11 September 2023

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

2023 Interim Results

Ferro-Alloy Resources Limited (LSE:FAR), the vanadium producer and developer of the large Balasausqandiq vanadium deposit in Southern Kazakhstan, is pleased to announce its interim results for the six months ended 30 June 2023.

Overview

Feasibility Study

- Feasibility study ongoing with completion of Stage 1 of the study expected in April 2024 and Stage 2 later in 2024:
    - Ore resource for ore-body 1 was revised upwards during the period by SRK Consulting (Kazakhstan) to 32.9m tonnes at a mean grade of 0.62%, giving an increase of 35.4% in the resource and 23% in contained V_2O_5.
    - Drilling of ore-bodies 2, 3 and 4 has been completed with the exception of an area which is difficult to access. The Company is awaiting assays for these ore-bodies which are expected to provide the feed for the larger Stage 2 development of the deposit.
    - Metallurgical test-work is nearing completion.

Operations

- Final planned improvements completed at the Existing Operation (where the Group processes secondary materials and recovers the contained vanadium, molybdenum and nickel for sale to third parties) including:
    - The conversion of the fuel used for the various roasting ovens from diesel to natural gas.
    - A further press filter and tanks to allow a second pulpation process to give a further recovery of vanadium.
    - A further press filter and tanks to allow for recrystallisation of ammonium metavanadate, an essential step in producing a high purity product as required for electrolyte purposes.
    - Improved molybdenum processes to increase recovery to around 90% depending on the raw-material treated.
    - Various additional equipment to contain production emissions.

- Following poor availability of concentrate supply in Q1, Q2 achieved best production by the Group to date in terms of both tonnes of concentrates treated and tonnes of metal recovered across all product lines, however, H1 production constrained by a lack of raw materials caused by continuing defaults of certain of the Group's suppliers.

- The Group has subsequently made changes to suppliers and has secured future deliveries to allow full production from mid-late September 2023.

Financial

- Total revenues of US$3.3m for the period (H1 2022: US$3.9m) reflecting the reduced volumes of raw materials delivered to the existing plant for processing during the first quarter of the year.
- Overall loss for the period of US$1.5m (2022: loss of US$0.7m).

Corporate

- Post period, launched the first tranche of a new Kazakhstan exempt offer bond programme in July 2023. The proceeds of the Programme will be used to strengthen the Company's balance sheet and provide working capital, allowing the acceleration of the project's development as far as possible.

Commenting on the interim financial results, Nick Bridgen, CEO of Ferro-Alloy Resources said:

"I am pleased to report the good progress with the feasibility study. With the completion of the expansion of the existing process plant, and the improved raw-material supply position, I look forward to much better operational performance from the fourth quarter of this year onwards."

- Ends -

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

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Operations Review

Balasausqandiq feasibility study

The Company is currently undertaking a comprehensive bankable feasibility study on the Balasausqandiq project, with completion of Stage 1 of the study expected in April 2024 and Stage 2 later in the year. Although a full mineral resource estimate has only been completed for ore-body 1 ("OB1"), indications are that Balasausqandiq will be one of the largest vanadium operations in the world.

The ore resource for OB1 was revised upwards during the period by SRK Consulting (Kazakhstan) Limited, the author of the feasibility study, to 32.9m tonnes at a mean grade of 0.62%, giving an increase of 35.4% in the resource and 23% in contained V_2O_5.

The drilling of ore-bodies 2, 3 and 4 has been completed with the exception of an area which is difficult to access. This is planned to be drilled closer to the time of mining when access has been developed. The Company is awaiting assays for these ore-bodies which are expected to provide the feed for the larger Stage 2 development of the deposit.

The metallurgical test-work is nearing completion. The Company's metallurgical process was previously tested in a pilot plant and the process parameters are now being rigorously tested in independent laboratory conditions by SGS Canada Inc under the direction of Tetra Tech Limited, who are carrying out the metallurgical section of the feasibility study.

Other parts of the study are also nearing completion and the overall study for Stage 1 is expected to be announced in April 2024, as noted above.

The existing operation

The existing operation was developed from the original 15,000 tonnes per year ore-treatment test plant which was used to develop and pilot the proposed treatment process of the Balasausqandiq ore. The plant was subsequently adapted to treat purchased concentrates. The most common raw material is the loaded catalysts used in refineries to remove the metal impurities from crude oil. The Group buys these secondary materials and recovers the contained vanadium, molybdenum and nickel for sale to third parties.

During the first half of 2023, the final planned improvements were made to the plant, including:

1. The conversion of the fuel used for the various roasting ovens from diesel to natural gas;
2. A further press filter and tanks to allow a second pulpation process to give a further recovery of vanadium, taking the average overall recovery of vanadium from catalysts treated to over 90%;
3. A further press filter and tanks to allow for recrystallisation of ammonium metavanadate ("AMV"), an essential step in producing a high purity product as required for electrolyte purposes;
4. Improved molybdenum processes to increase recovery to around 90% depending on the raw material treated; and
5. Various additional equipment to contain production emissions.

The Group received grant funding from the Kazakhstan National Scientific Council to develop the process and install equipment for the production of various oxides of vanadium suitable for use in electrolyte for vanadium redox flow batteries. The development work is in association with the Physical-Technical Institute of Almaty (part of the Satbayev University) who are building a laboratory in which a battery will be installed and electrolyte produced from the Group's oxides for test purposes.

Production

The second quarter of the year achieved the best production by the Group to date in terms of both tonnes of concentrates treated and tonnes of metal recovered across all product lines.

