

Analyst

Regan Burrows 618 9326 7677

Authorisation

Joseph House 613 9235 1624

Dreadnought Resources Ltd (DRE)

Yin maiden Mineral Resource Estimate delivered on time

Recommendation
Buy (unchanged)

Price
\$0.098
Valuation
\$0.19/sh (previously \$0.20)

Risk
Speculative
GICS Sector
Materials
Expected Return

 Capital growth **94%**

 Dividend yield **0%**

 Total expected return **94%**
Company Data & Ratios

 Enterprise value **\$299m**

 Market cap **\$302m**

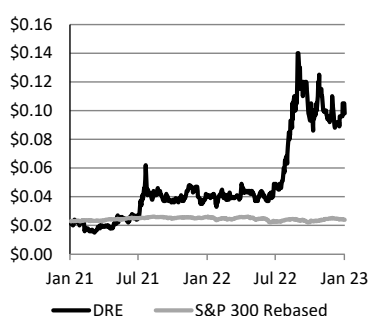
 Issued capital **3,092m**

 Free float **78%**

 Avg. daily val. (52wk) **\$1.15m**

 12 month price range **\$0.032-\$0.155**
Price Performance

	(1m)	(3m)	(12m)
Price (A\$)	0.10	0.10	0.04
Absolute (%)	-2.0	-2.0	151.3
Rel market (%)	2.7	-9.3	159.3

Absolute Price


SOURCE: IRESS

Maiden Resource – 14.36Mt at 1.13% TREO, 30% NdPr

DRE released their maiden Mineral Resource Estimate (MRE) for the Yin discovery, being 14.36Mt at 1.13% total rare earth oxides (TREO) and 30% Neodymium + Praseodymium (NdPr) (BPe 15-21Mt at 1.1% TREO and 30% NdPr). The MRE came in just below the lower end of our estimation range, with slight increases in the TREO grade offsetting some of the variance. The variance at the low end of our estimate on a contained metal basis was 2%. Despite this, Yin remains relatively un-tested, with the MRE covering ~10% of the total 30km in interpreted strike length.

2023 work plan

DRE intend to build upon the success of 2022, with all approvals in place to begin drilling along strike at Yin and Sabre (commencing February/ March 2023) and C1-C7 (commencing March 2023) with a focus on providing an updated resource in 2023. In parallel to this, DRE will conduct metallurgical test work on Yin with results anticipated in March/ April 2023 which, if positive, may support an initial mining study.

Investment thesis: Buy (Speculative), Valuation \$0.19/sh

We have updated the capital structure and our comparable data set, which has resulted in a 4% reduction in our SOTP valuation to \$0.19/sh, we maintain our Speculative Buy recommendation in accordance with our rating structure. Our investment thesis for DRE is supported by: 1) a strong demand profile for light magnet rare earths; 2) expansion on the maiden MRE of 14.36Mt at 1.13% TREO and 30% NdPr, 3) further upside in C1-C5 carbonatite targets which bare similarities to Mt Weld and Mountain Pass; and 4) a pipeline of promising exploration projects in the Kimberley and Central Yilgarn.

Earnings Forecast

Year end 30 June	2022a	2023e	2024e	2025e
Sales (A\$m)	-	-	-	-
EBITDA (A\$m)	(1)	(2)	(2)	(2)
NPAT (reported) (A\$m)	(1)	(2)	(2)	(2)
NPAT (adjusted) (A\$m)	(1)	(2)	(2)	(2)
EPS (adjusted) (cps)	(4)	(7)	(6)	(6)
EPS growth (%)	nm	nm	nm	nm
PER (x)	0.0 x	0.0 x	0.0 x	0.0 x
FCF Yield (%)	-2%	-1%	-1%	-1%
EV/EBITDA (x)	-254.3 x	-157.6 x	-159.0 x	-160.3 x
Dividend (cps)	-	-	-	-
Yield (%)	0%	0%	0%	0%
Franking (%)	0%	0%	0%	0%
ROE (%)	-5%	-9%	-8%	-8%

