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The Company Announcements Office, ASX Limited

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Robe Mesa Iron Ore Project, Pilbara

Robe Mesa iron ore confirmed as suitable substitute for established iron ore brands

Highly successful tests show CZR's ore can readily replace Rio's Robe River and FMG's blended fines in Chinese steel mills, paving the way for CZR to source project funding

Highlights

- **Samples of the Robe Mesa Fines were assessed using laboratory scale sinter pot tests; Each sample replaced well-established Rio Tinto Robe River fines and FMG blended fines in standard Chinese steel mill sinter plant blends**
- **The sinter test work represented a range of product options from startup, potential low grade and life of mine Robe Mesa products; All showed excellent sinter characteristics**
- **The tests showed Robe Mesa iron ore can confidently be used in place of Robe River fines and FMG blended fines with little impact on overall sinter performance and metallurgical outcomes**
- **The results also highlight the potential to increase Ore Reserves with low-grade iron ore, stockpiled but not processed in the current mine plan**
- **The successful test work paves the way for CZR to source funding from strategic investors and iron ore market participants, with Robe Mesa iron ore in high demand**
- **Robe Mesa is strategically located immediately north of Rio's Mesa F iron ore project; CZR also owns the Robe Mesa South project immediately south of Mesa F**

CZR Resources Ltd (ASX: CZR) is pleased to announce another key milestone in the development of its Robe Mesa iron ore project, with pivotal tests showing iron ore produced from Robe Mesa can be used as a substitute for Rio Tinto and FMG iron ore in Chinese steel mills.

The results are considered extremely successful because they show that Robe Mesa iron ore is commercially valuable and therefore pave the way for CZR to source project funding to develop Robe Mesa.

Three composite samples were tested by the research and engineering division of the Shougang Group, China, representing the staged development at Robe Mesa. They also tested a lower-grade specification iron ore that is mined (as waste) but not currently included in the Robe Mesa Ore Reserve estimate.

The results demonstrate that Robe Mesa iron ore can replace well-established and sought-after Robe River Fines (Rio Tinto) and FMG Blended Fines and contribute up to 20% of a standard Chinese sinter blend.

CZR Managing Director Stefan Murphy said: "This is a hugely important outcome for CZR because it shows our ore can readily replace ore from FMG and Rio Tinto in standard Chinese steel mills.

"This means it is strategically and commercially valuable and will be highly sought after by steel mills and commodity traders.

"This strong demand outlook gives us a number of potential project funding options, including strategic investors and iron ore market participants.

"The results also show that our low-grade iron ore is a desirable product and we will now look to bring it into the Robe Mesa production plan and Ore Reserve estimate".

CZR recently announced a substantial increase in the Robe Mesa Ore Reserves to 27.3Mt, with an additional 3.4Mt of low-grade material (see ASX Announcement 8 May 2023). CZR will now optimise its Robe Mesa product offering based on the results of the sinter test work, to produce a long-term and viable substitute for well-known iron ore brands in the marketplace.

Test work Summary

CZR engaged the research and engineering division of the Shougang Group to perform a sinter testwork program for the Robe Mesa DFS and provide supporting product information to off-take partners, steel mills and financiers.

Rio Tinto's Robe River Fines and FMG Blended Fines were selected to be substituted on the basis of their chemistry and, in the case of the Robe River ores, mineralogical similarity to the Robe Mesa product. The Robe Mesa fines was added to the blend replacing the Robe River or FMG Blended ores in 5% increments until the Robe Mesa ore made up 20% of the total blend.

To ensure a thorough evaluation of the Robe Mesa product, three blended samples were produced. The basis and chemistry of these is shown in Table 1 and also shown for reference is the target grade for the Robe Mesa project and the chemistry of the two substitute ores.

Table 1: Robe Mesa sinter samples & Substitute Ores

Sample ID	Represents	Fe (%)	SiO2 (%)	Al2O3 (%)	P (%)	LOI (%)
ORE SPEC	Project product typical specification	55.5	6.4	2.9	0.038	10.9
SINT_01	Upper zone startup ore	55.9	5.9	2.7	0.037	11.4
SINT_02	Upper zone low grade option	54.0	7.9	3.2	0.039	11.3
SINT_03	LOM Upper and Lower blended ore	55.7	6.2	2.9	0.045	11.1
Robe River[1]	Rio Tinto Robe River Fines product	55.4	5.1	3.0	0.037	11.4
FMG Blend[1]	FMG Blended fines product	58.2	6.5	2.2	0.090	6.9

1. Product specifications of branded materials provided and tested by Shougang

All three Robe Mesa ("SINT") samples were found to sinter well in the selected blend with minimal impacts on sinter metallurgical properties at a wide range of substitution levels.

