cr, Cu, Ni, Pb, Sn, NaCl, KCl and LOI (950°C). The whole sample was dried at 105°C, crushed if required and pulverized to 90% 105um.XRF fusion discs were prepared by casting furnace at 1050°C using 0.66g of sample and 7.0g of 12:22 flux with 5% Sodium Nitrate added. Samples were analysed using Philips PW2404/2440 X-Ray Spectrometers using a 4KW end window Rh X-ray Tube. LOI was determined gravimetrically at 950°C.

Laboratory QAQC involved the use of internal laboratory standards using certified reference materials, blanks, splits, and replicates as part of the in-house procedures.

No third-party umpire laboratories were used.

The Competent Person considers the nature and quality of assaying and laboratory procedures appropriate for reporting a Mineral Resource estimate.

Estimation Methodology

Topography

Topographic control is based on LiDAR survey data collected in 2017 with accuracy considered to be better than 20 cm. The Lidar data was filtered to allow no more than one point per 10 m radius.

Wireframe Modelling

The mineralisation lenses were modelled in Leapfrog Geo software using a nominal grade cut-off of 25% Fe and logged geology. A total of 10 lenses or 'Minzons' were modelled using the vein modelling tool with a resolution of 5 m and snapped to drillhole intercepts. The mineralisation models honour the logged lithology, with the various lenses interbedded within the Cockatoo Island stratigraphic units (Table 4). The vein models were truncated below the topography surface.

The modelled lenses range from approximately 0.6 m to 14 m thick with an average of 3.8 m. The mineralisation models extend for approximately 650 m from southwest to northeast across strike, and 500 m from northwest to southeast along strike. The maximum vertical extent of the wireframes is approximal 190 m below surface, with an average vertical extent of approximately 130 m below surface.

Table 4: Mineralisation domains

Minzon	Cockatoo Island Stratigraphy
MAG1	Paradise Formation
MAG2	Paradise Formation
MAG3	Paradise Formation
MAG4	Magazine Schist
MAG5	Magazine Schist
MAG6	Magazine Schist
MAG7	Cockatoo Formation
MAG8	Cockatoo Formation
MAG9	Cockatoo Formation
MAG10	Cockatoo Formation

Statistics

The drillhole sample data was flagged within each mineralisation lens and composited to 1 m in Surpac using the 'best-fit' method. The compositing length was selected based on the dominant sample length of 1 m and the relatively narrow drillhole interval thickness for each lens.

Statistical and geostatistical analysis was carried out using Snowden's Supervisor software. Sample populations were statistically analysed to derived geostatistical domain grouping for Fe, SiO_2, Al_2O_3, P, S, Mn, CaO, MgO, Na_2O, and LOI. Statistical analysis included comparison of global grade distributions, and derivation of statistical correlations between grade variables. Fe and SiO_2 have normal grade populations, while Al_2O_3, P, S, Mn, CaO, MgO, Na_2O, and LOI have positively skewed grade populations representing log-normal distributions.

No high-grade outliers were detected for the grade variables, therefore top cutting was not required.

Geostatistics

Variography was completed for the grouped mineralisation domains due to the similar population statistics and the limited number of samples in each domain. Experimental variograms were calculated for Fe and SiO_2, Al_2O_3, P, S, Mn, MgO, and LOI. Normal scores transforms were used for Al_2O_3, P, S, Mn, MgO, and LOI prior to variography. The Normal Scores variograms were back-transformed prior to use in the estimate. Due to the low-grade ranges for CaO and Na_2O, variograms were unable to be calculated, instead these variables borrowed the Al_2O_3 variogram for estimation.

Quantitative kriging neighbourhood analysis (KNA) was undertaken in Supervisor software to assess the effect of changing key kriging neighbourhood parameters on block grade and density estimates. Kriging efficiency (KE) and slope of regression (SOR) were determined for a range of block sizes, minimum and maximum samples, search dimensions and discretisation grids.

Block Model

A sub-celled model constrained by the interpreted mineralised lenses was constructed in UTM grid MGA94 Zone 51. A parent block size of 50m(E) x 50m(N) x 5m(RL) was adopted with standard sub-celling to 12.5m(E) x 12.5m(N) x 1.25m(RL) to enable the block model volume to honour the mineralisation wireframes. The block model was coded with topography, mineralisation domains, material types, grade variables, resource classification, and tenure area.

Globally the coded block model volumes are 5.1% less than the mineralisation wireframes due to the undulating nature of mineralisation and selected subblock size. A sensitivity was run suing smaller sub-blocks however the volume difference was similar.

Samples composited to 1 m were used to estimate Fe, SiO_2, Al_2O_3, P, S, Mn, CaO, MgO, Na_2O, and LOI (loss on ignition) grades into the block model in Surpac software using OK. Grade interpolation was completed with a three-pass search strategy employing a dynamic anisotropic search to honour changes in the lens orientations around the fold hinge. Based on the KNA, the first-pass search ellipse was set to a maximum distance of 66% of the variogram range. For the second pass the search was increased to 1.5 times the variogram range, and for the third pass the search was increased to 3 times the variogram range. The search ellipse ratio was set to 1 for the major-semi-major directions and 6 for the major-minor directions.

Density

Dry bulk density measurements were taken from 2021 drill core samples. A total of 87 bulk density measurements were flagged within the mineralisation domains and analysed. The density values were filtered above 2.5 t/m^3 to exclude potentially erroneous values, with the remaining 72 values reporting an average density of 3.06 t/m^3. A density value of 3 t/m^3 was assigned to all mineralisation domains in the block model based on the limited data.

Cut-off Grade

The Magazine deposit MRE is reported above a 25% Fe cut-off grade based on the minimum expected feed grade to a WHIMS processing circuit to produce a marketable concentrate at reasonable recoveries. A grade-tonnage plot (Figure 4) revealed that the MRE tonnage are relatively insensitive to cut-off grades below 25% Fe.

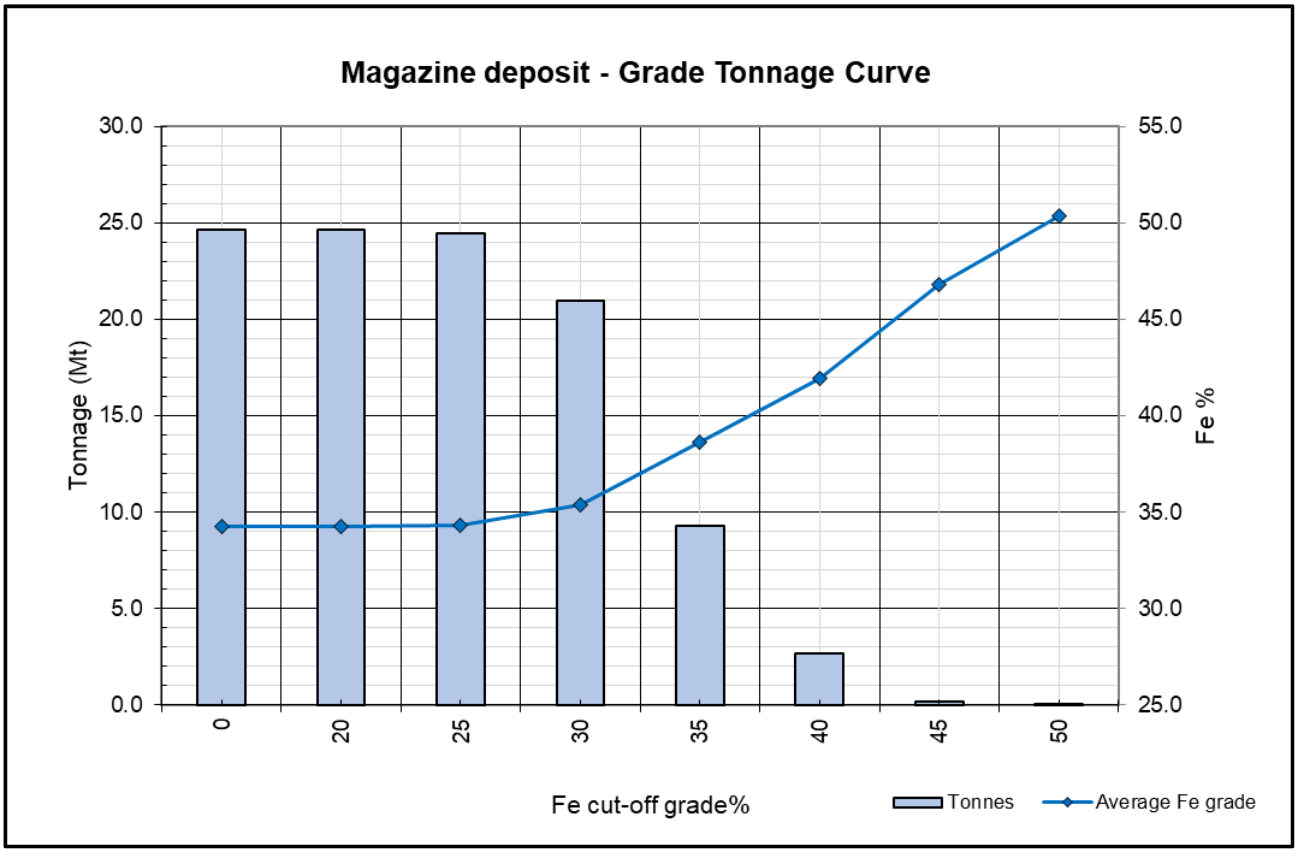

Figure 4: Grade-tonnage plot for the Magazine deposit

Material Modifying Factors

The following modifying factors were considered during preparation of the MRE:

- Magazine is located within a mature mining district with numerous previous and existing mining activities on Cockatoo Island and the neighbouring Koolan Island.

- Historical infrastructure, including a ship loading facility is established on Cockatoo Island and able to service any future the mining.
- The processing of lower grade hematite and magnetite quartzite to produce a marketable iron concentrate is a well-established a global iron ore industry practice, commonly adopted in North America and the Brazil Quadrilátero Ferrífero district.
- Mining dilution and/or loss factors were not applied as part of the MRE. Mining and development studies for the Project are ongoing.