By comparison, production for the first quarter of the year was severely constrained by the availability of concentrate supply to the existing plant and is reflected in the corresponding production figures.

	2023	2022	**2023**	2022	**2023**	2022
Quarter	**Tonnes of vanadium pentoxide***	Tonnes of vanadium pentoxide*	**Tonnes of molybdenum****	Tonnes of molybdenum**	**Tonnes of nickel*****	Tonnes of nickel***
Q1	**31.3**	81.1	**6.5**	11.3	**9.7**	25.1
Q2	**141.4**	91.7	**14.1**	10.4	**50.8**	32.2
H1	**172.7**	172.8	**20.6**	**21.7**	**60.5**	**57.3**

* contained in AMV
** contained in ferro-molybdenum
*** contained in nickel concentrate

Outlook

The first half of 2023's output was constrained by a lack of raw materials, caused by continuing defaults of certain of the Group's suppliers. The Group responded by signing several new long-term and spot supply contracts but further delays to delivery were experienced. In response, the Group has made yet further changes to its suppliers and signed new contracts to secure future deliveries. The indications are that more material is being offered to the Group, allowing the Group to select the more reliable counterparties. Despite these setbacks, sufficient volumes of raw materials have been purchased and are en route to the Group's plant site to allow full production from mid to late September. Winter transport delays may impact on winter deliveries, albeit to a lesser extent than previously experienced.

Corporate

The Company's previously issued and outstanding bonds, amounting to US$1.1m at 31 December 2022, were redeemed at maturity during March 2023.

Subsequently, the Company launched a new Kazakhstan US$20m exempt offer bond programme ("the Programme") in July 2023. Cash proceeds generated by the Programme will be used, in general, to strengthen the Company's balance sheet and provide working capital for the existing operation.

The key features of the Programme are as follows:

- the Programme can comprise of one or more tranches of bonds, each listed on the Astana International Exchange ("AIX");
- the total nominal value of all tranches issued under Programme will not exceed US$20m;
- only accredited investors resident in Kazakhstan will be eligible to invest in the Programme;
- bonds issued under the Programme will be denominated in either US dollars or Kazakhstan tenge;
- all bonds issued will rank as unsecured debt obligations of the Company;
- the applicable coupon rate, duration, issue price and other relevant terms of any bonds issued under the Programme will be defined and determined by the terms and conditions of each tranche of bonds issued; and
- the Programme is governed by the laws and regulations of the Astana International Finance Centre and is valid until 31 July 2033.

Following the launch of the Programme, the Company listed the first tranche of bonds on the AIX on 27 July 2023 with the ability to raise an initial US$3 million. As at the date of this report, the first tranche of bonds has been materially sold and the cash proceeds received.

The Company is preparing to list a second tranche of bonds on the AIX during the course of September / October with the ability to raise a further US$5 million. The cash proceeds from the second tranche will be deployed to accelerate the development of the project, including front-end engineering.

Product prices in the period

Vanadium pentoxide

At the start of 2023, the price of vanadium pentoxide was around US$9.30/lb, rising slightly to between US$10.00/lb and US$10.50/lb for the period January to March inclusive, after which the price dropped to US$6.85/lb during June before recovering to around US$7.50/lb at the period end.

Ferro-molybdenum

At the start of 2023, the price of ferro-molybdenum was around US$79/kg rising sharply to a period high of US$101/kg in February before gradually falling to a period low of US$42/kg in April, after which prices stabilised at around US$50/kg for the balance of the period.

Earnings and cash flow

The Group generated total revenues of US$3.3m for the period (H1 2022: US$3.9m). The reduction in revenue reflects the reduced volumes of raw materials delivered to the existing plant for processing during the first quarter of the year.

The cost of sales for the period under review was US$3.6m in line with the first six months of 2022 (US$3.5m).

Administrative expenses for the period were US$1.3m (2022: US$1.2m).

The Group made a loss before and after tax of US$1.5m (2022: loss of US$0.7m).

Net cash outflows used in operating activities were US$1m (2022: cash outflow of US$0.5m). Net cash used in investing activities during the period was US$2.3m, an increase of US$0.6m in comparison to the prior period, reflecting the Group's continued investment in the Balasausqandiq feasibility study and planned upgrades to the plant at the existing processing operation. Net cash used in financing activities increased by US$1.1m between the periods due to the maturity and repayment of the Company's outstanding bonds in issue during March 2023.

Balance sheet review

At the period end, non-current assets totalled US$11.9m (2022: US$8.0m) reflecting the continued capitalisation of expenses incurred by the Group on the development of the Balasausqandiq feasibility study (as an exploration and evaluation asset) and capital additions made to the plant at the existing processing operation.

Current assets, excluding cash balances, totalled US$5.0m at the period end compared to US$4.8m for the prior period.

The Group held an aggregate cash balance of US$0.6m at the period end (2022: US$0.5m). As at the date of this report, the Group held an aggregate cash balance of US$1.8m.

The Group did not hold any significant or material non-current liabilities at the period end.

With respect to current liabilities, the reduction in the overall balance from US$4.2m at 30 June 2022 to US$3.0m at the period end can be attributed, in the main, to the repayment of the Company's outstanding bonds.

Environmental, social and governance

Both the existing operation and the planned process plant for Balasausqandiq will have a strongly positive environmental impact. The vanadium from production will benefit energy storage in both vanadium redox flow batteries, the front-running technology for fixed ground long-term energy storage, but also potentially in certain technologies for mobile batteries used in electric vehicles.

