21 July 2022

Noosa Mining Investor Conference

Critical High Purity Silica

DIATREME Resources

AUSTRALIAN SANDS.

UNIVERSAL DEMAND.

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Important Information

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This presentation contains certain forward-looking statements and forecasts which include without limitation, expectations regarding future performance, exploration, mineral resources, the financial position of Diatreme Resources Limited (the "Company"), industry growth or other trend projections. Whilst this presentation is based on information from sources which are considered reliable, the Company, its directors, employees and consultants do not represent, warrant or guarantee, expressly or impliedly, that the information in this presentation is complete or accurate. To the maximum extent permitted by law, the Company disclaims any responsibility to inform any recipient of this presentation of any matter that subsequently comes to its notice, which may affect any of the information contained in this document and presentation. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

Cautionary Statement

Whilst the Company has concluded that it has a reasonable basis for providing the forward looking statements included in this presentation, the Company advises that given the current price of silica and the company's current market capitalisation (compared to the capital expenditure required in connection with the Galalar Silica Sand Project), the production targets and forecast financial information contained in this presentation do not provide an absolute assurance of economic development at this stage. The stated production targets and forecast financial information contained in this presentation are based on detailed PFS studies and The Company's' current expectations of future results or events, including sourcing of project development finance within the targeted timeline and/or attracting suitable project major financial partners and should not be relied upon by investors when making investment decisions.

The Resource Estimates and Production Targets reported by the Company on 29 April 2022 (Annual Report), continue to apply and have not materially changed. The Company confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

ASX Announcements

This presentation should also be read in conjunction with the DRX Annual Report for 2022 and the March 2022 Quarterly Activities report, together with any announcement made by the Company in accordance with its continuous disclosure obligations under the Corporations Act including but not limited to the following ASX releases:

2022

- 5 July – Mining Lease Applications lodged for Northern Silica Project
- 27 June – Transformational strategic partnership and placement
- 17 March - Resource base grows to 200MT across high-grade silica projects
- 23 February - Diatreme expands Northern Resource Project exploration
- 10 January - Diatreme discovers 2nd major regional high-grade silica deposit

2021

- 9 November – Galalar Maiden Ore Reserve, PFS deliver substantial boost to new silica sand mine
- 3 November – Wayne Swan appointed Non-Executive Director & Chairman
- 28 September – Progress update – high priority northern exploration targets
- 20 September – Galalar silica resource expands by 22% to 75.5Mt
- 6 September - $10M placement to progress Galalar Silica Project
- 18 August – Northern exploration targets resource expansion
- 11 August – Drilling boosts confidence in Galalar resource
- 10 June – Mining Lease Application lodged for Nob Point export solution
- 19 May – Offtake MOU advances development of Galalar Silica Project
- 22 April – Positive initial testwork results received for Galalar DFS
- 8 April – Final metallurgical testwork underway for Galalar project
- 17 March – Galalar silica resource expands 30% to 61.9Mt
- 23 February – Canberra meetings highlight community support for Galalar
- 11 February – Diatreme advances community engagement for Galalar
- 25 January – Diatreme eyes further silica sand resource expansion

Company overview

Diatreme Resources is an emerging Australian producer of **critical high purity low iron** silica sands.

Our silica projects, the **Galalar Silica Project & Northern Silica Project** in Far North Queensland, will be co-developed by Sibelco, one of the world's leading suppliers of industrial minerals.

