ASX ANNOUNCEMENT

6 December 2023

New maiden 91.7Mt silica resource at Western Resource Area

- **Maiden resource estimate of 91.7Mt high-purity silica sand, including 10.3 Mt of Indicated Resource, at Western Resource Area (WRA) located northwest of Diatreme's Northern Silica Project (NSP)**
- **Diatreme's total silica sand resource now exceeds 400Mt across its Far North Qld silica sand projects**
- **New resource adds to existing 235Mt NSP resource base, expanding available development options and adding to potential for long-term mining operation supplying fast-growing solar PV market**

Emerging silica sands developer and explorer, Diatreme Resources Limited (ASX:DRX) (the Company) has further expanded its high-grade silica sand resource base in Far North Queensland, with a new maiden resource estimate established for its Western Resource Area (WRA).

Located within close proximity to the Company's flagship Northern Silica Project (NSP), the WRA's maiden resource estimate of 91.7 million tonnes (Mt) of high-purity silica sand includes 10.3Mt of Indicated Resource. Diatreme's total silica sand resource base has now swelled to approximately 402Mt across its FNQ silica sand projects, making it the largest such resource base in the region.

The WRA represents a northwest extension to the NSP's resource area, adding additional high purity silica sand to existing resources at Diatreme's NSP (Si2) and Galalar Silica Sand Project (GSSP) resources.

Diatreme's expanding critical minerals resource base is highly strategic given the continued growth in demand from the booming solar PV industry, and its location in a stable and ESG friendly jurisdiction with proximity to key Asian based markets.

Welcoming the latest upgrade, Diatreme's CEO Neil McIntyre said: "*Diatreme is very excited to announce yet another upgrade to our silica sand resource base, which has rapidly grown to become the largest such resource in Queensland.*
" A dune extension complex located to the north-west immediately abutting our existing NSP, the WRA resource shows how extraordinary the size and nature of this world class, high-purity silica deposit is, giving us flexibility in future

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planning and development options. "We continue to build a resource base that will support a long-term silica sand mining operation, generating valuable new jobs and economic benefits in an area of high unemployment, while helping to power global decarbonisation and deliver returns to all stakeholders."

The expanded Mineral Resource was estimated by independent experts Ausrocks Pty Ltd (refer attached summary excerpt report). The additional resources confirm the Si1 and Si2 Dune Complexes have the potential to host further significant silica sand resources, as incremental exploration has increased the known resource size significantly.

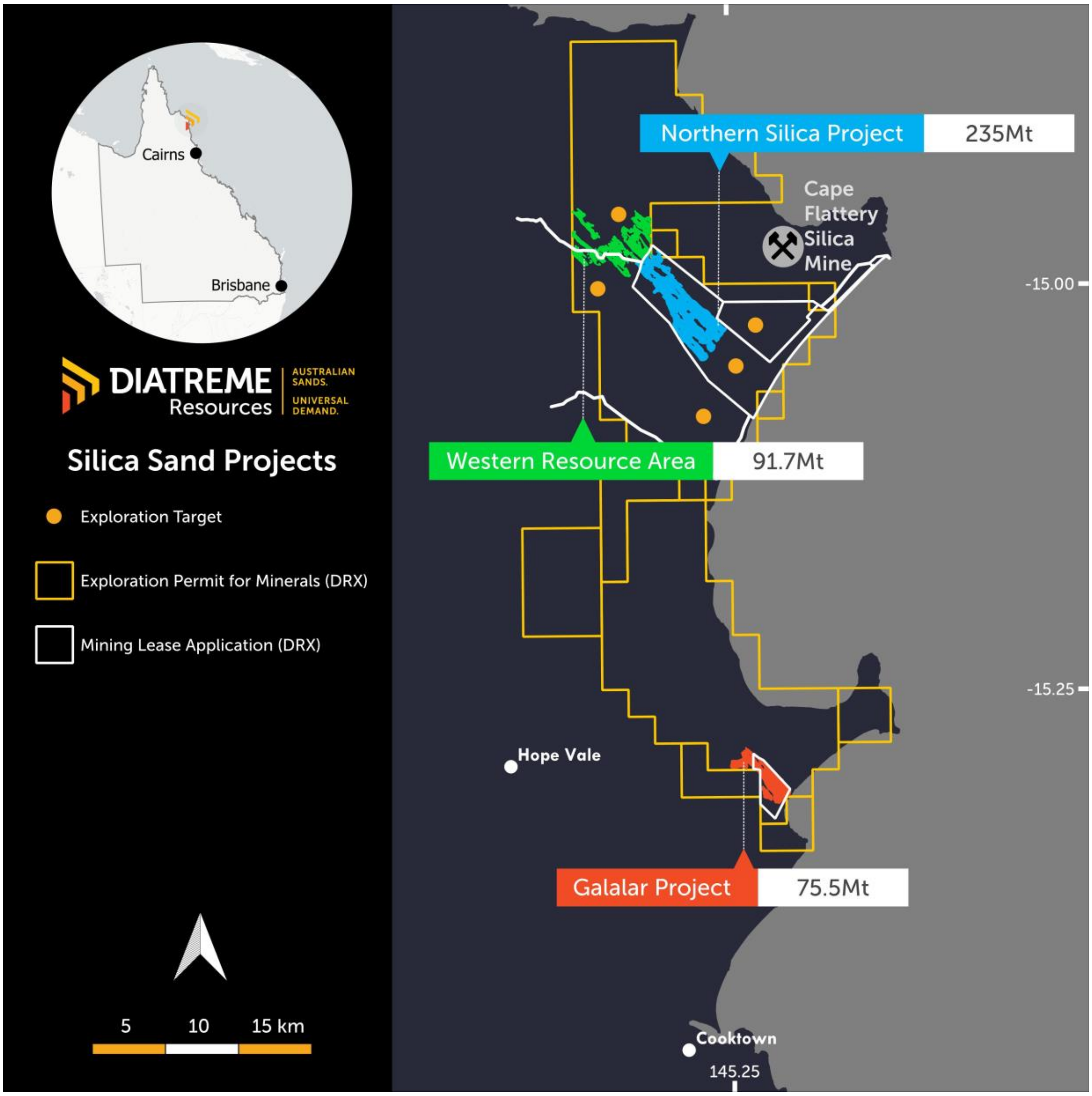

Figure 1: Diatreme's tenement location and resource area

Diatreme is concentrating on the development of the broader defined Si2 resource, with the WRA exploration and resource definitions programs designed to determine the economics of establishing a potential satellite operation to the NSP. This will potentially facilitate the “fast tracking” of a third independent major high purity silica operation, with the NSP benefitting from its proximity to the existing State-owned Cape Flattery Port, owned by Ports North.

Inferred and Indicated Resources

A drilling program was undertaken in late 2021 to early 2022, with a total of 1,074.8m drilled comprising 90 vacuum drill holes and 131 hand auger holes. These were utilised to upgrade the evaluate the area to the north of Si2 resource, in accordance with the JORC Code (2012). The mineral resource estimate is built upon 1,481.8m of various drilling methods across 121 drill holes. These Mineral Resource Estimates have been supported by a LiDAR acquisition across the area, which provides a highly detailed topographic surface to support geological inferences, and to provide a more accurate tonnage estimate.

JORC Resource Category	Silica Sand (Mt)	SiO_2 (%)	Fe_2O_3 (%)	TiO_2 (%)	Al_2O_3 (%)	LOI (%)	Total (%)	Silica Sand (Mm^3)	Density (t/m^3)	Cut-off Grade SiO2 (%)
Indicated	10.3	99.20	0.15	0.24	0.06	0.02	99.84	6.4	1.6	98.5
Inferred	81.4	99.38	0.09	0.15	0.06	0.10	99.90	50.9	1.6	98.5
Total	91.7	99.36	0.10	0.16	0.06	0.09	99.89	57.3	1.6	98.5

Table 1: Indicated and Inferred Resource Estimate – WRA Resource, December 2023

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.*

The WRA is the amalgamation of the Western Dune Ridges and PLT dune systems and covers a large area with different dune morphology and age. The WRA represents the most northerly extensions of the Pleistocene dunes systems and consist of older Pleistocene domed (deflated) dunes with young Holocene longitudinal dunes superimposed on top and chaotic parabolic dunes on remobilised domes dunes.

The Pleistocene domed dunes have a higher TiO_2 percentage than the rest of the dune field and which is considered an artefact of the dune deflation over time by aeolian and water influences.