  There are no known legal, social, or environmental constraints at the Project that would prevent extraction of the resource.

Mining and Metallurgical Methods

There has been no mining of the Magazine deposit.

Results from an initial rock-chip WHIMS beneficiation program in 2007 returned resulted in several rock chip samples within hematite quartzites upgrading to 67% Fe at over 70% weight recoveries (Penna and Bateman, 2007). Follow-up WHIMS testwork in 2008 on the RCP drill chips across the full width of the hematite quartzite horizons returned variable iron grades in concentrate and weight recoveries (from a total of 436 WHIMS results returned from material contained within the wireframes, the average weight recovery was 51% and an iron concentrate of 57.8%) although it was unclear in the reporting how conclusive this work was and whether the testwork was optimal for the style of mineralisation.

Further detailed metallurgical work is required before any meaningful conclusions can be drawn.

Mineral Resource Estimate

The Mineral Resource has been classified as Inferred based on the guidelines specified in the JORC Code (2012). The classification level is based upon assessment of the geological understanding of the Magazine deposit, geological and mineralisation continuity, drillhole spacing, quality control information, search and interpolation parameters, and analysis of available density information. The deposit appears to be of sufficient grade, quantity, and continuity to have reasonable prospects for eventual economic extraction.

The Magazine deposit shows good mineralisation continuity within well-defined geological constraints. Drillholes are located at a nominal spacing of 100 m by 100 m. The drill spacing is sufficient to allow the geology and mineralisation domains to be modelled into coherent wireframes. Reasonable consistency is evident in the orientation and thickness and grades of the mineralisation domains.

Table 5: Magazine Mineral Resource by classification reported above a 25% Fe cut-off (1 March 2023)

Deposit	Classification	Tonnes (Mt)	Fe %	SiO_2 %	Al_2O_3 %	P %	S %	Mn %	CaO %	MgO %	Na_2O %	LOI %
Magazine	Inferred	24.5	34.3	46.3	2.7	0.01	0.00	0.01	0.01	0.42	0.01	1.04
	Total	**24.5**	**34.3**	**46.3**	**2.7**	**0.01**	**0.00**	**0.01**	**0.01**	**0.42**	**0.01**	**1.04**

Notes:

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- *Data is reported to significant figures. and differences may occur due to rounding.*

Appendix 2: Magazine JORC Code Table 1

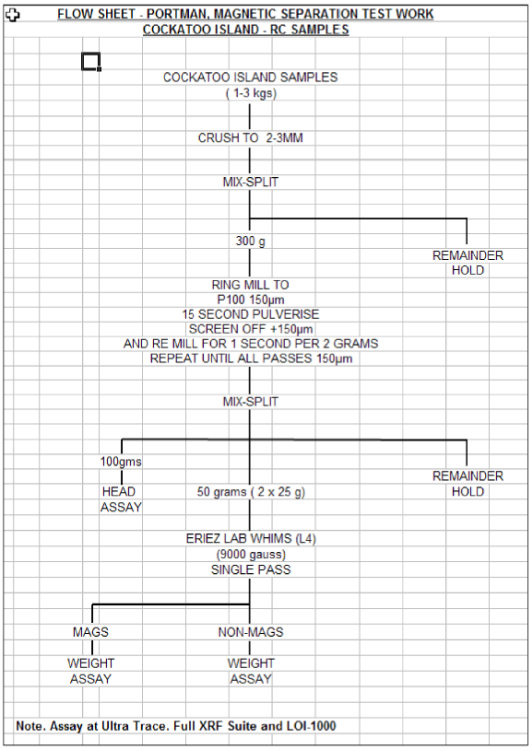
Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	Reverse circulation percussion (RCP) and diamond drilling methods were used to collect samples within the Magazine and North Bay areas, respectively.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All sampling was by conventional iron ore industry physical methods from a drill rig. No geophysical sondes or handheld instruments were used for sampling.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done; this would be relatively simple (e.g. "RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay"). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	RCP samples were collected at one metre intervals and subsampled via a three-tier, 10-vane riffle to achieve a target 2–5 kg sample weight. Wet samples were subsampled straight out of the cyclone plastic bag using a PVC spear. Diamond core was quarter core sampled at variable intervals, on average between 1 m and 3 m, to honour geological and mineralisation boundaries where appropriate. The Competent Person considers that the sampling techniques adopted are appropriate for the style of mineralisation.
Drilling techniques	*Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Drilling was carried out from May through June 2008 on Magazine and from June through October 2021 for North Bay. Magazine drilling was carried out by Redmond Drilling, operating a modified Hydco 500E RC drill rig with a 5-1/2" face sampling hammer. A total of 25 RCP drillholes for 2,527 m were completed with drillholes depths ranging between 30 m and 138 m. North Bay drilling was completed by Seismic Drilling Australia using a Hanjin D&B-10 CR track mounted rig. A total of 11 PQ3 drillholes for 1,098.8 m were completed on Switch Pit (depth range between 5.4 m and 201.5 m) and eight HQ3 drillholes for 1,679.2 m completed on North Bay (depth range between 76.5 m and 313.1 m). Diamond core was orientated using the Reflex line orientation tool. The quality of orientation marks is recorded in the drillhole database.

Criteria	JORC Code explanation	Commentary
		The Competent Person considers that the drilling techniques adopted were appropriate for the style of mineralisation and for reporting a Mineral Resource.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Diamond core recovery was assessed by comparison of the interval of core presented in the core tray against the driller's core blocks. A review of the drill logs showed that more than 90% of core intervals had complete recoveries. Any core losses were typically in the top 10 m of the drillhole within zones of fracturing or increased friability. The Competent Person does not consider these recovery losses as a material risk to the reporting of an Inferred Mineral Resource. RCP recovery was assessed qualitatively with no material losses reported.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No information is available about measures taken to ensure maximum sample recoveries for the 2008 RCP drill program. The diamond core program was continually monitored by the site geologist to ensure that if core recovery issues did arise, they could be addressed immediately.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Diamond drilling utilised triple tube techniques and drilling fluids to assist with maximising recoveries. The recoveries were mostly 100% hence any risk of sample bias was negligible. Depths were checked against the depth given on the core blocks. Recovered core was measured and compared against driller's blocks. RCP sample recoveries were not reported as a risk and any sampling bias was not reported. The Competent Person considers that any sample losses from the diamond and RCP drilling is not likely to have a material impact or bias on the reported assay results. The Competent Person considers that the drilling sampling recovery methods adopted were appropriate for the style of mineralisation and for reporting a Mineral Resource.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Diamond core and RCP chip spoils were geologically logged using historical Portman Iron Ore Limited logging codes to record lithological, texture, weathering, mineralisation, structure (for core), stratigraphy and sample condition.

Criteria	JORC Code explanation	Commentary
		The magnetic susceptibility of each RCP sample was measured with a KT-9 Kappameter and the uncalibrated reading recorded along with geological information. Geotechnical logging of all diamond core consisted of recording core recovery, rock quality designation (RQD) and fracture density. The Competent Person considers the detail of geological logging appropriate to support reporting a Mineral Resource.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging was generally qualitative in nature except for the determination of core recoveries and geotechnical criteria such as RQD and fracture frequency which was quantitative. Core photos were collected for all diamond drilling to aid geological interpretation.
	The total length and percentage of the relevant intersections logged.	All recovered intervals were geologically logged.
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Diamond core was predominantly quarter cut with minor intervals half cut using an electric core saw. Sample intervals were marked on the core by the drilling geologist considering lithological and structural features. Core selected for duplicate analysis was further cut to quarter core with both quarters submitted individually for analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RCP samples were subsampled via a three-tier, 10-vane riffle to achieve a target 2–5 kg sample weight. Wet samples were subsampled straight out of the cyclone plastic bag using a PVC spear. Only samples within hematite quartzites were consigned to Ammtec in Perth for sample preparation and WHIMS analysis. Remaining calico samples are stored at the Koolyanobbing sample storage yard.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation techniques employed for the diamond and RCP samples follow industry standard practice. The 2021 diamond core samples were processed and analysed at SGS Australia in Perth and the 2008 RCP samples (magnetic and nonmagnetic samples from the Ammtec WMIMS analysis) at Ultratrace Perth. Both laboratories are reputable geochemistry laboratories.

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	The 2021 field quality assurance and quality control (QAQC) procedures included the field insertion of certified reference materials (GIOP 44, GIOP84 and GIOP135) standards purchased from Geostats Pty Ltd) having a range of values 59.13% Fe, 53.05% Fe, 62.75% Fe, respectively. In addition, blanks and field duplicates were inserted. The 2008 QAQC program included duplicate samples inserted into the sample stream when the hole was intersecting ore, resulting in one to two duplicates per hole.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	For the 2021 drill program, insertion rates targeted 1:20 for duplicates and standards and approximately 1:50 for blanks. The 2008 program included the insertion of duplicates on average one to two per drillhole.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the grain size of the material being sampled. The Competent Person considers the subsampling and preparation techniques appropriate for the reporting of the Mineral Resource.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The 2021 diamond core was sent to SGS Australia Perth for preparation and analysis by x-ray fluorescence (XRF) iron ore suite. SGS Codes included CRU20, SPL27, PUL48, XRF78S. After metallurgical processing at Ammtec, the 2008 RCP magnetic and nonmagnetic hematite quartzite samples were sent to Ultratrace and analysed for Fe, SiO_2, Al_2O_3 P, S, CaO, MgO, MnO, Na_2O, TiO_2, K_2O, Cr, Cu, Ni, Pb, Sn, NaCl, KCl and LOI (950°C). The whole sample was dried at 105°C, crushed if required, and pulverized to 90% passing 105µm. XRF fusion discs were prepared by casting furnace at 1050°C using 0.66g of sample and 7.0g of 12:22 flux with 5% Sodium Nitrate added. Samples were analysed using Philips PW2404/2440 X-Ray Spectrometers using a 4KW end window Rh X-ray Tube. LOI was determined gravimetrically at 950°C. The Ammtec magnetic separation testwork flow sheet for RCP samples is illustrated below.

