

THIS ANNOUNCEMENT CONTAINS INSIDE INFORMATION FOR THE PURPOSES OF THE MARKET ABUSE REGULATION (EU) NO. 596/2014 (INCLUDING AS IT FORMS PART OF THE LAWS OF ENGLAND AND WALES BY VIRTUE OF THE EUROPEAN UNION (WITHDRAWAL) ACT 2018 ("MAR")).

1 February 2024

Ferro-Alloy Resources Limited
("Ferro-Alloy" or the "Company")

Feasibility Study Update and Launch of Third Tranche of Exempt Offer Bond Programme

Ferro-Alloy Resources Limited (LSE:FAR), the vanadium producer and developer of the large high grade Balasausqandiq vanadium project (the "Project") in Southern Kazakhstan, announces a comprehensive update on the Project's current Feasibility Study. The Company has also launched a third tranche of bonds with a nominal value of US\$5 million under its existing exempt US\$20 million exempt offer bond programme (RNS 27 July 2023).

Project Feasibility Study Update

Summary

The following update summarises the work completed to date, outlines the ongoing work to be completed and sets out the associated timing for completion.

The main fieldwork for the study is now complete and the publication of the study is expected in early Q4 2024. The delay to the completion of the study is due to unforeseen increased time scheduling imposed by a lead technical consultant to the study with respect to the tailings facility design, as well as capacity constraints at sample testing laboratories, in particular those laboratories processing the samples taken for the geotechnical elements of the tailings facility and plant site investigation programme.

As previously announced, all drilling for the study has been completed, and the new mineral resource estimate for Ore-Body 1 ("OB1") showed a large increase in Indicated Mineral Resource to 32.9 million tonnes.

Similarly, all metallurgical test work has been completed with a metallurgical recovery of 87.3% with the potential to increase recovery to above 90% following optimisation post commissioning of Phase 1.

Mineral Resource Estimates

Ore-Body 1 (Phase 1)

Based on an additional 4,308 metres of diamond drilling, the new mineral resource estimate ("MRE") completed by SRK Consulting (Kazakhstan) Limited ("SRK") on OB1 represented a significant increase on the previous estimate contained in the Company's 2018 Competent Person's Report.

The new MRE, announced on 2 May 2023, was as follows:

Summary MRE Report for OB1 Resource. 30 April 2023. Cut off grade applied = 0.4% V ₂ O ₅										
CLASSIFICATION	WEATHERING	Mass Million tonnes	Average Value				Material Content			
			V ₂ O ₅ %	Mo %	U %	C %	V ₂ O ₅ tonnes	Mo tonnes	U tonnes	C tonnes
INDICATED RESOURCE	Oxide	1.56	0.67	0.0139	0.0047	7.16	10,560	216	73	112,151
	Transitional	1.25	0.66	0.0138	0.0045	7.17	8,260	172	56	89,869
	Fresh sulphide	30.08	0.61	0.0150	0.0052	8.82	184,814	4,523	1,554	2,655,454
	Total	32.89	0.62	0.0149	0.0051	8.68	203,634	4,911	1,683	2,857,473

Differences may occur in tables due to rounding.

Resource optimisation indicates that the whole of this ore-body has the potential to be economically exploited.

At the proposed Phase 1 mining rate of just over 1 million tonnes per year, this is expected (subject to finalisation of detailed mine planning) to be sufficient for over 30 years of processing operations. It may, therefore, prove to be sufficient a resource to justify the construction of an additional processing module as part of Phase 1 of the Project once the first module has been successfully commissioned and in advance of the construction of Phase 2 of the Project.