SOURCE: BELL POTTER SECURITIES ESTIMATES

Maiden Mineral Resource Estimate

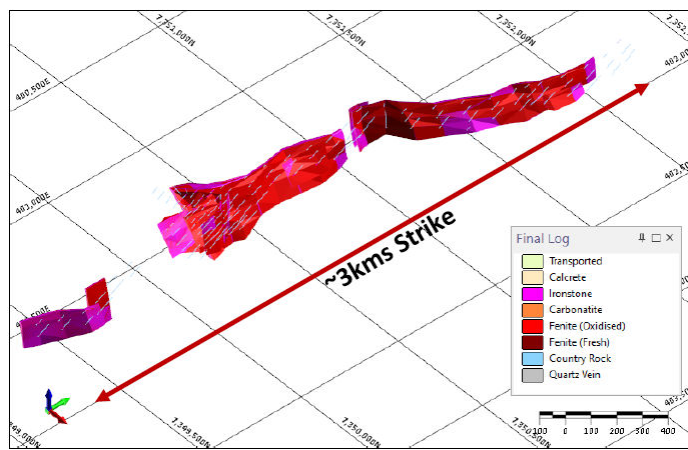
DRE released their maiden Mineral Resource Estimate (MRE) for their Yin discovery on the 28th of December. The MRE (inferred) of 14.36 Mt at 1.13% TREO and 30% NdPr was based off the 2.5-month drill program (117 RC holes ~11,907m). The result was at the lower end of our anticipated range (BPe 15-21Mt at 1.1% TREO and 30% NdPr). The cut-off grade of 0.20% was applied to the MRE, which is consistent with that used at Hastings (HAS – not covered) Yangibana deposit (29.9Mt at 0.93% TREO).

The MRE covers 3km out of 30km (~10%) of the identified trend at Yin and does not include extensional RC holes at Yin, or further drilling at Sabre, Y8 or the carbonatite (C1-C7) targets. Given the additional targets, we maintain our view around the potential resource growth for DRE over the coming years (~40Mt at 1% TREO). We have provided a table below highlighting the difference in our estimate range for the MRE and the actual result.

Table 1 - Yin MRE Vs BPe					
	Mt	TREO %	Contained REO kt	NdPr %	Contained NdPr kt
BP High	21	1.10%	231	30%	69.3
BP Low	15	1.10%	165	30%	49.5
Actual	14.36	1.13%	162	30%	48.7
Variance to High estimate	-32%	3%	-30%	0%	-30%
Variance to Low estimate	-4%	3%	-2%	0%	-2%

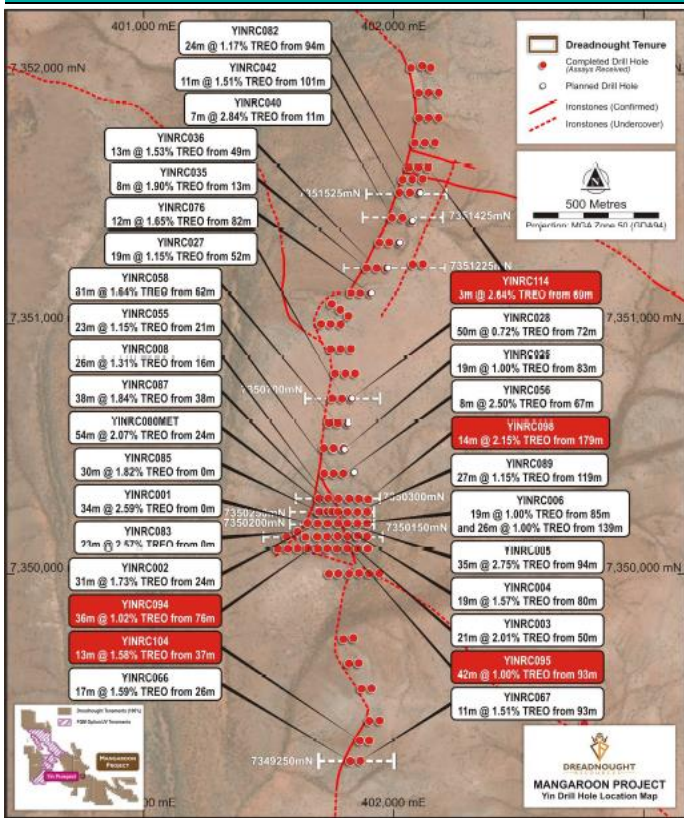
SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