Criteria	JORC Code explanation	Commentary
		
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools or other handheld measuring devices were used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Quality control procedures have been discussed above. Laboratory QAQC involved the use of internal laboratory standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. No third-party umpire laboratories were used. The Competent Person considers the nature and quality of assaying and laboratory procedures appropriate for reporting a Mineral Resource.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The field sampling and assaying have not been verified by an independent third party. Select 2021 diamond core present at a laydown area on Cockatoo Island was verified by CSA Global Pty Ltd (CSA Global) during a site visit in October 2022. The diamond drill core photographs from the 2021 drill program were verified against the logged geology by CSA Global.
	The use of twinned holes.	There has been no twin drilling.

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The 2021 diamond core was logged onto detailed Microsoft Excel sheets and collated into a Microsoft Access database which is presently secure on the CSA Global server (with the 2008 drill data). The 2008 RCP logging was reported as being completed electronically using Tough Books directly at the drill rig. Code validation was set-up to ensure that only valid codes could be entered. Drillhole detail, along with sampling information, was entered and validated in Micromine software on a weekly basis and then sent to St. Arnauld Data Management (SADM) for updating of the central exploration drill database. CSA Global has randomly checked the 2008 and 2021 laboratory raw data against the database assays and found no issues.
	Discuss any adjustment to assay data.	There has been no adjustment of the assay data.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drillhole collars (2008) were laid out using global positioning system (GPS) with final collar positions surveyed by Henry Walker Eltin surveyors in MGA 94 Grid coordinates using a Leica System 1200 Real Time Kinematics system. Eastman single downhole shots and Maxibor downhole shots were conducted during drilling at regular intervals (every 1.5 to 3 m) and the corresponding changes in dip angle were recorded during geological logging. The 2021 diamond core downhole surveys were with down hole gyroscopic survey and collar by handheld GPS. The Competent Person considers a relatively high level of confidence can be placed in the location of data points.
	Specification of the grid system used.	The grid system used is MGA94 Zone 51S. All reported coordinates are referenced to this grid although there is also an established mine grid on Cockatoo Island which is perpendicular to the strike of the Seawall hematite. The transformation between the mine grid and the projected UTM is well documented.
	Quality and adequacy of topographic control.	Topographic control is based on LiDAR survey data collected in 2017 with accuracy considered to be better than 20 cm. The Competent Person considers the topography to be high quality to support a Mineral Resource estimate.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The 2021 Switch Pit drilling was on a variable 10–20 m x 50 m grid with variable orientations and

Criteria	JORC Code explanation	Commentary
		dips to maximise intersecting the Seawall Hematite and High-Wall Hematite bands. Drill orientation and collaring was dictated often by drill rig access. Drilling of the Magazine deposit has been completed on a nominal 100 m x 100 m grid in a northeast to southwest trending grid with all drillholes being vertical except four which were angled -60° to 30° azimuth. The North Bay drillholes were irregularly collared along the northeast extent of the Magazine deposit. Although their purpose was to test for the deep northeast repetition of the Seawall Hematite, the drill data was able to support the interpretation of the Magazine deposit.
	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The Competent Person considers the drill spacing on Magazine has established a moderate geological and grade continuity, appropriate for the reporting and classification of an Inferred Mineral Resource.
	Whether sample compositing has been applied.	No compositing was performed on the samples prior to laboratory analysis.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The Magazine deposit has been intersected by predominantly vertical drillholes and as such the vertical drillholes intersect the mineralisation at acceptable angles. The orientation of drilling is not likely to introduce a sampling bias.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The relationship between the drilling orientation and the orientation of key mineralised structures is unlikely to have introduced a sampling bias.
Sample security	*The measures taken to ensure sample security.*	The 2021 samples were collected on site under supervision of a responsible geologist and stored in securely on site prior to transport by barge to Derby then truck to the Perth laboratories. Laboratory dispatch sheets were completed and forwarded electronically as well as being placed within the samples transported. Dispatch sheets are compared against received samples and discrepancies reported and corrected. The Competent Person considers the chain of custody and security measure taken from the field capture to delivery to SGS appropriate.

Criteria	JORC Code explanation	Commentary
		The chain of custody and site management of the 2008 samples is not known by the Competent Person although the technical management and mining operations on the Island during this period were well established, and it would have been probable that the samples security measure were sound.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An internal review by the Competent Person, of the data integrity and consistency of the drillhole database shows sufficient quality to support resource estimation. CSA Global completed a site visit and review in October 2022.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	Magazine and north Bay are located wholly within Mining Lease M04/235-I. The tenement is located in on Cockatoo Island approximately 135 km north of the Kimberley township of Derby. There is no formal Native Title Claim registered over Cockatoo Island; however, The Competent Person understands that Pearl Gull are in discussions with the local Traditional Owner group to establish a working relationship . The licence is held 100% (all mineral rights) by Pearl Gull Limited.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The mining lease covers 159.8 ha and was applied for on 5 October 1990. The lease was granted on 3 October 1991 with an expiry date of 2 October 2033. The Competent Person can confirm that according to Department of Mines, Industry Regulation and Safety (DMIRS) Mineral Titles Online that all rents and rates have been paid and that the tenement is in good standing. The Competent Person has not verified any potential social or environmental pediments to progressing the project.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The work history since 2007 has been summarised in this report.

Criteria	JORC Code explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	The Cockatoo Island Formations form part of the Kimberley Group. This Group consists of a sequence of conglomerate, arkose, quartz sandstone, feldspathic sandstone, siltstone, mudstone and glauconitic sandstone together with tholeiitic metabasalt, tuffaceous sandstone and agglomerate. The Kimberley Group was interpreted by Plumb et al. (1981) as being deposited within a broad, semi-enclosed, shallow marine basin. The most important unit of the Kimberley Group in terms of iron mineralisation and the geology of Cockatoo Island is the Yampi Formation. Reid (1956, 1958) divided the Yampi Formation into eight informal subgroups on Cockatoo Island. Exploration activities have focussed on iron mineralisation within two of the eight subgroups, being the Cockatoo Formation and Magazine Schist. The Switch Pit iron mineralisation is hosted in the Cockatoo Formation and the Magazine hematite quartzite within the Magazine Schist. The Competent Person is of the opinion that the understanding of the Cockatoo Island geology is detailed and well established.
Drillhole information	*A summary of all information material to the understanding of the Exploration Results including a tabulation of the following information for all Material drillholes:* • *Easting and northing of the drillhole collar* • *Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drillhole collar* • *Dip and azimuth of the hole* • *Downhole length and interception depth* • *Hole length.*	Exploration Results are not being reported.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Exploration Results are not being reported.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Exploration Results are not being reported.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Exploration Results are not being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Exploration Results are not being reported.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Exploration Results are not being reported.
	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	Exploration Results are not being reported.
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	Exploration Results are not being reported.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.*	Relevant maps and sections are included in the report text.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Exploration Results are not being reported.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Other exploration work completed is described above in "Exploration done by other parties".
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	To increase the confidence in the geological continuity and the beneficiation of Magazine to produce a marketable iron ore fines or pellet concentrate product, CSA Global recommends infill RCP drilling Magazine to an approximate 50 m by 50 m spaced grid and select representative diamond core for metallurgical testwork.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A geological and structural interpretation map of Cockatoo Island (modified from Reid, 1958) is included in the report text.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Microsoft Excel software is used by Pearl Gull for front-end data collection and has in-built validation for all geological logging and sampling. All logging, sampling and assay files are stored in a Microsoft Access database. Data used in the MRE is sourced from a Microsoft Access database. CSA Global imported the Microsoft Access database file into Surpac and Leapfrog Geo for validation and modelling. Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars. No significant validation errors were detected.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The CSA Global Competent Person completed a site visit to Cockatoo Island on 6 October 2022. The site visit included the collection of field observation point data to assist in the

Criteria	JORC Code explanation	Commentary
	If no site visits have been undertaken, indicate why this is the case.	interpretation of the Switch Pit High-Wall Hematite lenses.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling the Mineral Resource estimate. The factors affecting continuity both in grade and geology.*	Mineralisation is hosted within an interpreted gently to moderately folded syncline structure comprising multiple lenses of hematite quartzite/sandstone, broadly consistent to the Reid (1958) stratigraphy and the historical interpretations. Given the relatively thin nature of the hematite-bearing lenses and the present, approximately 100 m by 100 m spaced drill grid there is a degree of uncertainty in the geological continuity between drillholes. The mineralisation interpretation honours the logged drillhole lithology, with the various iron mineralised lenses interbedded within the Cockatoo Island stratigraphic units. The Competent Person is confident any alterative interpretations would not result in a material difference to the MRE.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The modelled lenses range from approximately 0.6 m to 14 m thick with an average of 3.8 m. The mineralisation models extend for approximately 650 m from southwest to northeast across strike, and 500 m from northwest to southeast along strike. The maximum vertical extent of the wireframes is approximal 190 m below surface, with an average vertical extent of approximately 130 m below surface.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen, include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.*	Geological wireframe interpretations used in the Resource were constructed using Leapfrog Geo software. All drillhole samples were flagged according to mineralisation domain. Samples were composited to 1 m intervals based on an assessment of the raw drillhole sample interval lengths. Statistical and geostatistical analysis was carried out using Snowden's Supervisor software. Sample populations were statistically analysed to derived geostatistical domain grouping for Fe, SiO2, Al2O3, P, S, Mn, CaO, MgO, Na2O, and LOI. Statistical analysis included comparison of global grade distributions, and derivation of statistical correlations between grade variables.