Ore-Bodies 2, 3 and 4 (Phase 2)

Although not needed for the feasibility study into Phase 1 of the Project, the Company has already completed an additional drilling programme to determine a resource estimate for Ore-Bodies 2, 3 and 4 (“OB2, 3 and 4”). The purpose of this additional resource drilling was to enable preliminary planning for Phase 2 of the Project. Phase 2 is expected to lead to an additional three million tonnes of ore being mined and treated per year with the aim of expanding total production to more than 22,400 tonnes per annum of vanadium pentoxide. As a result, an additional 60 million tonnes of ore are targeted for definition, supporting a Phase 2 life of mine of 20 years. There remain a further three ore-bodies for future exploration.

In total, 15,614 metres of drilling has been completed, covering around 70% – 75% of the planned total area for OB2, 3 and 4. This area is expected to yield sufficient ore to support the targeted life of mine for Phase 2.

The samples from this expanded drilling programme are scheduled for preparation by SGS Kazakhstan in March 2024 for assay and will then be sent to Intertek Genalysis in Australia for assaying. Semi-quantitative grade estimation carried out by Company geologists using X-ray fluorescence has indicated that (subject to confirmation by more accurate assaying and resource estimation / mine planning) the drilling already carried out could yield more than the required tonnage for the planned Phase 2 of the Project. We plan to announce the results of this resource definition work in conjunction with the Phase 1 feasibility study results.

Phase 1 Second module

The mineral resource estimate for OB1 of over 30 million tonnes together with the further tonnages expected to be estimated in OB2, 3 and 4, allow for the early consideration of an additional module identical to the currently planned module for Phase 1, treating an additional 1.1 million tonnes per year of ore, and the already envisaged Phase 2, treating an additional three million tonnes per year.

Whilst there are certain aspects of these downstream projects that cannot be studied to feasibility study level in advance, the Company plans to incorporate these projects into the Phase 1 study but at a lower level of confidence than full feasibility study standard.

OB2, 3 and 4 represent a continuation of the same mineralisation as OB1 so the metallurgical treatment process is likely to be the same, subject to any natural variations in the ore. The proximity of OB2, 3 and 4 to OB1 makes it likely that there will be some shared infrastructure. A great deal of information will, therefore, be known about these projects, sufficient to allow an estimation of their likely economic costs and value.

Metallurgy

Vanadium

The Company successfully tested the vanadium extraction potential and operating methods to separate a saleable vanadium product from the deposit's black shale mineralisation at the site pilot test plant in 2015. These processes do not require the concentration and high-temperature roasting commonly used in other vanadium deposits. Tetra Tech Limited ("Tetra Tech") were subsequently appointed as consultants to design a programme to independently validate this process while SGS Canada Inc ("SGS") were contracted concurrently to complete the required laboratory testing.

A bulk sample of black shale mineralisation from OB1 was tested at SGS during 2022/23 as well as additional samples from different sections of OB1 to understand the variability across the ore-body.

The stages tested included crushing, grinding, leaching, filtration, precipitation, ion exchange and vanadium product recovery.

The SGS test work is now complete, and the results were in line with expectations. Following engineering estimates and scale up considerations by Tetra Tech based on the SGS test work results, an overall metallurgical recovery of 87.3% is expected from the ore with a good vanadium pentoxide product quality. This recovery is significantly higher than the 75% - 80% normally recovered from the more commonly occurring vanadium-containing titaniferous magnetite ores. The Company believes that, on commissioning, and with further operational optimisation there is the potential to increase the percentage of vanadium recovered to above 90%. Some additional test work may also be commissioned to investigate the production of higher quality niche vanadium products but these are not required for completion of the feasibility study.

At the planned treatment rate of 1.1 million tonnes of ore, including dilution, per year, this is likely to yield annual production of circa 5,600 tonnes of vanadium pentoxide flake. This production volume is subject to detailed calculation of mining dilution and scheduling as part of the mine planning process. Additional mine modelling will be undertaken which may lead to higher vanadium grades in the early years of mining.

In addition to vanadium pentoxide, saleable quantities of molybdenum and uranium will be recovered for sale, and further treatment of the vanadium leach residue will recover the carbon by-product as described below.

Equipment specification, costings and plant layout optimisation are ongoing, with Tetra Tech expecting to complete this work during Q2 2024.