Furthermore, in both operations we are aiming to leave little or no residues from processing operations, since all the components of the ore are potentially useful. The CO_2 emissions created by our production at Balasausqandiq are expected to be a fraction of most other producers which generally require concentration and high-temperature roasting to liberate the vanadium. The carbon concentrate which we plan to market as a replacement for carbon black is produced without burning hydrocarbons, as is the usual production process.

Description of principal risks, uncertainties and how they are managed

(a) Current processing operations

Current processing operations make up a small part of the Company's expected future value but are expected to provide useful cash flows in the near term and allow the Group to gain valuable experience of the vanadium industry. The principal risks of this operation are the prices of its products (vanadium, molybdenum and nickel), availability of vanadium bearing concentrates and the efficiency of recovery of products from those concentrates.

The Group is constantly reviewing the market opportunities for supplies of vanadium bearing concentrates. The Group aims to extract all the useful components of the raw materials so that no residues remain on site and so maximum value is obtained from each tonne treated. By this means, we aim to be one of the most efficient and lowest cost secondary vanadium treatment plants so that our competitive position reduces the danger of high prices for raw materials making the operation uneconomic.

(b) Balasausqandiq project

The Balasausqandiq project is a much larger contributor to the Company's value than the current processing operation and is primarily dependent on long-term vanadium prices.

The project is dependent on raising finance to meet projected capital costs (see below) and the successful construction and commissioning of the project's proposed mine processing facilities. It is not unusual for new mining projects to experience unforeseen problems, incur unexpected costs and be exposed to delays during construction, commissioning, and initial production, all of which could have a material adverse effect on the Company's operations and financial position. The Company has taken steps to mitigate such potential adverse effects by engaging globally recognised engineers and consultants to assist with the development and design of the key elements of the project in addition to the Group's own highly qualified workforce.

(c) Geopolitical situation

The Directors remain vigilant of the situation created by the ongoing invasion of Ukraine by Russia. The continued main risk of the conflict is to the Group's transport routes, many of which involve transit through Russia. Whilst these are currently operating without issue, sanctions have been made against Russian and Belorussian vehicles transiting through Europe (but not against vehicles registered in other jurisdictions in the region such as Kazakhstan). There is a risk that further sanctions might prevent transit through Russia. The Company continues to review alternative transit routes for raw material imports and product exports through the West of Kazakhstan, either via the Caspian Sea or overland south of the Caspian Sea. Routes to China are working normally.

With respect to the global sanctions imposed on certain Russian entities and individuals, the Group monitors the implications of those sanctions on the Group's trading activities on an ongoing basis.

(d) Financing risk

The Balasausqandiq project will require substantial funds to be raised in debt and possibly further equity which will be dependent upon market conditions at the time and the successful completion of the Stage 1 feasibility study.

The existing operation is fully developed and operating well and, subject to the uncertainty over vanadium bearing concentrate availability, prices and costs, is forecast to make profits going forward.

In March of 2021 the Company signed an investment agreement with Vision Blue Resources Limited ("Vision Blue"). Under the terms of this agreement and in addition to Vision Blue's participation in the 2022 equity fundraise, investments totalling US$14.3m have already been made and Vision Blue has the right to subscribe a further US$2.5m at the original deal price of 9 pence per share at any time up to two months after the announcement of the Stage 1 feasibility study. Vision Blue also has further options to subscribe up to US$30m at higher prices to partially finance the construction of the Balasausqandiq project.

The favourable financial and other characteristics of the project determined by studies so far completed give the Directors confidence that the outcome of the Stage 1 feasibility study will be successful. Initial discussions with potential providers of debt finance have been encouraging.

(e) Climate change risk

The Group has not identified any particular climate change related scenarios that would likely have a significant impact on the Balasausqandiq project or the existing operation. The existing operation already functions in an environment that is subject to extreme weather conditions and is, therefore, considered to have a strong resilience to existing and future climate-related scenarios.

(f) Risks associated with the developing nature of the Kazakh economy

According to the World Bank, Kazakhstan has transitioned from lower-middle-income to upper-middle-income status in less than two decades. Kazakhstan's regulatory environment has similarly developed and the Company believes that the period of rapid change and high risk is coming to an end. Nevertheless, the economic and social regulatory environment continues to develop and there remain some areas where regulatory risk is greater than in developed economies.

(g) Commodity price risk

As already noted above, the success of the Company is dependent upon the long-term prices of the products to be produced by the planned mine processing facilities. As a result of there being no formally established trading markets for the Company's principal products from the project, there is a risk that price fluctuations and volatility for these products may have an adverse impact on the Company's future financial performance

Ferro-Alloy Resources Limited

Condensed unaudited Statement of Profit or Loss and Other Comprehensive Income for the six months ended 30 June 2023

	Note	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Revenue from customers (pricing at shipment)	2	3,410	4,327	6,773
Other revenue (adjustments to price after delivery and fair value changes)	2	(96)	(417)	(502)
Total revenue	2	3,314	3,910	6,271
Cost of sales	3	(3,565)	(3,541)	(7,516)
Gross (loss) / profit		**(251)**	**369**	**(1,245)**
Other income	4	13	12	77
Administrative expenses	5	(1,337)	(1,154)	(2,545)
Distribution expenses		(66)	(52)	(265)
Other expenses	6	(47)	-	(426)
Loss from operating activities		**(1,688)**	**(825)**	**(4,404)**
Net finance income	8	158	131	118
Loss before income tax		**(1,530)**	**(694)**	**(4,286)**
Income tax		-	-	-
Loss for the period		**(1,530)**	**(694)**	**(4,286)**
Other comprehensive income / (loss)				
Items that may be reclassified subsequently to profit or loss				
Exchange differences arising on translation of foreign operations		496	(834)	(541)
Total comprehensive loss for the period		**(1,034)**	**(1,528)**	**(4,827)**
Loss per share (basic and diluted)	16	(0.003)	(0.002)	(0.011)