Criteria	JORC Code explanation	Commentary
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	No high-grade outliers were detected for the grade variables, therefore top cutting was not required. Variography was completed for grouped mineralisation domains due to the similar population statistics and the limited number of samples in each domain. Experimental variograms were calculated for Fe and SiO_2, Al2O3, P, S, Mn, MgO, and LOI. Normal scores transforms were used for Al_2O_3, P, S, Mn, MgO, and LOI prior to variography. The Normal Scores variograms were back-transformed prior to use in the estimate. Quantitative kriging neighbourhood analysis (KNA) was undertaken in Supervisor software to assess the effect of changing key kriging neighbourhood parameters on block grade and density estimates. Kriging efficiency (KE) and slope of regression (SOR) were determined for a range of block sizes, minimum and maximum samples, search dimensions and discretisation grids. Block modelling and grade estimation was carried out using Surpac software. Grade estimation was completed with a three-pass search strategy employing a dynamic anisotropic search to honour changes in the lens orientations around the fold hinge. Based on the KNA, the first-pass search ellipse was set to a maximum distance of 66% of the variogram range. For the second pass the search was increased to 1.5 times the variogram range, and for the third pass the search was increased to 3 times the variogram range. The search ellipse ratio was fixed to 1 for the major-semi-major directions and 6 for the major-minor directions. A 50 m(E) by 50 m(N) x 5 m(RL) parent cell size was constructed covering the full volume of the mineralisation. The easting and elevation parent cell size was selected as just below half the average drill section spacing of 100 m by 100 m in the better drilled areas of the deposit. The model cell dimension in the north direction was selected to provide sufficient resolution to the block model in the across-strike direction. Sub-celling was employed to 12.5 m(E) by 12.5 m(N) by 1.25 m(RL) to improve block volume fitting to the wireframes.

Criteria	JORC Code explanation	Commentary
		Mineralisation domains were coded in the block model. The composite samples were used to estimate Fe, SiO_2, Al_2O_3, P, S, Mn, CaO, MgO, Na_2O, and LOI (loss on ignition) grades into the parent block cells in the block model in Surpac software using OK. By-product recovery has not been considered for this deposit estimate. No deleterious elements are known based on the initial metallurgical testwork completed. No assumptions have been made regarding selective mining units at this stage. A strong inverse correlation exists between iron and silica. The separate interpreted mineralisation zones were domained based on the geological and geochemical data. The mineralisation wireframes were coded into the block and used to constrain the estimate. Hard boundaries were used between coded mineralisation domains. Block model validation has been completed by visual and statistical comparison of drill sample grades with the OK estimate results for each estimation zone. Grade trend plots along the drill sections was completed and trend plots comparing drill sample grades and model grades for northings and eastings. These checks show reasonable comparison between estimated block grades and drill sample grades. With no mining having taken place there is no reconciliation data available to test the model against.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages have been estimated on a dry, in situ, basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The adopted cut-off grade of 25% Fe is based on the minimum expected feed grade to a WHIMS processing circuit. The grade-tonnage plot curve indicates that MRE tonnage is relatively insensitive to cut-off grades below 25% Fe.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	It has been assumed that the Magazine deposit is amendable to open pit mining method and have reasonable prospects to exploit to the depths currently modelled using the cut-off grade applied. No assumptions regarding mining widths and dilution have been made.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Results from an initial rock-chip WHIMS beneficiation program in 2007 returned resulted in several rock chip samples within hematite quartzites upgrading to 67% Fe at over 70% weight recoveries (Penna and Bateman, 2007). Follow-up WHIMS testwork on the RCP drill chips across the full width of the hematite quartzite horizons returned variable iron grades in concentrate and weight recoveries (from a total of 436 WHIMS results returned from material contained within the wireframes, the average weight recovery was 51% and an iron concentrate grade of 57.8%) although it was unclear in the reporting how conclusive this work was and whether the testwork was optimal for the style of mineralisation. Further detailed metallurgical work is required before any meaningful conclusions can be drawn.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered, this should be reported with an explanation of the environmental assumptions made.*	No assumptions were made regarding possible waste and process residue disposal options.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Dry bulk density measurements were collected from the 2021 drill core samples. A total of 87 bulk density measurements were flagged within the mineralisation domains and analysed. The density values were filtered above 2.5 t/m^3 to exclude potentially erroneous values, with the remaining 72 values reporting an average density of 3.06 t/m^3. A density value of 3 t/m^3 was assigned to all mineralisation domains in the block model based on the limited data. Waste rock comprising schists, sandstone, quartzite that was assigned a nominal density of 2.75 t/m^3.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The MRE has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1, Section 2 and Section 3 of this table. The Mineral Resource has been classified as Inferred based on the guidelines specified in the JORC Code (2012). The classification level is based upon assessment of the geological understanding of the Magazine deposit, geological and mineralisation continuity, drillhole spacing, quality control information, search and interpolation parameters, and analysis of available density information. The deposit

Criteria	JORC Code explanation	Commentary
		appears to be of sufficient grade, quantity, and continuity to have reasonable prospects for eventual economic extraction. The Magazine deposit shows good mineralisation continuity within well-defined geological constraints. Drillholes are located at a nominal spacing of 100 m by 100 m. The drill spacing is sufficient to allow the geology and mineralisation domains to be modelled into coherent wireframes. Reasonable consistency is evident in the orientation and thickness and grades of the mineralisation domains. The Mineral Resource is classified as Inferred where, there is sufficient evident to imply but not verify geological and grade continuity. The Inferred classification generally represents areas with 100 m by 100 m drillhole spacing, and estimation quality SOR less than 0.6. The Inferred classification reflects the limited QAQC data available, and assumptions for metallurgical amenability. The MRE appropriately reflects the view of the Competent Person.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Internal audits and peer review were completed by CSA Global which verified and considered the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken.
Discussion of relative accuracy/ confidence	*Where appropriate, a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The relative accuracy of the MRE is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The Mineral Resource statement relates to global estimates of in situ tonnes and grade. No mining has taken place at this deposit to allow reconciliation with production data.

Criteria	JORC Code explanation	Commentary
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

Appendix 3: Magazine Drill Hole Collar Data

Drillhole	Deposit	Easting	Northing	RL	Azimuth	Dip	Depth (m)	Date start	Date finish
21NBDD05	North Bay	566644	8220024	100.4	35	-55	204.1	25-Aug-21	2-Sep-21
21NBDD06	North Bay	566642	8220029	99.2	225	-70	304.9	2-Sep-21	10-Sep-21
21NBDD07	North Bay	566377	8220211	121.9	0	-85	232.9	11-Sep-21	18-Sep-21
21NBDD08	Magazine Pit	566471	8219880	94.0	30	-85	150.4	18-Sep-21	25-Sep-21
BH20	Magazine	566728	8219727	83.6	0	-90	110	23-Nov-12	23-Nov-12
CPRC004	Magazine	566602	8219749	99.3	0	-90	108	4-May-08	4-May-08
CPRC005	Magazine	566330	8219856	68.3	0	-90	60	5-May-08	5-May-08
CPRC006	Magazine	566405	8219800	74.8	0	-90	78	5-May-08	5-May-08
CPRC007	Magazine	566482	8219760	89.7	0	-90	99	6-May-08	6-May-08
CPRC008	Magazine	566489	8220011	113.3	0	-90	78	6-May-08	6-May-08
CPRC009	Magazine	566489	8220085	114.6	0	-90	121	7-May-08	7-May-08
CPRC010	Magazine	566486	8220176	113.4	0	-90	110	7-May-08	7-May-08
CPRC011	Magazine	566541	8220162	109.3	0	-90	114	8-May-08	8-May-08
CPRC012	Magazine	566586	8220064	98.4	0	-90	120	8-May-08	8-May-08
CPRC013	Magazine	566639	8220020	101.2	0	-90	30	8-May-08	8-May-08
CPRC014	Magazine	566692	8219891	115.1	0	-90	78	9-May-08	9-May-08
CPRC015	Magazine	566600	8219948	119.3	0	-90	126	9-May-08	9-May-08
CPRC016	Magazine	566650	8219806	112.6	0	-90	96	9-May-08	9-May-08
CPRC017	Magazine	566626	8219881	124.8	0	-90	120	16-May-08	16-May-08
CPRC018	Magazine	566640	8220018	101.3	0	-90	86	15-May-08	15-May-08
CPRC019	Magazine	566527	8219986	105.9	0	-90	109	19-May-08	19-May-08
CPRC020	Magazine	566469	8219867	94.9	0	-90	108	19-May-08	19-May-08
CPRC021	Magazine	566730.3	8219774	88.9	0	-90	54	20-May-08	20-May-08
CPRC022	Magazine	566774	8219908	73.9	0	-90	48	21-May-08	21-May-08
CPRC026	Magazine	566537	8219815	104.5	0	-90	84	22-May-08	22-May-08
CPRC027	Magazine	566251	8219912	78.3	0	-90	90	5-Jun-08	5-Jun-08
CPRC028	Magazine	566353	8220083	125.5	0	-90	138	6-Jun-08	6-Jun-08
CPRC029	Magazine	566190	8219800	74.9	30	-60	96	7-Jun-08	7-Jun-08
CPRC030	Magazine	566179	8219733	74.1	30	-60	108	7-Jun-08	7-Jun-08
CPRC031	Magazine	566104	8219779	74.7	30	-60	120	8-Jun-08	8-Jun-08
CPRC032	Magazine	566119	8219825	82.7	30	-60	102	8-Jun-08	8-Jun-08

Coordinates in MGA 1994 51S

Appendix 4: Switch Pit Exploration Target

Based on 2021 Pearl Gull diamond core drilling and field mapping observations, mining consultant CSA Global estimated an Exploration Target[1] for Switch Pit, comprising the Seawall Hematite and the High-Wall Hematite lens, summarised in Table 6.

Table 6: Switch Pit Exploration Target

Deposit	Fe %	Minimum Case (Mt)	Medium Case (Mt)	Maximum Case (Mt)
Seawall Hematite	66	0.38	1.7	6.6
High-Wall Hematite	55 to 65	0.1	0.5	1.9
Total		**0.48**	**2.2**	**8.5**

Notes:

- *The grades are average estimates based on visual examination of the drill assays.*
- *The High-Wall Hematite comprises an interpreted eight lenses of approximately 1–2 m thicknesses.*

The estimated polygonal dimensions of the Switch Pit Seawall Hematite and High-Wall Hematite lens have been determined from drilling extent, field mapping observation point data (Table 8), interpretive geological mapping and robust geological control from the adjacent abandoned Cockatoo Island Seawall mine located on M04/448-I (held by Cockatoo Island Mining Pty Ltd). The dimensions extents have also been tempered against personal industry professional intelligence.