Molybdenum and uranium

The Company expects to sell uranium and molybdenum recovered from its metallurgical process to the Kazakhstan state monopoly uranium producer (KazAtomProm) but is permitted to sell to other customers if more attractive commercial terms can be obtained. Production volumes of molybdenum and uranium are subject to final mine planning.

Carbon

The ore contains nearly 9% carbon, with grades correlating quite strongly with the vanadium grade. This carbon material passes through the leaching circuit, together with a high silica content, to final tailings.

The Company has been testing two main uses for this potentially valuable material: as the raw material to be sold to smelters for the production of ferrosilicon, or as an additive used in place of carbon black in the making of rubber.

Ferrosilicon briquettes

The Company has tested the creation of briquettes from the whole tailings product (without concentration), and the use of those briquettes in smelting to make ferrosilicon. Ferrosilicon is usually made by smelting a mix of silica, obtained from mining, and carbon in various forms. The briquettes will substitute for the whole of the silica required, and part of the carbon. Test work showed that good quality ferrosilicon can be made from this material and study work is now in process to determine the likely size of the market, logistics requirements, product pricing and end use customers.

Carbon black

Carbon black is a high-value form of carbon, used in the making of rubber, particularly tyres. It is usually made by burning hydrocarbons in a depleted oxygen atmosphere. Early work determined that the tailings from the Company's production of vanadium, after concentration to around 40% carbon, has the potential to be used in partial substitution for carbon black in the making of rubber generally, but particularly in the making of tyre side walls, with the Company's product substituting for a part of the commercial grade of carbon black N660.

A test programme has demonstrated that a simple flotation method can be used to concentrate the carbon grade to the required 40%. Early test work on the use of the concentrate in making rubber has been encouraging, and a further comprehensive programme is being undertaken to determine the characteristics and performance of the resulting rubber in various formulations and at various rates of substitution, aiming to provide sufficient information to allow marketing of the product to begin.

The Company is working with the National Engineering Academy of the Republic of Kazakhstan on a technological project covering the industrial production and usage of carbon-silica fillers in the making of rubber. The aim of the project is to construct a pilot plant, substantially funded by government grants, on the Company's existing processing site to concentrate the Company's carbon tailings to provide over 10 tonnes of carbon-silica concentrate per month for testing and marketing. Although the exact timing is not currently known, the expectation is that construction of the new pilot plant will be completed around the end of 2024 or early 2025, allowing test marketing and offtake negotiations for the product well in advance of the commissioning of the first Phase 1 module.

Hydrogeological study

A hydrogeological study to assess water flows and water pressures inside the pit walls is well underway and will be concluded in conjunction with the upcoming SRK mine planning study.

Mine planning

Resource level optimisation has so far indicated that the whole of OB1 can be economically mined and the next stage is detailed mine planning and scheduling.

Process water

A site for the extraction of water from underground has been located and extraction rights have been secured. Although historic records show adequate supplies, a test programme has been started to ensure that no changes of the aquifer characteristics have occurred over time. The drilling of a test-borehole has been completed and pump testing has commenced.

Power

In 2021, the Company connected to a nearby 110kV powerline and is currently able to take up to three MW. Although subject to more exact estimation as the design work progresses, the current expectation is for a requirement of up to 15 MW of electrical power for the mine plant. The current line and connection can, with little modification, supply up to this level and negotiations are ongoing with the line's owners to confirm this availability.

The Company plans to install a sulphuric acid plant at the mine site to guarantee supply of this reagent to the plant. As a by-product of this operation, the process will emit around 6 MW of power in the form of heat which will be used in the metallurgical process. This power is produced without significant CO₂ emissions.

Tailings facility

To the extent that the tailings may be made into briquettes and sold for smelting to make ferrosilicon, tailings storage may not be required. If the carbon-rich tailings are concentrated, the carbon-depleted remainder will be stored in a tailings storage facility.