Figure 1 - Yin geological wireframes



SOURCE: COMPANY DATA

Figure 2 - Yin intercepts



SOURCE: COMPANY DATA

Forward work plan/ catalysts

- Continued drilling at Yin & C1-C7 (February/ March 2023) with the aim to support an updated MRE during 2023.
- Metallurgical test work – 16 diamond (DD) holes were drilled to support metallurgical program test work, with results anticipated in March/ April 2023. This work builds on initial surface sample floatation test work conducted in July 2021.
- Initial studies – dependent upon the metallurgical test work and extensional + infill drilling at Yin, DRE plan to investigate possible mining scenarios. At this point in time it is too early to determine what level these will be conducted at.
- Sabre, Y8 & C1 – C5 Assay results are now expected in January/ February 2023 (this has slipped from the initial timeline of November/ December 2022).

Rare earth comparable's

Figure 3 – ASX rare earth comp deck

Company Name	Ticker	Last Price	Ev (A\$m)	Mt	TREO %	Contained REO kt	Major Project, location, status	Ev A\$/ t Resource
Lynas Rare Earths Limited	LYC	7.63	6,256	55	5.40%	2,981	Mt Weld, Western Australia - Producing	2,099
Australian Strategic Materials Limited	ASM	1.40	187	75	0.74%	556	Dubbo, New South Wales - DFS	336
Hastings Technology Metals Ltd	HAS	3.39	269	30	0.93%	278	Yangibana, Western Australia - Construction	966
Arafura Rare Earths Ltd	ARU	0.44	754	56	2.60%	1,456	Nolans Bore, Northern Territory - DFS	518
Vital Metals Limited	VML	0.02	67	98	1.50%	1,468	Nechalacho, Tanzania - Production/ Exploration	46
Northern Minerals Limited	NTU	0.04	212	9	0.67%	62	Halls Creek, Western Australia - DFS	3,424
Peak Rare Earths Limited	PEK	0.43	84	214	2.15%	4,610	Ngulla/ Teeside, Tanzania/ UK - DFS	18
Energy Transition Minerals Ltd	GGG	0.06	58	1,010	1.10%	11,110	Kvanefjeld, Greenland - FS	5
Ionic Rare Earths Limited	IXR	0.03	107	315	0.06%	202	Makutu, Uganda - SS	532
American Rare Earths Limited	ARR	0.19	67	171	0.04%	67	La Paz, Arizona, United States - Exploration	1,010
Rarex Limited	REE	0.05	26	19	1.15%	216	Cummins Range, Western Australia - Exploration	121
Australian Rare Earths Limited	AR3	0.40	27	81	0.08%	64	Koppamurra, South Australia - Exploration	428
Dreadnought Resources Ltd	DRE	0.10	299	14	1.13%	162	Yin, Western Australia - Exploration	1,844
Mean								873
Median								518

SOURCE: IRESS, COMPANY DATA, BELL POTTER SECURITIES

Valuation & Recommendation

Recommendation

We maintain our **Speculative Buy recommendation and \$0.19/sh Valuation** (previously \$0.20/sh) for DRE. Our recommendation is based on: 1) a strong demand profile for light magnet rare earths; 2) expansion on the maiden MRE of 14.63Mt at 1.13% TREO and 30% NdPr, 3) further upside in C1-C5 carbonatite targets which bare similarities to Mt Weld and Mountain Pass; and 4) a pipeline of promising exploration projects in the Kimberley and Central Yilgarn.

Valuation

We value DRE via a sum-of-the-parts analysis applied to their portfolio of exploration assets. For Yin, we have applied a blended approach, taking into account interpreted data for the scale and grade of the resource. We have also assessed a potential takeover premium. Our SOTP valuation is reduced by 6% to \$0.19/sh.