These condensed unaudited financial statements were approved by the directors on 8 September 2023 and signed by:

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William Callewaert

Director

Ferro-Alloy Resources Limited
Condensed unaudited Statement of Financial Position
for the six months ended 30 June 2023

	Note	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
ASSETS				
Non-current assets				
Property, plant and equipment	9	6,072	4,624	5,434
Exploration and evaluation assets	10	5,581	2,819	4,208
Intangible assets	11	20	19	19
Prepayments	14	185	575	1,273
Total non-current assets		**11,858**	**8,037**	**10,934**
Current assets				
Inventories	12	2,015	2,422	1,628
Trade and other receivables	13	1,892	1,356	1,151
Prepayments	14	1,115	1,043	911
Cash and cash equivalents	15	606	542	4,331
Total current assets		**5,628**	**5,363**	**8,021**
Total assets		**17,486**	**13,400**	**18,955**
EQUITY AND LIABILITIES				
Equity				
Share capital	16	50,827	41,252	50,827
Convertible loan notes	16	4,019	4,019	4,019
Additional paid-in capital		397	397	397
Share-based payment reserve		5	-	5
Foreign currency translation		(3,665)	(4,454)	(4,161)
Accumulated losses		(37,204)	(32,082)	(35,674)
Total equity		**14,379**	**9,132**	**15,413**
Non-current liabilities				
Provisions		33	45	33
Total non-current liabilities		**33**	**45**	**33**

Ferro-Alloy Resources Limited
Condensed unaudited Statement of Financial Position
for the six months ended 30 June 2023

	Note	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Current liabilities				
Loans and borrowings	17	-	1,390	1,108
Trade and other payables	18	3,074	2,404	2,383
Payables at FVTPL	19	-	405	-
Interest payable	17	-	24	18
Total current liabilities		**3,074**	**4,223**	**3,509**
Total liabilities		**3,107**	**4,268**	**3,542**
Total equity and liabilities		**17,486**	**13,400**	**18,955**

Ferro-Alloy Resources Limited

Condensed unaudited Statement of Changes in Equity
for the six months ended 30 June 2023

	Share capital $000	Convertible loan notes $000	Additional paid in capital $000	Share-based payment reserve $000	Foreign currency translation reserve $000	Accumulated losses $000	Total $000
Balance at 1 January 2022	41,252	4,019	397	-	(3,620)	(31,388)	10,660
Loss for the year	-	-	-	-	-	(4,286)	(4,286)
Other comprehensive expenses							
Exchange differences arising on translation of foreign operations	-	-	-	-	(541)	-	(541)
Total comprehensive loss for the year	**-**	**-**	**-**	**-**	**(541)**	**(4,286)**	**(4,827)**
Transactions with owners, recorded directly in equity							
Shares issued, net of issue costs	9,575	-	-	-	-	-	9,575
Other transactions recognised directly in equity	-	-	-	5	-	-	5
Balance at 30 June 2022	**41,252**	**4,019**	**397**	**-**	**(4,454)**	**(32,082)**	**9,132**
Balance at 31 December 2022	**50,827**	**4,019**	**397**	**5**	**(4,161)**	**(35,674)**	**15,413**
Balance at 1 January 2023	50,827	4,019	397	5	(4,161)	(35,674)	15,413
Loss for the period	-	-	-	-	-	(1,530)	(1,530)
Other comprehensive expenses							
Exchange differences arising on translation of foreign operations	-	-	-	-	496	-	496
Total comprehensive loss for the period	**-**	**-**	-	**-**	**496**	**(1,530)**	**(1,034)**
Transactions with owners, recorded directly in equity							
Shares issued, net of issue costs	-	-	-	-	-	-	-
Other transactions recognised directly in equity	-	-	-	-	-	-	-
Balance at 30 June 2023	**50,827**	**4,019**	**397**	**5**	**(3,665)**	**(37,204)**	**14,379**

Ferro-Alloy Resources Limited
Condensed unaudited Statement of Cash Flows
for the six months ended 30 June 2023

	Not	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Cash flows from operating activities				
Loss for the period		**(1,530)**	**(694)**	**(4,286)**
Adjustments for:				
Depreciation and amortisation	3, 5	210	269	505
Write-off of property, plant and equipment		-	-	54
Write-down of inventory to net realisable value		-	-	160
Share-based payment expense		-	-	5
Net finance gains	8	(158)	(131)	(118)
Cash used in operating activities before changes in working capital		**(1,478)**	**(556)**	**(3,680)**
Change in inventories		(387)	(516)	312
Change in trade and other receivables		(741)	(1,256)	(1,035)
Change in prepayments		884	(137)	(584)
Change in trade and other payables		683	1,583	1,555
Change in receivables / payables at FVTPL		-	419	-
Net cash used in operating activities		**(1,039)**	**(463)**	**(3,432)**
Cash flows from investing activities				
Acquisition of property, plant and equipment	9	(773)	(361)	(1,466)
Acquisition of exploration and evaluation assets	10	(1,481)	(1,385)	(2,871)
Acquisition of intangible assets	11	(1)	(1)	(1)
Proceeds on fixed asset disposal		-	-	36
Net cash used in investing activities		**(2,255)**	**(1,747)**	**(4,302)**
Cash flows from financing activities				
Proceeds from issue of share capital	16	-	-	10,000
Transaction costs on shares subscription	16	-	-	(425)
Repayment of borrowings	17	(1,112)	-	(300)
Interest paid	17	(32)	(41)	(82)
Net cash used in financing activities		**(1,144)**	**(41)**	**9,193**
Net (decrease) / increase in cash and cash equivalents		**(4,438)**	**(2,251)**	**1,459**
Cash and cash equivalents at the beginning of the period	15	4,331	2,810	2,810

