Middle Island Resources Limited
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Middle Island
RESOURCES LIMITED

Middle Island Resources Ltd

ACN 142 361 608

ASX code : MDI

www.middleisland.com.au

Capital Structure:

122.4 million ordinary shares

22 million unlisted OOTM options

Cash & Investments

$4.7 million (as of 31 March 2021)

No debt

Directors & Management:

Peter Thomas

Non-Executive Chairman

Rick Yeates

Managing Director

Brad Marwood

Non-Executive Director

Dennis Wilkins

Company Secretary

Contact:

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ASX Release – 7 July 2021

Sandstone Gold Project Enhancements

2% ROYALTY TERMINATION

- When MDI acquired the Sandstone Gold Project in 2016 it was encumbered by a 2% net smelter return royalty in favour of Troy Resources Limited.
- That royalty has been terminated by Troy in exchange for MDI paying the sum of A$250,000.
- The termination reduces the operating costs under the Feasibility Study (see ASX release 19 April 2021) by approximately $4M.

AUGER DRILLING EXPLORATION COMMENCES

- Auger drilling exploration has commenced on five near-mill geochemical targets, including 12 km of inadequately or completely untested highly prospective greenstone belt.
- That 12 km of greenstone is comprised of the Jew Well Central target (10km south of plant) that hosts 5km of completely untested greenstone belt and 7km of greenstone belt (at Jewel Well North 10km from the plant) that has only been subjected to limited wide-spaced soil geochemistry.

EUREKA DEPOSIT

- The Mineral Resources of the small Eureka Deposit, near the mill, have been updated to JORC 2012 compliance after some early 2021 infill and extension drilling.
- At a gold price of A$2300/oz the maximum undiscounted cash flow optimal pit shell on the new Resource includes **76,500 t** at a grade of **1.11 g/t** gold. This equates to an estimated mill recovered **2,515 oz** of gold.

TERMINATION OF TROY ROYALTY

Troy Resources Limited (**Troy**) has accepted A$250,000 as payment for the cancellation of the legacy 2% royalty. MDI assumed the obligation to pay this royalty when it purchased Sandstone Gold Project in 2016.

The Company's ASX release of 19 April 2021 regarding the Sandstone Feasibility Study, stated "The total quantities for all pit designs are 2,068 kt of mill inventory at 1.32 g/t Au" and "the weighted average gold recovery is 92.9%". On the resultant potential yield of 89,453oz of gold, the extinguishment of the Troy royalty at the feasibility study assumed gold price of A$2,300/oz (after refining costs), means the project costs will be reduced, and the net return increased, by $4.1M.

MDI considers that removing the third-party royalty payments for production provides an accretive value to the Sandstone Gold Project, whilst simultaneously simplifying administration both prior to and during production.

AUGER DRILLING EXPLORATION COMMENCES

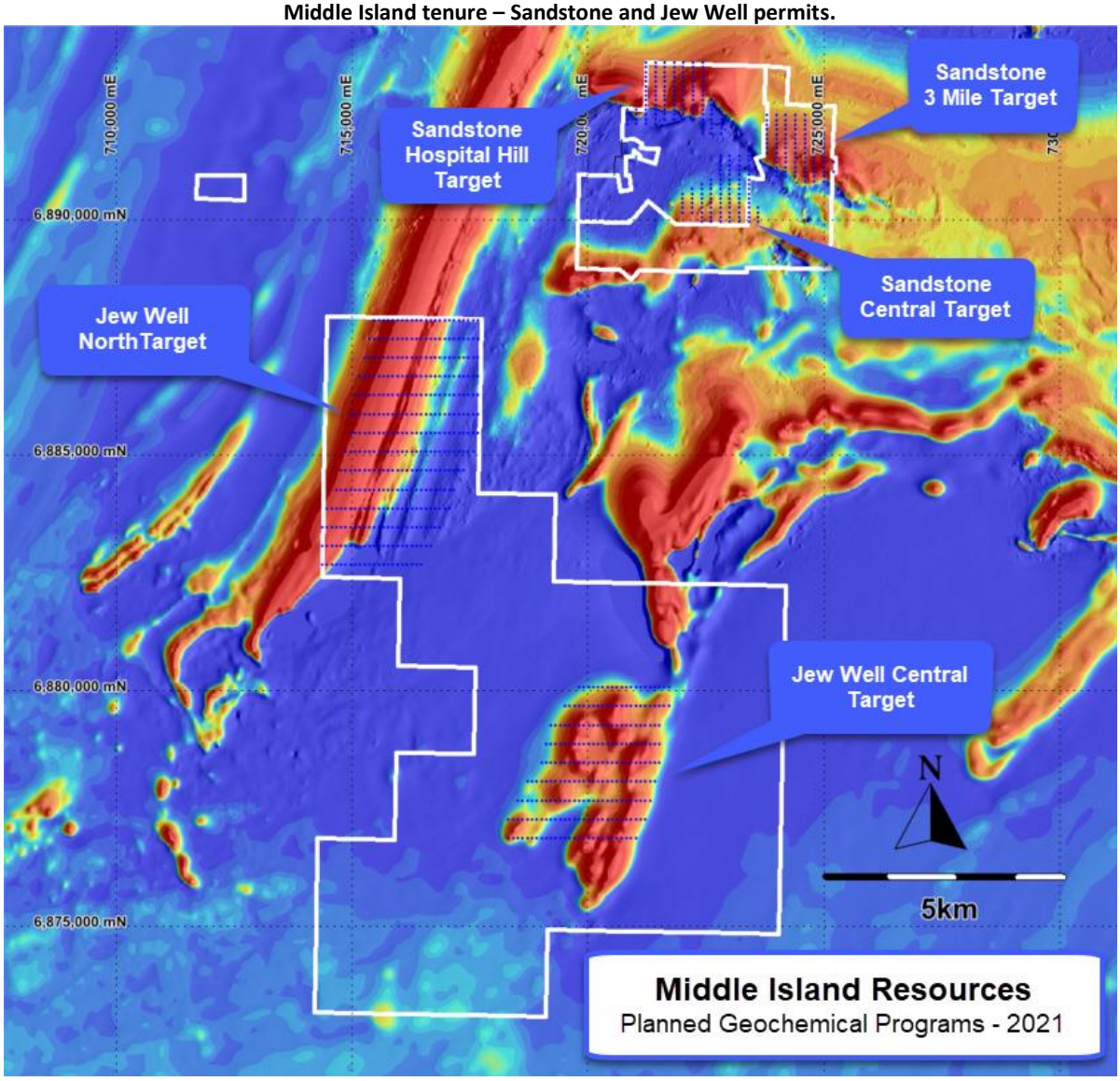
As per ASX release of 1 June 2021 the Company estimates over 70% of the Sandstone region is covered by transported cover, with historical soil geochemistry being ineffective. The Company therefore is pleased to announce it has commenced an auger drilling geochemical survey to test five (5) new targets, including the Jew Well Central Target which comprises 5km of untested greenstone, all of which are largely veneered by transported cover.