Table 2 - DRE Sum-of-the-parts valuation

	Current valuation		Prior valuation		Var %
Ordinary Shares (basic)	m	3,092		3,045	2%
Options in the money	m	80		86	-7%
Diluted	m	3,172		3,131	1%
Sum-of-the-parts	A\$m	A\$/sh	A\$m	A\$/sh	%
Yin + Resource Expansion	504	0.16	538	0.18	-9%
Taraji Yampi + Central Yilgarn	100	0.03	100	0.03	-2%
Corporate overheads	(12)	(0.00)	(12)	(0.00)	-2%
Subtotal	592	0.19	626	0.21	-9%
Equity Investments	0	0.00	0	0.00	0%
Net cash (debt)	3	0.00	3	0.00	-2%
Total undiluted	595	0.19	629	0.21	-8%
Cash from options	2	0.00	2	0.00	-9%
Total diluted	596	0.19	630	0.20	-6%

SOURCE: BELL POTTER SECURITIES ESTIMATES

Dreadnought Resources - Overview

Company overview

DRE is an ASX listed mineral exploration and development company. DRE currently has three major projects in its portfolio, Mangaroon, Taraji Yampi and Central Yilgarn. The current focus of the company is the Yin prospect, located within the Mangaroon project. High-grade rare earth ironstones were discovered at Yin in July 2021, with initial rock chips of up to 7.5% TREO and 2.73% NdPr. To date, DRE has mapped the Yin trend over 30km, with multiple cross-cutting and parallel lodes. DRE recently completed an RC drill program over 3km of the Yin trend and released a maiden Mineral Resource Estimate in late December 2022 of 14.36Mt at 1.13% TREO and 30% NdPr. In addition to this, DRE is currently drilling mineralised carbonatite targets (C1-C7) which could be the source of rare earth mineralisation for the region. In April 2021, DRE entered into an option agreement with First Quantum Minerals (FM:CN, not covered) with respect to base metal rights over 5 tenements within the Mangaroon project. The option agreement is for FM to fund \$12 million in exploration activity to earn a 51% interest in the project.

DRE is also progressing exploration activities at the Taraji-Yampi project, which is prospective for Cu-Ag-Au-Co and Ni-Cu-PGE. Taraji-Yampi is located in Western Australia's Kimberly region, on a current defence reserve. Minimal exploration activity has been conducted in the region due to the area being off-limits for explorers since 1978. DRE holds the largest tenement package in the region and in 2021 announced the Orion Discovery. Since the initial discovery, DRE have identified nine look-a-like targets at the project. The Central Yilgarn is a portfolio of 14 tenements with prospectivity for Iron ore.

Figure 4 - Project overviews



Investment Risks

Risks include, but are not limited to:

- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.
- **Infrastructure access.** Commodity producers are particularly reliant upon access to transport infrastructure. Access to infrastructure is often subject to contractual agreements, permits, and capacity allocations. Agreements are typically long-term in nature (+10 years). Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.
- **Operating and capital cost fluctuations.** Markets for exploration, development and mining inputs can fluctuate widely and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to energy and labour markets.
- **Resource growth and mine life extensions.** Future earnings forecasts and valuations may rely upon resource and reserve growth to extend mine lives.
- **Sovereign risks.** Mining companies' assets can be located in countries other than Australia and are subject to the sovereign risks of that country.
- **Regulatory changes risks.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuation of mining companies.
- **Environmental risks.** Resources companies are exposed to risks associated with environmental degradation as a result of their exploration and mining processes. Fossil fuel producers (coal) may be particularly exposed to the environmental risks of end markets including the electricity generation and steel production industries.
- **Operating and development risks.** Mining companies' assets are subject to risks associated with their operation and development. Risks for each company can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single operation company. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.
- **Occupational health and safety risks.** Mining companies are particularly exposed to OH&S risks given the physical nature and human resource intensity of operating assets.
- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments, and managing debt repayments.
- **Merger/acquisition risks.** Risks associated with value transferred during merger and acquisition activity.
- **COVID-19 risks:** Mining companies' rely on freedom of movement of workforces, functioning transport routes, reliable logistics services including road, rail, aviation and ports in order to maintain operations and get their products to market. They also rely on liquid, functioning markets to sell their products. Measures being put in place to combat the COVID-19 pandemic are posing risks to these conditions.

