MANAGEMENT'S DISCUSSION AND ANALYSIS

NEO PERFORMANCE MATERIALS INC.

FOR THE YEAR ENDED DECEMBER 31, 2022

Management's Discussion and Analysis

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Unless otherwise noted, all amounts in this discussion are expressed in United States dollars

The following Management's Discussion and Analysis ("**MD&A**") for Neo Performance Materials Inc. ("**Neo**") should be read in conjunction with the accompanying audited consolidated financial statements and related notes thereto for the year ended December 31, 2022 available on Neo's website at www.neomaterials.com and on SEDAR at www.sedar.com. Unless otherwise stated, references in this section to "Neo", "our", "we" or "Group", refer to Neo Performance Materials Inc. and its consolidated subsidiaries.

The financial results presented in this MD&A are prepared in accordance with International Financial Reporting Standards ("**IFRS**") as issued by the International Accounting Standards Board *("***IASB***")*. "Adjusted EBITDA", "Adjusted EBITDA Margin", "Adjusted Net Income or Loss", "Adjusted Earnings per Share", "EBITDA", "Free Cash Flow", and "Free Cash Flow Conversion" are not measures recognized under IFRS and do not have any standardized meaning prescribed by IFRS. These measures may differ from those used by other companies, and are not necessarily comparable to similar measures presented by other companies. There are no directly comparable IFRS measures to any of these measures. These measures are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. See "*Management's Discussion and Analysis - Non-IFRS Financial Measures*" below.

This discussion contains forward-looking statements and information. The actual results, performance and achievements could differ materially from those implied by these forward-looking statements as a result of various factors, including those discussed below, particularly under "*Risk Factors*". See "*Forward-Looking Information*".

The discussion and analysis in this MD&A are based upon information available to management as of March 28, 2023. This MD&A should not be considered all-inclusive, as it excludes changes that may occur in general economic, political and environmental conditions. Additionally, other events may or may not occur that could affect Neo in the future.

1. Forward-Looking Information

The following discussion and analysis contains "forward-looking information" within the meaning of applicable securities laws in Canada. Forward-looking information may relate to future events or future performance of Neo. All statements in this disclosure, other than statements of historical facts, with respect to Neo's objectives and goals, as well as statements with respect to its beliefs, plans, objectives, expectations, anticipations, estimates, and intentions are forward-looking information. Specific forward-looking statements in this discussion include, but are not limited to the following: expectations regarding certain of Neo's future results and information, including, among other things: revenue, expenses, revenue growth, capital expenditures, and operations; statements with respect to expected use of cash balances; continuation of prudent management of working capital; source of funds for ongoing business requirements and capital investments; expectations regarding sufficiency of the allowance for uncollectible accounts and inventory provisions; analysis regarding sensitivity of the business to changes in exchange rates; impact of recently adopted accounting pronouncements; risk factors relating to intellectual property protection and intellectual property litigation; risk factors relating to national or international economies (including the impact of COVID-19), geopolitical risk and other risks present in the jurisdictions in which Neo, its customers, its suppliers, and/or its logistics partners operate, and; expectations concerning any remediation efforts to Neo's design of its internal controls over financial reporting and disclosure controls and procedures. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or can state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. This information involves known and unknown risks and uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information. Neo believes the expectations reflected in such forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information included in this discussion and analysis should not be unduly relied upon. For more information on Neo, investors should review Neo's continuous disclosure filings that are available under its profile at www.sedar.com.

The forward-looking information is only provided as of the date of this MD&A, March 28, 2023, and is subject to change as a result of new information, future events or other circumstances, as discussed above, in which case the forward-looking information will be updated by Neo as required by law.

2. Overview

Neo manufactures the building blocks of many modern technologies that enhance efficiency and sustainability. Neo’s advanced industrial materials, rare earth magnetic powders and magnets, specialty chemicals, metals, and alloys are critical to the performance of many everyday products and emerging technologies. Neo’s products help to deliver the technologies of tomorrow to consumers today.

Neo has approximately 1,760 employees and has a global platform that includes 9 manufacturing facilities located in China, the United States ("**U.S.**"), Germany, Canada, Estonia, and Thailand, as well as one dedicated research and development ("**R&D**") centre in Singapore. Since 1994, Neo has leveraged its processing expertise to innovate and grow into a leading manufacturer of advanced industrial materials for specialty end markets. Neo has established itself as a leading commercial partner to some of the world’s largest customers in the automotive, manufacturing, semiconductor, advanced electronic, and specialty chemical industries. As a result, Neo is well positioned in markets that are forecast to see robust, long-term growth driven by multiple global macro trends, such as vehicle electrification, industrial automation, consumer electronics, energy efficient electric motors and pumps, sensors, air and water pollution control, and superalloys. Neo identifies growth markets driven by global macro trends such as these, and produces highly engineered industrial materials that are critical to the performance of applications in those markets.

Neo is organized along three business segments: Magnequench, Chemicals & Oxides ("**C&O**") and Rare Metals ("**RM**"), as well as the Corporate segment.

Magnequench

The Magnequench segment, with more than 30 years of manufacturing experience, is the world leader in the production of permanent magnetic powders used in bonded and hot-deformed, fully dense neodymium-iron-boron ("**NdFeB**" or "**neo**") magnets. These powders are formed through Magnequench's market-leading technology related to the development, processing, and manufacturing of neo magnetic powders. Magnequench uses a proprietary process to manufacture Magnequench powder using a blend of various inputs. Magnequench also manufactures magnets using these bonded magnetic powders. These powders and bonded permanent magnets are used in the following: motors used in various automotive applications for hybrid, electric, and internal combustion engine vehicles; micro motors for household applications like vacuum cleaners, refrigerators, hair dryers, air conditioners and residential heating and cooling circulation pumps; industrial and other sensors; and other applications requiring high levels of magnetic strength, improved performance, and reduced size and weight.

C&O

The C&O segment manufactures and distributes a broad range of rare-earth-based industrial materials that have become an indispensable part of modern life. Neo's world-class processing and advanced materials manufacturing capabilities enable Neo to meet increasingly demanding specifications from manufacturers that need custom engineered materials. Applications that rely upon Neo's products include automotive catalysts, permanent magnetics, consumer electronics, petroleum refining catalysts, medical devices, and wastewater treatment.

Rare Metals

The Rare Metals segment sources, reclaims, produces, refines, and markets high-value specialty metals and their compounds. These products include both high-temperature metals (tantalum, niobium, hafnium and rhenium) and electronic metals (gallium and indium). Applications from products made in this segment primarily include superalloys for jet engines, medical imaging, wireless technologies, and LED lighting. Other applications include flat panel displays, solar, steel additives, batteries, and electronics applications.

On January 26, 2021, Neo completed the sale of its entire holdings of Shanxi Jiahua Galaxy Electronic Materials Co., Ltd. ("**Shanxi**")'s equity (60% of the equity interest of Shanxi) to Jia Cheng Rare Metals Technology (Hainan) Co., Ltd., a non-related party, for total gross proceeds of $0.1 million. Subsequent to the sale, Shanxi is no longer included in the consolidated results of Neo.

Corporate

Neo's global head office is in Toronto, Ontario, Canada, with additional corporate offices in Greenwood Village, Colorado, U.S.; Singapore; and Beijing, China. The functions of this group include finance, administration, information technology, accounting, and legal.

3. Selected Financial Highlights

($000s, except volume)	Year Ended December 31,			Three Months Ended December 31,		
	2022	**2021**	**2020**	**2022**	**2021**	**2020**
Revenue						
Magnequench	$ 277,412	$ 263,753	$ 152,966	$ 57,584	$ 70,897	$ 52,553
C&O	248,011	212,711	143,322	58,767	60,389	48,433
Rare Metals	130,386	83,604	59,688	43,865	27,296	12,096
Corporate / Eliminations	(15,511)	(20,817)	(9,284)	(1,048)	(5,168)	(2,685)
Consolidated Revenue	**$ 640,298**	**$ 539,251**	**$ 346,692**	**$ 159,168**	**$ 153,414**	**$ 110,397**
Operating Income (Loss)						
Magnequench	$ 30,538	$ 38,413	$ 20,027	$ 2,543	$ 6,608	$ 8,102
C&O	22,176	37,391	(26,505)	852	10,207	5,124
Rare Metals	20,978	6,578	(30,006)	7,792	2,410	(4,209)
Corporate / Eliminations	(15,078)	(22,495)	(19,175)	(4,460)	(6,499)	(5,827)
Consolidated Operating Income (Loss)	**$ 58,614**	**$ 59,887**	**$ (55,659)**	**$ 6,727**	**$ 12,726**	**$ 3,190**
Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization ("Adjusted EBITDA") [(1)]						
Magnequench	$ 40,172	$ 48,009	$ 29,928	$ 4,788	$ 9,137	$ 11,404
C&O	28,324	41,512	13,950	2,614	11,800	7,103
Rare Metals	24,307	9,154	(2,189)	8,995	3,074	(3,297)
Corporate / Eliminations	(13,776)	(16,760)	(12,815)	(3,977)	(4,359)	(2,902)
Consolidated Adjusted EBITDA	**$ 79,027**	**$ 81,915**	**$ 28,874**	**$ 12,420**	**$ 19,652**	**$ 12,308**
Net Income (Loss)	**$ 26,418**	**$ 36,043**	**$ (60,089)**	**$ (7,162)**	**$ 7,263**	**$ 2,356**
Attributable to:						
Equity holders of Neo	25,947	35,177	(57,931)	(7,291)	6,735	2,219
Non-controlling interest	471	866	(2,158)	129	528	137
Earnings (loss) per share attributable to equity holders of Neo						
Basic	$ 0.62	$ 0.92	$ (1.54)	$ (0.16)	$ 0.17	$ 0.06
Diluted	$ 0.61	$ 0.91	$ (1.54)	$ (0.16)	$ 0.17	$ 0.06
Adjusted Net Income (Loss) [(2)]	**$ 31,756**	**$ 55,040**	**$ 6,165**	**$ (5,686)**	**$ 16,062**	**$ 9,583**
Attributable to:						
Equity holders of Neo	31,285	54,174	6,056	(5,815)	15,534	9,446
Non-controlling interest	471	866	109	129	528	137
Adjusted earnings (loss) per Share attributable to equity holders of Neo [(2)]:						
Basic	$ 0.75	$ 1.42	$ 0.16	$ (0.13)	$ 0.39	$ 0.25
Diluted	$ 0.74	$ 1.41	$ 0.16	$ (0.13)	$ 0.39	$ 0.25
Capital expenditures excluding business combination	$ 17,470	$ 9,464	$ 7,614	$ 6,372	$ 2,833	$ 1,178
Cash taxes paid	$ 12,352	$ 9,365	$ 8,641	$ 3,505	$ 2,333	$ 653
Dividends paid to shareholders	$ 13,401	$ 12,773	$ 11,297	$ 3,540	$ 3,544	$ 2,924
Repurchase of common shares under Normal Course Issuer Bid	$ —	$ 37	$ 3,090	$ —	$ —	$ 1,034

	December 31,		
	2022	**2021**	**2020**
Cash and cash equivalents	$ 147,491	$ 89,037	$ 72,224
Bank advances & other short-term debt	$ 17,288	$ 6,502	$ 2,428
Long-term debt	$ 30,632	$ —	$ —

Notes:

(1) See *"Non-IFRS Financial Measures"* and details of computation of Adjusted EBITDA.
(2) See *"Non-IFRS Financial Measures"* for computations of Adjusted Net Income and Adjusted Earnings per Share.

Highlights for the year ended and three months ended December 31, 2022

Consolidated Results

- For the year ended and three months ended December 31, 2022, revenues of $640.3 million and $159.2 million were 18.7% and 3.8% higher, respectively, than the corresponding periods of 2021. All three segments experienced higher revenues for the year ended December 31, 2022 with revenues higher in Rare Metals but lower in Magnequench and C&O in the three months ended December 31, 2022. Market selling prices for rare earth products (including Magnequench powders) rose significantly starting from the fourth quarter of 2020 and through the first quarter of 2022. By September 2022, rare earth prices declined 30% to 40% from the peak (in the first quarter of 2022), although they remain almost 100% higher than recent historical norms. Rare earth prices were stable in the fourth quarter of 2022. Neo benefited from rising prices from the fourth quarter of 2020 to the second quarter of 2022 and has been adversely affected by the rapid decline in prices in the third quarter of 2022 and the lagging impact into the fourth quarter of 2022. The overall pricing and margin environment is higher than historical trends but quarterly results are positively (when prices are rising) or negatively (when prices are falling) affected due to the lead-lag effect of higher cost inventory on hand.