As shown on Figure 1, the planned auger exploration will cover the following targets:

- Sandstone Permits
  - Hospital Hill Target – approximately 3 km north of the processing plant.
  - Three Mile Target – 3 km NE of the plant.
  - Central Target, immediately east of the plant, including the Mt Klemptz prospect.
- Jew Well Permit
  - North Target (7 km greenstone with previous, limited wide-spaced soil geochemistry).
  - Central Target (5 km of untested greenstone).

The planned auger program comprises approximately 3,000m of auger drilling (depending on average depth of cover) and will take some 2 more weeks to complete.

Figure 1
Middle Island tenure – Sandstone and Jew Well permits.



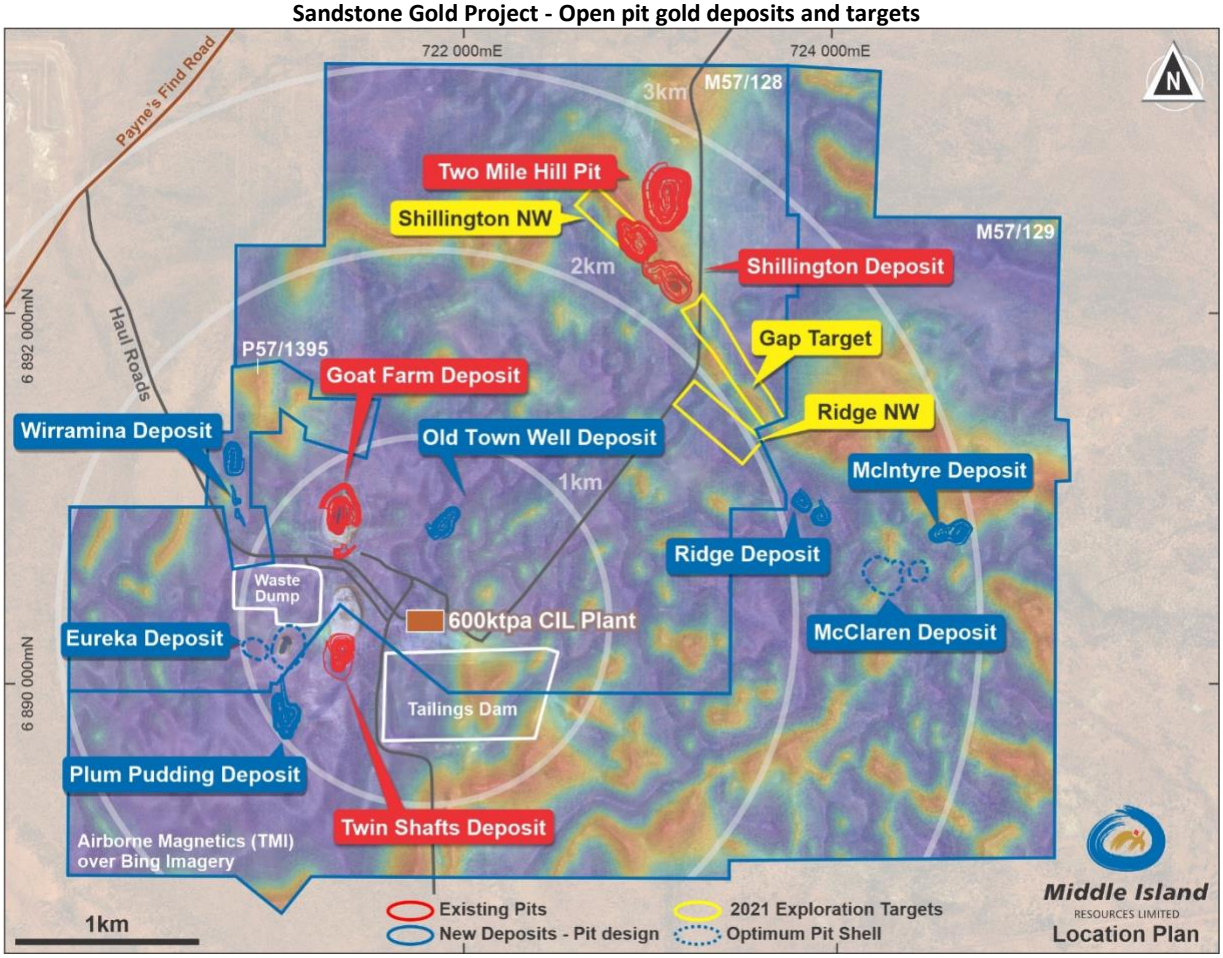
Infill auger drilling, air core and RC drilling will be planned in due course to follow up any targets identified via this initial program of auger drilling.