	Unaudited six-month period ended 30 June 2023 $000	**Unaudited six-month period ended 30 June 2022 $000**	**Audited year ended 31 December 2022 $000**
Effect of movements in exchange rates on cash and cash equivalents	713	(17)	62
Cash and cash equivalents at the end of the	**606**	**542**	**4,331**

Notes to the Condensed unaudited Financial Statements for the six months ended 30 June 2023

1 (a) Basis of preparation

These Condensed unaudited Financial Statements have been prepared in accordance with IAS34 '*Interim Financial Reporting'* and International Financial Reporting Standards as adopted by the European Union ("IFRS") on a going concern basis.

The same accounting policies and basis of preparation have been followed as adopted in the annual financial statements of the Group which were published on 27 April 2023.

(b) Going concern

The Directors have reviewed the Group's cash flow forecasts for a period of at least 12 months from the date of approval of the financial statements, together with sensitivities and mitigating actions. In addition, the Directors have given specific consideration to the continued risks and uncertainties associated with the geopolitical situation with respect to Russia and Ukraine.

The Group has the plant facilities and capacity in place to operate profitably and although the amount of those profits available to fund the Stage 1 feasibility study and investment programme may vary with metal prices and other factors, the Directors are confident that the Company has sufficient resources to continue as a going concern for at least the next 12 months.

(c) Use of estimates and judgements

Preparing the financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Carrying value of processing operations

The Directors have tested the existing operation's property, plant and equipment ("PP&E") for impairment (Note 9) at 30 June 2023. In doing so, net present value cash flow forecasts were prepared using the value in use method which required key estimates including vanadium pentoxide, ferro-molybdenum and nickel prices, production including the impact of ongoing PP&E maintenance costs and an appropriate discount rate. Key estimates included:

- Production volumes of 64 tonnes per month of vanadium pentoxide (as AMV), 6 tonnes of molybdenum (as ferro-molybdenum) and 41 tonnes of nickel (as nickel concentrate).
- Average prices of vanadium pentoxide of US$7.5/lb, ferro-molybdenum of US$50/kg and nickel of US$20/kg in 2023 and thereafter, reflecting management estimates having consideration of market commentary less a discount, and used by the Company as a long-term assumption for other planning purposes.
- Discount rate of 10% post tax in real terms.

Based on the key assumptions set out above, the recoverable amount of PP&E (US$31.8m) exceeds its carrying amount (US$6.1m) by US$25.7m and, therefore, PP&E has not been impaired.

Inventories (Note 12)

The Group holds material inventories which are assessed for impairment at each reporting date. The assessment of net realisable value requires consideration of future cost to process and sell and spot market prices at the period end less applicable discounts. The estimates are based on market data and historical trends.

Exploration and evaluation assets (Note 10)

The Group holds material exploration and evaluation assets and judgement is applied in determining whether impairment indicators exist under the Group's accounting policy. In determining that no impairment indicator exists management have considered the Competent Person's Report on the asset, the strategic plans for exploration and future development and the status of the Subsoil Use Agreement ("SUA"). Judgement was required in determining that a current application for deferral of obligations under the SUA will be granted and management anticipate such approvals being provided given their understanding of the Kazakh market and plans for the asset.

(d) Unaudited status

These Condensed unaudited Financial Statements have not been audited or reviewed by the Group's auditor.

2 Revenue

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Sales of vanadium products	2,340	3,343	5,163
Sales of ferro-molybdenum	955	897	1,509
Sales of nickel products	109	87	86
Service revenue	6	-	15
Total revenue from customers under IFRS 15	**3,410**	**4,327**	**6,773**
Other revenue *(adjustments to price after delivery and fair value changes)*	(96)	(417)	(502)
Total revenue	**3,314**	**3,910**	**6,271**

Vanadium products

Under certain sales contracts the single performance obligation is the delivery of products to the designated delivery point at which point possession, title and risk on the product transfers to the buyer. The buyer makes an initial provisional payment based on volumes and quantities assessed by the Company and market spot prices at the date of shipment. The final payment is received once the product has reached its final destination with adjustments for quality / quantity and pricing. The final pricing is based on the historical average market prices during a quotation period based on the date the product reaches the port of destination and an adjusting payment or receipt will be made to the revenue initially received. Where the final payment for a shipment made prior to the end of an accounting period has not been determined before the end of that period, the revenue is recognised based on the spot price that prevails at the end of the accounting period.

Other revenue related to the change in the fair value of amounts receivable and payable under the sales contracts between the date of initial recognition and the period end resulting from market prices are recorded as other revenue.