Wireframe solids of the Seawall Hematite and High-Wall Hematite lenses have not been constructed. The Exploration Target results are not suitable for any mine planning optimisation.

The potential quantity and grade of the Switch Pit iron mineralisation is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if future exploration will result in an estimation of a Mineral Resource.

Methodology

Three deterministic cases were developed.

Minimum Case

Seawall Hematite:

- The thickness is well defined and no geological justification to change what has been defined and mined on the abutting M04/448-I mining lease.
- Strike constrained to drilling (100 m).
- Depth is limited to 20 m (-20 mRL) to honour the present limit drilling intersecting the interpreted Seawall Hematite beneath sea level.

High-Wall Hematite lens:

- Lens 1 to 8 strike lengths are constrained by mapping, limit of drill support and truncated by sea.

[1] An Exploration Target is defined as "a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource" (JORC Code 2012, page 9).

- Thicknesses to honour field mapping observations and drilling.
- Depth is limited to 20 m to reflect the current average bench height (20 mRL) and approximate above sea level outcropping units. Some lenses are approximately at 10 mRL and others to the northeast are at approximately 30 mRL.

Maximum Case

Seawall Hematite:

- The thickness is well defined and no geological justification to change the thickness of what has mined on the abutting M04/448-I mining lease.
- Strike extended approximately 700 m to the southeast to the boundary of M04/235-I, i.e. there is a complete and non-disrupted extension of the Seawall Hematite below sea level from the M04/448-I pit/M04/235-I boundary to the south-eastern limit of M04/235-I.
- Depth is extended from surface approximate 0 mRL to -50 mRL (50 m) to honour the approximate present limit of the M04/448-I pit.

High-Wall Hematite lens:

- Thickness is defined on drill intercepts and field mapping observations. There is no geological justification to change or alter the thickness along strike.
- Strike extended approximately 700 m to the southeast to the boundary of M04/235-I, i.e. there is a complete and non-disrupted extension of the High-Wall Hematite lenses from the M04/448-I/M04/235-I boundary to the south-eastern limit of M04/235-I.
- Depth is extended from surface approximate 20 mRL to -50 mRL (70 m) to honour the present limit of pit of M04/448-I.

Medium Case

Seawall Hematite:

- The thickness is well defined and no geological justification to change the thickness of what has mined on the abutting M04/448-I mining lease.
- Strike extended approximately 300 m to reflect 200 m past the closest intersecting drillhole (21SWDD11).
- Depth is extended from surface approximate 0 mRL to -30 mRL (30 m) to honour the present limit drilling intersecting the interpreted Seawall Hematite at depth with a 10 m extension.

High-Wall Hematite lens:

- Thickness is defined on drill intercepts and field mapping observations. There is no geological justification to change or alter the thickness along strike.
- Strike extended approximately 300 m to reflect 200 m past the closest intersecting drillhole (21SWDD11) and approximately 100 m southeast of the limit of outcrop.
- Depth is extended from surface approximate 20 mRL to -30 mRL (50 m), not exceeding past the depth of the Seawall Hematite.

The drill holes used to develop the Exploration Target are shown in Table 7.

Table 7: Switch Pit Exploration Target drillhole collars (coordinates MGAS 1994 51S)

Drillhole	Deposit	Easting	Northing	RL	Azimuth	Dip	Depth (m)	Date start	Date finish
21SWDD01	Switch Pit	565770	8219673	8	0	-90	66.5	19 Jun 2021	23 Jun 2021
21SWDD02	Switch Pit	565777	8219692	6	35	-65	201.5	24 Jun 2021	3 Jul 2021
21SWDD03	Switch Pit	565789	8219710	11	35	-50	105.2	4 Jul 2021	7 Jul 2021
21SWDD04	Switch Pit	565887	8219697	21	30	-50	69.7	7 Jul 2021	9 Jul 2021
21SWDD05	Switch Pit	566011	8219702	33	15	-50	87.5	10 Jul 2021	11 Jul 2021
21SWDD06	Switch Pit	565910	8219742	47	30	-50	94.7	11 Jul 2021	14 Jul 2021
21SWDD07	Switch Pit	565840	8219771	55	30	-50	100.7	14 Jul 2021	29 Jul 2021
21SWDD08	Switch Pit	565946	8219795	69	30	-50	39.5	25 Sep 2021	27 Sep 2021
21SWDD09	Switch Pit	565891	8219696	21	210	-45	138.1	2 Oct 2021	8 Oct 2021
21SWDD010	Switch Pit	565940	8219690	25	180	-45	5.4	8 Oct 2021	9 Oct 2021
21SWDD011	Switch Pit	565943	8219695	25	180	-47	190.0	9 Oct 2021	Oct 2921

A drillhole location and field reconnaissance plan is included as Figure 5. A schematic cross-section is included as Figure 6. Illustrations of the minimum, medium and maximum cases are included as Figure 7, Figure 8 and Figure 9.

The field reconnaissance location points are shown in Table 8.

Table 8: Switch Pit field reconnaissance location plan

Way-point	Deposit	Date	Easting	Northing	RL	Lithology	Stratigraphy	Description
1	Lookout	6 Oct 2022	564863	8220415	96		Cockatoo Formation	Lookout to Seawall pit
2	Switch Pit	6 Oct 2022	565807	8219720	45	Hematite	Cockatoo Formation	Contact to hangingwall hematite band of approximately 1 m thickness. Dip approx. 70–225°. Contact approx. 20 m northeast of Seawall Hematite contact.
3	Switch Pit	6 Oct 2022	565804	8219728	47	Hematite	Cockatoo Formation	Second hematite lens (approx. 60 cm thick) located to the northeast of hematite lens and a third hematite lens a further 1 m northeast (1 m thickness).

Way-point	Deposit	Date	Easting	Northing	RL	Lithology	Stratigraphy	Description
4	Switch Pit	6 Oct 2022	565790	8219724	29	Hematite	Cockatoo Formation	Interbedded hematite/shale band of 2 m thickness approx. 3 m to the southwest of WP2.
5	Switch Pit	6 Oct 2022	565822	8219697	41	Hematite	Cockatoo Formation	Southeast of WP4. Hangingwall contact to WP4 contact.
6	Switch Pit	6 Oct 2022	565868	8219674	12	Waste	Cockatoo Formation	Estimated contact of WP5.
7	Switch Pit	6 Oct 2022	565846	8219706	39		Cockatoo Formation	Hangingwall contact to WP3.
8	Switch Pit	6 Oct 2022	565910	8219706	46	Hem	Cockatoo Formation	Approximately 50 cm to 1 m band hematite near contact to banded iron formation/high SiO_2 hematite.
9	Switch Pit	6 Oct 2022	565921	8219705	44	Hi SiO_2 Hematite,	Cockatoo Formation	Contact approx. 1 m under WP8 – high SiO_2 hematite.
10	Switch Pit	6 Oct 2022	565934	8219719	41		Cockatoo Formation	Approx. 2 m thick – approx. 60% Fe increasing SiO_2. Unknown which lens.
11	Switch Pit	6 Oct 2022	565954	8219696	41		Cockatoo Formation	Photo to northwest showing WP9 and WP10.
12	Switch Pit	6 Oct 2022	565959	8219735	58	BIF	Cockatoo Formation	Hard banded iron formation in ramp.
13	Switch Pit	6 Oct 2022	565961	8219741	60	Hematite	Cockatoo Formation	Approx 50 cm thick hematite band underlying banded iron formation WP12.