Geotechnical drilling of 1,254 metres at the proposed site have been completed. The schedule for completion of the design of the tailings storage facility has been delayed by a lead technical consultant to the study, partly due to their own scheduling requirements and partly due to capacity constraints at the sample testing laboratories processing the samples taken from the geotechnical drilling.

Feasibility Study completion

The feasibility study is progressing to plan from an engineering perspective, although there have been significant impacts to the schedule. The study is expected to be published in early Q4 2024 as a result of the delays noted above.

Exempt Offer bond programme

On 30 January 2024, the Company listed a third tranche of bonds (“Third Tranche”), with a nominal value of US\$5 million under the Company’s existing exempt offer bond programme in Kazakhstan.

The proceeds from the sale of the Third Tranche will be used to continue the development of the Balasausqandiq project, including front-end engineering.

A summary of the terms and conditions of the Third Tranche is as follows:

- ISIN: KZX000001946
- Specified currency: US Dollars
- Face value: US\$100 (one hundred US dollars)
- Number of bonds: 50,000 (fifty thousand) units
- Total nominal amount of the bonds: US\$5,000,000 (five million US dollars)
- Issue date: 30 January 2024
- Last date of the circulation period: 30 July 2026
- Maturity date: 30 July 2026
- Coupon rate: 11.0% fixed of the nominal value of the bonds issued
- Frequency of interest payments: quarterly, 30 April, 30 July, 30 October and 30 January of each year during the circulation period, commencing on 30 April 2024
- Coupon basis: 30/360

Trading of the Third Tranche commenced on 31 January 2024.

For further information, visit www.ferro-alloy.com or contact:

Ferro-Alloy Resources Limited	Nick Bridgen (CEO) / William Callewaert (CFO)	info@ferro-alloy.com
Shore Capital (Joint Corporate Broker)	Toby Gibbs/Lucy Bowden	+44 207 408 4090
Liberum Capital Limited (Joint Corporate Broker)	Scott Mathieson/John More	+44 20 3100 2000
St Brides Partners Limited (Financial PR & IR Adviser)	Ana Ribeiro / Zoe Briggs	+44 207 236 1177
Freedom Finance Global PLC (Bond Underwriter)	Renat Syzdykov	+7 701 766 4865 / ib@ffin.kz

About Ferro-Alloy Resources Limited:

The Company's operations are all located at the Balasausqandiq deposit in Kyzylordinskoye Oblast in the South of Kazakhstan. Currently the Company has two main business activities:

- a) the high grade Balasausqandiq vanadium Project; and
- b) an existing vanadium concentrate processing operation (the "Existing Operation")

Balasausqandiq is a very large deposit, with vanadium as the principal product together with several by-products. Owing to the nature of the ore, the capital and operating costs of development are very much lower than for other vanadium projects.

The most recent mineral resource estimate for Ore-Body One (of seven) provided an Indicated Mineral Resource of 32.9 million tonnes at a mean grade of 0.62% V_2O_5 equating to 203,364 contained tonnes of vanadium pentoxide. In the system of reserve estimation used in Kazakhstan the reserves are estimated to be over 70m tonnes in ore-bodies 1 to 5 but this does not include the full depth of ore-bodies 2 to 5 or the remaining ore-bodies which remain substantially unexplored.

The Project will be developed in two stages, Stage 1 and Stage 2, treating 1m tonnes per year and an additional 3m tonnes per year. Production will be some 5,600 tonnes of V_2O_5 from Stage 1, rising to 22,400 tonnes V_2O_5 after Stage 2 is commissioned.

There is an existing concentrate processing operation at the site of the Balasausqandiq deposit. The production facilities were originally created from a 15,000 tonnes per year pilot plant which was then expanded and adapted to recover vanadium, molybdenum and nickel from purchased concentrates.

The existing operation is located on the same site and uses some of the same infrastructure as the Project, but is a separate operation which will continue in parallel with the development and operation of the Project.