EUREKA MINERAL RESOURCE ESTIMATE

The estimation of JORC Code 2012 Mineral Resources for the Eureka deposit, the last pit mined by Troy in 2010, is a modest increase to Resources and potential mill feed. A small open pit was mined at Eureka between May and August 2010. A total of 30,461 t at 2.33 g/t Au for 2,281oz were produced.

The location of Eureka is included in Figure 2, 1 km west of the plant.

Figure 2
Sandstone Gold Project - Open pit gold deposits and targets



Results of the independent Mineral Resource estimate by Ashmore for Eureka are tabulated in the Statement of Mineral Resources in Table 1.

Table 1
Eureka Gold Deposit June 2021 Mineral Resource Estimate (0.5g/t Au Cut-off)

Type	Indicated			Inferred			Total		
	Tonnage kt	Au g/t	Au Ounces	Tonnage kt	Au g/t	Au Ounces	Tonnage kt	Au g/t	Au Ounces
Laterite	20	0.6	400	66	0.8	1,800	**86**	**0.8**	**2,200**
Oxide	250	1.0	7,700	73	1.1	2,600	**324**	**1.0**	**10,300**
Transitional	50	0.7	1,200	59	0.8	1,500	**109**	**0.8**	**2,600**
Fresh	20	0.7	500	22	0.9	600	**42**	**0.8**	**1,100**
Total	**340**	**0.9**	**9,700**	**221**	**0.9**	**6,500**	**561**	**0.9**	**16,200**

Note:

The Mineral Resource has been compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

All Mineral Resources figures reported in the table above represent estimates in June 2021. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies. 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).

UPDATED PROJECT MINERAL RESOURCES

Table 2 shows the revised Mineral Resources for the Sandstone Gold Project now totals 784,300 oz.

Table 2
Sandstone Mineral Resources, June 2021

Deposit	Indicated			Inferred			Total		
	Tonnes kt	Au g/t	Au Oz	Tonnes kt	Au g/t	Au Oz	Tonnes kt	Au g/t	Au Oz
Sandstone Open Pit Deposits – Summary Mineral Resource Estimates (2012 JORC Code) at 0.5g/t cut-off									
Two Mile Hill[1]	1,901	1.1	66,000	178	0.8	5,000	2,078	1.1	71,000
Shillington[3]	1,440	1.2	57,200	830	1.1	29,300	2,270	1.2	86,500
Wirraminna[3]	300	1.3	12,100	280	1.1	9,700	580	1.2	21,800
Old Town Well[5]	282	1.0	8,800	68	0.6	1,400	351	0.9	10,100
Plum Pudding[5]	384	1.1	13,100	35	0.9	1,000	419	1.1	14,100
Eureka	340	0.9	9,700	221	0.9	6,500	561	0.9	16,200
Twin Shafts[4]	149	1.0	4,700	37	0.7	900	186	0.9	5,600
Goat Farm[4]				398	1.0	13,200	398	1.0	13,200
McIntyre[4]	496	1.2	19,400	67	0.9	1,900	562	1.2	21,300
Ridge[6]	173	1.2	6,700	67	1.9	4,000	240	1.4	10,700
McClaren[6]	236	1.4	10,600	60	1.7	3,200	296	1.5	13,800
Open Pit Subtotal	**5,701**	**1.1**	**208,300**	**2,241**	**1.0**	**76,100**	**7,941**	**1.1**	**284,300**
Sandstone Underground Deposits – Summary Mineral Resource Estimates (2012 JORC Code)*									
Two Mile Hill[2]				14,000	1.10	480,000	14,000	1.10	480,000
Two Mile Hill – BIF[2]				200	3.10	20,000	200	3.10	20,000
Underground Subtotal				**14,200**	**1.1**	**500,000**	**14,200**	**1.1**	**500,000**
TOTAL	**5,701**	**1.1**	**208,300**	**16,220**	**1.2**	**569,600**	**22,141**	**1.1**	**784,300**

The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimates, which may result in some computational discrepancies.

*The Two Mile Hill Tonalite Deeps and BIF Deeps have been reported within optimised wireframes. All wireframes include waste and have an aggregate grade at or above the cut-off of 0.64ºg/t Au.

This Statement includes information extracted from the Company's previous ASX announcements, which are available to view on the Company's website, as follows:

[1] ASX Release dated 14 December 2016.

[2] ASX Release dated 14 April 2020.

[3] ASX Release dated 24 July 2020.

[4] ASX Release dated 2 October 2020.

[5] ASX Release dated 21 October 2020.

[6] ASX Release dated 17 November 2020

RELEASE AUTHORISED BY THE MDI BOARD:

Contacts: +61 (8) 9322 1430 info@middleisland.com.au

WEBSITE: www.middleisland.com.au

Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Middle Island, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

Competent Person Statement – Eureka Deposit

The reported Mineral Resource was compiled by Shaun Searle, a Member of the Australian Institute of Geoscientists. Mr Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Searle is a director of Ashmore Advisory Pty Ltd ("Ashmore"). Ashmore and the Competent Person are independent of the Company and other than being paid fees for services in compiling this report, neither has any financial interest (direct or contingent) in MDI.

Previously reported information

This report includes information that relates to previously reported Exploration Results and Mineral Resources, which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous announcements, which are available to view on the Company's website and variously include the following:-

Mineral Resources: ASX Releases dated 14 April 2020, 24 July 2020, 14 August 2020, 2 October 2020, 21 October 2020 & 17 November 2020.

Exploration Results: ASX Releases dated 18 January 2017, 12 September 2017, 14 November 2017, 19 December 2018, 14 April 2020, 21 April 2020, 28 April 2020, 8 May 2020, 22 May 2020, 29 May 2020, 26 June 2020, 2 July 2020, 29 July 2020, 30 July 2020, 6 August 2020, 18 August 2020, 27 August 2020, 9 October 2020, 30 October 2020 & 23 December 2020.

Feasibility Study Results: ASX Release dated 19 April 2021.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcements.