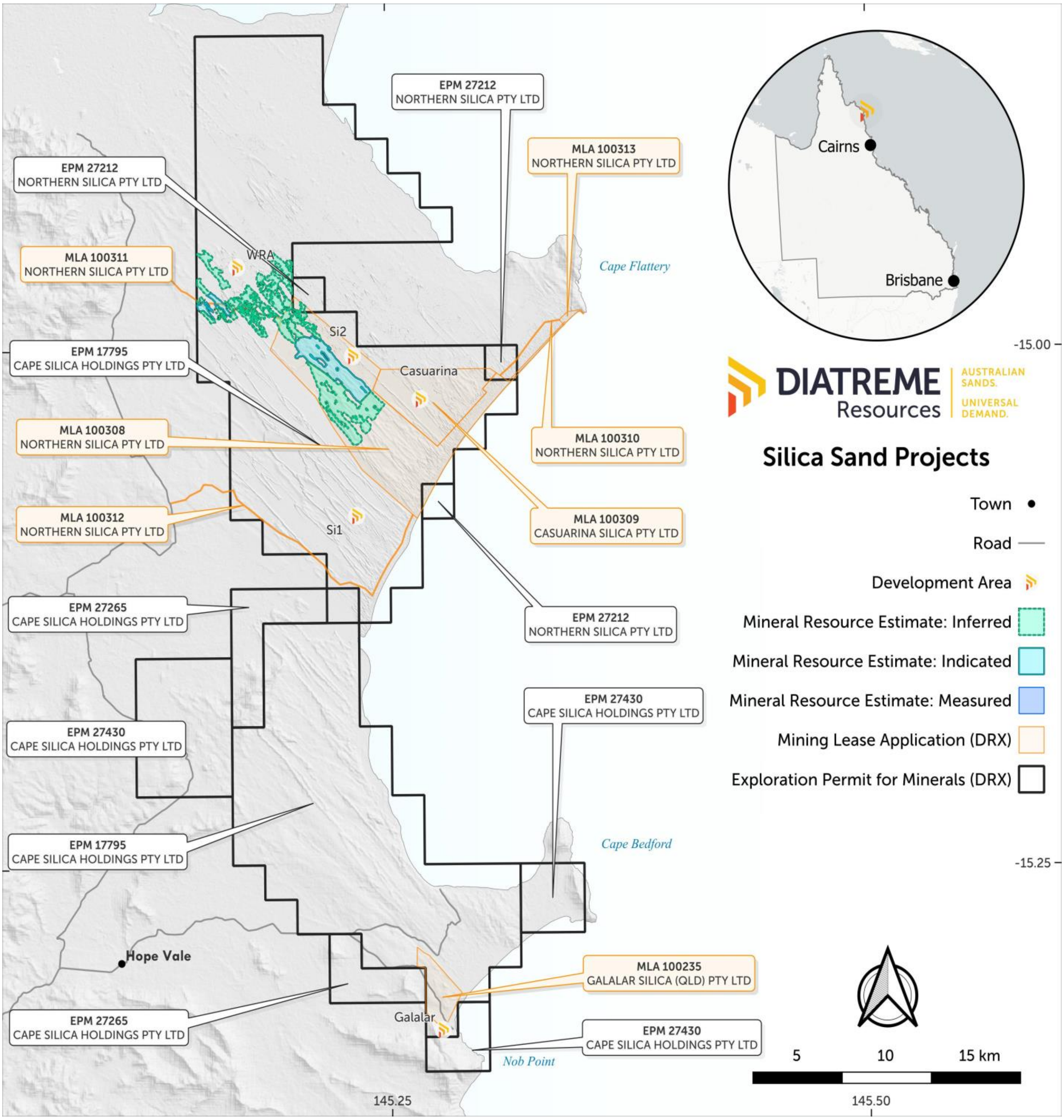

Figure 2: Diatreme's FNQ silica sand projects

Project Development

Diatreme is targeting the following next steps for the WRA:

- Increasing geological continuity within proximity to the CFSM operations and likely areas of economic mineralisation, utilisation of aircore drilling with hand augering an appropriate first pass exploration method.

- Targeted metallurgical test work, to determine the WRA's amenability to processing utilising Diatreme's Galalar optimised silica product processing criteria. This targets assessment and delivery of a high value low iron, high purity silica product.

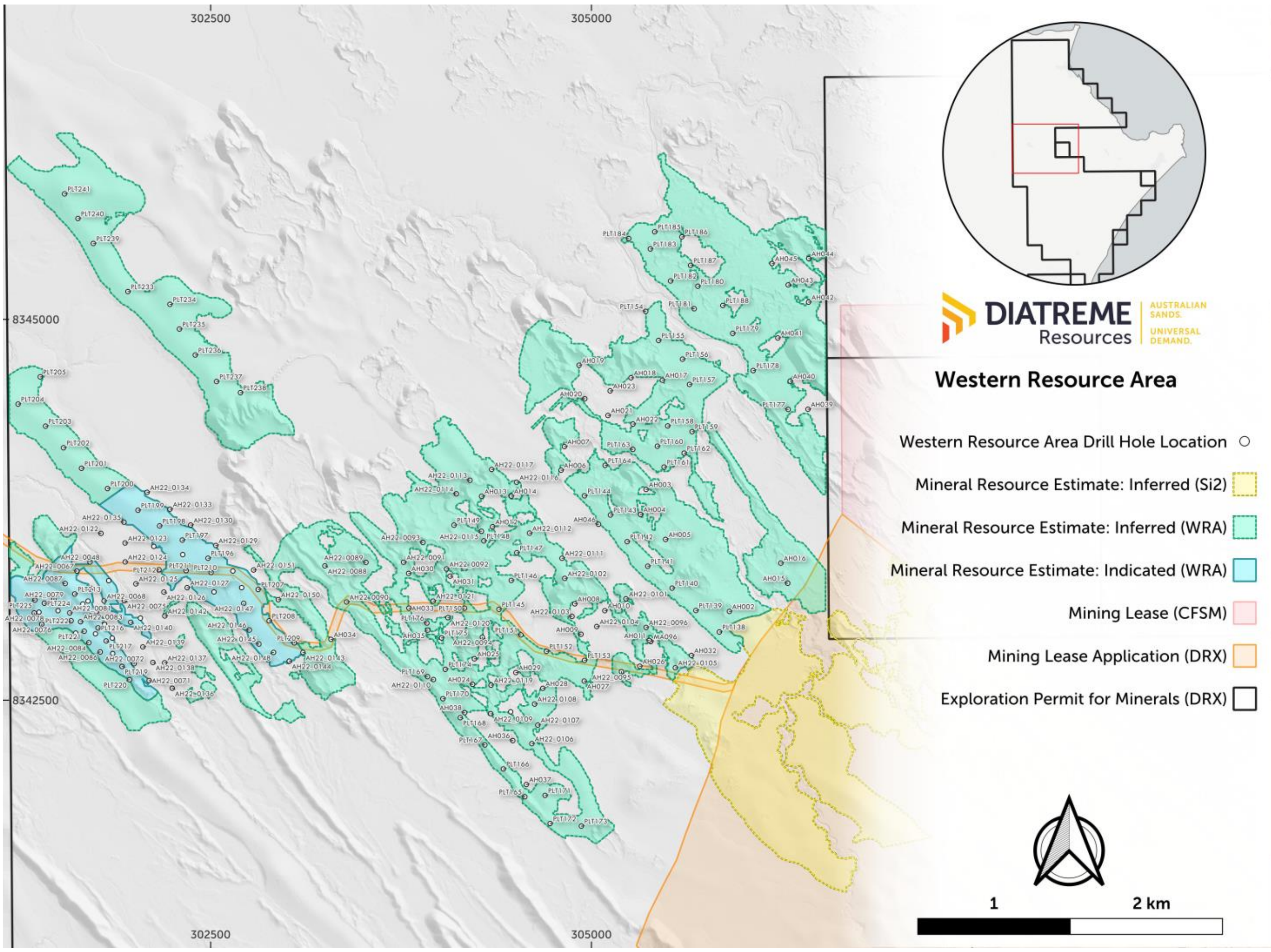

Figure 3: Western Resource Area Project Development

Table 2 – Total Resource Estimate Galalar, Si2 (NSP) & WRA

	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 %	Total %	Density (t/m^3)
Galalar	Measured*	43.12	26.95	98.5	99.21	0.09	0.11	0.16	0.13		1.60
Galalar	Indicated*	23.12	14.45	98.5	99.16	0.09	0.13	0.24	0.10		1.60
Galalar	Inferred*	9.22	5.76	98.5	99.10	0.11	0.16	0.27	0.11		1.60
Galalar	**Sub Total****	**75.46**	47.16	98.5	99.18	0.09	0.12	0.20	0.12		1.60
Si2	Inferred	103	65.0	98.5	99.31	0.10	0.14	0.13	0.09	99.83	1.60
Si2	Indicated	132	82.0	98.5	99.27	0.11	0.15	0.13	0.12	99.90	1.60
Si2	**Sub Total**	**235**	147.0	98.5	99.29	0.11	0.15	0.13	0.11	99.87	1.60
WRA	Inferred	81.4	50.88	98.5	99.38	0.09	0.15	0.06	0.10	99.90	1.60
WRA	Indicated	10.3	6.44	98.5	99.20	0.15	0.24	0.06	0.02	99.84	1.60
WRA	**Sub Total**	**91.7**	57.31	98.5	99.36	0.10	0.16	0.06	0.09	99.89	1.60
Combined	Total	**402**		98.5							

** Resource estimate current as of 13 September 2021*

*** Galalar Sub-total inferred, indicated and measured*

Table 3 – Probable Ore Reserve, Galalar Silica Project

JORC Category	Silica Sand (Mt)	Silica Sand (Mm3)	Cut-off SiO_2 (%)	Waste (Mt)	SiO_2 %	Fe_2O_3 %	TiO_2 %	LOI %	Al_2O_3 %	Density (t/m^3)
Probable Ore Reserves	**32.53**	**20.33**	**98.5**	**0.04**	**99.20**	**0.08**	**0.11**	**0.16**	**0.13**	**1.60**

Figure 3: Western Resource Area Project Development

This announcement has been authorised by the Board of Diatreme.

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About Diatreme Resources

Diatreme Resources (ASX:DRX) is an emerging Australian producer of mineral and silica sands based in Brisbane. Our key projects comprise the Galalar Silica Project and Northern Silica Project in Far North Queensland, located next to the world's biggest silica sand mine at Cape Flattery. In Western Australia's Eucla Basin, Diatreme's 'shovel-ready' Cyclone Zircon Project is considered one of a handful of major zircon-rich discoveries of the past decade.

Diatreme has an experienced Board and management, with expertise across all stages of project exploration, mine development and project financing together with strong community engagement skills.

Global material solutions group Sibelco are Diatreme's development partner on its silica projects portfolio in Nth Qld. Sibelco completed in December 2022 its first tranche investment ($11m) to hold a 9.99% interest, with a second investment tranche undertaken in October 2023 ($24m) taking their total project interest to 26.8% with the balance (73.2%) being held by Diatreme.

Diatreme's silica sand resources will contribute to global decarbonisation by providing the necessary high-grade silica for use in the solar PV industry. The Company has a strong focus on ESG, working closely with Traditional Owners and all other key stakeholders to ensure the long-term sustainability of our operations, including health, safety and environmental stewardship.

For more information, please visit www.diatreme.com.au

ASX releases referenced in this release.