- Neo reported operating income of $58.6 million and net income of $26.4 million for the year ended December 31, 2022; and operating income of $6.7 million and a net loss of $7.2 million for the three months ended December 31, 2022. Operating income for the year ended and three months ended December 31, 2022 was higher in Rare Metals segment but lower in C&O and Magnequench segments.

- Operationally, Magnequench saw weaker volume across the majority of its applications due primarily to customer slowdowns in Asia related to COVID-19 and the slowdown in automotive due to the semiconductor chip shortage. C&O saw mixed volumes for rare earth elements and steady volumes in the environmental emissions catalyst end markets. Rare Metals saw record earnings driven by higher selling prices for its products, the continued recovery in aerospace markets and demand from new customers in other end markets, tempered by the reduction of sales to Russian customers.

- For the year ended December 31, 2022, Adjusted EBITDA[I] was $79.0 million, a decrease of $2.9 million or 3.5% compared to the corresponding period in 2021. Adjusted EBITDA[I] for the three months ended December 31, 2022 was $12.4 million, a decrease of $7.2 million or 36.8% compared to the same period of the prior year.

- Neo continues to see longer-term growth in demand for many of its key products driven by several global macro trends, including the following: increased electrification of automobiles, which increases the need for Neo's functional materials on a per-vehicle basis; greater demand for precision and efficient electric motors across multiple sectors, which encourages higher utilization of Neo's magnetic materials; growth in hybrid and electric vehicles; more stringent government regulation with respect to air and water emissions; and trends toward greater utilization of lighter-weight materials in industries such as aerospace and consumer electronics. Neo's advanced industrial materials are integral to technologies in all these end markets.

Magnequench Segment

- For the year ended and three months ended December 31, 2022, revenues in the Magnequench segment were \$277.4 million and \$57.6 million, respectively, compared to \$263.8 million and \$70.9 million in the same periods of 2021; an increase of \$13.7 million or 5.2% and a decrease of \$13.3 million or 18.8%, respectively. Operating income for the year ended and three months ended December 31, 2022 was \$30.5 million and \$2.5 million, respectively, a decrease of \$7.9 million or 20.5% and \$4.1 million or 61.5%, respectively, when compared to the year ended and three months ended December 31, 2021. For the year ended December 31, 2022, Adjusted EBITDA(1) was \$40.2 million, compared to \$48.0 million in the same period of 2021; a decrease of \$7.8 million or 16.3%. For the three months ended December 31, 2022, Adjusted EBITDA(1) was \$4.8 million, compared to \$9.1 million for the three months ended December 31, 2021; a decrease of \$4.3 million or 47.6%.

- For the the year ended and three months ended December 31, 2022, the Magnequench segment saw a decline in volumes compared to the corresponding periods of 2021. Volumes in 2022 were particularly impacted by three factors. First, the spike in COVID-19 has affected the free flow of people and production supplies across many parts of Asia. Second, the occurrence of several natural disasters earlier in 2022 impacted customer production facilities in Asia. Third, the on-going semiconductor chip shortage is continuing to impact customers in the automotive and other industries. Although Magnequench's products are distributed on global basis, many of its next tier customers are located in Asia and were impacted by the above factors in 2022. In addition, Magnequench is seeing customers change their ordering cycles and behaviors in response to customers' managing their inventory levels in anticipation of potential economic uncertainty. These factors combine to see lower volumes across most applications including legacy applications and new energy applications.

- Margins per ton in the Magnequench segment were lower in the fourth quarter of 2022 compared to higher margins achieved earlier in 2022. As rare earth magnetic prices have declined from the first quarter of 2022, Magnequench continues to see the reversal of the lead-lag benefit in the latter half of 2022. Magnequench has pass-through pricing agreements for rare earth magnetic elements on the vast majority of its sales contracts. Magnequench earns a targeted margin spread per ton when rare earth prices are stable and over the long term. However, the short-term timing mechanics of the pass-through agreements generally show rising margins when rare earth prices rise and declining margins when rare earth prices fall, related primarily to inventory on hand purchased at previous costs. Pass-through is a key strategic focus of Magnequench and ensures that the business can continue to generate long term sustainable and value-added margins.

- Over the last few years, Magnequench has focused on key macro growth trends that are yielding positive sales opportunities in areas such as compression magnets and electrified-automotive applications, including traction motors and pumps, despite the slowdown in the current period volumes.

Chemicals & Oxides ("C&O") Segment

- For the year ended and three months ended December 31, 2022, revenues in the C&O segment were \$248.0 million and \$58.8 million, respectively, compared to \$212.7 million and \$60.4 million in the same periods of 2021; an increase of \$35.3 million or 16.6% and a decrease of \$1.6 million or 2.7%, respectively. For the year ended and three months ended December 31, 2022, the C&O segment reported an operating income of \$22.2 million and \$0.9 million, respectively, compared to operating income of \$37.4 million and \$10.2 million in the same periods of 2021. Adjusted EBITDA(1) was \$28.3 million and \$2.6 million for the year ended and three months ended December 31, 2022; a decrease of 31.8% and 77.8%, respectively, compared to the corresponding periods in 2021.

- In the three months ended December 31, 2022, the C&O segment was adversely impacted by the decline of rare earth prices between March 2022 and September 2022. Rare earth prices (particularly for magnetic rare earth elements) increased substantially from the third quarter of 2020 to the first quarter of 2022 but have since declined between 30%-40% since March 2022. This rapid decline in rare earth prices has had a negative impact on C&O rare earth separation margins as C&O processed and sold rare earths purchased three to five months earlier (at higher costs). Despite the recent decline, rare earth prices remain more than 100% higher than prices from the recent past (the two to three years prior to the third quarter of 2020). The outlook (both in demand and pricing) remains strong for rare earths which is expected to lead to higher dollar value margins for C&O in the long term. However, the current period was adversely impacted by the immediate and rapid decline of prices while processing higher cost inventory (lead-lag impact). The rapid decline in prices also necessitated C&O to record a net $3.1 million of provisions for inventories in the year ended December 31, 2022.

- In C&O's environmental emissions catalyst business, volumes in 2022 were consistent compared to the prior year. Volumes in the fourth quarter of 2022 exceeded volumes in the fourth quarter of 2021, primarily related to lower than normal volumes in the fourth quarter of 2021 as customers were adjusting their supply chains. Volumes have seen less of an impact from the semiconductor chip shortage and are distributed more globally than Magnequench volumes and thus, have not experienced the same negative pressures on volume trends as some Magnequench products. C&O's environmentally protective water treatment solutions business continues to grow year over year with higher volume and new customer adoption, in both the fourth quarter and full year 2022.

Rare Metals Segment

- For the year ended and three months ended December 31, 2022, revenues in the Rare Metals segment were $130.4 million and $43.9 million, respectively, compared to $83.6 million and $27.3 million in the same periods of 2021; an increase of $46.8 million or 56.0% and an increase of $16.6 million or 60.7%, respectively. For the year ended and three months ended December 31, 2022, the Rare Metals segment reported operating income of $21.0 million and $7.8 million, respectively, compared to $6.6 million and $2.4 million in the same periods of 2021; an increase of $14.4 million or 218.9% and $5.4 million or 223.3%, respectively. For the year ended December 31, 2022, Adjusted EBITDA[1] in the Rare Metals segment was $24.3 million, compared to $9.2 million in the same period of 2021; an increase of $15.2 million or 165.5%. For the three months ended December 31, 2022, Adjusted EBITDA[1] was $9.0 million, compared to $3.1 million in the same period of 2021; an increase of $5.9 million or 192.6%.

- Rare Metals achieved record earnings in 2022, continuing the improvement that started in the fourth quarter of 2021. Rare Metals experienced strength in pricing for key products such as hafnium and tantalum while also benefiting from lower-cost inventory on hand. Hafnium prices, in particular, have increased rapidly starting in the fourth quarter of 2021. The recycling purchases and activities of Rare Metals was particularly impactful to maintaining and growing margins as the scrap material purchased in the same quarter is not rising as fast as selling prices for finished goods. This was partially offset by Rare Metals not selling some of its niobium oxide products to customers resident in or with connections to Russia, resulting in lower margins and higher inventory on hand at period-end for its niobium oxide products.

- The improvement in the Rare Metals business in 2022, was also attributable to progress made in several key strategic initiatives in the segment, including selling more products outside of the aerospace industry, expanding its customer base, and diversifying its total end-market exposure. Key progress continues to be made in expanding the capacity of key products, with minimal capital investment and refocusing the sales pipeline and manufacturing capacity toward more profitable end products that require higher purity and can meet demanding specifications. Sales prices in a number of end markets have recovered and gallium-based products are exhibiting improved market demand.

Cash and Other Highlights for the year ended December 31, 2022

- To supplement Neo's existing cash position, support working capital levels, and plan for future growth, Neo completed a bought deal treasury offering on September 16, 2022, for net proceeds of approximately $47.7 million.

- To finance the relocation, expansion, and sustainability upgrades to one of Neo's environmental emissions catalyst manufacturing facilities, Neo entered into a loan agreement with Export Development Canada ("**EDC**") on August 16, 2022, for a term loan of up to $75.0 million, to be advanced in three tranches of $25.0 million each.

- Neo continues to be in a strong financial position. As at December 31, 2022, Neo had $147.5 million in cash and cash equivalents, and restricted cash of $1.2 million, offset by $17.3 million in bank advances and short-term debt, and $31.9 million in drawn credit facilities, net of transaction costs of $1.3 million, resulting in net cash of $100.8 million as at December 31, 2022. Neo is in compliance with all covenants in the facility agreements as at December 31, 2022. Neo's working capital increased by $67.8 million compared to December 31, 2021, due to increase in rare earth prices (through the year) which translated into higher-cost rare earth feedstock in inventory, and higher accounts receivable tied to increased sales values.

- Neo invested $17.5 million in capital expenditures and paid $12.4 million in cash taxes in the year ended December 31, 2022.

- For the year ended December 31, 2022, Neo paid dividends to its shareholders of $13.4 million.

4. Non-Operating Geopolitical and Other Global Impacts

Impact of COVID-19 Pandemic

The impacts of COVID-19 on economic activity and on Neo's results were most pronounced in the second and third quarters of 2020. Neo operates in numerous regions of the world, through complex global supply chains which were each impacted differently and on varying timelines. Throughout 2020, Neo's sales were negatively impacted by customers shutting down operations, cancelling orders, delaying orders and other changes due to customer's managing inventory levels. Neo's internal operations were also affected with shutdowns or slowdowns in production at Neo's manufacturing plants in China, Estonia, the United States and Canada, each to varying degrees or for varying timeframes. Although it is not practical to specifically quantify, Neo believes that the COVID-19 pandemic was the largest contributing factor to the decline in sales and performance in 2020.

Although much of the global economic system has been returning to normalized levels in the periods since 2020, there continue to be occasional challenges and hurdles impacting various regions and over different time frames. These challenges include spikes of COVID-19 in 2022 and early 2023 (particularly impacting flow of people and production in Asia), the implementation and subsequent relief of the "zero-COVID policy" in China, continued availability challenges and cost increases in global shipping, and the decreased availability of semiconductors used by the automotive and other industries.

As at December 31, 2022, Neo does not believe COVID-19 has a continuing impact on liquidity. Neo has a combined balance of cash and restricted cash totaling $148.7 million. Neo has not experienced a significant decline in the collectability of its accounts receivable although it continues to monitor potential bad debts and maintains an expected credit loss amount in accordance with IFRS 9. As at December 31, 2022, Neo had $31.9 million in drawn credit facilities, net of transaction costs of $1.3 million, and had approximately $17.3 million in bank advances and other short-term loans. These loan agreements contain restrictive covenants that Neo has to be in compliance with, and as at December 31, 2022, Neo is in compliance with all required covenants. Neo completed a bought deal treasury offering in September 2022 with Neo obtaining net proceeds of approximately $47.7 million. Neo continues to make appropriate capital investments to support its existing business and for future growth with $17.5 million in capital expenditures during the year ended December 31, 2022.

Neo continues to assess the global situation related to COVID-19 and its impact on its workforce, sales forecasts and operating conditions going forward, including certain remote working conditions. Given the emergence of new COVID-19 variants and the introduction of numerous vaccines, it remains uncertain how COVID-19 will impact global economic activities and Neo's future results.