Following is presented the details of the Eureka Resource estimation.

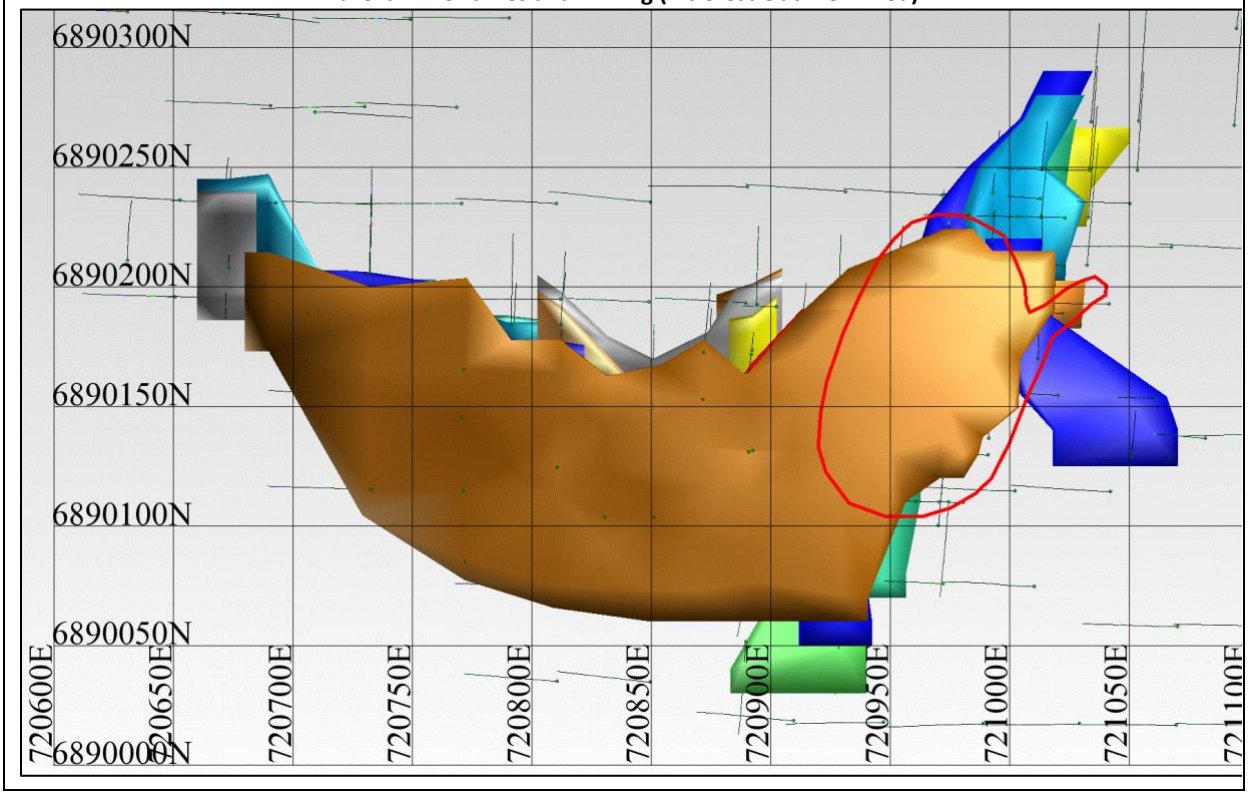
Geology and Geological Interpretation

The Sandstone Gold Project occurs within the Sandstone Greenstone Belt ("SSGB"); which is a triangular belt interpreted as a north-plunging antiform located at the northern end of the Southern Cross province, which forms the central spine of the Archaean Yilgarn block. The SSGB consists of mafic volcanic and intrusive rocks with subordinate ultramafic, banded iron formation ("BIF") and siliciclastic sediments. Granitoid plutons intrude the southern margin of the belt. The metamorphic grade is greenschist facies, although amphibolite facies assemblages are locally developed along the flanks of the belt.

At Eureka, gold mineralisation occurs in shear-zones hosted within greenschist facies mafic rocks with meso-thermal quartz veining and associated silica-carbonate-chlorite-pyrite alteration. The majority of mineralisation occurs in weathered zones with some overlying laterite mineralisation.

A plan view of the drilling to date and the interpreted geological wireframes, also showing the crest outline of the previously mined open pit, is shown in Figure 2.

Figure 3
Eureka Wireframes and Drilling (Pit Crest Outline in Red)



Sampling and Sub-sampling Techniques

For Herald and Troy drilling, RC samples were passed directly from the in-line cyclone through a rig mounted multi-tier riffle splitter. Samples were collected in 1m intervals into bulk plastic bags and 1m calico splits (which were retained for later use). From the bulk sample, a 5m composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis. The 1m calico splits were submitted to the laboratory if the composite sample returned assay values equal to or greater than 0.2g/t Au. In certain cases, selected samples from some holes were passed from the cyclone through a rig mounted multi-tier riffle splitter, and samples collected into calico bags at 1m intervals were submitted directly for analyses. The remaining bulk sample was placed on the ground in 1m intervals. For diamond drilling, HQ core was sampled as quarter core, cut using a diamond core saw and sampled at 1m intervals or to geological contacts. The core samples were always collected from the same side of core for consistency.

For MDI RC drilling, sampling was undertaken by collecting 2-3kg of RC chips off the drill rig's cone splitter; the 1m samples were then composited to 4m interval samples with a two-tier riffle splitter, but intervals of expected mineralisation were sampled at 1m intervals. Where 4m composites returned assays greater than 0.2g/t Au, the 1m bulk samples were split down to 2-3kg sub-samples using a two-tier riffle splitter and submitted for analysis.

Drilling Techniques

The estimates are based on good quality reverse circulation ("RC") and diamond ("DD") drilling data. Drill hole spacing is predominantly 20m by 20m across the breadth of the known mineralisation, with some minor infill drilling to 10m by 10m at Eureka. Some down-dip portions of each deposit are delineated by 40m by 40m hole spacing. RC drilling was conducted with a 140mm face sampling hammer and DD drilling was conducted with HQ3 core diameter barrel with standard tube.