- Quarterly Activities Report – 30 October 2023
- Northern Silica Project development advances - 9 October 2023
- Major silica resource expansion from 124Mt to 235Mt at Si2 deposit – 13 March 2023
- Drilling results increase potential for significant resource expansion at Northern Silica Project – 11 January 2023
- New drilling and exploration underway on silica projects - 30 August 2022
- Diatreme expands Northern Resource Project exploration - 23 February 2022
- Galalar PFS and Maiden Ore Reserve – 9 November 2021
- Galalar silica resource expands by 22% to 75.5Mt – 20 September 2021

COMPETENT PERSON STATEMENT

The information in this report relating to Exploration Results, Exploration Targets, Mineral Resources of Si2 and Galalar, and Ore Reserves of Galalar are extracted from the reports entitled: Northern Silica Project development advances created on 13th March 2023, Major silica resource expansion from 124Mt to 235Mt at Si2 deposit created on 11th January 2023, New Drilling and Exploration Underway on Silica Projects created on 20th August 2022, Diatreme expands Northern Resource Project advances created on 23rd February 2022, Galalar PFS and Maiden Ore Reserve created on 9th November 2021 and, Galalar silica resource expands by 22% to 75.5 Mt created on 20th September 2021 which are available to view on https://www.asx.com.au/markets/company/DRX. The company confirms that is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Mineral Resources at the Western Resource Area is based on information, geostatistical analysis and modelling carried out by Ms Jessica Coffey, Resource Geologist. Ms Coffey is an employee of Ausrocks Pty Ltd and a Member of the Australasian Institute of Mining & Metallurgy and a Member of the Australian Institute of Geoscientists. Ms Coffey worked under the supervision of Mr Carl Morandy, Principal Mining Engineer & 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. Ausrocks Pty Ltd have been engaged by Cape Silica Holdings Pty Ltd (CSHPL) to prepare this independent report and there is no conflict of interest between the parties. Mr Morandy 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 (The JORC Code). Mr Morandy consents to the inclusion in the report on the matters based on their information in the form and context in which it appears.

The corresponding JORC 2012 Table 1 Section 3 is attached to this report can be found in Appendix 2 .

FORWARD LOOKING STATEMENTS

This document may contain forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "indicate", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Indications of, and interpretations on, future expected exploration results or technical outcomes, production, earnings, financial position, and performance are also forward-looking statements.

The forward-looking statements in this presentation are based on current interpretations, expectations, estimates, assumptions, forecasts and projections about Diatreme, Diatreme's projects and assets and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made.

The forward-looking statements are subject to technical, business, economic, competitive, political and social uncertainties and contingencies and may involve known and unknown risks and uncertainties. The forward-looking statements may prove to be incorrect.

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NORTHERN SILICA PROJECT: WRA RESOURCE – MAIDEN MINERAL RESOURCE ESTIMATE (EXCERPTS ONLY)

Prepared for Diatreme Resources Limited by Ausrocks Pty Ltd

Exploration

A two-phase drilling program was carried out on the Western Resource Area between October 2021 and March 2022. Drilling locations were access dependent and utilised Hand Auger for low-lying locations and a Vacuum Drill for >5m drilling of the dunes where access was feasible. A total of 1481.8m was drilled from 221 collars.

> **Hand Auger:** comprised one-hundred and thirty-one (131) hand auger holes totalling 407m. Drilling can penetrate a maximum of 5m unless water is intersected.
>
> **Vacuum Drill:** comprised ninety (90) vacuum drill holes totalling 1074.8m. Drilling can penetrate sand until water is intersected.

These programs have been supported by a detailed topographic survey (LiDAR), acquired in December 2022, providing a far superior update on the hummocky surface dune profile.
The LiDAR survey, together with a total of 221 drillholes, were used to define this Maiden Mineral Resource Estimate in accordance with the JORC Code (2012).

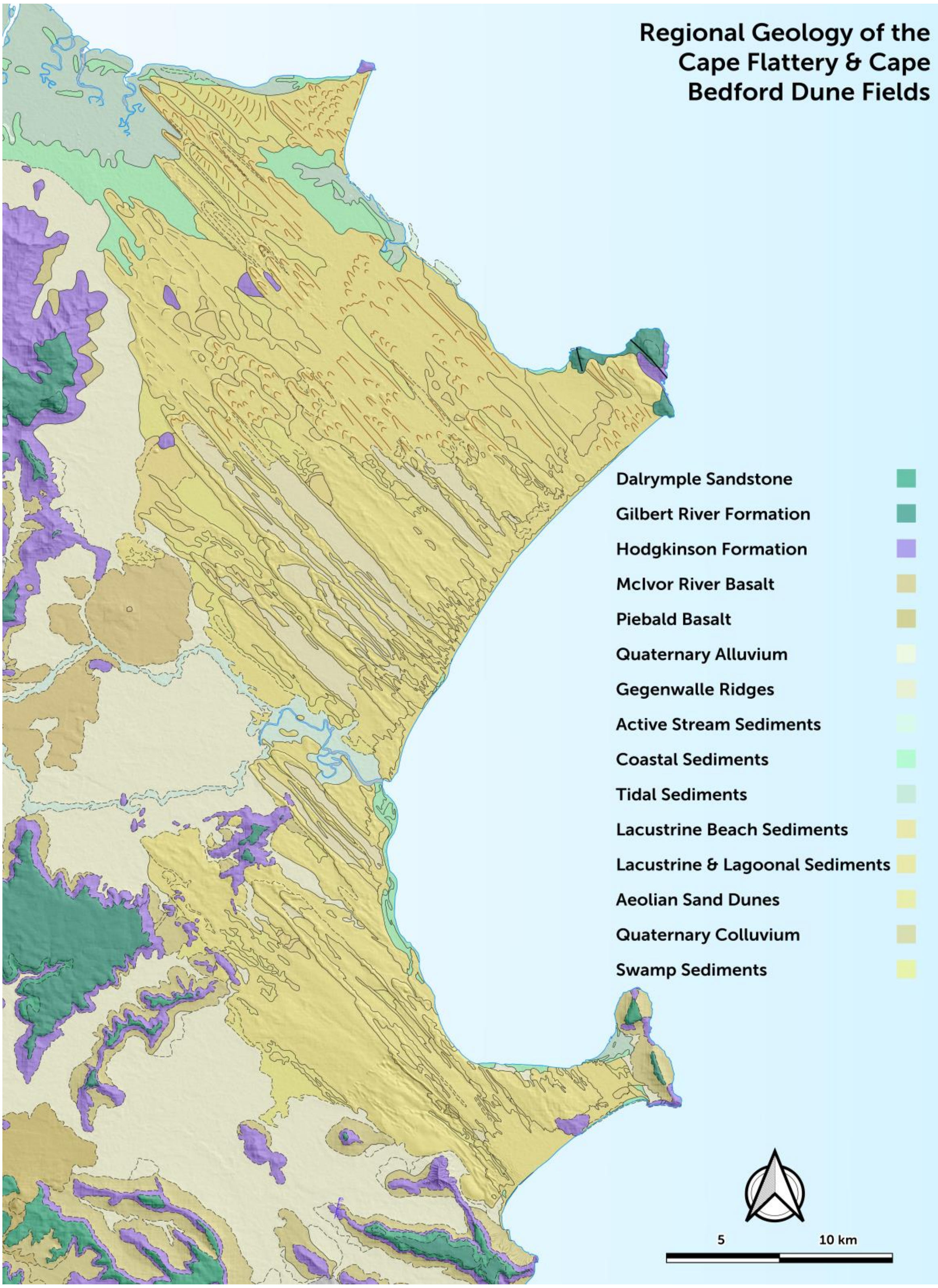
Regional Geology

The Cape Bedford / Cape Flattery Dune Field is one of several extensive areas of aeolian dunes which occur on the tropical east coast of Cape York Peninsula. The dune field covers an area of 700km2 and contains a variety of depositional and erosional landforms. The Cape Flattery and Cape Bedford Dune Fields lie to the east of an upland area consisting mainly of Mesozoic sedimentary rocks with a few outcrops of lower Palaeozoic metamorphics and volcanics. Exposed outcrops are found at Nob Point, Cape Bedford, Cape Flattery and Lookout Point. The dominant source sand of the dune field is from the weathering of Mesozoic sandstone which widely outcrops regionally to the west of the area. Strong prevailing South-easterly winds appear to have been the consistent wind direction in the region, and still prevail today for most of the year. These winds are the energy source for the establishment and remobilisation of the sand dune systems.

Local Geology

The geological characteristics of the Western Resource Area exploration target and resource are a series of inactive and vegetated elongate parabolic dunes, which is an extension the greater Si2 Dune Complex. The sand is white in colour throughout the dunes as shown by the current drilling, which is eventually intersected at the base by the water table.

The Western Resource Area exploration target extends 5.9km in the direction of prevailing winds and is up to 5.8km in width, elevated between 15 and 96m, and is mosaiced by wetlands and creeks. Developed by two phases of exploration drilling between October 2021 and March 2022, the resource and the exploration target occupy the area to the north west of the Si2 Dune Complex.



Assays

Assay testing was carried out for the vacuum drilling programs by ALS Laboratories, Brisbane prior to April 2022, and by Bureau Veritas, Adelaide from April 2022 onwards. A total 1,513 SiO_2 assays (1,175 at ALS and 338 at Bureau

Veritas) were used in the Mineral Resource Estimate. Forty-four (44) duplicates have been employed to check repeatability of assay results (38 at ALS and 6 at Bureau Veritas). One (1) hole was twinned.
Assaying was primarily to determine the silica content – SiO2 and major accessory minerals such as Al2O3, Fe2O3, and TiO2. Analysis of samples prior to April 2022 was via ALS's procedures designated ME-XRF26 (whole rock by fusion/XRF) for SiO2 and trace elements, and by ME-GRA05 (H2O/LOI) for Loss of Ignition by TGA furnace. Analysis of samples after April 2022 was via Bureau Veritas procedures designated XF100 which is considered a total whole rock analysis and by TG002 for LOI. Preparation and analysis of samples utilised tungsten carbide pulverisation techniques. Laboratory Quality Assurance (QA) includes the use of internal standards using their own certified reference material, laboratory duplicates, blanks, and pulp repeats. ALS provide detection limits of 0.01% for all analytes except Zircon (Zr) which is 0.07%. Bureau Veritas provide detection limits of 0.01% for most analytes, except P2O5, SO3 BaO, Zr and Cr which have detection limits of 0.001%. Consideration was given to the XRF method very marginally under-reporting silica grade resulting from the variability of Total results and possibly slightly overestimating iron (Fe2O3) grade; however no adjustments were made, and the data was used "as received" from ALS and Bureau Veritas.