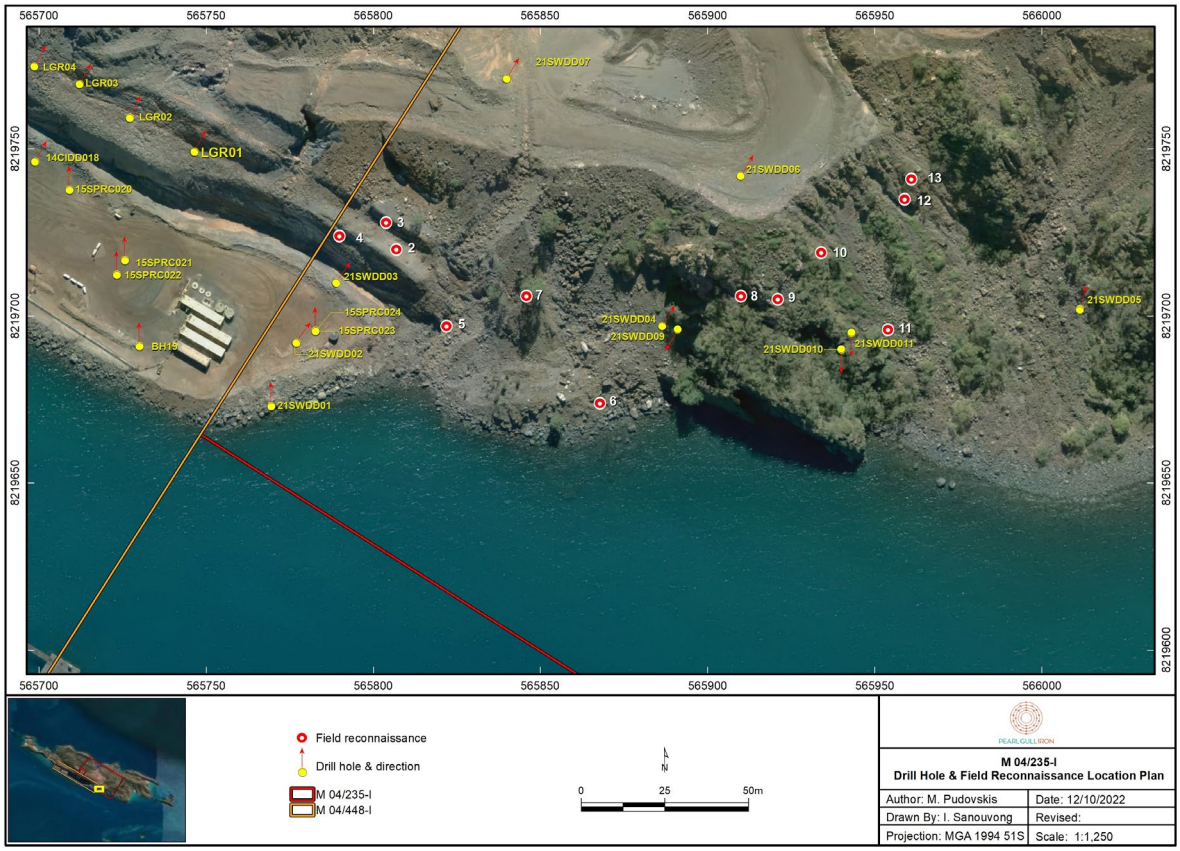


Figure 5: Switch Pit drill hole and field reconnaissance location plan

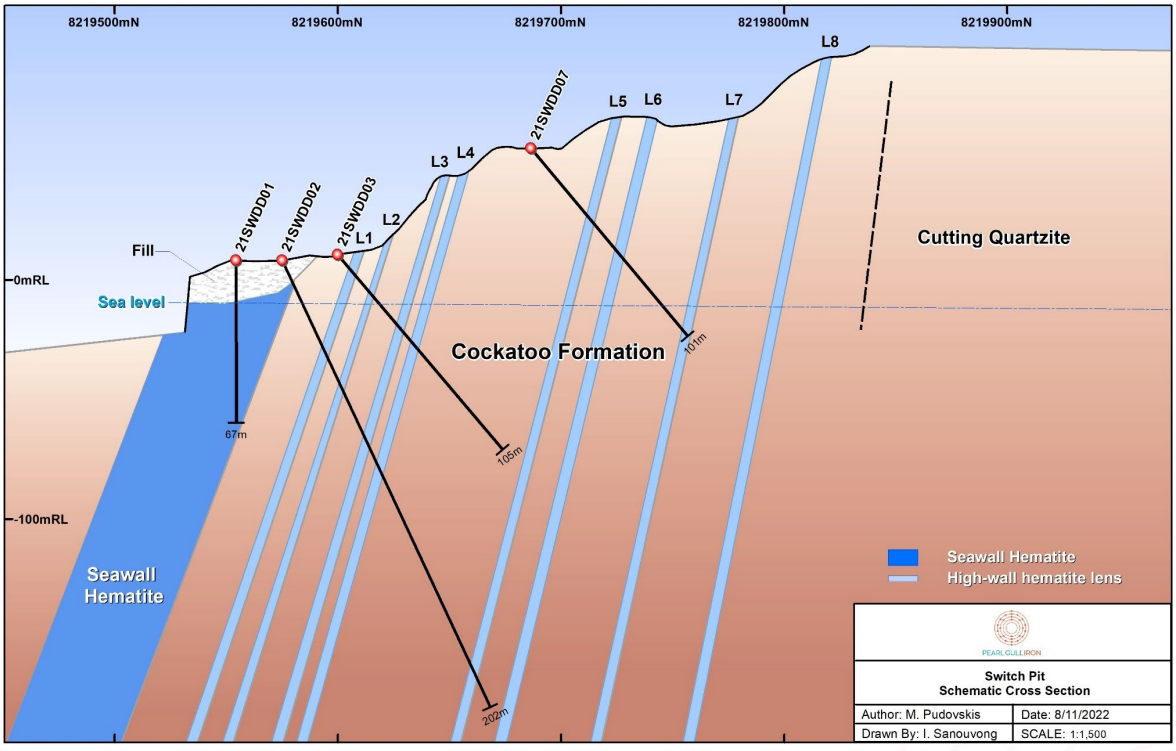


Figure 6: Switch Pit schematic crosssection through 21SWDD01, 21SWDD02, 21SWDD03 and 21SWDD07