The sinter test work of the three composites, which represent a range of product options from startup, potential low grade and life of mine products all showed excellent sinter characteristics given their relatively high gangue content.

In summary, the Robe Mesa ores can confidently be used in place of the higher grade FMG blended fines with little impact on overall sinter performance and metallurgical outcomes and substitution of the Robe River fines can also be confidently achieved.

The test work also highlighted the relatively coarse nature of the Robe Mesa ores. This aspect is recommended for further work to investigate and optimise size distribution of the Robe Mesa fines product.

Sinter Tests

Shougang executed a number of benchmark tests to set the baseline in terms of sinter performance, fuel loading and feed moisture content. These baseline tests become the reference point for comparison when the blend substitution tests with the Robe Mesa ores are completed.

The benchmark conditions were selected for each replacement test and then each of the Robe Mesa samples was substituted into the blend by replacing a corresponding quantity of Robe River and FMG Blended fines. The Robe Mesa samples were stepped up from 5% to 20% in 5% increments.

SINT_01 Test Sample (startup specification)

SINT_01 was developed to assess the likely startup ore to be shipped from the project for the first 18 months when production is entirely from the upper zone.

The test work shows that a direct replacement of up to 10% Robe River fines or FMG Blended fines will be acceptable with minimal impact on the overall rates of production and sinter outputs. Substitution of Robe River fines or FMG Blended fines with the Robe Mesa fines (SINT_01 startup specification) at all levels has very little effect on the metallurgical properties of the resulting sinter.

SINT_02 Test Sample (low-grade specification)

SINT_02 was a dedicated low grade option to assess the sinter performance of this material in the event the mine plan and economic conditions allow for the processing of large stockpiles of this low-grade iron ore.

Whilst the SINT_02 low grade composite is not currently a planned product of the Robe Mesa project, the test work shows that this material could replace Robe River Fines at levels up to 10% in the blend tested with minimal impact on the sinter performance. The impacts on sinter metallurgical properties is marginal with a slight improvement seen in the sinter reduction degradation index (RDI).

The test work also shows that the SINT_02 could replace FMG Blended fines at levels up to 20% in the total blend (i.e. totally replace the FMG Blended fines) with only a small decrease in sinter productivity and little other impact on the overall performance of the sinter process, inclusive of resulting sinter metallurgical properties.

This is an excellent outcome for this low grade material and offers some potential to be explored with offtakers and steel mills.

SINT_03 Test Sample (standard specification)

SINT_03 was developed to represent the bulk of production from the Robe Mesa project. It is a blend of the upper and lower zones at target chemistry.

SINT_03 substitution of Robe River Fines up to 10% has very little impact on the overall performance of the sinter process and shows an improvement in the resulting sinter RDI with a small negative impact on the sinter reducibility index (RI) at high blend substitution rates.

SINT_03 can be used to replace FMG Blended fines at levels of 20% in the tested blend scenario (i.e. totally replace the FMG Blended fines) with little to no effect on the overall sintering process and resultant sinter metallurgical properties.

Differential Thermal Analysis

The analysis of the crystal water of the five iron ore fines shows that the decomposition temperature range of the crystal water of those iron ore fines is similar. This is as expected with ores containing a large amount of goethite. All five products can complete the decomposition of crystal water in the preheating section during sintering, so the crystal water decomposition process should not increase solid fuel consumption.

Particle Size Distribution

The three Robe Mesa samples were prepared in the laboratory using drill core as the sample source to produce a nominal 12mm iron ore fines product with around 5% +12mm. The resulting Robe Mesa blends had generally coarser particle size distributions than the substitute ores of Robe River and FMG blended fines.

Table 2: Particle Size Comparisons

Sample ID	>8mm	8 - 5mm	5 - 3mm	3 - 1mm	1 - 0.5mm	<0.5mm
	%	%	%	%	%	%
SINT_01	40.9	16.5	12.5	16.5	3.3	10.2
SINT_02	55.7	12.2	10.8	11.6	1.1	8.6
SINT_03	38.4	12.6	15.6	19.0	1.5	12.9
Robe River Fines	15.7	23.1	19.1	25.0	6.9	10.3
FMG Blended Fines	12.0	20.3	22.2	34.8	7.6	3.2

As a result of the sinter test work program, the target top size for Robe Mesa has now been amended to P85 8mm, reflecting the particle size distribution of the proposed substitute products of Robe River fines and FMG Blended fines. The top size of the Robe Mesa fines ores can be reduced with little to no impact on the broader project in the areas of process design and equipment selection. A reduction to a nominal 8mm top size is a relatively small change within the configuration of a Pilbara style iron ore direct shipping ore crushing and screening plant.