Table 3 - Financial summary

ASSUMPTIONS							FINANCIAL RATIOS						
Year Ending June	Unit	FY21A	FY22A	FY23E	FY24E	FY25E	Year Ending June	Unit	FY21A	FY22A	FY23E	FY24E	FY25E
COMMODITY PRICE							VALUATION						
NdPr oxide	US\$/kg	72	135	98	100	107	NPAT	A\$m	(1)	(1)	(2)	(2)	(2)
AUD/USD	A\$/US\$	0.75	0.72	0.66	0.69	0.70	Reported EPS	Ac/sh	(5)	(4)	(7)	(6)	(6)
PRODUCTION & COST							Adjusted EPS						
Production	kt	0.0	0.0	0.0	0.0	0.0	EPS growth	%	nm	nm	nm	nm	nm
Sales	kt	0.0	0.0	0.0	0.0	0.0	PER	x	0.0 x	0.0 x	0.0 x	0.0 x	0.0 x
C1 Cash Cost	US\$/kg	0.0	0.0	0.0	0.0	0.0	DPS	Ac/sh	-	-	-	-	-
PROFIT AND LOSS							Franking						
Revenue	A\$m	0	0	0	0	0	Yield	%	0%	0%	0%	0%	0%
Expense	A\$m	(1)	(1)	(2)	(2)	(2)	FCF/share	Ac/sh	-	(0)	(0)	(0)	(0)
EBITDA	A\$m	(1)	(1)	(2)	(2)	(2)	P/FCFPS	x	0.0 x	-41.1 x	-96.0 x	-143.4 x	-151.2 x
Depreciation	A\$m	0	(0)	(0)	(0)	0	EV/EBITDA	x	0.0 x	-254.3 x	-157.6 x	-159.0 x	-160.3 x
EBIT	A\$m	(1)	(1)	(2)	(2)	(2)	EBITDA margin	%	0%	0%	0%	0%	0%
Net interest expense	A\$m	(0)	(0)	0	0	0	EBIT margin	%	0%	0%	0%	0%	0%
Unrealised gains (Impairments)	A\$m	(0)	(0)	0	0	0	Return on assets	%	-9%	-5%	-9%	-8%	-8%
Other	A\$m	0	0	0	0	0	Return on equity	%	-10%	-5%	-9%	-8%	-8%
PBT	A\$m	(1)	(1)	(2)	(2)	(2)	LIQUIDITY & LEVERAGE						
Tax expense	A\$m	0	0	0	0	0	Net debt (cash)	\$m	(2)	(3)	(8)	(5)	(3)
NPAT (reported)	A\$m	(1)	(1)	(2)	(2)	(2)	ND / E	%	-17%	-13%	-30%	-22%	-12%
NPAT (underlying)	A\$m	(1)	(1)	(2)	(2)	(2)	ND / (ND + E)	%	-20%	-15%	-43%	-28%	-14%
							EBITDA / Interest	x	-14.3 x	-29.8 x	0.0 x	0.0 x	0.0 x
CASH FLOW							ORE RESERVES AND MINERAL RESOURCES						
Receipts	A\$m	0	0	0	0	0	Yin (100%)	Mt	TREO %	NdPr %	TREO kt	NdPr kt	
Payments	A\$m	(1)	(1)	(3)	(2)	(2)	Mineral Resources						
Tax	A\$m	0	0	0	0	0	Measured	0.0	0.0	0.0	0.0	0.0	
Net interest	A\$m	(0)	(0)	0	0	0	Indicated	0.0	0.0	0.0	0.0	0.0	
Other	A\$m	0	1	0	0	0	Inferred	14.4	0.0	0.3	162.3	48.7	
Operating cash flow	A\$m	(0)	(1)	(3)	(2)	(2)	Total	14.4	0.0	0.3	162.3	48.7	
INVESTING CASHFLOW							Ore Reserves						
Property, plant and equipment	A\$m	(0)	(0)	0	0	0	Proven	0.0	0.0	0.0	0.0	0.0	
Mine development	A\$m	0	0	0	0	0	Probable	0.0	0.0	0.0	0.0	0.0	