Neo may, in the future, seek to raise additional capital or debt and this activity may be affected by the impacts of COVID-19, but it is not possible to determine the potential impact at this time.

Potential Impact of Ongoing Conflict with Russia in Ukraine

The actions of Russian military forces in Ukraine have escalated tensions between Russia and Ukraine, the European Union ("**EU**"), the North Atlantic Treaty Organization ("**NATO**"), United Kingdom ("**UK**"), the U.S., and other countries. Several countries have imposed a series of sanctions targeting Russia, two separatist pro-Russian regions in Ukraine and certain individuals, banks and corporations that are seen as allies to the administration in Russia. Through to December 31, 2022, there has been no significant impact on Neo's operations.

Neo's Silmet facility sources the majority of its rare earth feedstock from a Russian supplier. The Buss & Buss facility sources a small amount of its tantalum scrap from a recycled source in the Baltic States which may receive some stock from Russia. As at the date hereof, however, Neo has not had significant issues securing raw material. With the assistance of an advisory firm, Neo continues to monitor the impact of these sanctions on its business including purchases and sales to entities that may have connections to Russia. Neo currently expects, but cannot be certain, that these sanctions will not materially affect its access to the inputs it needs to operate.

The removal of Russian banks from the Swift messaging system has made it more difficult for Neo to pay its Russian supplier of rare earth materials (who is not currently restricted by sanctions) and Neo continues to work with global banks to facilitate these allowable payments. Neo cannot be assured that viable payment pathways will exist in the future, as financial institutions limit their business with Russian clients out of caution.

Neo and its suppliers procure natural gas and other energy products in Europe. While prices have increased significantly, supply disruptions have not otherwise affected Neo and its ability to obtain necessary inputs, such as reagents, from its European suppliers.

Counter-measures taken by Russia, and any further sanctions imposed by various countries and governments, could have negative impacts on regional and global financial markets and economic conditions. The situation is changing rapidly and Neo cannot be certain on the extent of the conflict and the related government actions will impact Neo's material sourcing or global markets in the future.

5. Update on Selected Strategic Initiatives

NAMCO Relocation

Neo is relocating its environmental emissions catalyst manufacturing facility in China, Neo Jia Hua Advanced Materials (Zibo) Co., Ltd. ("**NAMCO**") to a new facility in a dedicated industrial park in Zibo that features upgraded infrastructure, transportation, and wastewater treatment capabilities. Neo estimates that the expansion, upgrade and relocation of the NAMCO production facility will cost approximately $75.0 million. The new facility will have additional capacity for environmental catalysts and capacity for new products under development. It will also benefit from an improved manufacturing layout, automation and environmental management systems.

The engineering and construction for the new plant is largely on budget and slightly behind schedule (due to the impact of COVID in China in the fourth quarter of 2022 and first quarter of 2023), with a target for completion at the end of 2023. As of December 31, 2022, Neo had spent approximately $10.3 million (RMB 71 million) on the relocation efforts, including approximately $4.4 million to secure a 50 year land lease at the new site. To assist with the funding, in August 2022, Neo entered into a $75.0 million credit facility with EDC which envisions three tranches of $25.0 million each to fund anticipated relocation costs. As of December 31, 2022, $25.0 million had been drawn against this facility. Responding to customers' requests, Neo is building an inventory bank to maintain continuity of supply of its environmental catalyst products during the transition and re-qualification period.

Neo does not intend to invest to relocate the light rare earths separation business in Zibo Jiahua Advanced Material Resources Co., Ltd. ("**ZAMR**"). Neo has entered into a non-binding memorandum of understanding with another rare earth separation company in Zibo. Neo will receive a minority stake in the new joint venture in exchange for the value of the ZAMR assets transferred to the new venture. This minority joint venture is also intended to support the continued employment of ZAMR employees involved in rare earth separation and Neo's continued participation and access to light rare earths in China.

Sintered Magnets in Europe

With a portion of the proceeds from the bought deal treasury offering which was completed on September 16, 2022, Neo is investing in a new venture to manufacture and distribute sintered rare earth magnets in Europe. These magnets are critical to many future facing applications such as traction motors for electric vehicles. Magnet production and rare earth supply chain security are considered critical elements to all OEM's strategies on electric vehicles.

Neo will take a phased approach to investing in magnet capacity levels in Europe, starting with a Phase 1 expansion to be able to produce 2,000 tonnes of magnet block capacity with the intent to expand in future years. Neo will also, in time, evaluate expanding into North America. The overall strategy includes considerations for rare earth supply, manufacturing and technical capabilities, competitiveness, customer commitments and funding sources (both company funded and government support).

On November 9, 2022, Neo announced it had been awarded a grant of up to $19.9 million (€18.7 million) from the Government of Estonia under Europe's Just Transition Fund ("**JTF**") for eligible project costs of up to $104.5 million (€98.0 million). The terms of the award are guided by the Government of Estonia's regulations on general conditions for granting and using funds from the operational program of the EU cohesion and internal security policy funds for the period 2021-2027 and related regulations, and includes factors such as total eligible costs incurred, and employment created. The grant to Neo is the first such award to any critical materials company in the EU under the JTF program.

Through to March 2023, Neo has spent approximately $1.0 million in out of pocket costs on this endeavour and has allocated significant internal resources for its preparation and execution.

Initiatives to Diversify Rare Earth Supply

Neo is among the most geographically diverse rare earth value-add companies in the world. Neo has rare earth separation capacity and magnetic powder manufacturing capabilities inside and outside of China. This allows Neo to offer parallel supply chains to some customers for a number of our products. The European magnet manufacturing project, which may also involve expanding rare earth separation capacity in Estonia, is another example of Neo's commitment to meet its global customers' growing demands for rare earth products from diverse regional sources. To that end, Neo considers the continued access to rare earth material, inside and outside of China, to be of strategic importance. Neo currently receives its rare earth feedstocks from numerous geographies including China, Myanmar, Russia, Australia (via Malaysia), Vietnam, and the United States (including the long-term supply agreement with Colorado-based Energy Fuels Inc.). Neo is actively involved in projects in other geographies in order to ensure adequate access to distributed global rare earth supplies for Neo's separation and value add capabilities.

On August 22, 2022, Neo and Hudson Resources Inc. ("**Hudson**") entered into a License Purchase Agreement ("**Agreement**") whereby Neo will acquire from Hudson an exploration license ("**License**") covering the Sarfartoq Carbonatite Complex in southwest Greenland (the "**Project**"). The Project hosts a mineral deposit that is enriched in neodymium and praseodymium, two essential elements for rare earth permanent magnets used in electric vehicles, wind turbines, and high-efficiency electric motors and pumps that help reduce greenhouse gas emissions. Neo intends to assign this License to and invest in, along with other investors, a Special-Purpose Entity ("**SPE**") controlled by Neo, with plans to explore and develop the Project. As part of this equity contribution arrangement, Neo intends to enter into an off-take agreement for the majority of the rare earth material ultimately produced in order to supply rare earth feedstock to Neo's value-add processing facilities. As of December 31, 2022, Neo is in the process of obtaining government approval to transfer the License from Hudson to the SPE. A $0.3 million non-refundable deposit has been spent up to December 31, 2022.

On October 14, 2022, Neo entered into a non-binding memorandum of understanding with Australian Rare Earths Ltd. (AR3.AX) ("**AR3**") that provides for the parties to enter into a joint development agreement pursuant to which Neo will provide technical and material testing support to AR3 and collaborate on future rare earth projects, including separation capabilities, in Australia. In return, Neo would receive options on AR3 stock, and rights to purchase 50% of the initial production from AR3's Koppamurra rare earth project in Australia. Neo's participation is in the early phases and no capital has been spent on this project other than the initial investment in AR3 of $0.8 million made on June 30, 2021.

6. Factors Affecting Neo's Performance

Revenue

Neo produces advanced industrial materials that are essential inputs to high-technology, high-growth, and future-facing industries. Neo's products are indispensable inputs for many applications because of their unique physical and chemical properties. These include magnetic, catalytic, luminescent, electrochemical, thermal stability, and superconductive properties. Revenue is related to the demand of these end markets as well as the suitability and competitiveness of Neo's products.

Among the input materials utilized by Neo in the advanced industrial materials are rare earths. Greater than 80% of the world's rare earth sources are processed in China. Neo's Chinese manufacturing facilities in the C&O segment are subject to rare earth separation quotas in China (for rare earths concentrate mined in China) and the source rare earths used in the Magnequench business largely come from China. Restrictions in supply of these source rare earths may impact revenues from magnetic powders. Neo's customers are global and a substantial amount of sales are generated in the same regions as Neo's manufacturing facilities, including China. Neo also sources rare earths from outside China including from Australia, Vietnam, Russia, and the United States. Neo's rare earth sourcing strategy forms one of the most globally diversified supply chains in the rare earth industry.

Input material prices are affected by supply and demand, and policies and circumstances affecting supply from China, including the continued existence of unlicensed mining operations in China. Neo only purchases rare earth products from government licensed operations that must comply with all environmental regulations. Most of Neo's custom and standardized element sales are subject to current market pricing. Most of Neo's magnetic powder sales and auto catalyst functional material sales have various forms of raw material pass-through agreements. These agreements generally have mechanisms tied to the pricing of the various input materials but are implemented over established time frames (monthly, quarterly, semi-annually and annually). Accordingly, changes in input material pricing may have an impact on total revenue.

Costs of sales

Neo's costs of sales is comprised of raw materials, labour, processing costs, production overheads, and depreciation and amortization of productive assets.

The largest element of Neo's costs of sales is related to the input materials used in production that it purchases from outside vendors. Changes in input material costs are either translated into selling prices of spot sales or incorporated into future selling prices via pass-through mechanisms. There are timing delays between the incorporation of changing material costs and selling prices.

Outside of input material cost, Neo's largest costs include labour and benefits, chemical reagents, natural gas, electricity, maintenance, operating supplies, other plant overheads, and depreciation and amortization. Some of these costs are fixed and some are variable. For a portion of variable costs, adjustments to production levels are made over periods of time. Accordingly, as production volume increases or decreases, average cost per volume produced decreases or increases, respectively. Some of these costs are subject to volume fluctuations and are influenced by general economic conditions beyond Neo's control.

Selling, general and administrative ("SG&A") expense

SG&A expense consists primarily of personnel and related costs, including freight, legal, accounting and other professional service fees, and information technology costs.

Neo has a global sales force that is highly technically trained and fluent in the major languages of its customers. Neo has made significant investments in creating and maintaining this global sales force in geographic proximity to its major customers, which positions Neo to better leverage global demand, work closely with customers in product development efforts, and maximize pricing.

Share-based compensation

On September 12, 2017 OCM Neo Holdings (Cayman), L.P. ("**OCM**") formed Neo, a company incorporated in the province of Ontario, for the purpose of completing a Cayman Islands scheme of arrangement (the "**Arrangement**") with Neo Cayman Holdings Ltd. ("**Neo Cayman**") and a subsequent public offering of common shares of Neo. Neo Cayman's management incentive plan was assigned to Neo upon the completion of the Arrangement. This plan ("**Legacy Plan**") was comprised of Stock Options, Restricted Share Units ("**RSUs**"), Performance Stock Units ("**PSUs**") and Special Performance Stock Units ("**Special PSUs**") (collectively referred to as "**Stock Units**"). These Stock Units were granted under the Legacy Plan to directors, officers, and employees, and provide the right for these individuals to receive common shares of Neo or, in the case of the options, to purchase common shares of Neo.

In connection with the Arrangement, Neo has undertaken to issue common shares of Neo underlying the Stock Units, applying the exchange ratio applied in connection with the Arrangement. On October 13, 2017, Neo adopted a Stock Option Plan, in conjunction with the Initial Public Offering. On May 9, 2018, Neo adopted a long-term incentive plan (the "**LTIP**"). Neo granted Options under the Stock Option Plan, Deferred Share Units ("**DSUs**") under the Directors Share Unit Plan, and RSUs, PSUs and Additional PSUs under the LTIP.

The Special PSUs under the Legacy Plan and Additional PSUs under the LTIP, had all been canceled as at December 31, 2018 as the liquidity event condition was not met. In 2021, Neo issued shares with respect to all outstanding RSUs and PSUs of the Legacy Pan (that had vested).

On May 28, 2021, an omnibus long-term incentive plan (the "**Plan**") was established. The Plan was formally approved at the Annual General and Special Meeting of Neo on June 29, 2021 and initial awards were granted in September 2021.