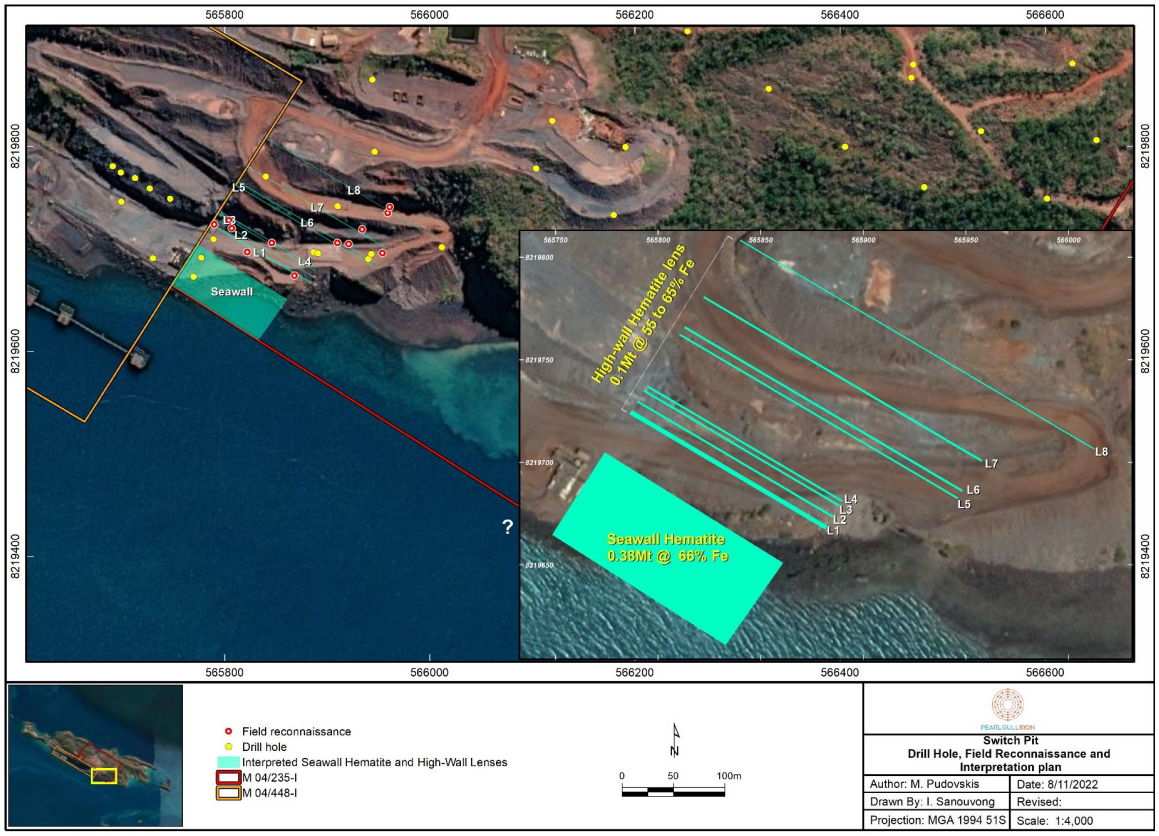


Figure 7: Switch Pit minimum case

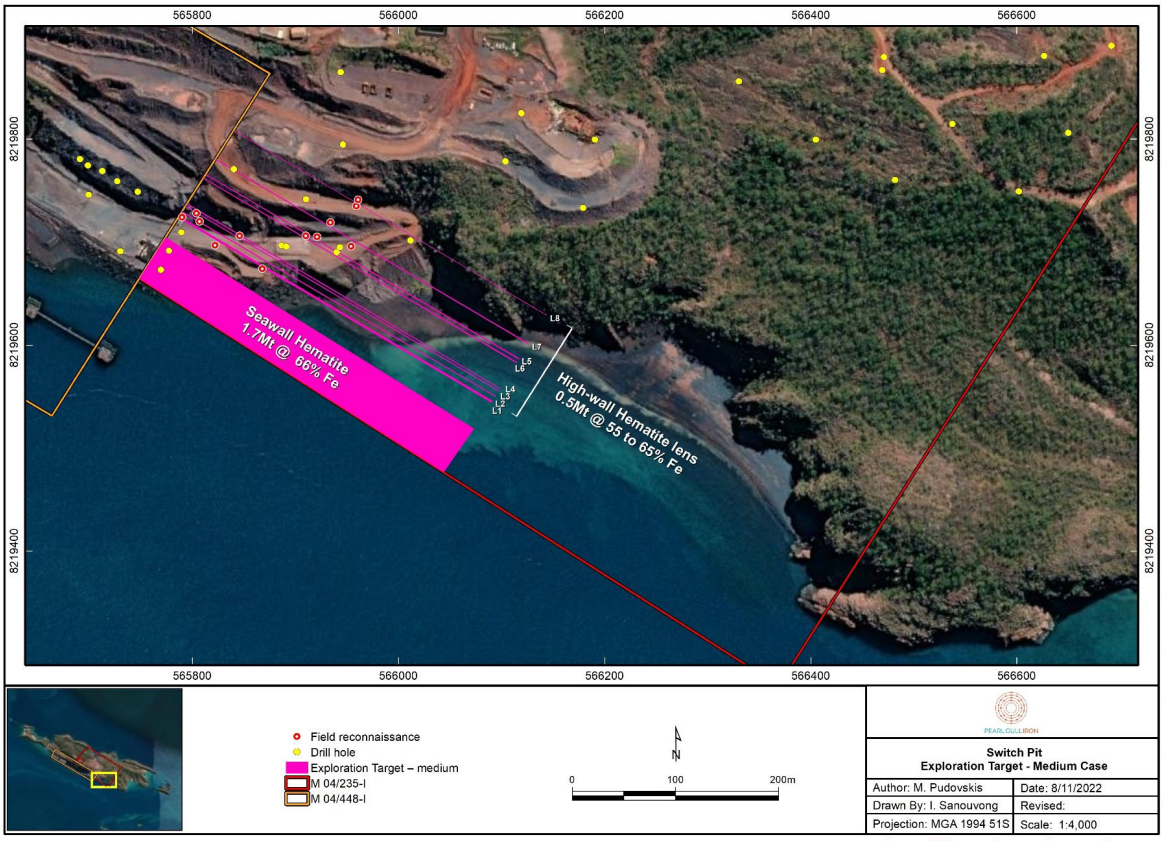


Figure 8: Switch Pit medium case

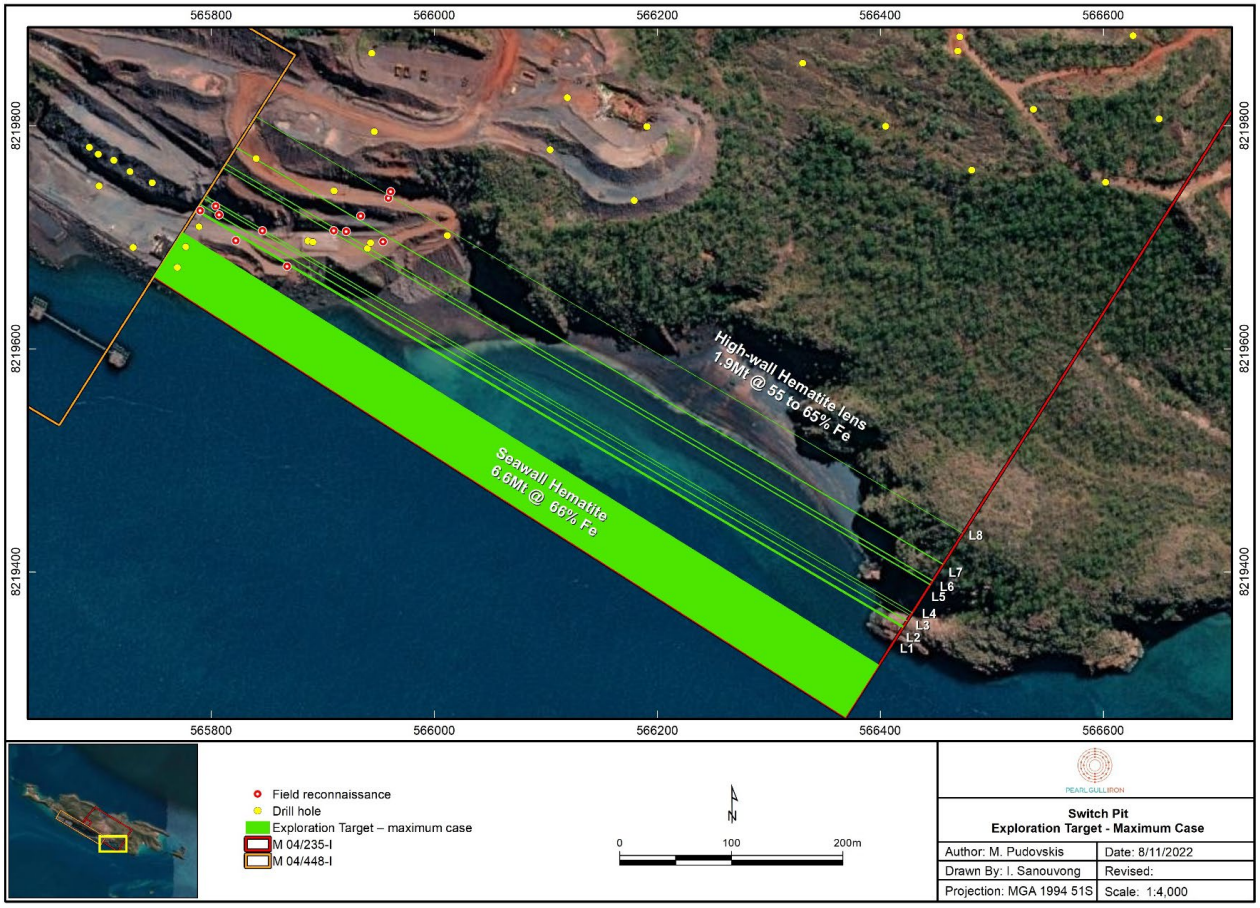


Figure 9: Switch Pit maximum case

Significant Intercepts

The significant drill intercepts supporting the Exploration Target are shown in Table 9. The sample lengths range between 0.5 m and 2.0 m lengths. The assays (>50% Fe and total 1 m length cut-off) are not weight averaged.

Table 9: Switch Pit Exploration Target significant drill intercepts

Drillhole	Unit	Depth from (m)	Depth to (m)	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	Total significant assays	Total samples
21SWDD01	SWH[2]	20	64.7	69.5	0.33	0.19	0.003	0.08	43	57
21SWDD02	SWH	11.8	19.3	68.9	0.72	0.25	0.003	0.16	7	168
	HWH[3]	19.3	37	55.6	17.56	1.73	0.003	0.78	15	
	HWH	55.1	57.1	67.0	2.66	0.95	0.003	0.45	2	
	HWH	58.6	63.6	66.8	2.96	0.90	0.008	0.44	6	
	HWH	168	169.1	53.6	21.00	1.58	0.003	0.63	1	
	HWH	175.7	177.1	56.7	18.20	0.31	0.003	0.19	1	
21SWDD03	HWH	18.4	20.9	65.6	5.10	0.70	0.003	0.30	2	67
	HWH	22.4	29.3	66.1	4.08	0.85	0.005	0.36	6	
	HWH	82	82.9	51.1	25.40	0.98	0.003	0.24	1	
21SWDD04	HWH	55.9	56.5	58.9	14.00	1.24	0.003	0.51	1	40
21SWDD05	HWH	42.1	44.7	51.4	23.30	2.09	0.003	0.84	3	39
	HWH	52.6	54.5	66.7	4.07	0.31	0.003	0.11	2	
21SWDD06	HWH	71	75.9	62.0	10.75	0.37	0.003	0.16	5	55
21SWDD07	HWH	84	86.2	61.1	8.95	2.39	0.006	0.94	2	53
21SWDD08	HWH	22	23.7	59.1	15.10	0.21	0.003	0.02	2	24
21SWDD09	HWH	24.5	25.6	67.8	2.50	0.18	0.003	0.15	1	96
	HWH	32.7	35.7	63.5	8.19	0.55	0.003	0.24	3	
	HWH	41.4	43.5	55.3	17.25	2.56	0.004	1.06	2	
	HWH	51	54.5	51.2	22.20	2.99	0.009	1.14	3	
	HWH	56.5	64.3	52.3	20.90	2.85	0.009	1.17	7	
	HWH	68	81.2	54.2	18.75	2.37	0.008	1.02	12	
	SWH	81.2	138.1	68.6	1.03	0.49	0.003	0.22	35	
21SWDD10	HWH	4	5.4	54.2	21.80	0.41	0.003	0.21	1	3
21SWDD11	HWH	19	20.6	51.5	25.50	0.46	0.003	0.21	1	137
	HWH	69.08	70.55	63.2	9.00	0.27	0.003	0.24	1	
	HWH	77	80	65.4	5.91	0.31	0.003	0.18	2	
	HWH	83.75	90.4	61.6	11.33	0.28	0.003	0.17	5	
	HWH	90.7	91.8	68.8	1.18	0.20	0.003	0.09	1	
	HWH	100.3	104.8	64.6	6.65	0.65	0.004	0.28	3	

[2] SWH: Seawall Hematite
[3] HWH: High-wall Hematite lens

Drillhole	Unit	Depth from (m)	Depth to (m)	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	Total significant assays	Total samples
	HWH	112	118.5	53.4	20.43	2.15	0.004	0.92	4	
	HWH	123.4	128.2	53.7	19.38	2.50	0.007	1.07	4	
	HWH	131.1	133.5	59.5	12.85	1.35	0.006	0.55	2	
	HWH	140	144.8	56.6	15.80	2.08	0.007	0.86	4	
	HWH	150	161.8	56.3	17.17	1.41	0.004	0.60	9	
	HWH	167.2	172.6	60.2	11.54	1.35	0.003	0.63	5	
	HWH	178.6	184.6	56.6	16.85	1.01	0.003	0.51	4	
	SWH	184.6	189.1	66.8	3.83	0.29	0.003	0.18	3	

Geological Risks

The main geological risk for Switch Pit is the limited drill data supporting the present geometry and continuity of the Seawall Hematite and High-Wall Hematite iron mineralisation beyond the extent of drilling.

Opportunity

The most notable short-term opportunity is the High-Wall Hematite lenses above sea level which may be amenable to small scale, small equipment mining. In the minimum case, there is potential for an estimated 100,000 tonnes[4] of direct ship ore and beneficiable iron mineralisation above water table and along an interpreted strike of 100 m. The eight interpreted lens are on average between 1 m and 2 m thickness with grades ranging between 50% Fe and 65% Fe. Field observations suggests a gradual increase in SiO_2 % and decrease in Fe % in a northeast direction from the Seawall Hematite.

Recommendations

An airborne magnetic survey is recommended to verify the presence of a southeast undersea extension of the Seawall Hematite. Should the magnetic survey confirm the extension of the Seawall Hematite beyond the south-eastern most interpreted drill intercept in 21SWDD11, then a drill program design will be required to ensure that at least two drillholes on approximately 50 m spaced sections intersect the full thickness of the Seawall Hematite.

[4] This is not a Mineral Resource, reportable in accordance with the JORC Code. The estimate is the minimum tonnage of the ranged Exploration Target.

APPENDIX 5: SWITCH PIT JORC CODE TABLE 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	Diamond drilling methods were used to collect samples within the Switch Pit deposit.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All sampling was by conventional iron ore industry physical methods from a drill rig. No geophysical sondes or handheld instruments were used for sampling.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done; this would be relatively simple (e.g. "RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay"). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond core was quarter half-core sampled at variable intervals, on average between 1 m and 3 m, to honour geological and mineralisation boundaries where appropriate. The Competent Person considers that the sampling techniques adopted are appropriate for the style of mineralisation.
Drilling techniques	*Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Drilling was carried out in June to October 2021 by Seismic Drilling Australia using a Hanjin D&B-10 CR track mounted rig. A total of 11 PQ3 drill holes for 1,098.8 m were completed on Switch Pit (depth range between 5.4 m and 201.5 m. Diamond core was orientated using the Reflex line orientation tool. The quality of orientation marks is recorded in the drillhole database. The Competent Person considers that the drilling techniques adopted were appropriate for the style of mineralisation and for reporting an Exploration Result.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Diamond core recovery was assessed by comparison of the interval of core presented in the core tray against the driller's core blocks. A review of the drill logs showed that more than 90% of core intervals had complete recoveries. Any core losses were typically in the top 10 m of the drill hole of zones of fracturing or increased friability. The Competent Person does not consider these recoveries losses as a material risk to the reporting of an Exploration Result.