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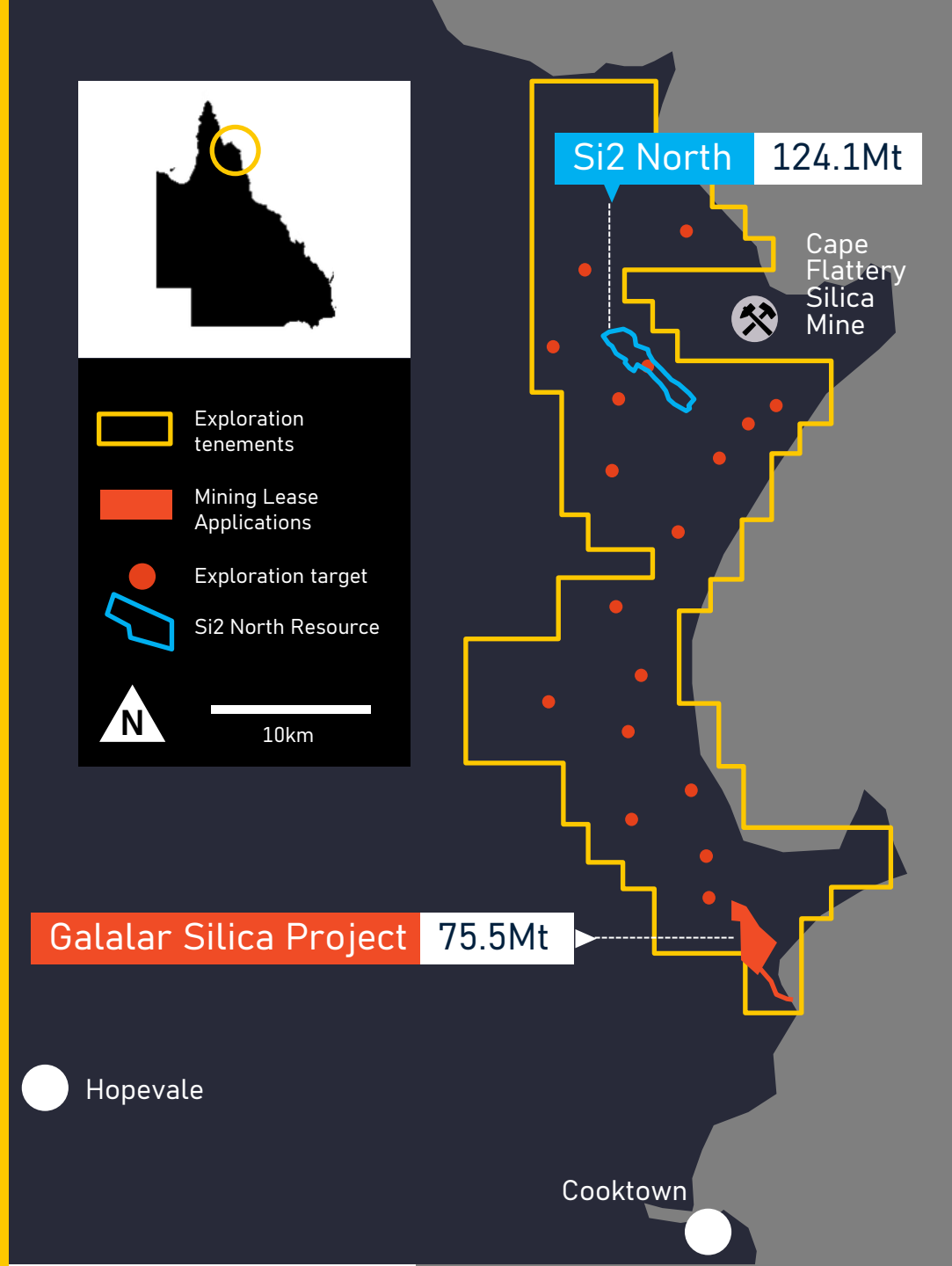
SIBELCO
GLOBAL RESOURCES • LOCAL SOLUTIONS



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Company profile

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Public, ASX-listed company operating over 14 years focused on minerals exploration and development (ASX:DRX)

Current market cap circa ~ 138 million

Experienced Board and management with a track record in implementing and managing projects through to mining, with specific FNQ permitting, feasibility, and project execution experience

Over 1,200 active shareholders, including major shareholders Ilwella P/L (Flannery Family Office), Sibelco, Deutsche Balaton

Flagship Project
Cape Bedford EPM
Far North Queensland

Diatreme Board
Chairman
Wayne Swan

Directors
Michael Chapman
Greg Starr
William Wang

DRX Management
CEO – Neil McIntyre
CFO – Tuan Do
COO – Peter Brown
People and Sustainability – Linda Kingston
Engineering Project Manager – Phil McMurtrie
Exploration Geologist – Neil Forbes
Community & Stakeholders – Robyn Bartlett
Hopevale Project Manager – Dan Kreutzer
Hope Vale Community Officer – William Bird

Corporate snapshot

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Share price

A$0.038

At close trading 15 July 2022
52 week high $0.044, low $0.017

Market capitalisation

A$137m

At 15 July 2022

Shares on issue

3,598m

Cash

A$16m

At 30 June 2022; additional A$3M anticipated from Ilwella (then increase to a 19.99% holding), subject to shareholder approval at upcoming EGM

Options

40m

13.3m – Exp 27/5/26 @ $0.025
13.3m – Exp 27/5/26 @ $0.030
13.4m – Exp 27/5/26 @ $0.035