Cut-Off Grade

Block model grades range 97.7%-100.1% (excluding basal hole samples <98.5% which may indicate dune unit termination).
A silica (SiO_2 %) grade cut-off was used to define the in-situ resource to achieve a marketable high purity silica sand. Geological logging and returned assay grades and intersections showed an obvious grade demarcation of resource versus waste at 98.5% SiO_2. This was further supported by statistical analysis and representation. Lengthy continuous vertical intervals of >98.5% SiO_2 was the norm, and these intervals were used for the modelling and Maiden Mineral Resource Estimate. The clear in-situ grade demarcation of >98.5% SiO_2 persisted throughout the exploration program and across the whole of the Resource Area.
Occasional drill holes include intermediate sub-marginal silica grades, but these intervals were restricted to sections within a large high silica dune or over several meters where drilling was limited. The lower SiO_2 grades are predominantly attributed to the elevated proportion of TiO_2 dominated heavy minerals. From previous metallurgy testing the proposed processing methodology manages these contaminants effectively and are likely to result in a future upgrade of these portions of 'waste' as they are currently designated. Here the grades were >96.8% SiO_2 in any case.
The surface to one (1) metre interval consistently returned a <98.5% silica assay and returned higher than normal LOI. This logged interval included a thin average 0.3m topsoil and recorded organic material which caused minor contamination. This one (1) metre interval was adjusted by adopting the succeeding one-metre assay grade. A topsoil layer from surface (0.0m to 0.3m) was excluded from the Maiden Mineral Resource Estimate.
A silica grade cut-off of 98.5% SiO_2 is robust and was applied as the cut-off grade for the resource modelling and Mineral Resource Estimate.
Limitations with the XRF method also contribute to the cut-off grade as variability is the 'Total' result affects the SiO_2 percentage. CSHPL utilise "as received" analysis results and do not correct for Total.

Mineral Resource Estimate

Micromine 2024 was used to complete the Maiden Mineral Resource Estimate in accordance with the JORC Code (2012). A block model was generated to model the overall deposit shape and volume. The block model was defined by the top of the resource (0.3m below the surface topography to exclude the topsoil layer), the base of the resource (interpreted groundwater table, base of the drill holes plus an interpreted extension at an additional1/2 drillhole depth) and the interpreted geological boundaries. Parent blocks were sized at 50mE x 50mN x 2mRL. Sub-blocks were sized at 5mE x 5mN x 1mRL. The block model was subject statistical and geostatistical analysis, and the IDW (Inverse Distance Weighting) method was used to populate the blocks. Previous Mineral Reports had shown IDW method yielded comparable results in this area. Swath plots were used to validate the interpolation technique to ensure accuracy. In addition to modelling SiO_2 data in the block model, Fe_2O_3, TiO_2, Al_2O_3 and LOI were also block modelled with other assayed elements not modelled due to low values at or near the detectable limits.
The following parameters and assumptions formed the basis for the Maiden Mineral Resource Estimate in accordance with the JORC Code (2012).

- A detailed remote sensing Light Detection and Radar Ranging (LiDAR) was carried out December 2022. This survey covered the entire WRA and provided elevation and aerial imagery for interpretation.
- Density of sand – 1.6 t/m^3 based on previous density testing in the Cape Flattery/Cape Bedford dune field.
- A topsoil thickness of 0.3m has been assumed based on sources from CFSM, visual assessment and drillhole intercepts. Topsoil thickness may vary across the Resource Area based on the vegetation density but an average of 0.3m is considered reasonable.
- Fe_2O_3, TiO_2, Al_2O_3 and LOI were reported as secondary elements constrained to the cut-off grade of SiO_2.
- The Resource boundary was determined by geological interpretation of dunes in plan view, then by modelling the top and bottom surface in cross sections in Micromine 2024. Further information contained the resource parameters and assumptions can be found in JORC Table 1 (Error! Reference source not found.).

The drill spacing along and across the dune traverse ranged from confirmatory level spacing (150m-250m) to a scout level spacing (250m-400m) with hole ending in water table or end of drilling capability. The level of accuracy with the surface data (LiDAR), drill spacing and interpreted geological continuity allowed two resource categories to be defined (Indicated and Inferred Mineral Resource).
The results of the Maiden Mineral Resource Estimate are provided in the table below and the Resource Area is shown on the following page. Representative dune profiles across the Resource Area are shown in the cross section and long section below.

Western Resource Area - Maiden Mineral Resource Estimate, March 2023

JORC Resource Category	Silica Sand (Mt)	SiO_2 (%)	Fe_2O_3 (%)	TiO_2 (%)	Al_2O_3 (%)	LOI (%)	Total (%)	Silica Sand (Mm^3)	Density (t/m^3)	Cut-off Grade SiO_2 (%)
Indicated	10.3	99.20	0.15	0.24	0.06	0.02	99.84	6.4	1.6	98.5
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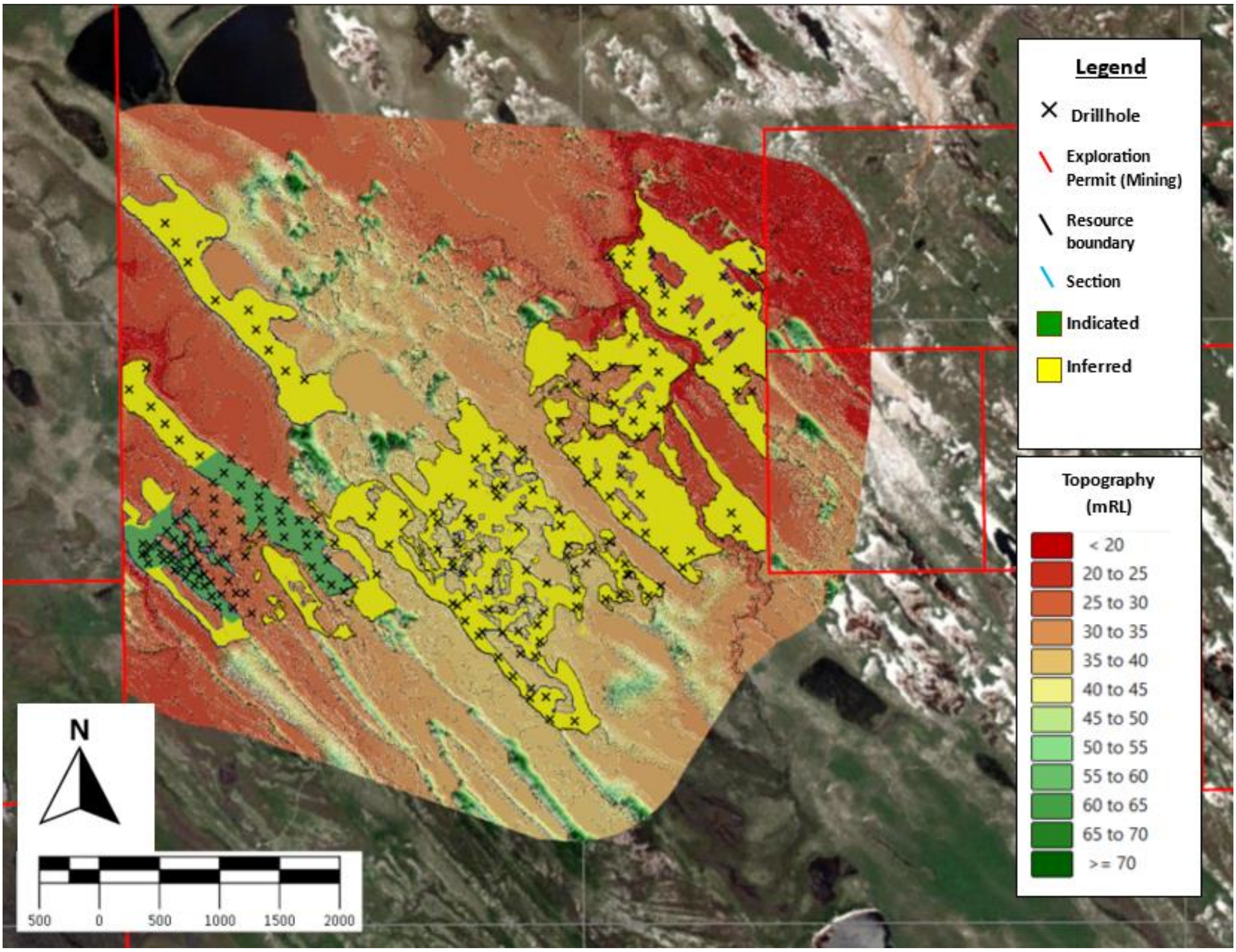
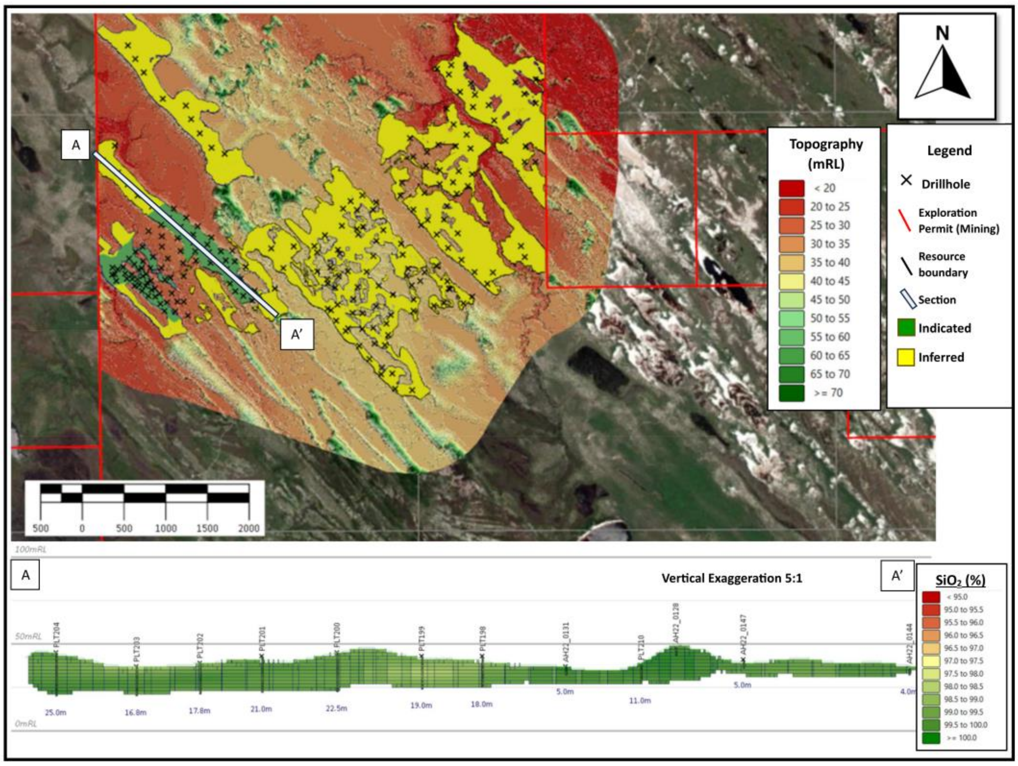
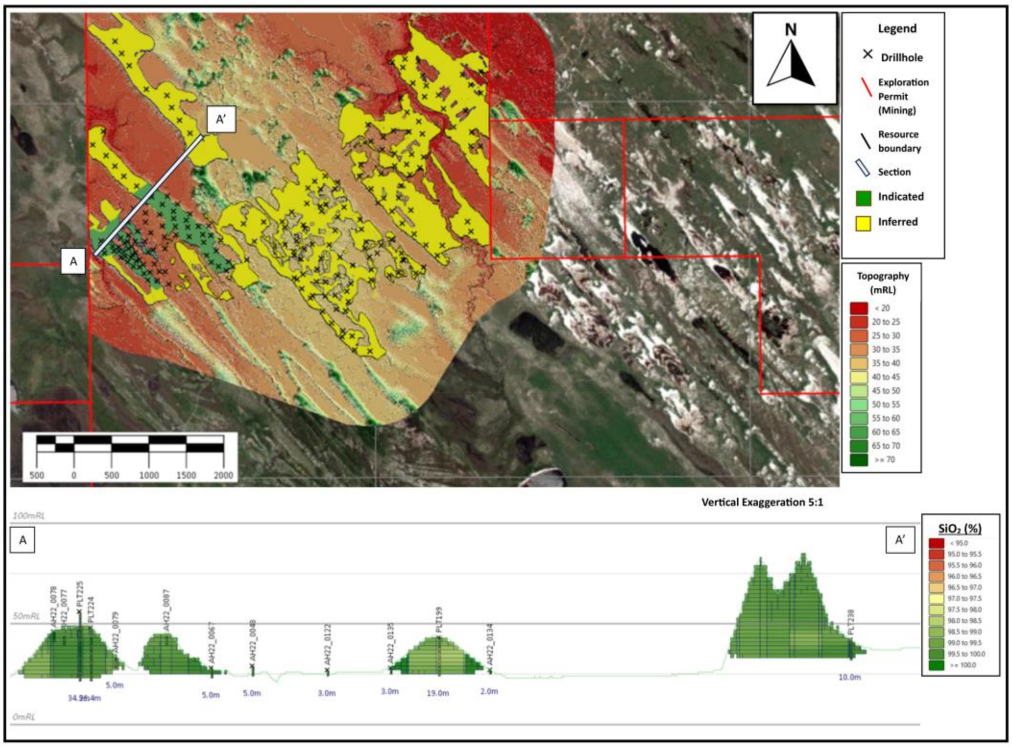
Total	91.7	99.36	0.10	0.16	0.06	0.09	99.89	57.3	1.6	98.5