Classification Criteria

The Eureka Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 20m by 20m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 20m by 20m, where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

The extrapolation of the lodes along strike has been limited to a distance equal to half the previous section drill spacing or to 20m. Extrapolation of lodes down-dip has been limited to a distance equal to the previous down-dip drill spacing or to 20m. Areas of extrapolation have been classified as Inferred Mineral Resource or were not classified.

Sample Analysis Method

For Herald and Troy drilling, assays were conducted by SGS Australia Pty Ltd in Perth WA using 50g charge Fire Assay with AAS finish.

For MDI drilling, assays were conducted by SGS laboratory in Perth WA using 50g charge Fire Assay with ICP-OES finish.

Estimation Methodology

The block models were created and estimated in Surpac using Ordinary Kriging ("OK") grade interpolation. The mineralisation was constrained by wireframes prepared using a nominal 0.3g/t Au cut-off grade with a minimum down-hole length of 3m.

Samples were composited to 1m based on an analysis of sample lengths inside the wireframes. After statistical analysis of individual lodes, it was determined that high grade cuts ranging between 8g/t Au and 20g/t Au was warranted for some domains, resulting in six composites being cut at Eureka.

The block dimensions used in the models were 5m EW by 5m NS by 5m vertical with sub-cells of 1.25m by 1.25m by 0.625m. These dimensions were selected based on Kriging Neighbourhood Analysis. Bulk densities ranging between 1.7t/m3 and 2.8t/m3 were assigned in the block model dependent on lithology and weathering. These densities were applied based on average bulk density measurements obtained from core drilled at the adjacent Plum Pudding deposit.

In addition, high grade limits were utilised in the interpolation macro to ensure that high gold grades were restricted to a set maximum search radius.

Cut-off Grades

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a cut-off grade of 0.5g/t Au. The cut-off grade was estimated based on parameters derived from the Sandstone Gold Project Pre-Feasibility Study completed in 2016.

The Eureka deposit is situated approximately 800m southwest of the Sandstone Mill. Further geological, geotechnical, engineering and metallurgical studies are in progress to further characterise gold mineralisation and determine the viability of mining at Eureka. The deposit could be mined as part of a larger mining operation at the Project.

Mining and Metallurgical Methods and Parameters

Previous mining confirms that the Eureka deposit can be mined with open pit techniques.

Historically, the Eureka deposit was processed with a metallurgical recovery of 90 to 93% in the laterite and oxide material types. **EUREKA PIT OPTIMISATION**

Pit Optimisation Parameters

Open pit optimisation using Whittle software was completed by Mining Focus Consultants. The above Mineral Resource model (total resources) was optimised at a base case gold price of A$2300/oz and utilising other input parameters as were used for the recently completed Sandstone project Feasibility Study. A summary of the key input parameters are included in Table 3.

Table 3
Summary Whittle Four-X Input Parameters Error! Bookmark not defined.

Item		Unit	Value
Mill throughput		Mtpa	0.5
Au price		A$/oz	2,300
Royalty	- All deposits except Wirraminna - Wirraminna	%	4.5 2.5
Doré transport, insurance and refining costs		A$/oz	1.00
Processing cost (incl. ROM rehandle)	- BIF-hosted mill feed(1) - Non-BIF hosted mill feed	A$/t milled	31.00 28.00
General and Administration		A$/t milled	10.45
Owner's fixed mining costs		A$/t milled	5.00
Grade control		A$/t milled	0.55
Pit-dewatering		A$/t mined	0.05
Waste dump rehabilitation		A$/t mined	0.03
Average mining cost (variable by deposit with range provided)		A$/t mined	3.42 – 3.93
Processing recovery (variable by deposit with range provided)		%	92.0 – 95.3
Mining recovery (variable by deposit with range provided)		%	95 - 97
Mining dilution (variable by deposit with range provided)		%	0 - 20
Overall pit wall slope angle (inclusive of a ramp system)		degrees	36 - 40

Note 1: BIF-hosted mill feed comprises the Shillington, Ridge, McIntyre and McClaren deposits

Pit Optimisation Results

At a gold price of A$2300/oz the maximum undiscounted cash flow optimal pit shell included **76,500 t** at a grade of **1.11 g/t** gold. This equates to a mill recovered **2,515 oz** of gold. The strip ratio (t:t) for this pit shell is 1.6:1. This pit shell depth is to a maximum of 40 m from surface and hence is wholly contained within the oxide zone.

Within the optimal pit shell 29% of the tonnes are in the Indicated Resource category and the balance are Inferred Resources.

A plan view and cross section of the optimal pit shell, also showing the shell outline for a gold price of A$2700/oz, is shown in Figure 4 and Figure 5 respectively.