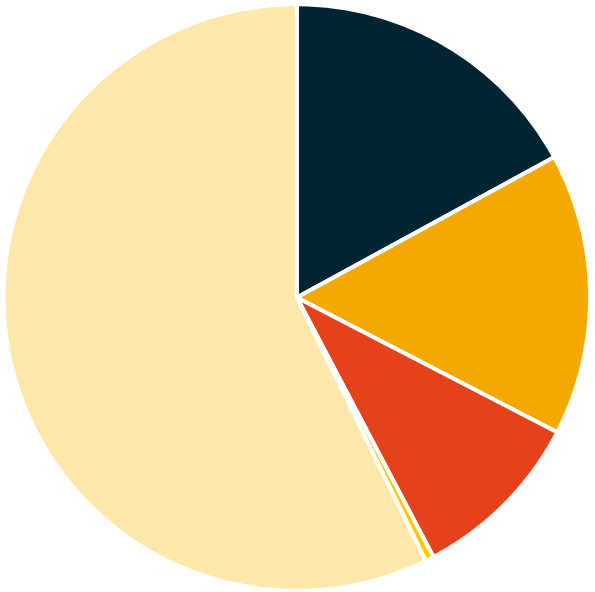
Debt facility (unsecured)

A$1.5m

Repayment 30 November 2022

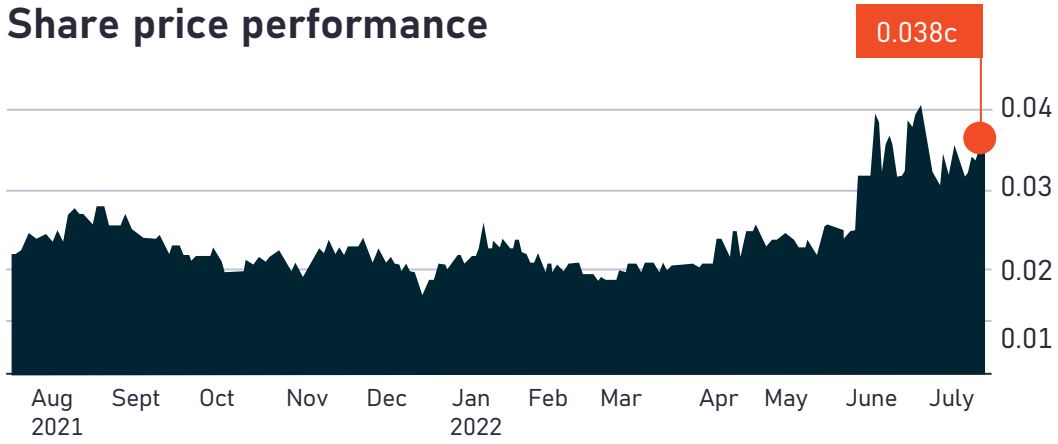
Shareholder interests

15 July 2022



- Ilwella P/L (Flannery) 17.05%
- Sibelco 15.55%
- German Mining Fund 9.68%
- Directors & Management 0.47%
- Others 57.24%

Share price performance



Vision

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To be a near-term producer of high purity, low iron silica sands for use in growing global solar PV and specialty glass markets

01

Galalar is one of the world's purest silica sands projects.

Total Mineral Resource
75.5Mt @99.1% SiO_2

02

Potential for delivery of two world class low iron high purity silica projects

Galalar Silica Project
Si2 North Deposit

03

Global silica consumption growing fast.

Solar PV panels whose primary component is low iron glass sheeting

04

Robust economics, advancing fast.

Low CAPEX | OPEX
First production target 2024
second project to follow.

Sibelco

Our new development partner

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Formation of Silica Projects J/V with Sibelco progressively contributing $35m in two tranches to earn 26.8% of Diatreme's silica projects.

SIBELCO

- Sibelco direct corporate entry for 15% shareholding in Diatreme (completed)
- Sibelco pre-eminent in silica space worldwide
- Diatreme manage and operate on-ground J/V
- Sibelco bring world class silica processing and technical knowledge, together with product marketing and development expertise
- Co-operation on potential development of further downstream (value add) silica opportunities in Australia

Note: Placement completed June 2022 - Formation of the J/V is subject to FIRB and other approvals typical of a transaction of this type – refer DRX ASX release 26th June 2022 for complete terms.

Sibelco

One of the world's leading providers of industrial minerals

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Sibelco offers a broad range of high-specification products, derived from a core group of five minerals:

- Silica
- Clays
- Recycled glass
- Feld-spathics
- Olivine

- Sibelco is a market leader in the European market for specialty silica and recycled cullet
- Sibelco is a clear leader in Europe for silica used in glass production and in the Asian market for fibre and display glass
- Clear leadership globally in cristobalite (refined silica) used in engineered stone, polymers and coatings
- Clear leadership globally in high purity quartz used in the production of photovoltaics and microprocessors

1872 Founded

6 Technical centres

120 Production sites

31 Countries

5100 Employees

Mineral Resource Estimate update

Increased by more than 400% in two years

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2020
Measured, Indicated & Inferred Mineral Resource