Other	A\$m	(6)	(7)	(1)	(1)	(1)	Total	0.0	0.0	0.0	0.0	0.0	
Investing cash flow	A\$m	(6)	(7)	(1)	(1)	(1)	VALUATION						
Free Cash Flow	A\$m	(6)	(8)	(4)	(3)	(3)	Ordinary shares (m)					3,092	
FINANCING CASHFLOW							Options in the money (m)						
Share issues/(buy-backs)	A\$m	9	8	10	0	0	Diluted m					3,172	
Debt proceeds	A\$m	0	0	0	0	0	Sum-of-the-parts valuation						
Debt repayments	A\$m	0	0	0	0	0	Yin + Resource Expansion	\$m	504	\$/sh	0.16		
Dividends	A\$m	0	0	0	0	0	Taraji Yampi + Central Yilgarn		100		0.03		
Other	A\$m	0	(0)	(1)	0	0	Corporate overheads		(12)		(0.00)		
Financing cash flow	A\$m	9	8	10	0	0	Subtotal		592		0.19		
Change in cash	A\$m	2	(0)	6	(3)	(3)	Equity Investments		-		-		
							Net cash (debt)		3		0.00		
BALANCE SHEET							Total (undiluted)						
Cash & short term investments	A\$m	3	3	8	5	3	Add Options in the money (m)		80				
Accounts receivable	A\$m	0	0	0	0	0	Add cash		2		0.00		
Property, plant & equipment	A\$m	0	0	0	0	0	Total (diluted)		596		0.19		
Mine development expenditure	A\$m	0	0	0	0	0	CAPITAL STRUCTURE						
Exploration & evaluation	A\$m	10	18	19	20	20	Shares on issue	m				3,080	
Other	A\$m	0	0	0	0	0	Escrow shares / other	m				13	
Total assets	A\$m	14	21	28	26	24	Total shares on issue	m				3,092	
LIABILITIES							Share price						
Accounts payable	A\$m	1	1	0	0	0	Market capitalisation	A\$m				302	
Income tax payable	A\$m	0	0	0	0	0	Net cash	A\$m				3	
Borrowings	A\$m	1	0	0	0	0	Enterprise value (undiluted)	A\$m				299	
Other	A\$m	0	0	0	0	0	Options outstanding (m)	m				80	
Total liabilities	A\$m	1	2	1	1	1	Options in the money (m)	m				80	
Net Assets	A\$m	12	20	27	25	23	Issued shares (diluted for options)	m				3,172	
SHAREHOLDER'S EQUITY							Market capitalisation (diluted)						
Share capital	A\$m	52	61	70	70	70	Net cash + options	A\$m				4	
Reserves	A\$m	1	1	1	1	1	Enterprise value (diluted)	A\$m				290	
Retained earnings	A\$m	(41)	(42)	(44)	(46)	(48)	MAJOR SHAREHOLDERS						
Total equity	A\$m	12	20	27	25	23	Shareholder		%		m		
Weighted average shares	m	2,343	2,839	3,236	3,236	3,236	Paul Chapman		10%		311.0		
							Philip Crutchfield		2%		67.5		
							Ian Gordon		2%		48.2		
							Paul Payne		2%		47.3		
									15%		473.9		