On March 28, 2022, Neo granted 153,155 Options, 38,820 equity-settled RSUs, 97,000 equity-settled PSUs, 57,110 cash-settled RSUs, and 57,110 cash-settled PSUs under the Plan. On June 30, 2022, Neo granted 33,483 DSUs to its directors under the Plan.

During the year ended December 31, 2022, 13,000 stock options have been exercised under the terms of the Legacy Plan and 15,758 RSUs have been exercised under the Plan. As of December 31, 2022, there are 697,354 stock options under the Legacy Plan and 100,781 stock options under the 2017 Stock Option Plan, that have vested but have not yet been exercised.

R&D

A critical success factor for Neo is to continually develop and evolve new products that meet customer's exacting specifications. This includes maintaining close relationships with key customers, understanding changing market factors, and responding with innovative products both as improvements to existing applications and developing new applications and solutions.

Neo invests in R&D activities in response to customer needs as well as perceived market development. These expenses consist primarily of salaries, outside labour, materials, and equipment. R&D activities occur in both plant manufacturing locations and in dedicated R&D centres and are coordinated through global efforts within each business segment. Neo continues to dedicate resources to research and develop new applications for its products, provide technical solutions to its customers, and drive new process development. These factors allow for a more efficient and profitable use of Neo's products.

Finance costs, net

Neo’s finance costs are driven primarily by three factors: first, interest and finance costs on credit facilities; second re-measurement in each period of Neo’s derivative liability which is comprised of a put option issued to the non-controlling interest of a consolidated subsidiary, Buss & Buss; and third, the re-measurement of marketable securities at the end of each reporting period.

Neo has several interest bearing credit facilities including a revolving loan in China and Germany in addition to term loans in Estonia and Canada. Finance costs are determined based on the amount of the credit facilities outstanding and the variable interest rate on each facility.

Each period, Neo conducts a re-measurement of Neo's derivative liability, which is based on forecasts of future performance of Buss & Buss, long term growth factors and changes in discount rates. Other re-measurement of marketable securities is based on third party market indices related to those investments.

Income tax expense

Neo's income tax expense is based on the income earned or loss incurred in each tax jurisdiction at the enacted or substantively enacted tax rate applicable to that income or loss.

In the ordinary course of business, there are many transactions for which the ultimate tax outcome is uncertain, and estimates are required for exposures related to examinations by tax authorities. Management reviews these transactions and exposures and records tax liabilities based on its assessment of many factors, including past experience and interpretations of tax law applied to the facts of each matter. The determination of tax liabilities is subjective and generally involves a significant amount of judgment. The final outcome may differ from estimates, and a change to these estimates could impact the income tax provision.

Neo recognizes deferred tax assets to the extent management believes it is probable that the related tax benefit amount will be realized. Management considers factors such as the reversal of taxable temporary differences, projected future taxable income, the character of the income tax asset, tax planning strategies, changes in tax laws and other factors. A change to these factors could impact the amount of deferred tax assets Neo recognizes.

Neo's effective income tax rate can vary significantly from quarter-to-quarter for various reasons, including the mix and volume of business in different tax jurisdictions, jurisdictions with tax holidays and tax incentives, and jurisdictions for which no deferred tax assets have been recognized because management believed it was not probable that future taxable profit would be available against which tax losses and deductible temporary differences could be utilized. Neo's effective income tax rate can also vary due to the impact of foreign exchange fluctuations, operating losses, changes in its provisions related to tax uncertainties and changes in management's assessment as to whether temporary differences arising from investments in subsidiaries will reverse in the foreseeable future.

7. Basis of Presentation

Neo Performance Materials Inc. ("**Neo**", the "**Company**" or the "**Group**") is a Canadian public company traded on the Toronto Stock Exchange ("**TSX**") and was incorporated on September 12, 2017 under the *Business Corporations Act* (Ontario). Neo's registered and head office is located at 121 King Street West, Suite 1740, Toronto, Ontario, Canada, M5H 3T9.

On February 17, 2021, Neo completed a bought deal secondary offering of common shares of Neo. OPPS NPM S.à.r.l. and OPPS NPM II S.à.r.l, ("the **Selling Shareholders**"), affiliates of Oaktree Capital L.P. ("**Oaktree**"), sold an aggregate of 5,175,000 common shares of Neo at Cdn. $15.75 per share for total gross proceeds to the Selling Shareholders of approximately Cdn. $81.5 million. Following the completion of this secondary offering, Oaktree held an aggregate of 17,109,155 common shares of Neo, which represented approximately 45.7% of the issued and outstanding common shares of Neo. This constituted a liquidity event under the Legacy Plan.

On April 27, 2021, Neo completed a bought deal secondary offering of common shares of Neo. OPPS NPM S.à.r.l. (the "**Selling Shareholder**") sold an aggregate of 4,600,000 common shares of Neo under this secondary offering at Cdn. $19.75 per share for total gross proceeds to the Selling Shareholder of approximately Cdn. $90.9 million.

On November 16, 2021, Neo completed a bought secondary and treasury offering of common shares of Neo. Neo issued and sold from treasury an aggregate of 2,598,000 common shares at a price of Cdn. $19.25 per share for total gross proceeds to Neo of approximately Cdn. $50.0 million. The Selling Shareholder sold an aggregate of 2,631,000 common shares of Neo also at a price of Cdn. $19.25 per share for total gross proceeds to the Selling Shareholder of Cdn. $50.7 million.

On September 16, 2022, Neo completed a bought deal treasury offering of common shares of Neo. Neo issued and sold from treasury an aggregate of 4,506,734 common shares at a price of Cdn. $15.00 per share for total gross proceeds to Neo of approximately Cdn. $67.6 million ("**treasury offering**").

On October 13, 2022, Hastings Technology Metals Ltd. ("**Hastings**") completed its binding Share Purchase Agreement with an affiliate of Oaktree to acquire 8,974,127 common shares of Neo at Cdn. $15.00 per share, for an aggregate purchase price of Cdn. $134.6 million.

Following the completion of the transaction and treasury offering, Hastings holds 8,974,127 common shares of Neo representing 19.9% of the issued and outstanding common shares of Neo and Oaktree holds 904,028 common shares of Neo representing 2.0% of the issued and outstanding common shares of Neo.

All intercompany transactions have been eliminated upon consolidation.

8. Consolidated Results of Operations

Comparison of the year ended and three months ended December 31, 2022 to the year ended and three months ended December 31, 2021

($000s)	Year Ended December 31,		Three Months Ended December 31,	
	2022	**2021**	**2022**	**2021**
Revenue	640,298	539,251	159,168	153,414
Costs of sales				
Costs excluding depreciation and amortization	481,524	380,548	125,275	111,718
Depreciation and amortization	9,406	8,176	2,361	2,405
Gross profit	**149,368**	**150,527**	**31,532**	**39,291**
Expenses				
Selling, general and administrative	58,915	58,445	16,619	17,421
Share-based compensation	2,483	4,526	610	1,765
Depreciation and amortization	7,313	7,689	1,784	1,891
Research and development	20,810	19,859	4,854	5,367
Impairment of assets	1,233	121	938	121
	90,754	90,640	24,805	26,565
Operating income	**58,614**	**59,887**	**6,727**	**12,726**
Other expense	(2,228)	(9,750)	(492)	(4,351)
Finance cost, net	(15,259)	(3,943)	(11,116)	(1,523)
Foreign exchange gain (loss)	301	(4,388)	476	(2,544)
Income (loss) from operations before income taxes and equity income of associates	**41,428**	**41,806**	**(4,405)**	**4,308**
Income tax (expense) benefit	(17,793)	(9,580)	(2,022)	702
Income (loss) from operations before equity income of associates	**23,635**	**32,226**	**(6,427)**	**5,010**
Equity income (loss) of associates (net of income tax)	2,783	3,817	(735)	2,253
Net income (loss)	**$ 26,418**	**$ 36,043**	**$ (7,162)**	**$ 7,263**
Attributable to:				
Equity holders of Neo	25,947	$ 35,177	(7,291)	$ 6,735
Non-controlling interest	471	866	129	528
	$ 26,418	**$ 36,043**	**$ (7,162)**	**$ 7,263**
Earnings (loss) per share attributable to equity holders of Neo:				
Basic	$ 0.62	$ 0.92	$ (0.16)	$ 0.17
Diluted	$ 0.61	$ 0.91	$ (0.16)	$ 0.17

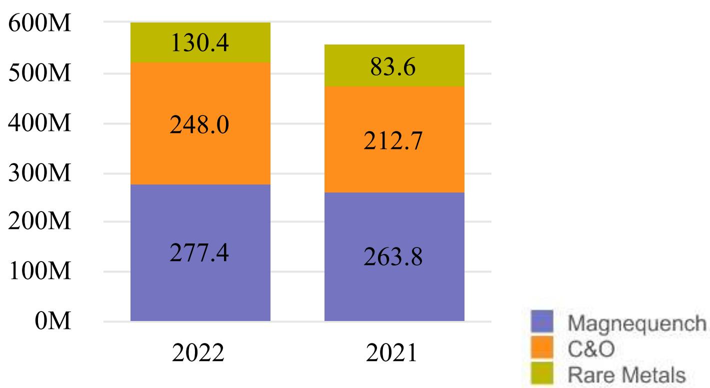
Revenue

Neo's consolidated revenue for the year ended and three months ended December 31, 2022, was $640.3 million and $159.2 million, respectively, compared to $539.3 million and $153.4 million for the year ended and three months ended December 31, 2021, respectively, an increase of $101.0 million or 18.7% and $5.8 million or 3.8%, respectively.

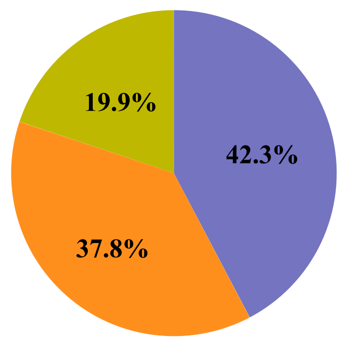
($000s)	Year Ended December 31,				Three Months Ended December 31,			
	2022	**2021**	**Change**	**%**	**2022**	**2021**	**Change**	**%**
Magnequench	$277,412	$263,753	$ 13,659	5.2%	$ 57,584	$ 70,897	$ (13,313)	(18.8%)
C&O	248,011	212,711	35,300	16.6%	58,767	60,389	(1,622)	(2.7%)
Rare Metals	130,386	83,604	46,782	56.0%	43,865	27,296	16,569	60.7%
Eliminations	(15,511)	(20,817)	5,306	(25.5%)	(1,048)	(5,168)	4,120	(79.7%)
Consolidated Revenue	**$640,298**	**$539,251**	**$101,047**	18.7%	**$159,168**	**$153,414**	**$ 5,754**	3.8%

Revenue by segment before inter-segment eliminations (1)

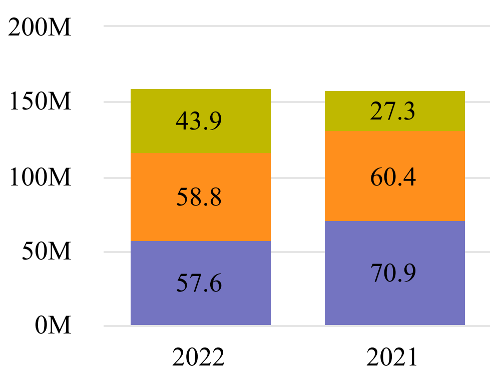
For the Year Ended December 31, 2022 and 2021



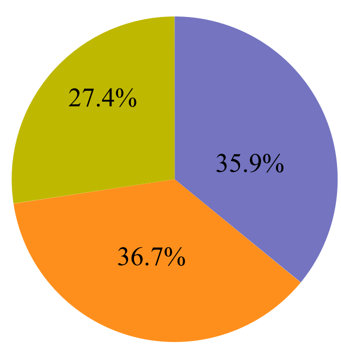
For the Year Ended December 31, 2022



For the Three Months Ended December 31, 2022 and 2021



For the Three Months Ended December 31, 2022



Notes:
(1) The revenue by segment before inter-segment eliminations charts, excludes inter-segment revenue eliminations.

Inter-segment revenue for the year ended and three months ended December 31, 2022 was $15.5 million and $1.0 million, respectively, compared to $20.8 million and $5.2 million for the year ended and three months ended December 31, 2021, respectively. These have been eliminated on consolidation from C&O segment revenue as C&O sold product to Magnequench in the respective periods. The products sold to Magnequench are potential marketable third-party sales and are generally sold at fair market value.