3 Cost of sales

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Materials	2,651	2,738	5,863
Wages, salaries and related taxes	538	451	937
Depreciation	190	254	406
Electricity	42	74	111
Other	144	24	199
	3,565	**3,541**	**7,516**

4 Other income

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Currency conversion gain	8	8	41
Other (sales of equipment)	5	4	36
	13	**12**	**77**

5 Administrative expenses

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Wages, salaries and related taxes	867	633	1,619
Professional services	61	163	263
Taxes other than income tax	-	-	15
Listing and reorganisation expenses	97	13	162
Audit	126	57	111
Materials	24	43	37
Rent	17	18	53
Depreciation and amortisation	20	15	99
Insurance	2	2	44
Bank fees	12	15	23
Travel expenses	13	10	16
Security	-	7	-
Communication and information services	8	6	12
Other	90	172	91
	1,337	**1,154**	**2,545**

6 Other expenses

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Currency conversion loss	27	-	204
Write-down of inventory to net realisable value	-	-	160
Write-down of obsolete assets	-	-	54
Share-based payment expense	-	-	5
Other	20	-	3
	47	**-**	**426**

7 Personnel costs

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Wages, salaries and related taxes	1,610	1,083	2,569
	1,610	**1,083**	**2,569**

Personnel costs of US$495,000 (2022: US$421,000) have been charged to cost of sales, US$867,000 (2022: US$633,000) to administrative expenses and US$248,000 (2022: US$29,000) were charged to cost of inventories which were not yet sold as at the end of the period.

8 Finance costs

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Net foreign exchange gain	(175)	(172)	(195)
Interest expense on financial liabilities (bonds)	17	41	77
Net finance income	**(158)**	**(131)**	**(118)**

9 Property, plant and equipment

	Land and buildings $000	Plant and equipment $000	Vehicles $000	Computers $000	Other $000	Construction in progress $000	Total $000
Cost							
Balance at 1 January 2022	2,060	2,639	509	39	102	2,632	7,981
Additions	35	85	-	1	11	229	361
Disposals	-	-	(17)	-	-	-	(17)
Foreign currency translation difference	(150)	(194)	(36)	(3)	(8)	(196)	(587)
Balance at 30 June 2022	**1,945**	**2,530**	**456**	**37**	**105**	**2,665**	**7,738**
Balance at 31 December 2022	1,959	2,723	458	43	174	3,448	8,805
Additions	-	254	-	1	8	510	773
Transfers	255	46	-	-	-	(301)	-
Disposals	-	(4)	-	-	(5)	-	(9)
Foreign currency translation difference	35	51	10	-	3	64	163
Balance at 30 June 2023	**2,249**	**3,070**	**468**	**44**	**180**	**3,721**	**9,732**

	Land and buildings $000	Plant and equipment $000	Vehicles $000	Computers $000	Other $000	Construction in progress $000	Total $000
Depreciation							
Balance at 1 January 2022	688	2,028	327	28	47	-	3,118
Depreciation for the period	34	186	17	3	5	-	245
Disposals	-	-	(17)	-	-	-	(17)
Foreign currency translation difference	(51)	(152)	(23)	(2)	(4)	-	(232)
Balance at 30 June 2022	**671**	**2,062**	**304**	**29**	**48**	**-**	**3,114**
Balance at 31 December 2022	**708**	**2,256**	**322**	**28**	**57**	**-**	**3,371**
Balance at 1 January 2023	708	2,256	322	28	57	-	3,371
Depreciation for the period	45	165	16	2	7	-	235
Disposals	-	(4)	-	-	(5)	-	(9)

	Land and buildings $000	Plant and equipment $000	Vehicles $000	Computers $000	Other $000	Construction in progress $000	Total $000
Foreign currency translation difference	12	41	7	1	2	-	63
Balance at 30 June 2023	**765**	**2,458**	**345**	**31**	**61**	**-**	**3,660**
Carrying amounts							
At 1 January 2022	**1,372**	**611**	**182**	**11**	**55**	**2,632**	**4,863**
At 30 June 2022	**1,274**	**468**	**152**	**8**	**57**	**2,665**	**4,624**
At 31 December 2022	**1,251**	**467**	**136**	**15**	**117**	**3,448**	**5,434**
At 30 June 2023	**1,484**	**612**	**123**	**13**	**119**	**3,721**	**6,072**

Depreciation expense of US$190,000 (2022: US$254,000) has been charged to cost of sales, excluding cost of finished goods that were not sold at the period end, US$20,000 (2022: US$15,000) to administrative expenses, and US$67,000 has been charged to cost of finished goods that were not sold at the end of the period (2022: US$21,000).

Construction in progress relates to upgrades to the processing plant associated with the expansion of the facility.

10 Exploration and evaluation assets

The Group's exploration and evaluation assets ("E&EA") relate to the Balasausqandiq deposit. During the six month period ended 30 June 2023, the Group capitalised the cost of geotechnical drilling work, technical design, sample assaying and project management costs, all relating to the Company's Stage 1 feasibility study. As at 30 June 2023, the carrying value of exploration and evaluation assets was US$5.6m (2022: US$2.8m).

	Unaudited six-month period ended 30 June 2023 $000	**Unaudited six-month period ended 30 June 2022 $000**	**Audited year ended 31 December 2022 $000**
Balance at 1 January	4,208	1,434	1,434
Additions (Stage 1feasibility study)	1,481	1,653	2,871
Foreign currency translation difference	(108)	(268)	(97)
Balance at 30 June / 31 December	**5,581**	**2,819**	**4,208**

11 Intangible assets

	Mineral rights $000	**Patents $000**	**Computer software $000**	**Total $000**
Cost				
Balance at 1 January 2022	88	33	3	124
Additions	-	1	-	1
Foreign currency translation difference	(6)	(3)	-	(9)
Balance at 30 June 2022	**82**	**31**	**3**	**116**
Balance at 31 December 2022	**83**	**32**	**3**	**118**
Balance at 1 January 2023	83	32	3	118