Galalar Total
47.50Mt
>99.19 [SiO_2%]

Si2 North Deposit
0.00Mt
>99.19 [SiO_2%]

Total
47.50Mt
>99.19 [SiO_2%]

2021
Measured, Indicated & Inferred Mineral Resource

Galalar Total
75.46Mt
>99.18 [SiO_2%]

Si2 North Deposit
53.00Mt
>99.32 [SiO_2%]

Total
128.46Mt
>99.19 [SiO_2%]

2022
Measured, Indicated & Inferred Mineral Resource

Galalar Total
75.46Mt
>99.18 [SiO_2%]

Si2 North Deposit
124.00Mt
>99.33 [SiO_2%]

Total
199.46Mt
>99.27 [SiO_2%]

Selective targeting and exploration planning

Avoiding high value environmental areas

Improved resource - reserve conversion

Rehabilitation to DRX-ESG, EA Compliance

Note: Under the JORC Code, 2012 Edition an Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to support mine planning and evaluation of the deposit's economic viability. An Inferred Mineral Resource has a lower level of confidence than an Indicated or Measured Mineral Resource.

Note: Total Resource Estimates current as of 17th March 2022 and has not materially changed since – refer attached annexures for full resource tables and competent persons statements.

Long life sustainable operations

Great logistics, conveyed products, port options, sustainability

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Multiphase high purity sand dunes located 20-50km northeast of Hope Vale in Far North Queensland, extend inland for 10 to 15km.

Diatreme exploration acreage (500km^2) adjoins the world's largest high purity silica mine at Cape Flattery (CFSM-Mitsubishi); delivering new economy minerals for over 30 years.

Currently exploring and drilling multiple sand dunes.

2020 – 2024* Transition to operator	**2020 – 2024*** Build sustainability	Long Term Delivery to Investors and Stakeholders
Galalar Silica Project	Galalar Silica Project & Si2 North Deposit	Galalar Silica Project & Si2 North Project
Initial 25 years	25+ years potential	50+ years potential

View North – GSSP Dune and Cape Flattery (CFP)

*Commencement dependent on successfully obtaining permitting and approvals and project finance

Galalar project

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Mine reserves

32.5Mt

Silica sand

>98.50% SiO_2 grade

High purity silica product*

Iron oxide	Silicon dioxide	Particle size distribution
=<105ppm	=<99.9%	109-700microns
Required global specs <120ppm **100% in range**	Required global specs <99.5% **100% in range**	Required global specs <109-700 microns **98% in range**

Titanium dioxide	Aluminum oxide
<140ppm	<500ppm
Required global specs <400ppm **100% in range**	Required global specs <1000ppm **100% in range**

*Expected Product – metallurgical results from process plant simulation

Galalar production target*

1.3– 1.5 million tonnes per annum

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Galalar Project delivers initial personnel training, technical expertise, process refinement, revenues and ESG systems

Production aligned to Diatreme's low impact model and future silica market demands

*Production forecasts subject to further resource definition, and advancement through final government permitting and approvals