Criteria	JORC Code explanation	Commentary
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The diamond core program was continually monitored by the site geologist to ensure that if core recovery issues did arise, they could be addressed immediately.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Diamond drilling utilised triple tube techniques and drilling fluids in order to assist with maximising recoveries. The recoveries were mostly 100% hence any risk of sample bias was negligible. Depths were checked against the depth given on the core blocks routinely carried out by the drillers. Recovered core was measured and compared against driller's blocks. The Competent Person considers that any sample losses from the diamond drilling is not likely to have any material impact or bias on the reported assay results. The Competent Person considers that the drilling sampling recovery methods adopted were appropriate for the style of mineralisation and for reporting an Exploration Target.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Diamond core was geologically logged using historical Portman Iron Ore Limited logging codes to record lithological, texture, weathering, mineralisation, structure (for core), stratigraphy and sample condition. Geotechnical logging of all diamond core consisted of recording core recovery, rock quality designation (RQD) and fracture density. The Competent Person considers the detail of geological logging appropriate to support a Mineral Resource.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging was generally qualitative in nature except for the determination of core recoveries and geotechnical criteria such as RQD and fracture frequency which was quantitative. Core photos were collected for all diamond drilling to aid geological interpretation.
	The total length and percentage of the relevant intersections logged.	All recovered intervals were geologically logged.
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Diamond core was predominantly quarter cut with minor intervals half cut using an electric core saw. Sample intervals were marked on the core by the drilling geologist considering lithological and structural features. Core selected for duplicate analysis was further cut to quarter core with both quarters submitted individually for analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All Switch Pit was diamond core drilled.

Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The 2021 diamond core samples were processed and analysed at SGS Australia in Perth which is reputable industry laboratory.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	The 2021 field quality assurance and quality control (QAQC) procedures included the field insertion of certified reference materials (GIOP 44, GIOP84 and GIOP135) standards purchased from Geostats Pty Ltd) having a range of values 59.13% Fe, 53.05% Fe, 62.75% Fe respectively. In addition, blanks and field duplicates were inserted.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	For the 2021 drill program, insertion rates targeted 1:20 for duplicates and standards and approximately 1:50 for blanks.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the grain size of the material being sampled. The Competent Person considers the subsampling and preparation techniques appropriate for the reporting an Exploration Result.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The 2021 diamond core was sent to SGS Australia Perth for preparation and analysis by x-ray fluorescence (XRF) iron ore suite. SGS Codes included CRU20, SPL27, PUL48, XRF78S.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tool or other handheld measuring devices were used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Quality control procedures have been discussed above. Laboratory QAQC involved the use of internal laboratory standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. No third-party umpire laboratories were used. The Competent Person considers the nature and quality of assaying and laboratory procedures appropriate for reporting Exploration Result.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The field sampling and assaying have not been verified by an independent third party. Select 2021 diamond core present at a laydown area on Cockatoo Island was verified by the Competent Person during a site visit in October 2022. The diamond drill core photographs from the 2021 drill program were verified against the logged geology by CSA Global Pty Ltd.
	The use of twinned holes.	There has been no twin hole drilling.

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The 2021 diamond core was logged onto detailed Microsoft Excel sheets and collated into a Microsoft Access database which is presently secure on the CSA Global Pty Ltd server (together with the 2008 drill data). CSA Global has randomly checked the 2021 laboratory raw data against the database assays and found no issues.
	Discuss any adjustment to assay data.	There has been no adjustment of the assay data.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The 2021 diamond core down hole surveys were with downhole gyroscopic survey and collar by handheld global positioning system (GPS). The Competent Person considers a relatively high level of confidence can be placed in the location of data points.
	Specification of the grid system used.	The grid system used is MGA94 Zone 51S. All reported coordinates are referenced to this grid although there is also an established mine grid on Cockatoo Island which is perpendicular to the strike of the Seawall Hematite. The transformation between the mine grid and the projected UTM is well documented.
	Quality and adequacy of topographic control.	Topographic control is based on LiDAR survey data collected in 2017 with accuracy considered to be better than 20 cm. The Competent Person considers the topography to be high quality to support an Exploration Result.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The 2021 Switch Pit drilling was on a variable 10 m to 20 m by 50 m grid with variable orientations and dips to maximise intersecting the Seawall Hematite and High-Wall Hematite bands. Drill orientation and collaring was dictated often by drill rig access.
	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The Competent Person considers the drill spacing on Switch Pit has established a moderate geological and grade continuity, appropriate for the reporting of an Exploration Results.
	Whether sample compositing has been applied.	No compositing was performed on the samples prior to laboratory analysis.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The mineralisation at Switch Pit is interpreted to be a steeply dipping, roughly planar feature striking approximately northwest to southeast and dipping at 75° to the southwest. The High-Wall Hematite bands are clearly visible in outcrop and open faces, which accompanied by the drilling provides a reasonable confidence in the continuity of mineralisation. Any risk of bias sampling has been mitigated adequately by drilling intersecting the hematite bands at high angles.

Criteria	JORC Code explanation	Commentary
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The relationship between the drilling orientation and the orientation of key mineralised structures is unlikely to have introduced a sampling bias.
Sample security	*The measures taken to ensure sample security.*	The 2021 samples were collected on site under supervision of a responsible geologist and stored in securely on site prior to transport by barge to Derby, then truck to the Perth laboratories. Laboratory dispatch sheets were completed and forwarded electronically as well as being placed within the samples transported. Dispatch sheets are compared against received samples and discrepancies reported and corrected. The Competent Person considers the chain of custody and security measure taken from the field capture to delivery to SGS appropriate.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Internal review, by the Competent Person, of the data integrity and consistency of the drillhole database shows sufficient quality to support reporting Exploration Results. CSA Global completed a site review in October 2022.
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	Switch Pit is located wholly within Mining Lease M04/235-I. The tenement is located on Cockatoo Island approximately 135 km north of the Kimberley township of Derby. There is no formal Native Title Claim registered over Cockatoo Island; however, The Competent Person understands that Pearl Gull are in discussions with the local Traditional Owner group to establish a working relationship. The licence is held 100% (all mineral rights) by Pearl Gull Limited.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The mining lease covers 159.8 ha and was applied for on 5 October 1990. The lease was granted on 3 October 1991 with an expiry date of 2 October 2033. The Competent Person can confirm that according to Department of Mines, Industry Regulation and Safety (DMIRS) Mineral Titles Online that all rents and rates have been paid and that the tenement is in good standing. The Competent Person has not verified any potential social or environmental pediments to progressing the Project.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	There has been no previous exploration on the Switch Pit. Significant exploration and mining have been completed on the adjacent M04/448-I which provides geological confidence in the interpretation of Switch Pit.

Criteria	JORC Code explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	The Cockatoo Island Formations form part of the Kimberley Group. This Group consists of a sequence of conglomerate, arkose, quartz sandstone, feldspathic sandstone, siltstone, mudstone and glauconitic sandstone together with tholeiitic metabasalt, tuffaceous sandstone and agglomerate. The Kimberley Group was interpreted by Plumb et al (1981) as being deposited within a broad, semi-enclosed, shallow marine basin. The most important unit of the Kimberley Group in terms of iron mineralisation and the geology of Cockatoo Island is the Yampi Formation. Reid (1956, 1958) divided the Yampi Formation in to eight informal subgroups on Cockatoo Island. Exploration activities have focused on iron mineralisation within two of the eight subgroups, being the Cockatoo Formation and Magazine Schist. The Switch Pit iron mineralisation is hosted in the Cockatoo Formation. The Competent Person is of the opinion that the understanding of the Cockatoo Island geology is detailed and well established.
Drillhole information	*A summary of all information material to the understanding of the Exploration Results including a tabulation of the following information for all Material drillholes:* • *Easting and northing of the drillhole collar* • *Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drillhole collar* • *Dip and azimuth of the hole* • *Downhole length and interception depth* • *Hole length.*	A table summarising Switch Pit drill hole collar information is included as Table 8.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	No exploration information is being excluded.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Significant drill intercept supporting the Exploration Target are shown in Table 10. The sample lengths range between 0.5 m and 2 m lengths. The assays (>50% Fe and total 1 m length cut-off) are not weight averaged.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	The sample lengths range between 0.5 m and 2 m lengths. The assays are reported at >50% Fe and a minimum total 1 m length.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No assumptions for metal equivalents are being used.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*	The geometry of the iron mineralisation is steeply dipping, roughly planar feature striking approximately northwest to southeast and dipping at 75° to the southwest. Where drill access permitted, the drillholes were angled to intersect the mineralisation at a high angle. The exception was drillhole 21SWDD01 which was vertical and drilled near down dip of the Seawall Hematite.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	There is a reasonable to good confidence in the true width of the Seawall Hematite and High-Wall Hematite lenses based on 2021 drilling and historical activities on M04/448-I.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.*	A drillhole location and field reconnaissance plan is included as . A schematic cross-section is included as Figure 6. Illustrations of the minimum, medium and maximum cases are included as Figure 7, Figure 8 and Figure 9.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Exploration Results are being reported.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Other exploration work completed is described above in "Exploration done by other parties".
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	A sea magnetic survey to verify the presence of a southeast undersea extension of the Seawall Hematite. Should the magnetic survey confirm the extension of the Seawall Hematite beyond the south-eastern most interpreted drill intercept in 21SWDD11, then a drill program design will be required to ensure that at least two drillholes on approximately 50 m spaced sections intersect the full thickness of the Seawall Hematite.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Illustrations of the minimum, medium and maximum cases which show potential strike extensions are included as Figure 7, Figure 8 and Figure 9.