Additions	-	1	-	1
Foreign currency translation difference	1	1	-	2
Balance at 30 June 2023	**84**	**34**	**3**	**121**
Amortisation				
Balance at 1 January 2022	88	12	3	103
Amortisation for the year	-	1	-	1
Foreign currency translation difference	(6)	(1)	-	(7)
Balance at 30 June 2022	**82**	**12**	**3**	**97**
Balance at 31 December 2022	**83**	**13**	**3**	**99**
Balance at 1 January 2023	83	13	3	99
Amortisation for the year	-	1	-	1
Foreign currency translation difference	1	-	-	1
Balance at 30 June 2023	**84**	**14**	**3**	**101**
Carrying amounts				
At 1 January 2022	**-**	**21**	**-**	**21**
At 30 June 2022	**-**	**19**	**-**	**19**
At 31 December 2022	**-**	**19**	**-**	**19**

At 30 June 2023	**-**	**20**	**-**	**20**

During the six months ended 30 June 2023 and 2022, amortisation of intangible assets was charged to administrative expenses.

12 Inventories

	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Raw materials and consumables	1,422	2,223	1,379
Finished goods	584	192	216
Work in progress	9	7	33
	2,015	**2,422**	**1,628**

During the six months ended 30 June 2023, inventories expensed to profit and loss amounted to US$2.7m (six month period ended 30 June 2022:US$2.8m).

13 Trade and other receivables

Current	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Trade receivables from third parties	920	351	65
Due from employees	55	44	50
VAT receivable	920	976	1,062
Other receivables	64	20	10
	1,959	**1,391**	**1,187**
Expected credit loss provision for receivables	(67)	(35)	(36)
	1,892	**1,356**	**1,151**

The expected credit loss provision for receivable relates to credit impaired receivables which are in default and the Group considers the probability of collection to be remote given the age of the receivable and default status.

14 Prepayments

	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Non-current			
Prepayments	185	575	1,273
	185	**575**	**1,273**
Current			
Prepayments for goods and services	1,115	1,043	911
	1,115	**1,043**	**911**

15 Cash and cash equivalents

	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Cash at current bank accounts	592	529	1,010
Cash at bank deposits	13	13	3,321
Petty cash	1	-	-
Cash and cash equivalents	**606**	**542**	**4,331**

16 Equity

(a) Share capital

Number of shares unless otherwise stated		**Ordinary shares**	
	Unaudited 30 June 2023	**Unaudited 30 June 2022**	**Audited 31 December 2022**
Par value	-	-	-
Outstanding at beginning of period / year	449,702,150	377,676,799	377,676,799
Shares issued	-	-	72,025,351
Outstanding at end of period / year	**449,702,150**	**377,676,799**	**449,702,150**

Ordinary shares

All shares rank equally. The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Company.

The Company did not issue any ordinary shares during the period (2022: no ordinary shares issued during the period).

Convertible loan notes

Convertible loan notes are considered as equity as the conditions that are set out in the Convertible Loan Note agreement provide for conversion into equity in all circumstances except certain conditions that the Directors do not consider probable. In particular, the conditions required to be fulfilled before conversion takes place include an obligation on the Company to receive certain consents from the regulatory authorities and avoidance of the possibility of triggering a requirement for the issue of a prospectus.

Reserves

Share capital: Value of shares issued less costs of issuance.

Convertible loan notes: Further investment rights at issue price.

Additional paid in capital: Amounts due to shareholders which were waived.

Share-based payment: Share options issued during the period.

Foreign currency translation reserve: Foreign currency differences on retranslation of results from functional to presentational currency and foreign exchange movements on intercompany balances considered to represent net investments which are considered as permanent equity.

Accumulated losses: Cumulative net losses.

(b) Dividends

No dividends were declared for the six months ended 30 June 2023 (2022: US$ Nil).

(c) Loss per share (basic and diluted)

The calculation of basic and diluted loss per share has been based on the loss attributable to ordinary shareholders and weighted-average number of ordinary shares outstanding. There are no convertible bonds and convertible preferred stock, so basic and diluted losses are equal.

(i) Loss attributable to ordinary shareholders (basic and diluted)

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Loss for the period, attributable to owners of the Company	(1,530)	(694)	(4,286)
Loss attributable to ordinary shareholders	**(1,530)**	**(694)**	**(4,286)**

(ii) Weighted-average number of ordinary shares (basic and diluted)

Shares	Unaudited six-month period ended 30 June 2023	Unaudited six-month period ended 30 June 2022	Audited year ended 31 December 2022
Issued ordinary shares at 1 January (after subdivision)	449,702,150	377,676,799	377,676,799
Effect of shares issued (weighted)	-	-	21,410,276
Weighted-average number of ordinary shares at period / year end	**449,702,150**	**377,676,799**	**399,087,075**
Loss per share of common stock attributable to the Company: (Basic and diluted / US$)	(0.003)	(0.002)	(0.011)

17 Loans and borrowings

In prior periods, the Company had issued unsecured three year term corporate bonds with varying effective interest rates that were listed on the AIX.

All of the Company's issued bonds in circulation at 1 January 2023 were redeemed by the Company on 24 March 2023.

Current liabilities			
Bonds payable (early repayment rights)	-	1,390	1,108
Interest payable	-	24	18
	-	**1,414**	**1,126**

Non-cash transactions from financing activities are shown in the reconciliation of liabilities from financing transactions below.