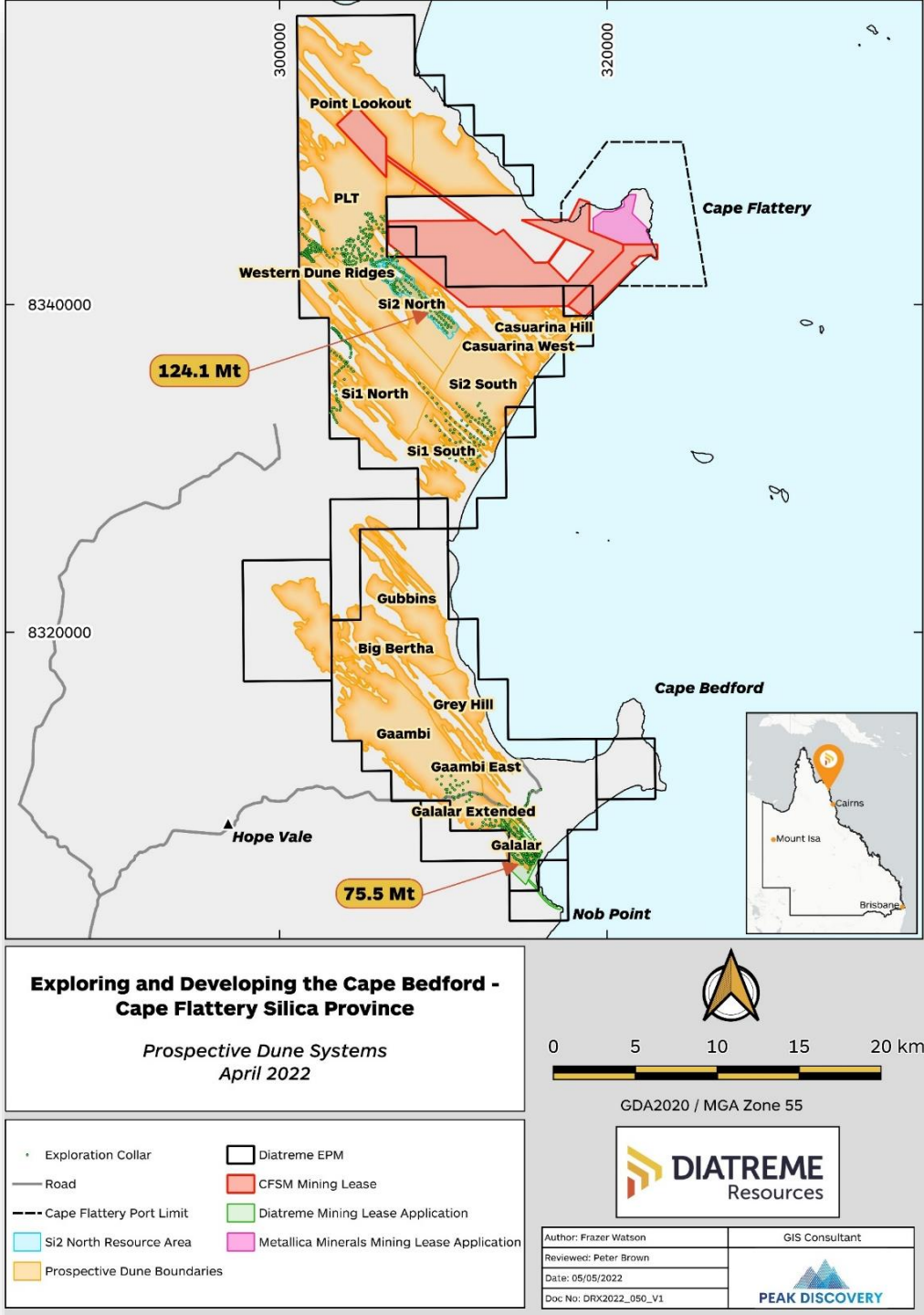
View South – Nob Point Towards Cooktown

Si2 North Deposit

124Mt resource

- Expand mineral resource inventory and improve confidence
- Preliminary metallurgy - 99.9% SiO_2 and 100-120ppm Fe_2O_3 product
- Amenable to conventional processing technologies, delivering high purity silica
- Advancing technical studies and regulatory approvals
- 1.3-2Mtpa Production (GSSP), **potentially scalable to 3-5Mtpa (GSSP+NRP)* within 5 years**, aligned to Diatreme low impact model and future silica market demands

*GSSP+NRP production forecasts subject to further resource definition, and advancement through government permitting and approvals



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Mining Lease applications – Northern Silica Project