Figure 4
Eureka Optimal Pit Shell Plan

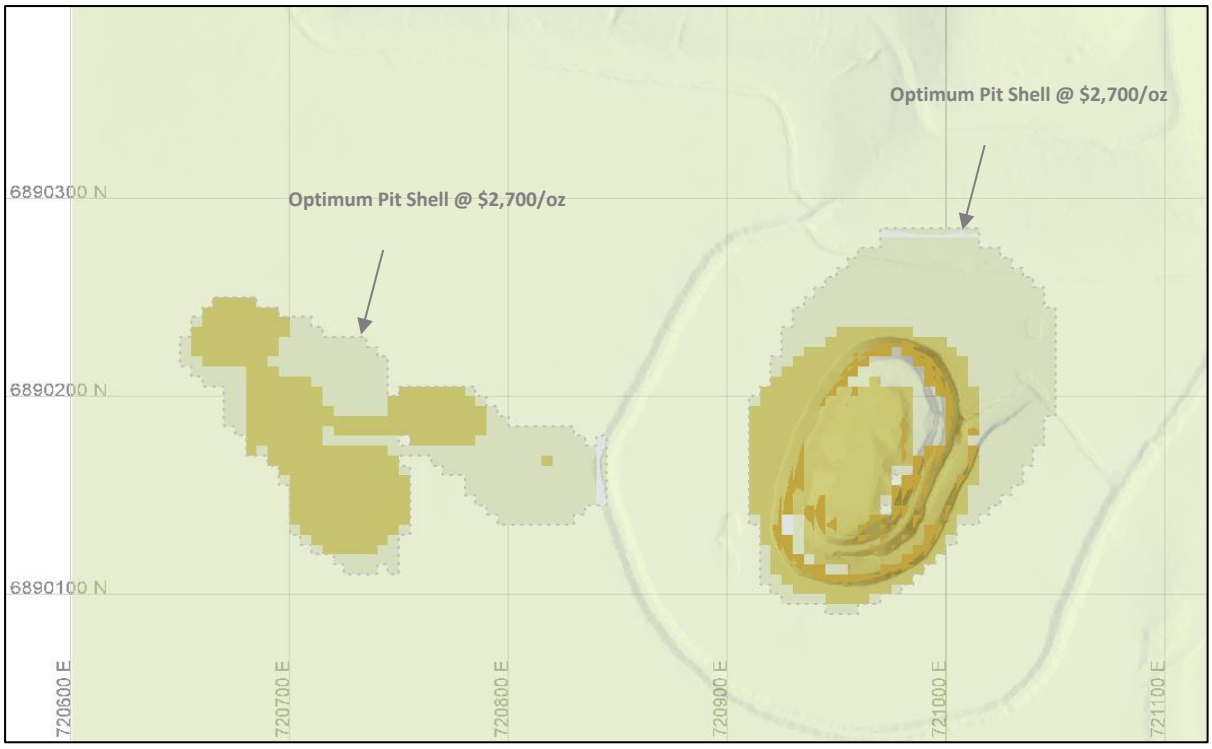
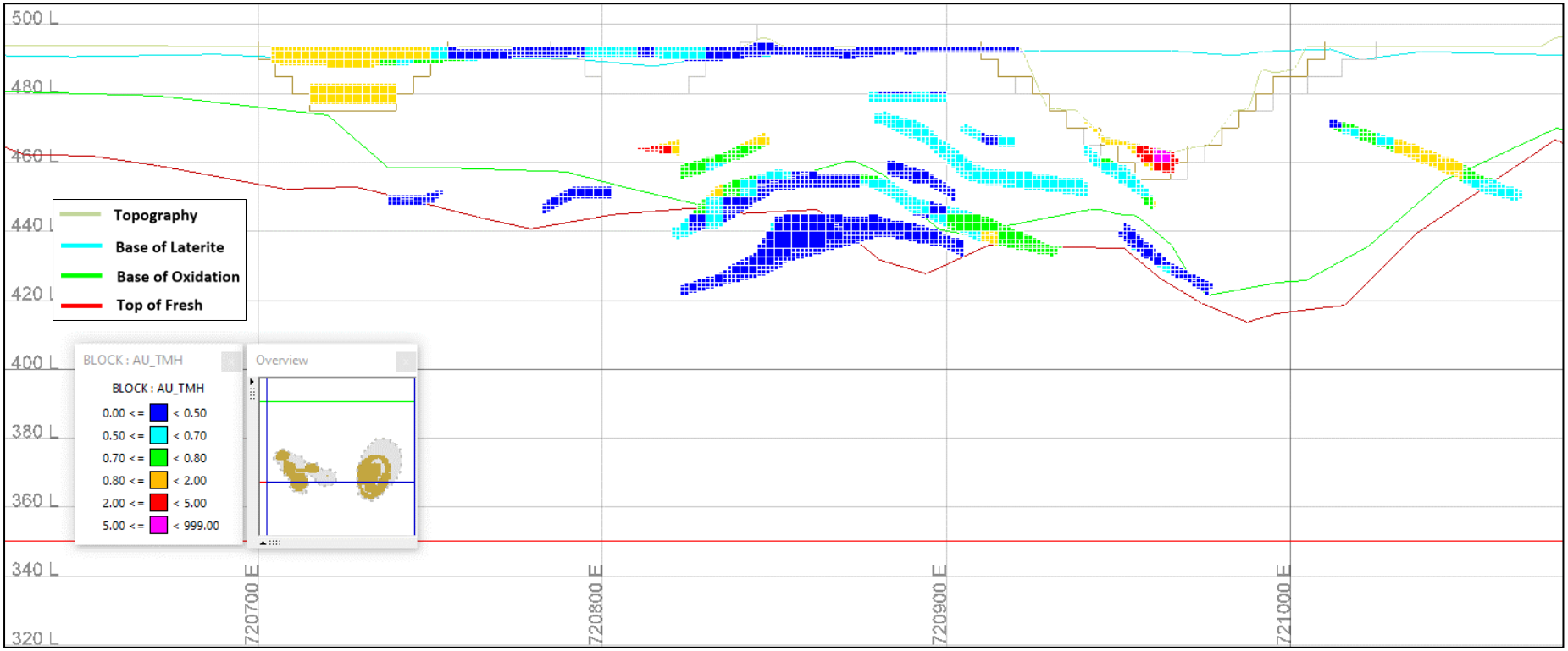