Further commentary on the revenue changes in each segment are included in the discussion under the heading "*Discussion and Analysis of Reportable Segments*" below.

Costs of sales

Consolidated costs of sales, excluding depreciation and amortization, for the year ended December 31, 2022, was $481.5 million or 75.2% of revenue, compared to $380.5 million or 70.6% of revenue in the same period of the prior year. Consolidated costs of sales, excluding depreciation and amortization for the three months ended December 31, 2022 was $125.3 million or 78.7% of revenue, compared to $111.7 million or 72.8% of revenue for the three months ended December 31, 2021. For the year ended and three months ended December 31, 2022, costs of sales, excluding depreciation and amortization, as a percentage of revenue increased mainly due to decreased rare earth commodity prices, higher cost inventory on hand relative to current selling price (including an $3.5 million provision for inventories), and product mix within the business segments.

Consolidated depreciation and amortization in costs of sales were $9.4 million and $2.4 million for the year ended and three months ended December 31, 2022, respectively, compared to $8.2 million and $2.4 million and for the year ended and three months ended December 31, 2021, respectively. Consolidated depreciation and amortization in costs of sales for the year ended December 31, 2022 increased due to the accelerated depreciation of certain property, plant and equipment in one of Neo's facilities in China.

Further commentary on the costs of sales changes in each segment are included in the discussion under the heading "*Discussion and Analysis of Reportable Segments*" below.

Selling, general and administrative ("SG&A") expense

Neo's SG&A expense consists primarily of personnel and related costs, including freight, legal, accounting and other professional fees, and information technology costs. For the year ended and three months ended December 31, 2022, SG&A expense was $58.9 million and $16.6 million, respectively, comparable to $58.4 million and $17.4 million in the corresponding periods last year.

Share-based compensation

For the year ended and three months ended December 31, 2022, share-based compensation was $2.5 million and $0.6 million, respectively, compared to $4.5 million and $1.8 million for the year ended and three months ended December 31, 2021. The lower expense in 2022 is mainly due to the lower share price for Neo's common shares, thus, decreasing the fair value of the cash-settled awards. This decrease was partially offset by increased service period expense for awards granted in March 2022 and September 2021.

Depreciation and amortization

Depreciation and amortization unrelated to production for the year ended and three months ended December 31, 2022 was $7.3 million and $1.8 million and , respectively, comparable to $7.7 million and $1.9 million for the year ended and three months ended December 31, 2021.

R&D

For the year ended and three months ended December 31, 2022, R&D expense was $20.8 million and $4.9 million, respectively, compared to $19.9 million and $5.4 million in the corresponding periods of 2021. Neo continues to prioritize making strategic and appropriate investments in R&D to develop new applications for its products and to strategically position itself to meet customers' needs for technical solutions. Certain R&D costs are project-based and may be higher or lower in any given period.

Other expense

Neo reported other expense of $2.2 million and $0.5 million for the year ended and three months ended December 31, 2022, respectively, compared to $9.8 million and $4.4 million for the year ended and three months ended December 31, 2021, respectively. For the year ended December 31, 2021, Neo recorded other expense for estimated damage claims related to legal proceedings and costs for the disposal of historically generated naturally occurring radioactive materials ("**NORM**"), partially offset by other income from the disposal of Neo's entire holdings of Shanxi Jiahua Galaxy Electronic Materials Co., Ltd. and insurance proceeds received related to damage incurred at the Blanding facility (now sold).

Finance cost, net

Finance cost, net, for the year ended and three months ended December 31, 2022 was $15.3 million and $11.1 million, respectively, compared to finance cost of $3.9 million and $1.5 million for the year ended and three months ended December 31, 2021.

Neo's finance cost, net, in both years were primarily related to the change in fair value of equity securities and derivative liability of a put option issued to the non-controlling interest of a consolidated subsidiary Buss & Buss. The equity securities and derivative liability are re-measured at each reporting period. For the year ended and three months ended December 31, 2022, the change in the fair value of the derivative liability was an increase of $13.9 million and $11.4 million, respectively. The fair value of the derivative liability is based on the best market information available to management, including assumptions regarding the forecasted pricing of the advanced industrial materials Buss & Buss produces. The main driver of the change year-over-year, was due to changes in these assumptions and the discount rate. This fair value measurement was categorized as a Level 3 fair value measurement based on significant unobservable inputs in the valuation technique used (see *"Financial Instruments and Risk Management")*.

As at December 31, 2022, Neo had outstanding bank loans of $25.0 million, net of transaction costs of $1.3 million, from its EDC credit facility which bears interest at a rate equal to 6-month SOFR of 4.74% plus 3.43%, as well as $6.9 million drawn on its Estonia debt facility which bears interest at a rate equal to Euribor plus 1.95% per annum. Neo also had approximately $17.3 million in bank advances and other short-term loans with short-term maturities at December 31, 2022.

Income tax expense

For the year ended and three months ended December 31, 2022, Neo had an income tax expense of $17.8 million and $2.0 million, respectively, on income from operations before taxes of $41.4 million and on loss from operations before taxes of $4.4 million. For the year ended and three months ended December 31, 2021, Neo had an income tax expense of $9.6 million and an income tax benefit of $0.7 million, respectively, on income from operations before taxes of $41.8 million and $4.3 million.

Neo's effective income tax rates were 42.9% and (45.9)% for the year ended and three months ended December 31, 2022, respectively, and, 22.9% and (16.3)% for the year ended and three months ended December 31, 2021, respectively.

For the three months ended December 31, 2022, the negative effective income tax rate is due primarily to non-deductible finance costs of $11.4 million (which is largely related to the revaluation of the Buss & Buss derivative liability of a put option). Non-deductible finance costs of $13.9 million for the year ended December 31, 2022 increased the effective tax rate for the year.

For the three months ended December 31, 2021, the negative effective tax rate for this period is due primarily to the tax benefit resulting from the recognition of $1.7 million of deferred tax assets that were previously unrecognized, and the $ 1.7 million tax benefit from the utilization of previously unrecognized tax losses used to reduce current year taxable earnings. The tax benefit from these two items exceeded the income tax expense that would have otherwise resulted from the pre-tax income, creating an overall tax benefit of $0.7 million for the quarter and a negative effective tax rate.

Other Expenditures and Legal Contingencies

Capital Expenditures

Neo capitalized expenditures of $17.5 million for the year ended December 31, 2022, compared to $9.5 million for the year ended December 31, 2021. These capital projects included a combination of maintenance capital to assist with the continuing development and operations of Neo, growth capital to assist in adding new capacity or new products, and strategic capital tied to longer-term strategic planning initiatives.

As part of planned upgrade, expansion, and relocation of Neo's environmental emissions catalyst production facility, NAMCO received the land certificate in March 2022 from the Chinese government which gives permission to NAMCO to begin using the land as stated in the 50-year lease agreement with a cost of $4.4 million. Neo continues to work on the engineering design associated with this relocation and began construction in 2022 with a total of $10.3 million spent since inception (RMB 71 million).

Environmental Expenditures

Neo's operations are subject to numerous and detailed environmental laws, regulations and permits, including those pertaining to employee health and safety, environmental permitting and licensing, air quality standards, wastewater treatment and pollution control, and handling and disposal of hazardous and radioactive materials and wastes.

Neo's Zibo facility was designed to make use of wastewater treatment and discharge facilities of an adjacent petrochemical complex. There is a variable monthly charge based on the Zibo facility's usage. The facility is also obliged to pay a monthly environmental administration fee to the municipal government of Linzi, China. For the years ended December 31, 2022 and 2021, Neo paid a nominal amount and $0.1 million for annual administration fees, respectively.

As part of the recycling of gallium and indium scrap into saleable metal, waste material is generated during the leaching process. Neo has adequate procedures in place to ensure that these wastes are appropriately contained and disposed of.

Neo's Canadian operations in Ontario are subject to federal, provincial, and local regulation and must periodically submit documentation to validate the waste disposal process throughout the year. For both the years ended December 31, 2022 and 2021, waste disposal costs related to the Rare Metals production facilities totaled $0.4 million.

Neo's NPM Silmet OÜ facility in Estonia and JAMR facility in China, in their normal operation, generate hazardous waste and NORM. These materials are stored at the site in accordance with local laws and regulations. With respect to the NORM in China, Neo recorded a provision of $6.6 million (2021: $6.2 million) for the offsite disposal of the NORM and other related costs as at December 31, 2022. The increase in provision year-over-year was due to updated estimates to remove the existing NORM as well as NORM generated in the year, for $1.2 million, net of $0.2 million in cash paid to prepare the NORM for disposal and net of changes in foreign exchange of $0.6 million.

With respect to the NORM in Estonia, Neo recorded a provision of $3.4 million in 2021 for the offsite disposal of NORM and other related costs in Estonia. In August 2022, the NORM at the Estonia facility was removed and the liability was fully settled. For the year ended December 31, 2022, Neo recorded an additional provision of $0.5 million for the disposal of demolition waste from a disused building contaminated by radioactivity from Soviet era use.

Legal contingencies

Neo operates in a high technology and advanced engineering product environment in which many patents have been issued over time. The subsidiaries of Neo are currently, and may in the future become, involved in legal proceedings alleging patent infringement. At present, Neo is defending against patent infringement legal proceedings filed in Germany, the United Kingdom, the People's Republic of China, and Estonia. Additionally, Neo has initiated proceedings to invalidate certain patents of Neo's competitors issued in these same juriesdictions.

There are many factors that make it difficult to estimate the impact of a particular lawsuit on Neo, including the following, among others: being in the early stage of a proceeding when the claimant is not required to specifically identify the manner in which the patent has allegedly been infringed; damages sought that are unspecified, unsupportable, unexplained or uncertain; discovery not having been started or still incomplete; the complexity of the facts that are in dispute (e.g., the analysis of the patent and a comparison to the activities of Neo is a labor-intensive and highly technical process); the difficulty of assessing novel claims or legal arguments, and; the parties not having engaged in any meaningful settlement discussions. Management is required to apply judgment with respect to estimating the potential impact of the ongoing patent litigation on Neo. Potential impacts to Neo include, but are not limited to the following: the possibility of an injunction prohibiting Neo from manufacturing, distributing, marketing or selling products that are found to infringe on an unexpired patent; potential damages, attorney's fees and costs that Neo could be ordered to pay if it is found to have infringed on a patent, and; damage to Neo's reputation with key customers, or prospective customers, from a finding of patent infringement.

Of the various lawsuits initiated and underway, the German Courts have ruled that certain of Neo Chemicals & Oxides (Europe) Ltd.'s ("**Neo C&O (Europe)**") products infringed five expired patents of Rhodia Chimie ("**Rhodia**"): European patent #0735984 B1 ("**984**"), European patent #0863846 B1("**846**"), European patent #0605274 ("**274**"), European patent #0955267 B1 ("**267**"), and European patent #1435338 B1 ("**338**"). Neo C&O (Europe) filed an appeal in the 846 infringement action, which is still pending. Neo C&O (Europe) filed an appeal in the 338 infringement action but the Higher Regional Court of Karlsruhe affirmed the judgment of infringement. Neo C&O (Europe) subsequently filed for leave to appeal the 338 judgment of infringement to the German Federal Supreme Court and that application is still pending. The judgments of infringement with respect to 984, 274 and 267, are final. Neo C&O (Europe) was ordered to provide information related to the calculation of damages, but as of yet, there has been no determination of damages in any of the German infringement lawsuits.

Neo C&O (Europe) challenged the validity of patents 984, 846, 274, 267 and 338 before the German Federal Patent Court. Following litigation before the German Federal Patent Court, and subsequent appeals to the German Supreme Court, patents 984, 846, 274, 267 and 338 were upheld subject to restrictions in scope. Neo C&O (Europe) also filed actions in the German Federal Patent Court challenging the validity of European patent #1527018 ("**018**") and European patent #2007682 ("**682**"). The German Federal Patent Court upheld the validity of 018 in restricted form. Both Rhodia and Neo have appealed this ruling and the appeals are still pending. Neo’s lawsuit challenging the validity of 682 is pending in the German Federal Patent Court.

Rhodia has filed actions in Germany alleging that Neo C&O (Europe) has infringed four unexpired patents: 018, 682, European Patent #3009403 B1 ("**403**") and European patent #2523907 ("**907**"). In September 2020, Neo C&O (Europe) was found to infringe 018 in Germany by the Düsseldorf Regional Court. Neo and Rhodia have both appealed this ruling, and the appeals are still pending. The Düsseldorf Regional Court stayed Rhodia's case alleging infringement of 682, pending the outcome of Neo's action before the German Federal Patent Court to invalidate 682.