High Temperature Sintering Characteristics

The findings from the test work show there to be no concerns or adverse impacts attributable to the assimilation temperatures for the Robe Mesa samples, with Shougang noting “the minimum assimilation temperature of three iron ore fines from (Robe Mesa) is 1205℃, which is the same with Robe River fines and similar to FMG Blended fines (1215℃). Generally, all the five iron ore fines have excellent assimilation performance. The liquid phase fluidity for the three Robe Mesa samples shows relatively normal results according to Shougang.

This announcement is authorised for release to the market by the Board of Directors of CZR Resources Ltd.

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Forward Looking Statements

This announcement contains "forward-looking information" that is based on CZR's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the pre-feasibility study, CZR's business strategy, plan, development, objectives, performance, outlook, growth, cashflow, projections, targets and expectations, mineral resources, ore reserves, results of exploration and related expenses. Generally, this forward looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that CZR's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause CZR's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices and demand of iron and other metals; possible variations of ore grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list and the further risk factors detailed in the remainder of this announcement are not exhaustive of the factors that may affect or impact forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information. CZR disclaims any intent or obligations to revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law.

Statements regarding plans with respect to CZR's mineral properties may contain forward-looking statements in relation to future matters that can only be made where CZR has a reasonable basis for making those statements. Competent Person Statements regarding plans with respect to CZR's mineral properties are forward looking statements. There can be no assurance that CZR's plans for development of its mineral properties will proceed as expected. There can be no assurance that CZR will be able to confirm the presence of mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of CZR's mineral properties.

Competent Persons Statements

The information in this announcement that relates to exploration activities and exploration results is based on information compiled by Stefan Murphy (BSc), a Competent Person who is a Member of the Australian Institute of Geoscientists. Stefan Murphy is Managing Director of CZR Resources, holds options in the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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). Stefan Murphy has given his consent to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The scientific and technical information in this report that relates to process plant, metallurgy and metallurgical factors and assumptions is based on information reviewed by Aaron Debono of NeoMet Engineering who is a Fellow of the AusIMM. Mr Debono has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Debono has given his consent to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Appendix A– Robe Mesa Mineral Resource and Ore Reserves

Table A1. Robe Mesa Mineral Resource Estimate (CZR release to ASX; 12 December 2022)

Cut-Off Grade	Category	Tonnes Mt	Fe %	SiO2 %	Al2O3 %	P %	S %	LOI %	Fe_{ca} %
55% Fe	Indicated	36.0	56.0	5.9	2.8	0.04	0.02	10.6	62.7
	Inferred	9.2	56.1	5.6	2.7	0.04	0.02	10.8	62.9
	Total	**45.2**	**56.0**	**5.8**	**2.8**	**0.04**	**0.02**	**10.7**	**62.7**
50% Fe	Indicated	71.8	54.4	7.5	3.3	0.04	0.02	10.7	61.0
	Inferred	17.8	54.3	7.6	3.3	0.04	0.02	10.8	60.8
	Total	**89.6**	**54.4**	**7.5**	**3.3**	**0.04**	**0.02**	**10.8**	**61.0**

Table A2. Robe Mesa JORC 2012 Ore Reserve (CZR release to ASX; 8 May 2023).

Ore Reserve	Tonnes	Fe	SiO_2	Al_2O_3	P	S	LOI	Fe_{ca}
	Mt	%	%	%	%	%	%	%
Probable	27.3	55.5	6.4	2.9	0.038	0.02	10.9	62.2

Table A3. P529 (Robe Mesa South) JORC 2012 Inferred Mineral Resource reported above a 50% Fe cut-off grade (9 May 2017 ASX Announcement).

Category	Tonnes	Fe	SiO_2	Al_2O_3	P	S	LOI	Fe_{ca}
	Mt	%	%	%	%	%	%	%
Inferred	4.2	53.0	9.1	3.9	0.04	0.01	10.4	59.2

Table A4. Robe East JORC 2012 Inferred Mineral Resource estimate reported above a 50% Fe cut-off grade (CZR release to ASX; 26 April 2017).

Category	Tonnes	Fe	SiO_2	Al_2O_3	P	S	LOI	Fe_{ca}
	Mt	%	%	%	%	%	%	%
Inferred	4.6	51.8	9.7	3.8	0.1	0.02	10.9	58.2

Fe_{ca} is the calcined iron-content calculated as (Fe%/(100-LOI%))*100 *and represents the amount iron after the volatiles (mainly held as weakly bound water in the structure of the hydrous iron-rich minerals) is excluded from the analysis.*

Note: *CZR confirms that it is not aware of any new information or data that materially affects the information included in the CZR announcements to the ASX on 26 April 2017, 9 May 2017, 12 December 2022 and 8 May 2023 and, in the case of estimates of the Mineral Resources in Tables A1, A3, A4, and Ore Reserves in Table A2, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed*.