SOURCE: BELL POTTER SECURITIES ESTIMATES

Recommendation structure

Buy: Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

Hold: Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

Such investments may carry an exceptionally high level of capital risk and volatility of returns.

Research Team

Staff Member	Title/Sector	Phone	@bellpotter.com.au
Chris Savage	Head of Research/Industrials	612 8224 2835	csavage
Analysts			
John Hester	Healthcare	612 8224 2871	jhester
Anubhav Saxena	Healthcare	612 8224 2846	asaxena
Tara Speranza	Healthcare	612 8224 2815	tsperanza
Michael Ardrey	Industrials	613 9256 8782	mardney
Marcus Barnard	Industrials	618 9326 7673	mbarnard
Sam Brandwood	Industrials	612 8224 2850	sbrandwood
Olivia Hagglund	Industrials	612 8224 2813	ohagglund
Daniel Laing	Industrials	613 8224 2886	dlaing
Chami Ratnapala	Industrials	612 8224 2845	cratnapala
Jonathan Snape	Industrials	613 9235 1601	jsnape
David Coates	Resources	612 8224 2887	dcoates
Stuart Howe	Resources	613 9235 1856	showe
Brad Watson	Resources	618 9326 7672	bwatson
Regan Burrows	Resources	618 9326 7677	rburrows
Joseph House	Resources	613 9235 1624	jhouse
Associates			
Thomas Sima	Associate Analyst	612 8224 2843	tsima
James Williamson	Associate Analyst	613 9235 1692	jwilliamson

Research Coverage & Policies

For Bell Potter Securities' Research Coverage Decision Making Process and Research Independence Policy please refer to our company website: <https://bellpotter.com.au/research-independence-policy/>.

Authoring Research Analyst's Certification

The Authoring Research Analyst is responsible for the content of this Research Report, and, certifies that with respect to each security that the Analyst covered in this Report (1) all the views expressed accurately reflect the Analyst's personal views about those securities and were prepared in an independent manner and (2) no part of the Analyst's compensation was, is or will be, directly or indirectly, related to specific recommendations or views expressed by that Research Analyst in the Research Report.

Research Analyst's Compensation

Research Analyst's compensation is determined by Bell Potter Securities Research Management and Bell Potter Securities' Senior Management and is based upon activities and services intended to benefit the investor clients of Bell Potter Securities Ltd. Compensation is not linked to specific transactions or recommendations. Like all Company employees Research Analysts receive compensation that is impacted by overall Company profitability.

Prices

The Price appearing in the Recommendation panel on page 1 of the Research Report is the Closing Price on the Date of the Research Report (appearing in the top right hand corner of page 1 of the Research Report), unless a before midday (am) time appears below the Date of the Research Report in which case the Price appearing in the Recommendation panel will be the Closing Price on the business day prior to the Date of the Research Report.

Availability

The completion and first dissemination of a Recommendation made within a Research Report are shortly after the close of the Market on the Date of the Research Report, unless a before midday (am) time appears below the Date of the Research Report in which case the Research Report will be completed and first disseminated shortly after that am time

Speculative Risk Warning:

The stocks of resource companies without revenue streams from product sales should always be regarded as speculative in character. Since most exploration companies fit this description, the speculative designation applies to all exploration stocks. Stocks with 'Speculative' designation are prone to high volatility in share price movements. Exploration and regulatory risks are inherent in exploration stocks. Exploration companies engage in exploration programs that usually have multiple phases to them where positive results at some stages are not indicative of ultimate exploration success and even after exploration success, there is often insufficient economic justification to warrant development of an extractive operation and there is still significant risk that even a development project with favourable economic parameters and forecast outcomes may fail to achieve those outcomes. Investors are advised to be cognisant of these risks before buying such a stock as DRE.

Dissemination

Bell Potter generally disseminates its Research to the Company's Institutional and Private Clients via both proprietary and non-proprietary electronic distribution platforms. Certain Research may be disseminated only via the Company's proprietary distribution platforms; however such Research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the Author's previously published Research. Certain Research is made available only to institutional investors to satisfy regulatory requirements. Individual Bell Potter Research Analysts may also opt to circulate published Research to one or more Clients by

email; such email distribution is discretionary and is done only after the Research has been disseminated. The level and types of service provided by Bell Potter Research Analysts to Clients may vary depending on various factors such as the Client's individual preferences as to frequency and manner of receiving communications from Analysts, the Client's risk profile and investment focus and perspective (e.g. market-wide, sector specific long term and short term etc.) the size and scope of the overall Client relationship with the Company and legal and regulatory constraints.

Disclaimers

This Research Report is a private communication to Clients and is not intended for public circulation or for the use of any third party, without the prior written approval of Bell Potter Securities Limited.

The Research Report is for informational purposes only and is not intended as an offer or solicitation for the purpose of sale of a security. Any decision to purchase securities mentioned in the Report must take into account existing public information on such security or any registered prospectus.