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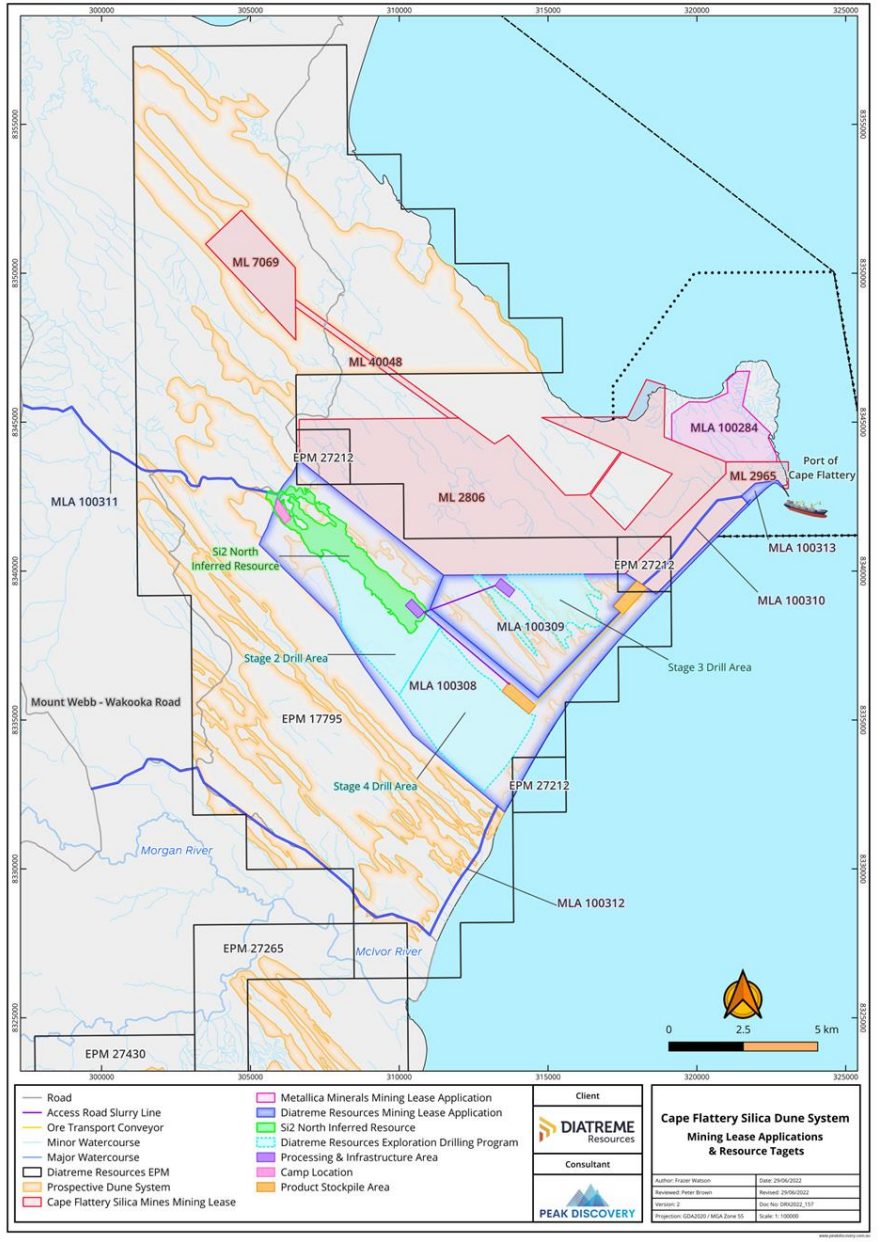
- Mining Lease Applications (MLA's) lodged for Northern Silica Project, located near the Port of Cape Flattery
- Infrastructure MLA's deliver access to Cape Flattery port and road connections to Hope Vale
- Now advancing on technical studies and regulatory approvals on second high-grade silica project
- MLA's add to Diatreme's flagship Galalar Project, for a medium term additional low iron high purity silica operation.



Silica market

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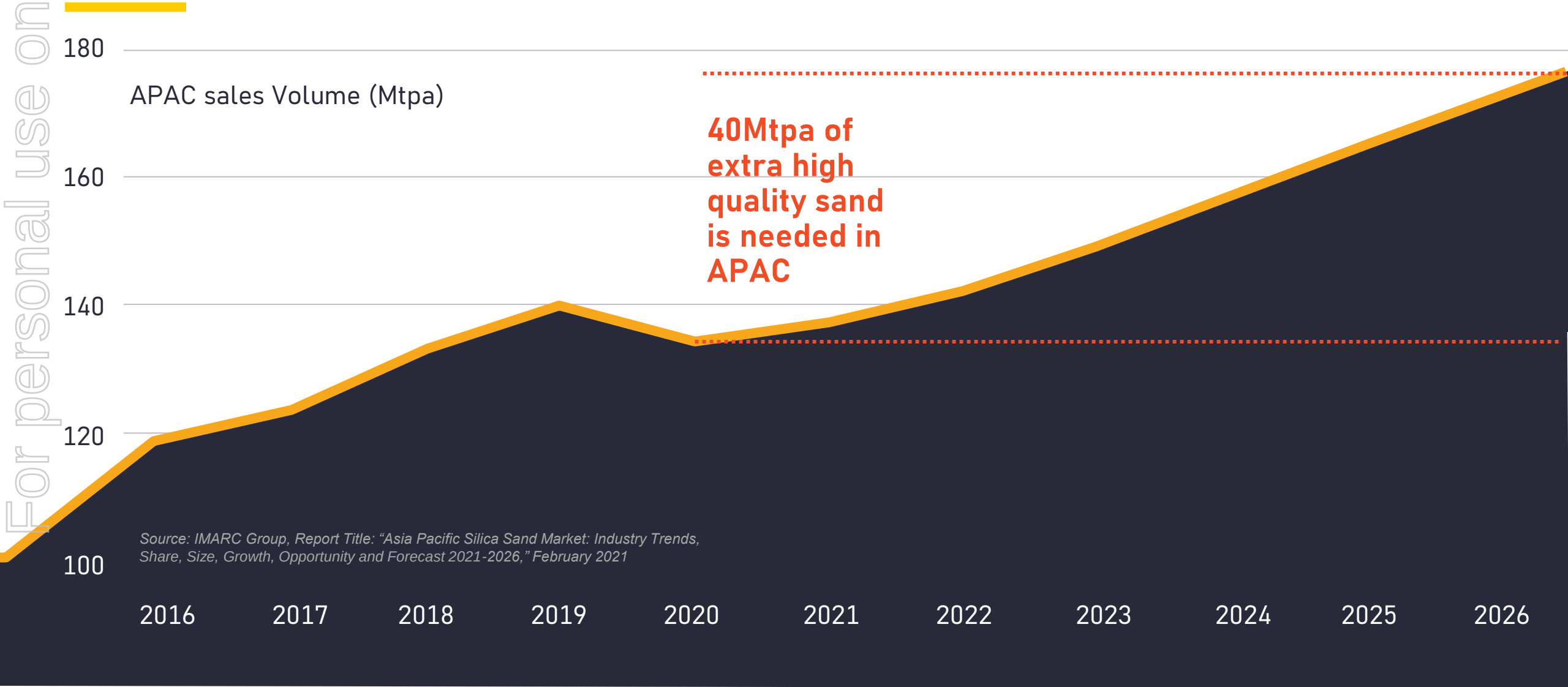