In September of 2021 the Court of Appeal remanded the case back to the Düsseldorf Regional Court to reconsider its order staying the 682 infringement proceeding. The Düsseldorf Regional Court has not yet ruled on Neo's motion for stay following the remand. The 403 infringement action is pending before the Düsseldorf Regional Court and a trial date has not yet been set. The 907 action was initiated at the beginning of July 2020, but Rhodia dismissed the 907 action in March 2021.

In April 2018, the United Kingdom ("**UK**") High Court of Justice determined that certain of Neo C&O (Europe)'s products infringed the equivalent UK patent 338. Neo C&O (Europe) appealed the trial court judgment of infringement but in October of 2019 the judgment of infringement was affirmed. In 2020 Neo C&O (Europe) reached a confidential settlement with the plaintiffs, Rhodia Operations S.A.S. and Anan Kasai Co. Ltd., for some of the damage claims. A trial on the plaintiffs' remaining claims for damages took place in January and February 2022. On March 29, 2022, the Court ruled that the plaintiffs were not entitled to any damages for the remaining claims. The plaintiffs' appeal of the trial court judgment was dismissed in January 2023. The plaintiffs have applied for permission to appeal to the Supreme Court and the application is still pending.

On April 18, 2018, the Patent Reexamination Board of the State Intellectual Property Office of China ("**PRB**") ruled in favor of ZAMR, a Chinese subsidiary of Neo, by invalidating all claims associated with Chinese patent ZL 03817110.4, held by Rhodia Operations S.A.S., an affiliate of Brussels-based Solvay ("**Rhodia Operations**"). On May 23, 2018, the Intermediate People's Court of Zibo, China, dismissed the pending lawsuit by Rhodia Operations alleging infringement of Chinese patent ZL 03817110.4. Rhodia Operations appealed the decisions of the PRB and the Intermediate People's Court of Zibo concerning Patent ZL 03817110.4. In December 2020, the Beijing IP Court upheld the ruling of the PRB invalidating all claims associated with patent ZL 03817110.4. Rhodia Operations appealed the decision of the Beijing IP Court. On April 1, 2022, the Supreme People's Court upheld the ruling of the Beijing IP Court and the judgment invalidating patent ZL 03817110.4 is now final.

On September 26, 2018, the PRB again ruled in favor of ZAMR by invalidating all product claims associated with patent ZL 200710146613.6, held by Daiichi Kigenso Kagaku Kogyo Co. ("**DKKK**"). The PRB upheld the validity of Claim 4, which is a method claim. In May of 2021, DKKK and Rhodia Operations withdrew their suit alleging infringement of Claim 4. In December 2020, the Beijing IP Court upheld the ruling of the PRB invalidating claims 1 through 3 of patent ZL 200710146613.6. In September 2022, the Supreme People's Court upheld the ruling of the PRB.

In January 2019, the PRB ruled in favor of ZAMR by invalidating all patent claims associated with patent ZL 97195463.1. On February 28, 2019, the Intermediate People's Court of Zibo, China, dismissed the pending lawsuit by Rhodia Operations and DKKK alleging infringement of patent ZL 97195463.1. In April 2020, the Beijing IP Court upheld the PRB's ruling that invalidated all patent claims. Rhodia Operations appealed this judgment to the Supreme People's Court of China and in November 2020, the Supreme People's Court of China affirmed the judgment of the Beijing IP Court, invalidating all claims associated with patent ZL 97195463.1. This final judgment precludes further litigation for alleged infringement of ZL 97195463.1.

On March 4, 2019, the PRB ruled in favor of ZAMR by invalidating all patent claims associated with patent ZL 02822106.0, which is equivalent to European Patent 338. Solvay Japan appealed this decision. In July 2021, the Beijing IP Court dismissed Solvay Japan's appeal and upheld the PRB's ruling that invalidated all patent claims associated with patent ZL 02822106.0. In January of 2022, Solvay Japan withdrew its appeal to the Supreme People's Court of China and the judgment of the Beijing IP Court invalidating all patent claims became final.

In October 2020, Rhodia Operations refiled a lawsuit, in the Ji'nan Intermediate Court, alleging ZAMR had infringed Chinese patent ZL 96196505.3. In 2015 Rhodia Operations had filed a similar lawsuit against ZAMR alleging infringement of the same patent before the Zibo Intermediate People's Court, but in December 2019 Rhodia Operations withdrew that lawsuit during the middle of trial. In August of 2021, the Ji'nan Intermediate Court ruled that ZAMR did not infringe ZL 96196505.3. Rhodia Operations has appealed the judgment of non-infringement, and the appeal is still pending.

In November of 2020 Rhodia Operations filed a lawsuit in Estonia against NPM Silmet OÜ alleging infringement of 403. This case has not yet been set for trial. Neo C&O (Europe) has filed an action before the European Patent Office seeking to revoke 403.

The following infringement proceedings are ongoing. These proceedings are at various stages of court proceeding including being at pre-trial stage, within infringement proceedings, as well as invalidity proceedings.

Patent Reference	Jurisdiction of Claim	Specified Damages by Claimant
European patent 0863846 B1	Germany	$8.7 million
European patent 0735984 B1	Germany	
European patent 0605274 B1	Germany	
Chinese patent ZL 96196505.3	China	$6.5 million
European Patent EP 3009403	Germany	Not specified
European Patent EP 3009403	Estonia	$0.1 million
European & UK patents 1435338 B1	Germany	$40.5 million (€38.0 million)
European & UK patents 1435338 B1	UK	Not specified
European patent 0955267	Germany	$0.3 million (€0.3 million)
European patent 1527018	Germany	$0.7 million
European patent 2007682	Germany	Not specified

Management has made an assessment, based on its interpretation of the claims as to the quantum of the appropriate provision for certain claims, in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets. Such a provision is based on management's best estimate, as damages are uncertain and are subject to judicial determination. Management's assessment, based on its interpretation of the claims, the limited facts available at this time and independent legal advice, is that for all other claims it is not probable that an outflow of resources will be required in settling these claims and no provision has been made. Future developments in these cases could cause management to change its assessment.

Management does not have sufficient information to comment on the quantum or methodology of the damages sought by the claimants including with respect to potential duplicity of the parts affected. Management's view on specified damages could be materially different than those proposed by the claimant in each case.

Neo intends to defend itself vigorously in all cases. In light of the inherent uncertainties in litigation there can be no assurance that the ultimate resolution of these matters will not significantly exceed the amounts currently accrued for those cases for which an estimate can be made. Losses in connection with any litigation for which management is not presently able to reasonably estimate any potential loss, or range of loss, could be material to Neo's results of operations and financial condition.

9. Non-IFRS Financial Measures

This MD&A makes reference to certain non-IFRS financial measures and ratios. These measures are not recognized measures under IFRS, do not have a standardized meaning prescribed by IFRS, and may not be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement IFRS financial measures by providing further understanding of Neo's results of operations from management's perspective. Neo's definitions of non-IFRS measures used in this MD&A may not be the same as the definitions for such measures used by other companies in their reporting. Non-IFRS measures have limitations as analytical tools and should not be considered in isolation nor as a substitute for analysis of Neo's financial information reported under IFRS. Neo uses non-IFRS financial measures and non-IFRS ratios, including "Adjusted EBITDA", "Adjusted EBITDA Margin", "Adjusted Net Income", "EBITDA", "Adjusted Earnings per Share", "Free

Cash Flow", and "Free Cash Flow Conversion" to provide investors with supplemental measures of its base-line operating performance and to eliminate items that have less bearing on operating performance or operating conditions, thus highlighting trends in its core business that may not otherwise be apparent when relying solely on IFRS financial measures. Neo believes that securities analysts, investors and other interested parties frequently use non-IFRS financial measures in the evaluation of issuers. Neo's management also uses non-IFRS financial measures and non-IFRS ratios in order to facilitate operating performance comparisons from period to period. Neo defines such financial measures and ratios as follows:

Non-IFRS financial measures

"**Adjusted EBITDA**" is defined as EBITDA before equity income (loss) in associates, other income (expense), foreign exchange (gain) loss, share and value-based compensation, impairment of long-lived assets, and other costs (recoveries);

"**Adjusted Net Income**" is defined as net income or loss before foreign exchange (gain) loss, share and value-based compensation, impairment of assets, other costs (recoveries), and other items included in other expense (income), net of the related tax effects;

"**EBITDA**" is defined as net income (loss) before finance costs (income), net, income tax expense, depreciation and amortization included in cost of sales, and depreciation and amortization included in operating expenses;

"**Free Cash Flow**" is defined as Adjusted EBITDA less capital expenditures;

"**Free Cash Flow Conversion**" is defined as Free Cash Flow divided by Adjusted EBITDA

Non-IFRS ratios

"**Adjusted EBITDA Margin**" is defined as Adjusted EBITDA divided by revenue;

"**Adjusted Earnings per Share**" is defined as Adjusted Net Income attributable to equity holders of Neo divided by the weighted average number of common shares outstanding;

Management believes that the use of these non-IFRS financial measures provides a more consistent measure of underlying operating performance, with comparability among periods that investors may find useful. The exclusion of certain adjustments does not imply that they are non-recurring.

Reconciliation of Net Income (Loss) to EBITDA, Adjusted EBITDA and Free Cash Flow:

($000s, except volume)	Year Ended December 31,				Three Months Ended December 31,			
	2022	**2021**	**Change**	%	**2022**	**2021**	**Change**	%
Net income (loss)	**$26,418**	**$36,043**	**$ (9,625)**	(26.7%)	**$(7,162)**	**$ 7,263**	**$(14,425)**	(199%)
Add back (deduct):								
Finance cost, net	15,259	3,943	11,316		11,116	1,523	9,593	
Income tax expense (benefit)	17,793	9,580	8,213		2,022	(702)	2,724	
Depreciation and amortization included in costs of sales	9,406	8,176	1,230		2,361	2,405	(44)	
Depreciation and amortization included in operating expenses	7,313	7,689	(376)		1,784	1,891	(107)	
EBITDA	**76,189**	**65,431**	**10,758**	16.4%	**10,121**	**12,380**	**(2,259)**	(18%)
Adjustments to EBITDA:								
Other expense (1)	2,228	9,750	(7,522)		492	4,351	(3,859)	
Foreign exchange (gain) loss (2)	(301)	4,388	(4,689)		(476)	2,544	(3,020)	
Equity (income) loss of associates	(2,783)	(3,817)	1,034		735	(2,253)	2,988	
Share-based compensation (3)	2,483	4,526	(2,043)		610	1,765	(1,155)	
Impairment of assets (4)	1,233	121	1,112		938	121	817	
Other (recoveries) costs (5)	(22)	1,516	(1,538)		—	744	(744)	
Adjusted EBITDA(I)	**$79,027**	**$81,915**	**$ (2,888)**	(3.5%)	**$12,420**	**$19,652**	**$ (7,232)**	(36.8%)
Adjusted EBITDA Margins(II)	*12.3%*	*15.2%*			*7.8%*	*12.8%*		
Less:								
Capital expenditures	$17,470	$ 9,464	$ 8,006	84.6%	$ 6,372	$ 2,833	$ 3,539	125%
Free Cash Flow	**$61,557**	**$72,451**	**$ (10,894)**	(15.0%)	**$ 6,048**	**$16,819**	**$(10,771)**	(64.0%)
Free Cash Flow Conversion (6)	77.9%	88.4%			48.7%	85.6%		
Revenue	$640,298	$539,251	$ 101,047	18.7%	$159,168	$153,414	$ 5,754	3.8%
Sales volume (tonnes)	13,118	15,103	(1,985)	(13.1%)	3,193	3,311	(118)	(3.6%)

Notes:

(1) Represents other expenses resulting from non-operational related activities, including provisions for damages for outstanding legal claims related to historic volumes. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange losses (gains) that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(3) Represents share-based compensation expense in respect of the Plan and the LTIP.

(4) Represents impairment in property, plant and equipment, long-term asset and prepayment.

(5) These represent primarily legal, professional advisory fees and other transaction costs incurred with respect to non-operating capital structure related transactions. Neo has removed these charges to provide comparability with historic periods.

(6) Calculated as Free Cash Flow divided by Adjusted EBITDA[1].