Figure 5
Eureka Optimal Pit Shell Cross Section



JORC Table 1 – Eureka Deposit

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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• For Herald and Troy drilling, RC samples were passed directly from the in-line cyclone through a rig mounted multi-tier riffle splitter. Samples were collected in 1m intervals into bulk plastic bags and 1m calico splits (which were retained for later use). From the bulk sample, a 5m composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis. The 1m calico splits were submitted to the laboratory if the composite sample returned assay values equal to or greater than 0.2g/t Au. In certain cases, selected samples from some holes were passed from the cyclone through a rig mounted multi-tier riffle splitter, and samples collected into calico bags at 1m intervals were submitted directly for analyses. The remaining bulk sample was placed on the ground in 1m intervals. • For MDI RC drilling, sampling was undertaken by collecting 2-3kg of RC chips off the drill rig's cone splitter; the 1m samples were then composited to 4m interval samples with a two-tier riffle splitter, but intervals of expected mineralisation were sampled at 1m intervals. Where 4m composites returned assays greater than 0.2g/t Au, the 1m bulk samples were split down to 2-3kg sub-samples using a two-tier riffle splitter and submitted for analysis. For diamond drilling, NQ core was sampled as half core, cut using a diamond core saw and sampled at 1m intervals or to geological contacts. The half core samples were always collected from the same side of core for consistency. • RC chips and core were sent to the laboratory to be crushed (-10mm) and pulverised to produce a 300g pulp, then split to a 50g charge for fire assay analysis.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, 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).*	• For RC holes, a 5¼' face sampling bit was used. For diamond holes, HQ core diameter was obtained using triple tube.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether*	• Recoveries from historical drilling are unknown. • RC recovery data was estimated for each interval and captured in a digital logging software package. The data has been reviewed and the core recovery was effectively 100% throughout.

Criteria	JORC Code explanation	Commentary
	sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• The water table was encountered at a 40 – 60m hole depth however all RC samples remained dry. • In MDI drilling no relationship exists between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• RC chips were logged for lithology, weathering, mineralogy, mineralisation, alteration and colour. Core was logged for lithology, weathering, structure, mineralogy, mineralisation, alteration, colour, RQD and geotechnical parameters. Logging was carried out according to MDI internal protocols at the time of drilling. • All drill holes were logged in full.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Historical RC samples were collected at the rig using riffle splitters. Samples were generally dry. • MDI RC samples were collected via on-board cone splitters. All samples were dry. The 1m RC sub-samples were then combined and split by a two-tier riffle splitter to create a 4m composite sample, which were collected and bagged. RC field duplicates were obtained via a second split with the two-tier riffle splitter at a rate of 1:18 samples. • For RC drilling, sample quality was maintained by monitoring sample volume and by cleaning splitters on a regular basis. • MDI samples were sent to SGS Laboratory in Perth, WA for preparation and analysis. The samples were dried in an industrial oven for a minimum of 12 hours at greater than 105°C and crushed to -10mm before being split. A 300g subsample was pulverised to 95% passing a 75µm sieve. This fraction was then split again to a 50g sample charge for fire assay. • Sample sizes are considered appropriate to correctly represent the gold mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• MDI adopted a 50g fire assay method with an ICP-OES finish. This technique is considered suitable for gold mineralisation associated with sulphides. • No other measurement tool/instrument was used to derive assays, however a down-hole gyro was used to record deviation in RC holes. • MDI included Laboratory duplicates, field duplicates and certified standards routinely in the samples at a 1:9 frequency, and a quartz wash was used after each sample pulverised. • QAQC data has been reviewed for historic RC drilling and is acceptable.

Criteria	JORC Code explanation	Commentary
		• Laboratory QAQC includes the use of internal standards using certified reference material, blanks, splits and replicates. • Certified reference materials demonstrate that sample assay values are accurate.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intersections were visually field verified by company geologists. • Sampling was undertaken by experienced geologists from MDI who confirmed the intersections as prospective for gold mineralisation. • Twin holes have not yet been conducted at Eureka. • Sampling data were imported and validated using a GBIS database software system by an experienced database consultancy. • Assay values that were below detection limit were adjusted to equal half of the detection limit value.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Surface collar coordinates were surveyed via DGPS. Given magnetism inherent in the host rock, a high quality down hole gyro was used to determine the dip and azimuth of the RC holes. • MGA94 Zone 50. • The supplied topography was derived from 25cm contour data sourced from a UAV survey flown in June 2020.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Nominal hole spacing of all drilling is approximately 20m by 20m, out to 40m by 40m. • The mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code. • Compositing of RC samples was adopted to generate 4m intervals for initial assays, with anomalous results resampled on 1m intervals. • Samples have been composited to 1m lengths using fixed length techniques prior to Mineral Resource estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drill holes were angled to 270º (West) or to grid north at Eureka. Eureka has two dominant orientations of drilling; north-south in the eastern portion of the deposit and east-west in the western portion of the deposit. Drilling attempted to intersect the dominant trends at right angles to ensure appropriate sample representivity. • No orientation based sampling bias has been identified in the data.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by MDI. Samples are stored on site until collected for transport to Intertek Laboratory in Perth WA. MDI personnel have no contact with the samples once they are picked up for transport. Tracking sheets have been set up to track the progress of samples.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Shaun Searle of Ashmore reviewed drilling and sampling procedures during the 2017 and 2020 site visits and found that all procedures and practices conform to industry standards. • The database was validated and audited by Expedio database consultants. Field data collected is logged and validated in a custom field logging tool.

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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The Project deposits occur on the following leases: M57/128, M57/129, P57/1395, P57/1384, P57/1442, E57/1102. All tenements are 100% owned by Sandstone Operations Pty Ltd ("SOP", a wholly owned subsidiary of MDI. Eureka lies within ML57/128 and ML57/129. • The tenements are in good standing with no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration was undertaken and reported by Herald Resources Limited and Troy Resources Limited during their respective tenure of the Sandstone gold project.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Shear-zones hosted within greenschist facies ultramafic and mafic rocks with meso-thermal quartz veining and associated silica-carbonate-chlorite-pyrite alteration within the Archaean Sandstone greenstone belt.

Drill hole information	• *A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  • *dip and azimuth of the hole*
	  • *down hole length and interception depth*
	  • *hole length*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Exploration results are not being reported. A table of all drill hole collars with all the listed information is shown in the Appendices.
		• All information has been included in the appendices. No drill hole information has been 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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the*	• Exploration results are not being reported. • Not applicable as a Mineral Resource is being reported. • Metal equivalent values have not been used.