Resource Area of the Upgraded Mineral Resource Estimate



Long sections through the Western Resource Area block model. Section is exaggerated 5:1.





Conclusions

The outcome of this Maiden Mineral Resource Estimate for Western Resource Area is summarised as follows:

- Indicated Mineral Resource Estimate of 10.3 Mt at 99.20% SiO_2, 0.15% Fe_2O_3, 0.24% TiO_2, 0.06% Al_2O_3 and 0.02% LOI
- Inferred Mineral Resource Estimate of 81.4 Mt at 99.38% SiO_2, 0.09% Fe_2O_3, 0.15% TiO_2, 0.06% Al_2O_3 and 0.10% LOI
- Total Mineral Resource Estimate of 91.7 Mt at 99.36% SiO_2, 0.10% Fe_2O_3, 0.16% TiO_2, 0.06% Al_2O_3 and 0.09% LOI

The Western Resource Area has been broadly defined by drilling and the geological controls are reasonably well understood. The Project contains white, high purity silica sands (SiO_2 average: 99.36%) and low iron (Fe_2O_3 average: 0.10%). The high quality and its overall size and consistency, favourably ranks the Western Resource Area.

The extent and variability of the Maiden Mineral Resource Estimate is expressed in terms of the full Resource
Max Length (along strike): 8km

Max Length (along strike)	5.9km
Max width	5.8km
Mineral Resource Area	1,210ha (approximate)
Resource Thickness	Averages 5.8m (ranging up to 96m)
Top of Resource	17.5mRL to 96mRL (the top of the resource corresponds to the topography)
Bottom of Resource	17mRL to 37.7mRL (the base of the resource corresponds to water table / lack of drill holes / low silica grades at base of drilling)

The basement to the resource is defined predominantly by the water table and a lowering of silica grades (<98.5% SiO_2) at the completed depth of a number of drill holes. The water table appears domed, RL17m in the west and RL24.7m in the east with a height of RL37.7m near the centre. The domed zone in the Western Resource Area could represent a an impermeable basement high.

The dune systems need to be checked and tested in the interdune locations by drilling to assist better defining geological continuity and support potential upgrade areas.

The known nature and formation of the dune sands, together with consistent high silica grades achieved in drill holes, places a high degree of confidence in the geological interpretation. Continuity of geology (chip tray photographs) and grade (assays) can be readily identified and traced between all drill holes. The detailed topographic survey provides accuracy of the dunes undulating surface terrain. The interpreted geology of the Western Resource Area is relatively robust, and any alternative interpretation of the deposit is considered unlikely to have a significant influence on the Maiden Mineral Resource Estimate undertaken.

The high purity of the silica and the potential impact by trace elements (especially Fe_2O_3) demand that sampling and assaying protocols are continuously tested and reviewed where determined. The block model knowledge could be leveraged to further interrogate isolated drillhole and assay anomalies including high Fe_2O_3 and TiO_2 zones. Zones of suboptimal SiO_2 correspond with zones of higher Fe_2O_3 and TiO_2 in this Resource Area. Production should not be affected by these elements however further metallurgy testing is required to incorporate these zones where they fall outside the conventional 98.5% cut-off.

Recommendations

There is scope to increase the knowledge and understanding of the Western Resource Area by completing the following additional work:

- Undertake further scout level spacing (250m-400m) drilling in the centre of the WRA to join up the missing link and expand north into the wider dune field, potentially increasing total Resource tonnage.
- Undertake additional infill drilling and elevated dune drilling (from crest to groundwater table) to add additional confidence and coverage across the existing area. Potentially marginally increasing tonnage along with an upgrade to the Resource category.
- Conduct “certified” bulk density measurements within the WRA.
- Utilise a standard in sample submission such as the Oreas CRM ELIM22.
- Undertake additional twinning of holes to determine continuity of geological confidence and repeatability of drilling results.
- Undertake further targeted metallurgical testing to confirm if waste zones marginally below 98.5% SiO2 are able to be processed effectively.
- Conduct systematic application of check assays, potentially via bulk composites to be prepared and sent to ALS and BV.
- Petrography undertaken to confirm the composition of elevated TiO2 and Fe2O3 in lower SiO2 areas.
- Ensure sampling and assaying procedures are continuously reviewed and improved.

3.1 Drillhole Data of Drilling Program

Table 1: Tabulation of the material drill holes used in the MMRE

Hole ID	Easting	Northing	Collar RL	Hole depth	Sand resource thickness	SiO_2	Fe_2O3	TiO_2	Al_2O_3	LOI	Total
	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
AH002	8343083	305906	41	4	3.7	99.56	0.06	0.09	0.06	0.13	99.91
AH003	8343884	305359	30	1.5	0.7	99.29	0.14	0.32	0.08	0.07	100.05
AH004	8343720	305323	32	1.2	0.7	99.87	0.02	0.03	0.05	0.13	100.15
AH005	8343556	305487	32	1.5	0.7	99.96	0.02	0.03	0.04	0.18	100.30
AH006	8344010	304801	32	1	0.7	100.00	0.02	0.06	0.05	0.23	100.35
AH007	8344165	304823	31	1	0	99.46	0.03	0.07	0.06	0.20	99.87
AH008	8343133	304891	37	1.4	0.7	100.00	0.03	0.06	0.02	0.12	100.35
AH009	8342933	304932	37	1.8	0.7	99.63	0.02	0.04	0.07	0.11	99.92
AH010	8343088	305088	36	1	0	99.73	0.03	0.04	0.04	0.22	100.05
AH011	8342893	305379	36	1.6	0.7	99.46	0.12	0.27	0.09	0.25	100.25
AH012	8343639	304351	38	2.8	1.7	99.66	0.10	0.21	0.06	0.08	100.17
AH013	8343839	304279	37	1.2	0.3	100.00	0.04	0.08	0.05	0.09	100.35
AH014	8343840	304474	36	1.4	0.7	99.81	0.04	0.07	0.07	0.11	100.15
AH015	8343268	306289	28	1.5	0.7	99.25	0.05	0.17	0.05	0.22	99.82
AH016	8343400	306244	27	1.8	0.7	99.59	0.01	0.03	0.02	0.08	99.76
AH017	8344601	305466	28	2	0.7	99.83	0.04	0.08	0.13	0.12	100.20
AH018	8344617	305260	29	2	0.7	99.21	0.14	0.34	0.09	0.37	100.20
AH019	8344699	304919	28	0.5	0	99.44	0.01	0.02	0.03	0.08	99.60
AH020	8344479	304957	29	1	0	99.67	0.02	0.04	0.03	0.19	99.96
AH021	8344369	305109	30	1.5	0.7	99.31	0.06	0.13	0.07	0.13	99.74
AH022	8344313	305273	29	1.8	0.7	99.14	0.15	0.32	0.08	0.17	99.92
AH023	8344531	305123	29	0.5	0	99.08	0.06	0.11	0.06	0.07	99.43
AH024	8342604	304220	39	2.8	1.7	99.58	0.03	0.06	0.04	0.11	99.83
AH025	8342772	304232	38	2	0.7	100.00	0.02	0.03	0.03	0.06	100.30