Reconciliation of Net Income (Loss) to Adjusted Net Income (Loss):

($000s)	Year Ended December 31,		Three Months Ended December 31,	
	2022	**2021**	**2022**	**2021**
Net income (loss)	**$ 26,418**	**$ 36,043**	**$ (7,162)**	**$ 7,263**
Adjustments to net income (loss):				
Foreign exchange (gain) loss [1]	(301)	4,388	(476)	2,544
Impairment of assets [2]	1,233	121	938	121
Share-based compensation [3]	2,483	4,526	610	1,765
Other (recoveries) costs [4]	(22)	1,516	—	744
Other items included in other expense [5]	2,560	10,681	546	4,519
Tax impact of the above items	(615)	(2,235)	(142)	(894)
Adjusted net income (loss)	**$ 31,756**	**$ 55,040**	**$ (5,686)**	**$ 16,062**
Attributable to:				
Equity holders of Neo	$ 31,285	$ 54,174	$ (5,815)	$ 15,534
Non-controlling interest	$ 471	$ 866	$ 129	$ 528
Weighted average number of common shares outstanding:				
Basic	41,992,938	38,140,110	45,196,921	39,332,282
Diluted	42,327,548	38,543,348	45,196,921	39,841,690
Adjusted earnings (loss) per share attributable to equity holders of Neo:				
Basic	$ 0.75	$ 1.42	$ (0.13)	$ 0.39
Diluted	$ 0.74	$ 1.41	$ (0.13)	$ 0.39

Notes:

(1) Represents unrealized and realized foreign exchange (gains) losses that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(2) Represents impairment in property, plant and equipment, long-term asset and prepayment.

(3) Represents share-based compensation expense in respect of the Plan and the LTIP.

(4) These represent primarily legal, professional advisory fees and other transaction costs incurred with respect to non-operating capital structure related transactions. Neo has removed these charges to provide comparability with historic periods.

(5) Represents other expenses resulting from non-operational related activities, including provisions for damages for outstanding legal claims related to historic volumes. These costs and recoveries are not indicative of Neo's ongoing activities.

10. Discussion and Analysis of Reportable Segments

The analysis of Neo's reportable segments, which follows the discussion of its consolidated results, presents operating results on a gross basis (i.e., before intercompany eliminations).

10.1 Magnequench

($000s, except volume)	Year Ended December 31,				Three Months Ended December 31,			
	2022	**2021**	**Change**	**%**	**2022**	**2021**	**Change**	**%**
Operating income	**$30,538**	**$38,413**	**$ (7,875)**	(20.5%)	**$ 2,543**	**$ 6,608**	**$ (4,065)**	(61.5%)
Net income	**$25,148**	**$32,460**	**$ (7,312)**	(22.5%)	**$ 3,827**	**$ 7,523**	**$ (3,696)**	(49.1%)
Add back (deduct):								
Finance income, net	(135)	(223)	88		(93)	(60)	(33)	
Income tax expense	8,123	8,147	(24)		493	657	(164)	
Depreciation and amortization included in costs of sales	3,472	3,373	99		832	889	(57)	
Depreciation and amortization included in operating expenses	5,570	5,946	(376)		1,305	1,454	(149)	
EBITDA	**42,178**	**49,703**	**(7,525)**	(15.1%)	**6,364**	**10,463**	**(4,099)**	(39.2%)
Other income [(1)]	(258)	(371)	113		(29)	(71)	42	
Foreign exchange loss (gain)[(2)]	440	2,217	(1,777)		(2,392)	811	(3,203)	
Equity (income) loss of associates	(2,783)	(3,817)	1,034		735	(2,253)	2,988	
Share-based compensation [(3)]	595	277	318		110	187	(77)	
Adjusted EBITDA[(I)]	**$40,172**	**$48,009**	**$ (7,837)**	(16.3%)	**$ 4,788**	**$ 9,137**	**$ (4,349)**	(47.6%)
Adjusted EBITDA Margins[(II)]	14.5%	18.2%			8.3%	12.9%		
Revenue	$277,412	$263,753	$ 13,659	5.2%	$57,584	$70,897	$(13,313)	(18.8%)
Sales volume (tonnes)	4,808	6,090	(1,282)	(21.1%)	1,188	1,482	(294)	(19.8%)

Notes:

(1) Represents other expenses resulting from non-operational related activities. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange gains and losses that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(3) Represents share-based compensation expense in respect of the Plan and the LTIP.

For the year ended December 31, 2022, revenue in the Magnequench segment was $277.4 million, compared to $263.8 million for the year ended December 31, 2021; an increase of $13.7 million or 5.2%. For the three months ended December 31, 2022, revenue in the Magnequench segment was $57.6 million, compared to $70.9 million for the three months ended December 31, 2021; a decrease of $13.3 million or 18.8%. For the year ended December 31, 2022, volume was 4,808 tonnes compared to 6,090 tonnes for the year ended December 31, 2021; a decrease of 21.1%. For the three months ended December 31, 2022, volume was 1,188 tonnes compared to 1,482 tonnes for the three months ended December 31, 2021; a decrease of 19.8%. Generally, the differing rates of change for revenue and volumes are primarily attributed to changes in commodity input material prices and, to a lesser extent, product mix. Magnequench has material pricing pass-through agreements with the vast majority of its customers, which enables Magnequench to pass through changes in material input costs into selling price on a lagged basis.

Operating income for the year ended and three months ended December 31, 2022, was $30.5 million and $2.5 million, respectively, a decrease of $7.9 million or 20.5% and $4.1 million or 61.5%, respectively, when compared to the year ended and three months ended December 31, 2021.

For the year ended and three months ended December 31, 2022, the Magnequench segment saw a decline in volumes compared to the corresponding periods of 2021. Volumes in 2022 were particularly impacted by three factors. First, the spike in COVID-19 has affected the free flow of people and production supplies across many parts of Asia. Second, the occurrence of several natural disasters earlier in 2022 impacted customer production facilities in Asia. Third, the on-going semiconductor chip shortage is continuing to impact customers in the automotive and other industries. Although Magnequench's products are distributed on global basis, many of its next tier customers are located in Asia and were impacted by the above factors in 2022. In addition, Magnequench is seeing customers change their ordering cycles and behaviors in response to customers' managing their inventory levels in anticipation of potential economic uncertainty. These factors combine to see lower volumes across most applications including legacy applications and new energy applications

Margins per ton in the Magnequench segment were lower in the fourth quarter of 2022 compared to higher margins achieved earlier in 2022. As rare earth magnetic prices have declined from the first quarter of 2022, Magnequench continues to see the reversal of the lead-lag benefit in the latter half of 2022. Magnequench has pass-through pricing agreements for rare earth magnetic elements on the vast majority of its sales contracts. Magnequench earns a targeted margin spread per ton when rare earth prices are stable and over the long term. However, the short-term timing mechanics of the pass-through agreements generally show rising margins when rare earth prices rise and declining margins when rare earth prices fall, related primarily to inventory on hand purchased at previous costs. Pass-through is a key strategic focus of Magnequench and ensures that the business can continue to generate long term sustainable and value-added margins.

For the year ended December 31, 2022, Adjusted EBITDA[(I)] in the Magnequench segment was $40.2 million, compared to $48.0 million in the same period of 2021; a decrease of $7.8 million or 16.3%. For the three months ended December 31, 2022, Adjusted EBITDA[(I)] in the Magnequench segment was $4.8 million, compared to $9.1 million for the three months ended December 31, 2021; a decrease of $4.3 million or 47.6%.

10.2 Chemicals & Oxides

($000s, except volume)	Year Ended December 31,				Three Months Ended December 31,			
	2022	**2021**	**Change**	**%**	**2022**	**2021**	**Change**	**%**
Operating income	**$22,176**	**$37,391**	**$(15,215)**	(40.7%)	**$ 852**	**$10,207**	**$ (9,355)**	(91.7%)
Net income (loss)	**$19,127**	**$27,865**	**$ (8,738)**	(31.4%)	**$ (185)**	**$ 9,100**	**$ (9,285)**	(102.0%)
Add back (deduct):								
Finance cost (income), net	665	(43)	708		195	(8)	203	
Income tax expense (benefit)	2,968	(1,821)	4,789		94	(2,712)	2,806	
Depreciation and amortization included in costs of sales	4,055	2,602	1,453		1,072	994	78	
Depreciation and amortization included in operating expenses	1,137	1,144	(7)		286	282	4	
EBITDA	**27,952**	**29,747**	**(1,795)**	(6.0%)	**1,462**	**7,656**	**(6,194)**	(80.9%)
Other expense(1)	1,416	9,767	(8,351)		356	2,653	(2,297)	
Foreign exchange (gain) loss (2)	(2,000)	1,623	(3,623)		391	1,174	(783)	
Share-based compensation (3)	669	254	415		118	196	(78)	
Impairment of assets (4)	287	121	166		287	121	166	
Adjusted EBITDA(I)	**$28,324**	**$41,512**	**$(13,188)**	(31.8%)	**$ 2,614**	**$11,800**	**$ (9,186)**	(77.8%)
Adjusted EBITDA Margins(II)	11.4%	19.5%			4.4%	19.5%		
Revenue	$248,011	$212,711	$ 35,300	16.6%	$58,767	$60,389	$ (1,622)	(2.7%)
Sales volume (tonnes)	7,873	8,690	(817)	(9.4%)	1,871	1,718	153	8.9%

Notes:

(1) Represents other expenses resulting from non-operational related activities, including provisions for estimated damages for outstanding legal claims related to historic volumes. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange losses (gains) that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(3) Represents share-based compensation expense in respect of the Plan and the LTIP.

(4) Represents impairment in long-term asset.

For the year ended and three months ended December 31, 2022, revenues in the C&O segment were $248.0 million and $58.8 million, respectively, compared to $212.7 million and $60.4 million in the same periods of 2021; an increase of $35.3 million or 16.6% and a decrease of $1.6 million or 2.7%, respectively.

For the year ended and three months ended December 31, 2022, the C&O segment reported an operating income of $22.2 million and $0.9 million, respectively, compared to an operating income of $37.4 million and $10.2 million and in the same periods of 2021; a decrease of $15.2 million or 40.7% and $9.4 million or 91.7%, respectively.

In the three months ended December 31, 2022, the C&O segment was adversely impacted by the decline of rare earth prices between March 2022 and September 2022. Rare earth prices (particularly for magnetic rare earth elements) increased substantially from the third quarter of 2020 to the first quarter of 2022 but have since declined between 30%-40% since March 2022. This rapid decline in rare earth prices has had a negative impact on C&O rare earth separation margins as C&O processed and sold rare earths purchased three to five months earlier (at higher costs). Despite the recent decline, rare earth prices remain more than 100% higher than prices from the recent past (the two to three years prior to the third quarter of 2020). The outlook (both in demand and pricing) remains strong for rare earths which is expected to lead to higher dollar value margins for C&O in the long term. However, the current period was adversely impacted by the immediate and rapid decline of prices while processing higher cost inventory (lead-lag impact). The rapid decline in prices also necessitated C&O to record a net $3.1 million of provisions for inventories in the year ended December 31, 2022.

In C&O's environmental emissions catalyst business, volumes in 2022 were consistent compared to the prior year. Volumes in the fourth quarter of 2022 exceeded volumes in the fourth quarter of 2021, primarily related to lower than normal volumes in the fourth quarter of 2021 as customers were adjusting their supply chains. Volumes have seen less of an impact from the semiconductor chip shortage and are distributed more globally than Magnequench volumes and thus, have not experienced the same negative pressures on volume trends as some Magnequench products. C&O's environmentally protective water treatment solutions business continues to grow year over year with higher volume and new customer adoption, in both the fourth quarter and full year 2022.

For the year ended December 31, 2022, Adjusted EBITDA[1] was $28.3 million, compared to $41.5 million in the same period of 2021; a decrease of $13.2 million or 31.8%. Adjusted EBITDA[1] was $2.6 million for the three months ended December 31, 2022; a decrease of 77.8% compared to the same period of the prior year.