Source: IMARC Group, Report Title: "Asia Pacific Silica Sand Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026," February 2021

Silica market

APAC the fastest growing region

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- Wogen Ltd and other specialist market consultants to Diatreme have completed extensive market investigations and engagement with various potential offtake partners
- The indicative price range (PFS -Galalar) for delivery into China was variable, (RMB 500-600 CIF per tonne), delivered at major port (Quindao), or approximately US$77 – US$93 (as at 23 September 2021)
- IMARC estimates global silica sand market could grow from US$8B in 2019 to US$20B by 2024; Asia-Pacific the fastest growing region with potential to reach US$8B by 2026
- Supply is diminishing as a lot of the sand used in Asia comes from rivers where environmental concerns are increasingly restricting extraction
- No direct substitutes exist for the majority of applications
- Solar panel PV market forecast to reach US$48.2 billion by 2025, with CAGR of 34.7%
- World Bank estimates global renewable capacity will grow by over 1TW from 2018 to 2023, up 46%, with solar PV accounting for more than half of this growth

Business value drivers

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- Environmental and Social **license to operate**
- Single **high purity silica** product
- Consistent delivery into silica market deficit (undersupply)
- Low capex start-up, high NPV, rapid payback operations
- Lowering operating unit rates – **economies of scale, production optionality**
- **Evolving downstream** high purity silica products with offtake partner expertise
- Supporting **domestic innovation and technology**

Project delivery timeline*

2022-2023

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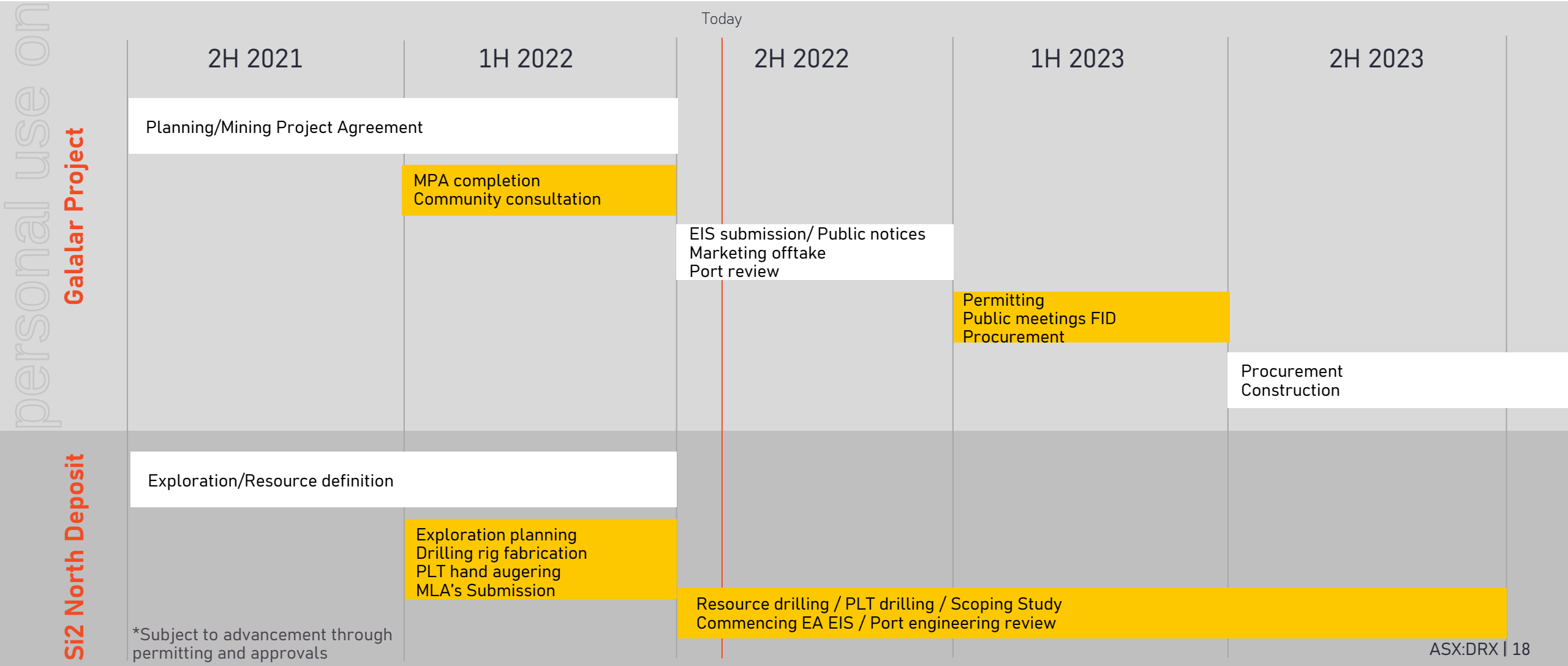