	Unaudited six-month period ended 30 June 2023 $000	**Unaudited six-month period ended 30 June 2022 $000**	**Audited year ended 31 December 2022 $000**
At 1 January	**1,127**	**1,427**	**1,427**
Cash flows:			
-Interest paid	(32)	(41)	(82)
-Repayment of loans and borrowings	(1,112)	-	(300)
Total	**(17)**	**1,386**	**1,045**
Non-cash flows			
- Interest accruing in the period	17	41	82
At 30 June / 31 December	**-**	**1,427**	**1,127**

18 Trade and other payables

	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Trade payables	2,550	2,130	1,889
Debt to directors/key management (Note 22)	11	75	214
Debt to employees	154	73	99
Other taxes	225	116	171
Advances received	134	10	10
	3,074	**2,404**	**2,383**

19 Payables at FVTPL

	Unaudited 30 June 2023 $000	Unaudited 30 June 2022 $000	Audited 31 December 2022 $000
Payables at FVTPL	-	405	-
	-	**405**	**-**

20 Contingencies

(a) Insurance

The insurance industry in the Kazakhstan is in a developing state and many forms of insurance protection common in other parts of the world are not yet generally or economically available. The Group does not have full coverage for its plant facilities, business interruption or third party liability in respect of property or environmental damage arising from accidents on Group property or relating to Group operations. There is a risk that the loss or destruction of certain assets could have a material adverse effect on the Group’s operations and financial position.

(b) Taxation contingencies

The taxation system in Kazakhstan is relatively new and is characterised by frequent changes in legislation, official pronouncements and court decisions which are often unclear, contradictory and subject to varying interpretations by different tax authorities. Taxes are subject to review and investigation by various levels of authorities which have the authority to impose severe fines, penalties and interest charges. A tax year generally remains open for review by the tax authorities for five subsequent calendar years but under certain circumstances a tax year may remain open for longer.

These circumstances may create tax risks in Kazakhstan that are more significant than in other countries. Management believes that it has provided adequately for tax liabilities based on its interpretations of applicable tax legislation, official pronouncements and court decisions. However, the interpretations of the relevant authorities could differ and the effect on these consolidated financial statements, if the authorities were successful in enforcing their interpretations, could be significant.

There are no tax claims or disputes at present.

21 Segment reporting

The Group's operations are split into three segments based on the nature of operations: processing, subsoil operations (being operations related to exploration and mining) and corporate segment for the purposes of IFRS 8 *Operating Segments*. The Group's assets are primarily concentrated in the Republic of Kazakhstan and the Group's revenues are derived from operations in, and connected with, the Republic of Kazakhstan.

Unaudited six-month period ended 30 June 2023

	Processing $000	Subsoil $000	Corporate $000	Total $000
Revenue	3,314	-	-	3,314
Cost of sales	(3,565)	-	-	(3,565)
Other income	8	-	5	13
Administrative expenses	(402)	(24)	(911)	(1,337)
Distribution & other expenses	(113)	-	-	(113)
Finance costs	(40)	-	198	158
Loss before tax	**(798)**	**(24)**	**(708)**	**(1,530)**

Unaudited six-month period ended 30 June 2022

	Processing $000	Subsoil $000	Corporate $000	Total $000
Revenue	3,910	-	-	3,910
Cost of sales	(3,541)	-	-	(3,541)
Other income	12	-	-	12
Administrative expenses	(466)	(29)	(659)	(1,154)
Distribution & other expenses	(52)	-	-	(52)
Finance costs	596	-	(465)	131
Loss before tax	**459**	**(29)**	**(1,124)**	**(694)**

Audited year ended 31 December 2022

	Processing $000	Subsoil $000	Corporate $000	Total $000
Revenue	6,271	-	-	6,271
Cost of sales	(7,516)	-	-	(7,516)
Other income	73	-	4	77
Administrative expenses	(763)	(24)	(1,758)	(2,545)
Distribution & other expenses	(691)	-	-	(691)

Unaudited six-month period ended 30 June 2023

	Processing $000	Subsoil $000	Corporate $000	Total $000
Finance costs	531	-	(413)	118
Loss before tax	**(2,095)**	**(24)**	**(2,167)**	**(4,286)**

Included in revenue arising from processing are revenues of US$3.1m (2022: US$3.7m) which arose from sales to three of the Group' largest customers. No other single customer contributes 10 per cent or more to the Group's revenue.

All of the Group's assets are attributable to the Group's processing operations.

Sales to the Group's largest customers during the six months ended 30 June 2023 were as follows:

Customer A	US$ 1.5m (46%) (2022:US$ 1.9m)
Customer B	US$ 1.5m (47%) (2022: US$1.1m)
Customer C	US$ 0.1m (4%) (2022: US$ 0.7m)

22 Related party transactions

Transactions with management and close family members

Management remuneration

Key management personnel received the following remuneration during the year, which is included in personnel costs (see Note 7):

	Unaudited six-month period ended 30 June 2023 $000	Unaudited six-month period ended 30 June 2022 $000	Audited year ended 31 December 2022 $000
Wages, salaries and related taxes	474	360	986

The amount of wages and salaries outstanding at 30 June 2023 is equal to US$11,000 (2022: US$75,000).

Other

The Company is party to a sub-let agreement between Turian Sports Horses Limited as head lessee and NH Limited as landlord for the rental of office space in Guernsey. Turian Sports Horses Limited is wholly owned by James Turian, one of the Company's directors and NH Limited is owned by James Turian and Sharon Turian, equally. Sums paid to NH Limited during the six months ended 30 June 2023 were US$10,667 (2022: US$7,445).

23 Subsequent events

On 27 July 2023, the Company launched a phased Kazakhstan US$20 million exempt offer bond programme valid until 31 July 2033.