This is general investment advice only and does not constitute personal advice to any person. Because this Research Report has been prepared without consideration of any specific client's financial situation, particular needs and investment objectives ('relevant personal circumstances'), a Bell Potter Securities Limited Broker (or the financial services licensee, or the representative of such licensee, who has provided you with this report by arrangement with Bell Potter Securities Limited) should be made aware of your relevant personal circumstances and consulted before any investment decision is made on the basis of this Research Report.

While this Research Report is based on information from sources which are considered reliable, Bell Potter Securities Limited has not verified independently the information contained in this document and Bell Potter Securities Limited and its directors, employees and consultants do not represent, warrant or guarantee expressly or impliedly, that the information contained in this Research Report is complete or accurate.

Nor does Bell Potter Securities Limited accept any responsibility for updating any advice, views, opinions or recommendations contained in this Research Report or for correcting any error or omission which may have become apparent after the Research Report has been issued.

Bell Potter Securities Research Department has received assistance from the Company referred to in this Research Report including but not limited to discussions with management of the Company. Bell Potter Securities Policy prohibits Research Analysts sending draft Recommendations, Valuations and Price Targets to subject companies. However, it should be presumed that the Author of the Research Report has had discussions with the subject Company to ensure factual accuracy prior to publication.

All opinions, projections and estimates constitute the judgement of the Author as of the Date of the Research Report and these, plus any other information contained in the Research Report, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice.

Notwithstanding other departments within Bell Potter Securities Limited advising the subject Company, information obtained in such role is not used in the preparation of the Research Report.

Although Bell Potter Research does not set a predetermined frequency for publication, if the Research Report is a fundamental equity research report it is the intention of Bell Potter Research to provide research coverage of the covered issuers, including in response to news affecting the issuer. For non-fundamental Research Reports, Bell Potter Research may not provide regular updates to the views, recommendations and facts included in the reports.

Notwithstanding that Bell Potter maintains coverage on, makes recommendations concerning or discusses issuers, Bell Potter Research may be periodically restricted from referencing certain Issuers due to legal or policy reasons. Where the component of a published trade idea is subject to a restriction, the trade idea will be removed from any list of open trade ideas included in the Research Report. Upon lifting of the restriction, the trade idea will either be re-instated in the open trade ideas list if the Analyst continues to support it or it will be officially closed.

Bell Potter Research may provide different research products and services to different classes of clients (for example based upon long-term or short term investment horizons) that may lead to differing conclusions or recommendations that could impact the price of a security contrary to the recommendations in the alternative Research Report, provided each is consistent with the rating system for each respective Research Report.

Except in so far as liability under any statute cannot be excluded, Bell Potter Securities Limited and its directors, employees and consultants do not accept any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in the document or for any resulting loss or damage (whether direct, indirect, consequential or otherwise) suffered by the recipient of the document or any other person.

In the USA and the UK this Research Report is only for institutional investors. It is not for release, publication or distribution in whole or in part in the two specified countries. In Hong Kong this Research Report is being distributed by Bell Potter Securities (HK) Limited which is licensed and regulated by the Securities and Futures Commission, Hong Kong. In the United States this Research Report is being distributed by Bell Potter Securities (US) LLC which is a registered broker-dealer and member of FINRA. Any person receiving this Research Report from Bell Potter Securities (US) LLC and wishing to transact in any security described herein should do so with Bell Potter Securities (US) LLC.

Bell Potter Securities Limited

ABN 25 006 390 772
Level 29, 101 Collins Street
Melbourne, Victoria, 3000
Telephone +61 3 9256 8700
www.bellpotter.com.au

Bell Potter Securities (HK) Limited

Room 1701, 16/F
Prosperity Tower, 39 Queens
Road Central, Hong Kong, 0000
Telephone +852 3750 8400

Bell Potter Securities (US) LLC

Floor 39
444 Madison Avenue, New York
NY 10022, U.S.A
Telephone +1 917 819 1410

Bell Potter Securities (UK) Limited

16 Berkeley Street London, England
W1J 8DZ, United Kingdom
Telephone +44 7734 2929