Hole ID	Easting	Northing	Collar RL	Hole depth	Sand resource thickness	SiO_2	Fe₂O3	TiO_2	Al_2O_3	LOI	Total
	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
AH026	8342723	305318	36	1.8	0.7	99.37	0.12	0.20	0.09	0.15	100.05
AH027	8342626	304953	40	4	2.7	99.56	0.07	0.18	0.05	0.13	100.05
AH028	8342578	304681	37	1.8	0.7	99.57	0.01	0.03	0.02	0.05	99.72
AH029	8342682	304504	39	2	0.7	99.37	0.05	0.09	0.05	0.08	99.69
AH030	8343333	303800	39	2	1.7	99.91	0.04	0.08	0.06	0.02	100.15
AH031	8343315	304072	38	1.5	0.7	99.80	0.02	0.04	0.03	0.00	99.95
AH032	8342794	305657	34	1.2	0	98.50	0.02	0.04	0.06	0.69	99.37
AH033	8343105	303802	39	2	0.7	99.75	0.01	0.02	0.02	0.13	99.93
AH034	8342900	303290	39	3	1.7	99.50	0.08	0.15	0.06	0.12	99.94
AH035	8342960	303925	38	1.8	0.7	99.47	0.01	0.01	0.02	0.06	99.60
AH036	8342235	304484	37	1	0	99.50	0.05	0.09	0.05	0.31	100.00
AH037	8341947	304573	37	1.5	0.7	99.86	0.05	0.10	0.07	0.07	100.15
AH038	8342418	304168	42	2.5	1.7	99.61	0.03	0.05	0.04	0.10	99.85
AH039	8344410	306422	27	1.3	0.7	99.07	0.01	0.09	0.05	0.07	99.37
AH040	8344595	306305	26	1.3	0.7	98.98	0.02	0.13	0.04	0.12	99.37
AH041	8344878	306224	25	1.6	0.7	99.26	0.01	0.08	0.02	0.08	99.52
AH042	8345114	306426	23	1.3	0.7	99.28	0.02	0.13	0.03	0.28	99.83
AH043	8345226	306292	25	3	1.7	99.79	0.02	0.09	0.03	0.09	100.10
AH044	8345400	306427	20	1.3	0.7	99.95	0.04	0.10	0.05	0.11	100.25
AH045	8345367	306186	24	2	0.7	99.60	0.02	0.11	0.04	0.09	99.89
AH046	8343655	305047	34	1.8	0.7	99.82	0.04	0.11	0.05	0.15	100.20
AH22_0047	8343285	301831	28	5	4.7	99.47	0.19	0.15	0.04	-0.05	100.09
AH22_0048	8343407	301708	29	5	4.7	99.40	0.10	0.08	0.03	-0.02	99.84
AH22_0049	8343151	301695	27	3	2.7	99.21	0.13	0.18	0.07	0.05	100.01
AH22_0066	8343235	301714	26	2	0.7	99.45	0.14	0.10	0.01	-0.05	100.00
AH22_0067	8343348	301622	28	5	3.7	99.57	0.09	0.05	0.01	0.00	100.14
AH22_0068	8343152	301800	26	2	0.7	99.40	0.21	0.16	0.03	0.04	100.20
AH22_0069	8343081	301750	29	4.5	3.7	99.21	0.19	0.26	0.05	0.06	100.12

Hole ID	Easting	Northing	Collar RL	Hole depth	Sand resource thickness	SiO_2	Fe_2O3	TiO_2	Al_2O_3	LOI	Total
	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
AH22_0070	8342844	301911	27	2	0.7	99.41	0.16	0.15	0.02	-0.06	100.00
AH22_0071	8342629	302096	26	2	0.7	99.35	0.16	0.17	0.02	0.04	100.10
AH22_0072	8342740	301998	27	2.5	1.7	99.44	0.17	0.18	0.04	-0.04	100.10
AH22_0073	8342908	301854	31	4	2.7	99.29	0.16	0.20	0.03	0.03	100.08
AH22_0074	8342999	301804	27	3	1.7	99.30	0.20	0.28	0.03	0.05	100.27
AH22_0075	8343153	301933	26	3	1.7	99.55	0.11	0.07	0.01	-0.18	99.94
AH22_0076	8342999	301391	39	5	4.7	98.57	0.39	0.59	0.05	-0.02	100.01
AH22_0077	8343078	301373	44	5	4.7	99.34	0.25	0.33	0.05	-0.34	100.05
AH22_0078	8343073	301342	46	5	4.7	99.89	0.15	0.15	0.02	-0.40	100.14
AH22_0079	8343162	301471	33	5	4.7	98.98	0.37	0.55	0.06	-0.20	100.17
AH22_0080	8343026	301519	31	5	4.7	99.23	0.23	0.32	0.04	-0.11	100.12
AH22_0081	8343073	301575	30	5	4.7	98.85	0.35	0.46	0.05	0.11	100.24
AH22_0082	8342941	301614	29	5	4.7	98.88	0.28	0.38	0.04	0.24	100.22
AH22_0083	8343015	301646	31	5	4.7	98.46	0.44	0.64	0.06	0.18	100.22
AH22_0084	8342878	301700	34	5	4.7	98.42	0.38	0.58	0.07	0.28	100.11
AH22_0085	8342936	301744	38	5	4.7	98.99	0.17	0.24	0.04	-0.02	99.66
AH22_0086	8342817	301775	38	5	4.7	98.78	0.23	0.29	0.05	0.05	99.69
AH22_0087	8343266	301545	44	5	4.7	99.06	0.16	0.27	0.05	0.04	99.88
AH22_0088	8343382	303250	48	5	4.7	99.51	0.10	0.12	0.03	0.04	100.08
AH22_0089	8343405	303520	42	5	4.7	99.49	0.08	0.07	0.03	-0.01	99.92
AH22_0090	8343145	303393	41	5	4.7	99.17	0.10	0.15	0.04	0.00	99.75
AH22_0091	8343406	303767	56	5	4.7	99.27	0.20	0.25	0.04	0.01	100.06
AH22_0092	8343362	304049	45	5	4.7	99.13	0.22	0.11	0.04	0.04	99.93
AH22_0093	8343536	303894	50	5	4.7	99.38	0.19	0.08	0.04	-0.03	99.94
AH22_0094	8342914	304284	52	5	4.7	99.08	0.16	0.14	0.04	0.09	99.88
AH22_0095	8342687	305197	40	5	4.7	99.21	0.12	0.14	0.06	0.00	99.84
AH22_0096	8342978	305359	62	5	4.7	98.30	0.35	0.51	0.07	0.12	99.73
AH22_0101	8343166	305227	36	3	1.7	99.31	0.20	0.06	0.02	0.00	99.98

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AH22_0102	8343300	304825	80	5	4.7	98.30	0.60	0.78	0.08	-0.12	100.15
AH22_0103	8343050	304873	37	1	0	98.39	0.29	0.53	0.10	0.16	100.00
AH22_0104	8342984	305035	37	1	0	98.98	0.46	0.16	0.06	0.02	100.10
AH22_0105	8342713	305551	43	5	4.7	99.06	0.35	0.21	0.06	0.09	100.24
AH22_0106	8342215	304609	44	3	1.7	99.46	0.20	0.11	0.06	-0.09	100.20
AH22_0107	8342337	304648	41	5	4.7	99.62	0.26	0.12	0.04	-0.20	100.22
AH22_0108	8342475	304627	41	5	4.7	99.72	0.18	0.10	0.03	-0.53	99.89
AH22_0109	8342412	304339	47	4	4.7	98.48	0.28	0.14	0.04	0.40	99.79
AH22_0110	8342636	303963	50	5	4.7	98.64	0.21	0.10	0.04	0.48	99.82
AH22_0111	8343432	304807	39	3	1.7	98.82	0.20	0.19	0.06	0.30	99.96
AH22_0112	8343597	304594	46	5	4.7	99.17	0.15	0.14	0.05	0.13	99.92
AH22_0113	8343944	304203	70	5	4.7	98.23	0.58	0.73	0.09	0.12	100.18
AH22_0114	8343855	304113	50	5	4.7	99.02	0.23	0.15	0.04	-0.06	99.76
AH22_0115	8343609	304278	56	5	4.7	98.48	0.41	0.28	0.09	0.24	99.91
AH22_0116	8343931	304509	44	5	4.7	99.17	0.27	0.23	0.10	0.10	99.95
AH22_0117	8344015	304345	60	5	4.7	98.78	0.21	0.39	0.11	0.10	99.72
AH22_0118	8342424	304470	41	3.5	2.7	99.26	0.07	0.10	0.09	0.12	99.80
AH22_0119	8342599	304341	52	5	4.7	99.16	0.11	0.15	0.11	0.09	99.90
AH22_0120	8343042	304058	39	2	0.7	99.36	0.03	0.09	0.01	-0.06	99.80
AH22_0121	8343151	303961	45	5	4.7	99.35	0.07	0.13	0.01	-0.13	99.70
AH22_0122	8343595	301780	27	3	1.7	99.49	0.24	0.37	0.02	-0.33	100.03
AH22_0123	8343532	301938	26	1	0	98.80	0.14	0.19	0.04	0.38	99.83
AH22_0124	8343408	301939	25	1	0	98.78	0.09	0.18	0.02	0.18	99.74
AH22_0125	8343264	302009	26	1	0	98.90	0.26	0.41	0.04	0.19	100.10
AH22_0126	8343210	302193	28	3	1.7	99.23	0.10	0.15	0.02	0.07	99.84
AH22_0127	8343239	302346	30	4	1.7	99.84	0.14	0.15	0.01	-0.59	99.82
AH22_0128	8343211	302522	48	5	4.7	99.63	0.17	0.27	0.03	-0.41	99.94
AH22_0129	8343516	302534	29	2	0.7	99.39	0.07	0.15	0.04	-0.16	99.74