Criteria	JORC Code explanation	Commentary
	procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Drill holes were angled to 270º (West) or to grid north at Eureka. Eureka has two dominant orientations of drilling; north-south in the eastern portion of the deposit and east-west in the western portion of the deposit. Drilling attempted to intersect the dominant trends at right angles to ensure appropriate sample representivity.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Relevant diagrams have been included within the Mineral Resource report main body of text.
Balanced Reporting	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All hole collars were surveyed in MGA94 Zone 50 grid using differential GPS. MDI holes were down-hole surveyed with a north-seeking gyroscopic tool. • Exploration results are not 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.*	• The interpretations for mineralisation are consistent with observations made in outcrop in the field, geophysical surveys and supported by historic workings.
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).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Infill and extensional drilling are planned at selected areas of the Mineral Resources. • Refer to diagrams in the body of text within the Mineral Resource report.

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.*	• The database has been systematically audited by an MDI geologist. Original drilling records were compared to the equivalent records in the database (where original records were available). Any discrepancies were noted and rectified by the data base manager. • All MDI drilling data has been verified as part of a continuous validation procedure. Once a drill hole is imported into the data base a report of the collar, down-hole survey, geology, and assay data are produced. This is then checked by an MDI geologist and any corrections are completed by the data base manager.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Site visits were conducted by Shaun Searle of Ashmore during November 2017 and August 2020. Shaun inspected the deposit area, drill chips, diamond core, outcrop and the core logging and sampling facility. During this time, notes and photos were taken. Discussions were held with site personnel regarding drilling and sampling procedures. No major issues were encountered. • Site visits were conducted, therefore not applicable.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is considered to be good and is based on visual confirmation in outcrop and within drill hole intersections. • Geochemistry and geological logging have been used to assist identification of lithology and mineralisation. • Gold deposits within the Project are typical Archaean mesothermal types that are hosted in the regional structural corridors that bound the greenstone belt on the east and west. The upper levels of the deposits may be strongly influenced by weathering, oxidation and lateritisation processes that have occurred in the region since Tertiary times. Infill drilling has supported and refined the model and the current interpretation is considered robust. • Outcrops of mineralisation and host rocks confirm the geometry of the mineralisation. • Infill drilling has confirmed geological and grade continuity.
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 Eureka Mineral Resource area extends over a east-west strike length of 380m, and a north-south strike length of 270m and includes the 85m vertical interval from 495mRL to 410mRL.
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*	• Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed

Criteria	JORC Code explanation	Commentary
	distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (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 drill hole data, and use of reconciliation data if available.*	suitable for the Eureka Mineral Resource due to the geological and structural control on mineralisation. Maximum extrapolation of wireframes from drilling was 20m along strike and 20m down-dip. Extrapolation for lodes terminating between drill cross sections was half drill hole spacing. • The 2021 Mineral Resource reports a conservative tonnage and grade compared to previous mining conducted at Eureka. • No recovery of by-products is anticipated. • Only Au was interpolated into the block model. • The parent block dimensions used were 5m NS by 5m EW by 5m vertical with sub-cells of 1.25m by 1.25m by 0.625m. The parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for the datasets. • An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography derived from the main domains. Up to three passes were used for each domain. First pass had a range of 25m, with a minimum of 6 samples. For the second pass, the range was extended to 50m, with a minimum of 4 samples. For the third pass, the range was extended to 100m, with a minimum of 2 samples. A maximum of 16 samples was used for each pas with a maximum of 6 samples per hole. • No assumptions were made on selective mining units. • Only Au assay data was available, therefore correlation analysis was not possible. • The deposit mineralisation was constrained by wireframes constructed using a 0.3g/t Au cut-off grade and geological logging. The wireframes were applied as hard boundaries in the estimate. • Statistical analysis was carried out on data from all lodes. The high coefficient of variation and the scattering of high grade values observed on the histogram for some of the lodes suggested that high grade cuts were required if linear grade interpolation was to be carried out. After statistical analysis of individual lodes, it was determined that high grade cuts ranging between 8g/t and 20g/t Au was warranted for various domains, resulting in six composites being cut. • Validation of the model included detailed comparison of composite grades and block grades by northing and elevation.

Criteria	JORC Code explanation	Commentary
		Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource was reported at a cut-off of 0.5g/t Au. The cut-off grade was estimated based on parameters derived from the Sandstone Gold Project Pre-Feasibility Study completed in 2016. • The Eureka deposit is situated approximately 800m southwest of the Sandstone Mill. Further geological, geotechnical, engineering and metallurgical studies are in progress to further characterise gold mineralisation and determine the viability of mining at Eureka. The deposit could be mined as part of a larger mining operation at the Project.
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.*	• Ashmore has assumed that the deposit could be mined using open pit mining techniques.
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.*	• Historically, the Eureka deposit was processed with a metallurgical recovery of 90 to 93% in the laterite and oxide material types.
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*	• No assumptions have been made regarding environmental factors. MDI will work to mitigate environmental impacts as a result of any future mining or mineral processing.

Criteria	JORC Code explanation	Commentary
	been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk densities ranging between 1.7t/m^3 and 2.8t/m^3 were assigned in the block model dependent on lithology and weathering. These densities were applied based on average bulk density measurements obtained from core drilled at the adjacent Plum Pudding deposit. • It is assumed there are minimal void spaces in the rocks at Eureka.
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 Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 20m by 20m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 20m by 20m, where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.
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*	• The lode geometry and continuity has been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resource. The data quality is good, and the drill holes have detailed logs produced by qualified geologists. A

Criteria	JORC Code explanation	Commentary
	example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	recognised laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The 2021 Mineral Resource reports a conservative tonnage and grade compared to previous mining conducted at Eureka.