*Subject to advancement through permitting and approvals

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APPENDIX

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Resource & reserves statements

	JORC Resource Category	Silica sand (Mt)	Silica sand (Mm^3)	Cut-off SiO_2 (%)	SiO_2 %	Fe_2O_3 %	TiO_2 %	LOI %	Al_2O_3 %	Density (t/m^3)
Galalar Silica Sand Project	Measured	43.12	26.95	98.5	99.21	0.09	0.11	0.16	0.13	1.6
	Indicated	23.12	14.45	98.5	99.16	0.09	0.13	0.24	0.10	1.6
	Inferred	9.22	5.76	98.5	99.10	0.11	0.16	0.27	0.11	1.6
	Sub Total*	75.46	47.16	98.5	99.18	0.09	0.12	0.20	0.12	1.6
Si2 North	Inferred**	124	77.6	98.5	99.33	0.11	0.15	0.12	0.08	1.6

*Resource Estimate current as of 20 September 2021
** Resource Estimate current as of 17 March 2022

	JORC Reserve Category	Silica sand (Mt)	Silica sand (Mm^3)	Cut-off SiO_2 (%)	SiO_2 %	Fe_2O_3 %	TiO_2 %	LOI %	Al_2O_3 %	Density (t/m^3)
Galalar Silica Sand Project	Probable Ore Reserve***	32.5	20.3	98.5	99.20	0.08	0.11	0.16	0.13	1.6

***Reserve Estimate current as of 9 November 2021

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Competent person's statement

Statement in accordance with the Australasian code for reporting of exploration results, mineral resources and ore reserves (the JORC code)

Exploration Results and Exploration Targets

The information in this presentation that relates to Exploration Results and Exploration Targets from the Galalar Silica Sand Project is based on information reviewed and compiled by Mr. Neil Mackenzie-Forbes, a Competent Person who is a Member of the Australian Institute of Geoscientists.

Mr. Mackenzie-Forbes is a director of Sebrof Projects Pty Ltd (a consultant geologist to Diatreme Resources Limited).

Mr. Mackenzie-Forbes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (**JORC Code**). Mr Mackenzie-Forbes consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Consent is not required if the two matters set out in the dot points above are confirmed by the company.

Mineral Resources

The information in this presentation that relates to Mineral Resources at the Galalar Silica Sand Project is based on information, geostatistical analysis and modelling carried out by Mr Chris Ainslie, Project Engineer – Mining & Quarrying. Mr Ainslie is an employee of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy. Mr Ainslie worked under the supervision of Mr Carl Morandy, Mining Engineer who is Managing Director of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy and Mr Brice Mutton, Senior Geologist who is an Associate of Ausrocks Pty Ltd and is a Fellow of the Australasian Institute of Mining & Metallurgy and a Fellow of The Australian Institute of Geoscientists.

Mr Mutton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Mutton consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Ore Reserves

The information in this presentation that relates to Ore Reserves at the Galalar Silica Sand Project is based on information reviewed or work undertaken by Mr Carl Morandy, Mining Engineer & Managing Director. Mr Morandy is the Managing Director of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy. Mr Morandy has relied on the Company for marketing, environmental, economic, social and government permitting.

Mr Morandy has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the preparation of mining studies to qualify as a Competent Person as defined in the JORC Code. Mr Morandy consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.