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AH22_0130	8343650	302369	29	2	0.7	99.55	0.04	0.11	0.03	-0.22	99.73
AH22_0131	8343456	302317	37	5	4.7	99.50	0.19	0.31	0.07	-0.28	99.99
AH22_0132	8343510	302127	29	3	1.7	99.62	0.11	0.14	0.04	-0.21	99.86
AH22_0133	8343754	302233	27	2	0.7	99.35	0.07	0.13	0.03	0.04	99.81
AH22_0134	8343865	302083	27	2	0.7	99.74	0.03	0.08	0.02	-0.29	99.76
AH22_0135	8343669	301931	28	3	1.7	99.79	0.20	0.11	0.03	-0.34	100.10
AH22_0136	8342579	302248	26	2	0.7	99.03	0.01	0.15	0.08	0.23	99.62
AH22_0137	8342746	302198	26	2	0.7	99.08	0.04	0.11	0.11	0.28	99.71
AH22_0138	8342748	302121	26	3	1.7	99.26	0.04	0.15	0.09	0.20	99.83
AH22_0139	8342850	302055	25	2	0.7	99.31	0.03	0.08	0.05	0.27	99.84
AH22_0140	8343012	301975	32	5	4.7	99.68	0.02	0.06	0.06	0.13	100.03
AH22_0141	8343039	302039	25	2	0.7	99.19	0.07	0.30	0.09	0.16	99.90
AH22_0142	8343053	302199	27	3	1.7	99.44	0.04	0.14	0.08	0.29	100.08
AH22_0143	8342814	303106	41	4	2.7	99.15	0.12	0.23	0.10	0.16	99.87
AH22_0144	8342757	303016	36	4	2.7	99.40	0.05	0.10	0.08	0.16	99.85
AH22_0145	8342869	302817	37	5	4.7	99.33	0.08	0.14	0.08	0.17	99.87
AH22_0146	8342961	302754	35	5	4.7	98.58	0.28	0.45	0.13	0.15	99.70
AH22_0147	8343136	302717	41	5	4.7	99.23	0.13	0.25	0.10	0.19	100.02
AH22_0148	8342814	302913	36	5	4.7	99.14	0.13	0.25	0.10	0.22	99.90
AH22_0149	8343239	302704	48	5	4.7	98.93	0.18	0.34	0.09	0.16	99.79
AH22_0150	8343160	302944	39	3	1.7	98.91	0.19	0.35	0.11	0.26	99.93
AH22_0151	8343355	302782	31	1	0	98.82	0.09	0.13	0.10	1.20	100.40
MA096	8342885	305390	36	2	0.7	99.21	0.11	0.22	0.10	0.72	100.40
PLT138	8342948	305840	37	6.4	5.7	99.06	0.23	0.42	0.11	0.19	100.12
PLT139	8343089	305686	37	6	4.7	99.48	0.20	0.36	0.10	0.15	100.44
PLT140	8343236	305530	40	9.5	8.7	99.34	0.17	0.29	0.09	0.17	100.17
PLT141	8343380	305370	40	8.5	7.7	99.60	0.09	0.15	0.07	0.15	100.14
PLT142	8343541	305235	37	6	4.7	99.21	0.14	0.26	0.08	0.23	100.07

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	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
PLT143	8343716	305125	40	8.8	7.7	99.76	0.05	0.08	0.04	0.15	100.19
PLT144	8343842	304955	41	9.5	8.7	99.84	0.06	0.10	0.05	0.15	100.24
PLT145	8343097	304393	40	5	4.7	99.69	0.08	0.13	0.05	0.21	100.21
PLT146	8343287	304474	43	7	5.7	99.52	0.10	0.17	0.06	0.16	100.06
PLT147	8343468	304510	42	6.5	5.7	99.48	0.08	0.16	0.06	0.17	100.04
PLT148	8343546	304294	41	5.5	4.7	99.75	0.07	0.15	0.06	0.17	100.27
PLT149	8343649	304098	46	10.5	9.7	99.71	0.06	0.12	0.06	0.10	100.11
PLT150	8343104	304167	39	2.5	1.7	99.41	0.10	0.18	0.06	0.13	99.95
PLT151	8342929	304537	42	5.5	4.7	99.38	0.13	0.23	0.08	0.13	100.07
PLT152	8342821	304705	40	4	2.7	99.29	0.14	0.25	0.07	0.19	100.01
PLT153	8342762	304955	41	4.8	3.7	99.50	0.12	0.22	0.06	0.17	100.14
PLT154	8345053	305357	22	4	2.7	99.77	0.02	0.09	0.04	0.07	100.01
PLT155	8344862	305441	27	4	2.7	99.44	0.09	0.25	0.06	0.12	100.05
PLT156	8344739	305598	27	4	2.7	99.49	0.06	0.24	0.11	0.16	100.11
PLT157	8344573	305644	38	13	11.7	99.65	0.10	0.17	0.07	0.08	100.15
PLT158	8344301	305501	38	12	10.7	99.45	0.13	0.24	0.07	0.10	100.08
PLT159	8344263	305661	34	9	7.7	99.45	0.05	0.10	0.06	0.13	99.84
PLT160	8344167	305433	40	13	11.7	99.63	0.07	0.10	0.07	0.12	100.04
PLT161	8344030	305477	32	6.6	5.7	99.63	0.03	0.07	0.05	0.11	99.93
PLT162	8344122	305609	32	6.5	5.7	99.56	0.05	0.12	0.07	0.14	100.03
PLT163	8344147	305272	34	7	5.7	99.60	0.07	0.13	0.08	0.09	100.04
PLT164	8344042	305090	34	6	5.7	99.44	0.05	0.11	0.07	0.18	99.89
PLT165	8341866	304563	53	18	16.7	99.36	0.14	0.19	0.13	0.08	99.97
PLT166	8342049	304422	51	15.5	14.7	99.34	0.13	0.17	0.13	0.09	99.92
PLT167	8342207	304301	51	15.5	14.7	99.32	0.11	0.16	0.11	0.13	99.87
PLT168	8342386	304139	60	24.5	23.7	99.17	0.14	0.20	0.12	0.09	99.77
PLT169	8342655	303924	52	16	14.7	99.69	0.05	0.05	0.05	0.13	100.03
PLT170	8342510	304025	53	17	15.7	99.41	0.11	0.15	0.09	0.10	99.91

Hole ID	Easting	Northing	Collar RL	Hole depth	Sand resource thickness	SiO_2	Fe2O3	TiO_2	Al_2O_3	LOI	Total
	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
PLT171	8341875	304696	49	14	12.7	99.60	0.08	0.13	0.07	0.10	100.03
PLT172	8341691	304729	45	9.5	8.7	99.64	0.06	0.10	0.06	0.12	100.03
PLT173	8341673	304934	48	14	12.7	99.55	0.05	0.08	0.05	0.17	99.93
PLT174	8342703	304041	46	10	8.7	99.57	0.07	0.12	0.06	0.12	99.98
PLT175	8342909	304016	42	7	5.7	99.70	0.03	0.05	0.06	0.12	100.01
PLT176	8343007	303920	46	10.5	9.7	99.52	0.03	0.05	0.05	0.15	99.87
PLT177	8344409	306292	27	2.5	1.7	99.10	0.02	0.19	0.05	0.14	99.59
PLT178	8344664	306062	31	10	8.7	99.54	0.02	0.05	0.04	0.20	99.90
PLT179	8344908	305928	28	8	6.7	99.56	0.01	0.04	0.03	0.10	99.80
PLT180	8345218	305699	29	9.5	8.7	99.60	0.02	0.05	0.04	0.08	99.83
PLT181	8345070	305675	27	8	6.7	99.57	0.02	0.05	0.04	0.16	99.91
PLT182	8345252	305520	25	7	5.7	99.61	0.02	0.05	0.06	0.07	99.85
PLT183	8345463	305387	30	12	10.7	99.50	0.02	0.05	0.04	0.10	99.75
PLT184	8345531	305245	25	8.5	7.7	99.78	0.01	0.04	0.03	0.09	100.05
PLT185	8345575	305416	29	11.5	10.7	99.84	0.01	0.03	0.03	0.06	100.05
PLT186	8345542	305594	21	1.8	0.7	99.64	0.02	0.08	0.05	0.27	100.10
PLT187	8345355	305651	25	6	4.7	99.66	0.02	0.05	0.02	0.13	99.96
PLT188	8345092	305863	28	8	6.7	99.60	0.02	0.06	0.03	0.12	99.91
PLT196	8343432	302483	37	9.8	8.7	99.01	0.15	0.23	0.08	0.09	99.64
PLT197	8343552	302314	41	14.8	13.7	98.54	0.26	0.42	0.09	0.10	99.51
PLT198	8343644	302165	43	18	16.7	98.71	0.24	0.39	0.09	0.13	99.66
PLT199	8343747	302023	43	19	17.7	98.50	0.27	0.46	0.08	0.12	99.57
PLT200	8343889	301823	45	22.5	21.7	99.07	0.12	0.19	0.08	0.10	99.60
PLT201	8344023	301652	43	21	19.7	99.16	0.11	0.17	0.07	0.06	99.62
PLT202	8344157	301534	39	17.8	16.7	99.10	0.11	0.19	0.07	0.09	99.62
PLT203	8344299	301416	37	16.8	15.7	98.96	0.14	0.24	0.07	0.10	99.58
PLT204	8344444	301236	45	25	23.7	99.21	0.14	0.23	0.07	0.09	99.85
PLT236	8344766	302399	46	15.4	14.7	99.18	0.08	0.14	0.06	0.11	99.63

Hole ID	Easting	Northing	Collar RL	Hole depth	Sand resource thickness	SiO_2	Fe_2O3	TiO_2	Al_2O_3	LOI	Total
	(m)	(m)	(m)	(m)	(m)	Average % (Note: drillholes exclude original top of hole assays, and a conservative approach was taken with water table intersection with the 'from' interval taken as the water table level, hence assay results appear for some 0m sand resource thickness).					
PLT237	8344592	302539	54	23.5	22.7	99.09	0.24	0.36	0.06	0.00	99.94
PLT238	8344519	302696	42	10	8.7	99.47	0.04	0.08	0.06	0.26	99.96
PLT239	8345499	301730	45	17.6	16.7	99.66	0.06	0.09	0.06	0.06	100.00
PLT240	8345662	301629	45	17.7	16.7	99.45	0.10	0.17	0.06	0.06	99.92
PLT241	8345824	301541	59	32.8	31.7	98.90	0.16	0.25	0.08	0.05	99.52

End Of Excerpt Report

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

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 was originally constructed, validated, and electronically provided by CSHPL to Ausrocks Pty Ltd. • Ausrocks reformatted the database into appropriate file formats checking the veracity of the assay results. The data was further validated and cross checked against the geological logs and the chip tray photographs. • Micromine 2024 validated the files which were used for the Mineral Resource Estimate.
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.	• The Competent Person completed a site visit to the Western Resource Area on 8 November 2023. The visit included vehicle and foot traverses of the WRA region and observing adjacent Resource drilling and track preparation activities. The visit also included the exploration camp and reviewing sample processing and storage facilities in Cooktown. A thorough understanding of the landform was obtained by undertaking the visit. • The Competent Person has also previously visited Cape Flattery/Cape Bedford area in October 2021 and has experience of the dunefield complex.
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 Western Resource Area has been broadly defined by drilling and the geological controls are reasonably well understood. • The known nature and formation of the dune sands, together with consistent high silica grades achieved in drill holes, places a high degree of confidence in the geological interpretation. Continuity of geology (chip tray photographs) and grade (assays) can be readily identified and traced between all drill holes.

Criteria	JORC Code explanation	Commentary
		• The interpreted geology of the Western Resource Area is relatively robust, and any alternative interpretation of the deposit is considered unlikely to have a significant influence on the total Mineral Resource Estimate undertaken. • No major factors affect continuity both of grade and geology. • Geological controls were applied to multiple cross and long sections to constrain the final resource wireframe. • Prior to interpolating and assigning assay values to each block, a solid was generated to model the overall deposit shape and volume by applying the following parameters: • Top surface - defined as the base of topsoil which is 0.3m below surface topography. • Bottom surface – a gridded surface based on drillhole depths, water table and geological interpreted boundary points. • Boundary – the resource boundary was defined by the following considerations: • Surface dune extents based on imagery and interpretation. • Geological interpretation of drill holes. • The area where the top and bottom surfaces intersected. • Area of influence around drill holes determined by confidence level. • Several iterations were run to cross check boundary sensitivities.
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 extent and variability of the Mineral Resource is expressed in terms of the full Resource Area • Max Length (along strike): 5.89km. • Max Width: 5.62km.

Criteria	JORC Code explanation	Commentary
		• Mineral Resource Area: Approximately 1210ha • Resource Thickness: Averages 11.7m (ranging up 98m). • Top of Resource: 22mRL to 98mRL (the top of the resource corresponds to the topography) • Bottom of Resource: 17mRL to 38.75mRL (the base of the resource corresponds to water table, and SiO_2 <98.5% at base of holes).
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • 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.	• Sample intervals have been collected at 1m throughout the drilling program. No sample bias based on the sample interval length. • Using Micromine 2024, Statistical and Geostatistical analyses was undertaken on silica (SiO2) and the key impurities (Fe_2O_3, TiO_2, LOI, and Al_2O_3) of the dataset. Assay methods also returned results for BaO, CaO, Cr_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SO_3, SrO, but they were not extensively examined due to their very low grades (at or near detection range). • All sample intervals underwent basic statistical analysis (minimum, maximum, mean etc.). All variables showed that there were no requirements for top or bottom cutting. • The raw data distribution for silica and the key impurities (Fe_2O_3, TiO2, Al_2O_3 and LOI) were analysed in detail and used in the block modelling. • Parent block sizing was chosen as 50mE x 50mN x 2mRL which was then sub-blocked to 5mE x 5mN x 1mRL. • The Inverse Distance Weighted (IDW) method was used to estimate the grades and populate the block model. • Each block within the blank block model was assigned values for SiO_2, Fe_2O_3, TiO_2, Al_2O_3 and LOI.

Criteria	JORC Code explanation	Commentary
		• Cross-sections throughout the block model were compared with the same sections through the drillhole data to showing that the modelling completed was indicative of the input data and the mineralisation. • Multiple cross section iterations were used to further define and constrain the model in between data points. • Swath plots were used to validate the interpolation technique to ensure accuracy. Swath plots compared the drillhole and block model with SiO_2 and Fe_2O_3 grades which showed sufficient spatial correlation between both modelled estimates and input drillhole grades.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• No moisture content testing has been conducted.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• A silica (SiO_2 %) grade cut-off was used to define the in-situ resource to achieve a marketable high purity silica sand. Geological logging and returned assay grades and intersections showed an obvious grade demarcation of resource versus waste at 98.5% SiO_2. This was further supported by statistical analysis and representation. Lengthy continuous vertical intervals of >98.5% SiO_2 was the norm, and these intervals were used for the modelling and Mineral Resource Estimate. The clear in-situ grade demarcation of >98.5% SiO2 persisted throughout the exploration program and across the whole of the Resource Area. • Only in a few rare drill holes did the resource intervals include intermediate sub-marginal silica grades, but these intervals were restricted to several vertical meters or less. Here the grades were >96.8% SiO_2 in any case. Consideration was given to the XRF method very marginally under-reporting silica grade resulting from the variability of Total results and possibly slightly overestimating iron (Fe_2O_3) grade, however no adjustments were made. • The surface to one (1) metre interval consistently returned a <98.5% silica assay and retuned higher than normal LOI. This logged interval included a thin average 0.3m

Criteria	JORC Code explanation	Commentary
		topsoil and recorded organic material which caused minor contamination. This one (1) metre interval was adjusted by adopting the succeeding one metre assay grade. A topsoil layer from surface (0.0m to 0.3m) was excluded from the Mineral Resource Estimate. • A silica grade cut-off of 98.5% SiO_2 is robust and was applied as the cut-off grade for the resource modelling and Maiden Mineral Resource Estimate. • Limitations with the XRF method also contribute to the cut-off grade as variability is the 'Total' result affects the SiO_2 percentage. CSHPL utilise "as received" analysis results and do not correct for Total.
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.	• Similar to nearby operations, it is expected that mining will be conducted directly from the face by a Wheel Loader and material will be transported to the processing plant via conveyor or slurry pipeline. This mining method is flexible and is considered suitable for the deposit and is not likely to unnecessarily constrain the Mineral Resources. • Dilution was not considered in the Mineral Resource Estimate. In some holes there were lenses of <98.5% silica which is slightly lower grade material but would only marginally dilute the product. Where it was determined that there was <98.5% at the end of the hole, it was omitted from the resource. • Based on the sample assays and geological logs, the top 0.3m of the deposit has been excluded from the Mineral Resource Estimate as it is assumed that this would be a soil and vegetation layer and would be scalped when mining the deposit and re-used for rehabilitation.
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	• Standard characterisations have been conducted on a silica sand sample from a previous project (Si2 Resource). The sample was brightly coloured white quartz, typical of most samples tested from the Cape Flattery region. The sample was a composite of intervals from PLT095M, PLT098M and PLT102M. • The sample produced a non-magnetic product with SiO_2 grades of 99.9% and Fe_2O_3 content of 120ppm. There was a minimal change in the Fe_2O_3 content between the

Criteria	JORC Code explanation	Commentary
	assumptions made.	attrition float and non-magnetic products. This suggests that magnetic separation was ineffective for further improving the silica sand purity. • Following the magnetic separation stage, a PSD was completed on the non-magnetic fractions. All the mass was contained in the 710+106µm size fraction. The largest mass fraction was contained in the -180+150µm fraction.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No consideration of waste processes (e.g., tailings) have been made for the Project at this stage. However, similar to nearby operations tailings are not likely to be a significant factor for eventual economic extraction. • No detailed assessments of environmental impact have been conducted at this stage, however QLD Globe mapping shows that the Project is predominantly surrounded by 'Least Concern' Regional Ecosystems. Where wetland areas have been identified they have been excluded from the Resource shape.
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.	• No bulk density measurements have been undertaken on site. • A material density of 1.6t/m^3 was used for the Maiden Mineral Resource Estimate. This is estimated based on density testing from elsewhere within the Cape Flattery/Cape Bedford dune field. A material density of 1.6t/m^3 falls within the range of typical silica sand deposits.
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	• The drill spacing along the dune traverse ranged from confirmatory level spacing (100m-250m) to a scout level spacing (250m-400m) ending in water table or the drilling extent of the drill rig. The level of accuracy with the surface data (LiDAR), drill spacing and interpreted geological continuity allowed two resource categories to be defined (Indicated and Inferred Mineral Resource). The majority portion of the Resource is now categorised as "Inferred".

Criteria	JORC Code explanation	Commentary
	Person's view of the deposit.	• The result accurately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Internal reviews were conducted on the Mineral Resource 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 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.	• It is the opinion of the Competent Person that the relative accuracy and confidence level across the reported geological intervals is adequate, given the drill density and continuity of geochemical samples. • The Resource boundary and the reported geological confidence intervals is relatively constrained based on the drill density. Further drill definition will better constrain dune sides/perimeters. • No production data is available at present as this is a Greenfields project. However, Cape Flattery Silica Mine lies in the same adjoining coastal dunes immediately to the Northeast, suggesting potential viability.