10.3 Rare Metals

($000s, except volume)	Year Ended December 31,				Three Months Ended December 31,			
	2022	**2021**	**Change**	**%**	**2022**	**2021**	**Change**	**%**
Operating income	**$20,978**	**$ 6,578**	**$ 14,400**	218.9%	**$ 7,792**	**$ 2,410**	**$ 5,382**	223.3%
Net loss	**$ (858)**	**$ (1,800)**	**$ 942**	(52.3%)	**$ (7,786)**	**$ (1,467)**	**$ (6,319)**	(430.7%)
Add back (deduct):								
Finance cost, net	14,161	5,534	8,627		11,492	2,922	8,570	
Income tax expense	6,629	3,218	3,411		1,409	1,354	55	
Depreciation and amortization included in costs of sales	1,879	2,201	(322)		457	522	(65)	
Depreciation and amortization included in operating expenses	308	262	46		90	70	20	
EBITDA	**22,119**	**9,415**	**12,704**	134.9%	**5,662**	**3,401**	**2,261**	66.0%
Other expense (1)	1,070	354	716		165	23	142	
Foreign exchange (gain) loss (2)	(23)	(728)	705		2,513	(422)	2,935	
Share-based compensation (3)	195	113	82		4	72	(68)	
Impairment of assets (4)	946	—	946		651	—	651	
Adjusted EBITDA(I)	**$24,307**	**$ 9,154**	**$ 15,153**	165.5%	**$ 8,995**	**$ 3,074**	**$ 5,921**	193.0%
Adjusted EBITDA Margins(II)	18.6%	10.9%			20.5%	11.3%		
Revenue	$130,386	$83,604	$ 46,782	56.0%	$43,865	$27,296	$ 16,569	60.7%
Sales volume (tonnes)	546	549	(3)	(0.5%)	144	160	(16)	(10.0%)

Notes:

(1) Represents other expenses resulting from non-operational related activities, including provisions for estimated costs for disposal of historically generated NORM. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange losses (gains) that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(3) Represents share-based compensation expense in respect of the Plan and the LTIP.

(4) Represents impairment in property, plant and equipment and prepayment.

For the year ended December 31, 2022, revenue in the Rare Metals segment was $130.4 million, compared to $83.6 million in the same period of the prior year; an increase of $46.8 million or 56.0%. For the three months ended December 31, 2022, revenue in the Rare Metals segment was $43.9 million, compared to $27.3 million in the same period of the prior year; an increase of $16.6 million or 60.7%.

For the year ended and three months ended December 31, 2022, the Rare Metals segment reported an operating income of $21.0 million and $7.8 million, respectively, compared to $6.6 million and $2.4 million in the same periods of 2021; an increase of $14.4 million or 218.9% and $5.4 million or 223.3%, respectively.

Rare Metals achieved record earnings in 2022, continuing the improvement that started in the fourth quarter of 2021. Rare Metals experienced strength in pricing for key products such as hafnium and tantalum while also benefiting from lower-cost inventory on hand. Hafnium prices, in particular, have increased rapidly starting in the fourth quarter of 2021. The recycling purchases and activities of Rare Metals was particularly impactful to maintaining and growing margins as the scrap material purchased in the same quarter is not rising as fast as selling prices for finished goods. This was partially offset by Rare Metals not selling some of its niobium oxide products to customers resident in or with connections to Russia, resulting in lower margins and higher inventory on hand at period-end for its niobium oxide products.

The improvement in the Rare Metals business in 2022 was also attributable to progress made in several key strategic initiatives in the segment, including selling more products outside of the aerospace industry, expanding its customer base, and diversifying its total end-market exposure. Key progress continues to be made in expanding the capacity of key products, with minimal capital investment and refocusing the sales pipeline and manufacturing capacity toward more profitable end products that require higher purity and can meet demanding specifications. Sales prices in a number of end markets have recovered and gallium-based products are exhibiting improved market demand.

For the year ended December 31, 2022, Adjusted EBITDA(I) was $24.3 million, compared to $9.2 million for the year ended December 31, 2021; an increase of $15.2 million or 165.5%. For the three months ended December 31, 2022, Adjusted EBITDA(I) in the Rare Metals segment was $9.0 million, compared to $3.1 million in the same period of 2021; an increase of $5.9 million or 192.6%.

11. Summary of Consolidated Quarterly Results

($000s, except for earnings per share information)	2022				2021			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	**$159,168**	**$146,627**	**$168,221**	**$166,282**	**$153,414**	**$119,841**	**$135,141**	**$130,855**
Net (loss) income attributable to equity holders of Neo	**(7,291)**	**(3,719)**	**14,607**	**22,350**	**6,735**	**8,036**	**12,960**	**7,446**
Basic EPS	(0.16)	(0.09)	0.36	0.55	0.17	0.21	0.34	0.20
Diluted EPS	(0.16)	(0.09)	0.36	0.54	0.17	0.21	0.34	0.20
Operating income	**6,727**	**2,239**	**20,963**	**28,685**	**12,726**	**12,558**	**18,195**	**16,408**
Net (loss) income	**(7,162)**	**(3,812)**	**14,691**	**22,701**	**7,263**	**8,136**	**13,027**	**7,617**
Add back (deduct):								
Finance cost, net	11,116	1,437	2,292	414	1,523	747	1,457	216
Income tax expense (benefit)	2,022	3,775	6,001	5,995	(702)	3,670	3,479	3,133
Depreciation and amortization included in Costs of Sales	2,361	2,279	2,388	2,378	2,405	1,980	1,912	1,879
Depreciation and amortization included in operating expenses	1,784	1,781	1,853	1,896	1,891	1,908	1,935	1,955
EBITDA	**10,121**	**5,460**	**27,225**	**33,384**	**12,380**	**16,441**	**21,810**	**14,800**
Add back:								
Other expense (income) (1)	492	448	855	433	4,351	(462)	(213)	6,074
Foreign exchange (gain) loss (2)	(476)	723	(959)	411	2,544	755	788	301
Equity loss (income) of associates	735	(332)	(1,917)	(1,269)	(2,253)	(288)	(343)	(933)
Share and value-based compensation (3)	610	735	957	181	1,765	1,198	(29)	1,592
Impairment of assets (4)	938	—	295	—	121	—	—	—
Other (recoveries) costs (5)	—	—	—	(22)	744	6	164	602
Adjusted EBITDA(I)	**$12,420**	**$ 7,034**	**$26,456**	**$33,118**	**$19,652**	**$17,650**	**$22,177**	**$22,436**
Adjusted EBITDA Margins(II)	*7.8%*	*4.8%*	*15.7%*	*19.9%*	*12.8%*	*14.7%*	*16.4%*	*17.1%*

Notes:

(1) Represents other expenses resulting from non-operational related activities, including provisions for estimated damages for outstanding legal claims related to historic volumes, costs for disposal of NORM. These costs and recoveries are not indicative of Neo's ongoing activities.

(2) Represents unrealized and realized foreign exchange (gains) losses that include non-cash adjustments in translating foreign denominated monetary assets and liabilities.

(3) Represents share and value-based compensation expense in respect of the Plan, the Legacy Plan, the LTIP and the long-term value bonus plan. The long-term value bonus plan has similar vesting criteria to the share-based plan and is settled in cash for non-executives and non-North Americans where implementation of a share settlement plan would have been prohibitively expensive in terms of administration and compliance. Neo has removed both the share and value-based compensation expense from EBITDA to provide comparability with historic periods and to treat it consistently with the share-based awards that they are intended to replace.

(4) Represents impairment in property, plant and equipment, long-term asset and prepayment.

(5) These represent primarily legal, professional advisory fees and other transaction costs incurred/(recovered) with respect to non-operating capital structure related transactions and restructuring costs related to management team changes. Neo has removed these charges to provide comparability with historic periods.

12. Liquidity and Capital Resources

Year ended December 31, 2022 compared to year ended December 31, 2021:

	Year Ended December 31,	
($000s)	**2022**	**2021**
Cash flow:		
Cash provided by (used in) operating activities	$ 3,696	$ (2,162)
Cash used in investing activities	(17,431)	(7,006)
Cash provided by financing activities	74,793	26,201

	Year Ended December 31,	
Financial position - as at	**2022**	**2021**
Cash and cash equivalents	$ 147,491	$ 89,037
Restricted cash	1,179	1,283
Property, plant and equipment	75,767	73,378
Total assets	676,460	594,082
Bank advances and other short-term debt	17,288	6,502
Current portion of long-term debt	747	—
Long-term debt	29,885	—

As of December 31, 2022, Neo had cash and cash equivalents of $147.5 million plus restricted cash of $1.2 million, compared to $89.0 million plus $1.3 million as at December 31, 2021. Neo has approximately $125.8 million available under its credit facilities, of which $47.9 million was drawn as at December 31, 2022, compared to $6.5 million drawn as at December 31, 2021. Neo completed a bought deal treasury offering with net proceeds of approximately $47.7 million in September 2022. For the year ended December 31, 2022, Neo paid $13.4 million in dividends to its shareholders. Neo's financial position and ability to generate cash from its operations in the short and long-term remain sound.

The primary cash inflows and outflows contributing to the change from December 31, 2021 were the following:

Inflows
- $84.1 million from operations before net change in working capital, income taxes paid and net interest received;
- $47.7 million of net proceeds from issuance of common shares from treasury;
- $12.4 million from bank advances and other short-term debts; and
- $30.6 million drawn on Neo's debt facilities, net of transaction costs, changes in foreign exchange, and repayment.

Outflows
- $13.4 million of dividends paid to shareholders;
- $1.4 million of lease payments;
- $17.5 million of other capital spending;

- $12.4 million of income taxes paid; and
- $67.8 million net change in working capital.

Cash Provided by (Used in) Operating Activities

Net cash provided by operating activities was $3.7 million for the year ended December 31, 2022, compared to net cash used by operating activities of $2.2 million for the year ended December 31, 2021.

The $67.8 million net change in working capital for the year ended December 31, 2022, was primarily attributable to the increase in accounts receivable from higher sales, higher inventory costs driven by higher rare earth costs (over the year) and C&O produced and holding more finished good in preparation for the upgrade, expansion and relocation of its environmental catalyst production facility, and a decrease in accounts payable and other accrued charges generally related to lower rare earth prices in the fourth quarter of 2022 (compared to the rest of 2022 and the fourth quarter of 2021).

Cash Used in Investing Activities

For the year ended December 31, 2022, net cash used in investing activities was $17.4 million, compared to $7.0 million for the year ended December 31, 2021. The cash used in investing activities was primarily related to capital projects performed at the NAMCO, Tianjin and Silmet facilities. These capital projects included a combination of maintenance capital to assist with the continuing development and operations of Neo, growth capital to assist in adding new capacity or new products, and strategic capital tied to longer-term strategic planning initiatives. In addition, Neo has made initial investments, including the acquisition of a land use right, for the planned upgrade, expansion and relocation of Neo's environmental emissions catalyst production facility.

Cash Provided by Financing Activities

Net cash provided by financing activities during the year ended December 31, 2022 was $74.8 million, compared to $26.2 million in 2021. For the year ended December 31, 2022, Neo received $47.7 million of proceeds from issuance of common shares from treasury, drew an additional $12.4 million from its credit facilities, borrowed $25.0 million, net of transaction costs of $1.3 million, from its EDC credit facility (see *"Export Development Canada credit facility")* and $6.9 million from its Estonia debt facility (see *"Estonia debt facility")*, distributed $13.4 million in dividends to its shareholders, and spent $1.4 million in lease payments. In the year ended December 31, 2021, Neo distributed $12.8 million in dividends to its shareholders, drew $4.1 million of bank advances in Germany, received $2.5 million from stock options exercised, net of $2.9 million spent on withholding taxes related to stock-based awards, paid $1.7 million for cash settled RSUs and PSUs, and spent $1.7 million in lease payments.

Neo has debt agreements in Canada, China, Estonia and Germany and, as at December 31, 2022, is in compliance with all required covenants.

($000s)	Year Ended December 31,	
Cash and cash equivalents by Country as at	**2022**	**2021**
China (including Hong Kong)	$ 55,526	$ 24,627
Estonia	5,709	2,034
United States	4,524	3,113
Canada	47,440	38,903
Japan	1,238	2,612
United Kingdom	6,937	3,273
Germany	10,216	6,225
Singapore	6,867	2,761
Barbados	721	298
Thailand	7,444	4,248
Cayman Islands	28	6
Other	841	937
Total cash and cash equivalents	**$ 147,491**	**$ 89,037**

Neo saw a significant build up in cash in China in 2022 as Neo prepares for the upcoming capital expenditure plans with respect to the relocation, upgrade and expansion of the NAMCO facility. This included directing the proceeds of the EDC loan to NAMCO in December 2022.

Approximately $15.1 million of cash on hand held by Neo's foreign operating subsidiaries relate to earnings that are considered indefinitely reinvested in these foreign subsidiaries. Although substantially all of Neo's cash and cash equivalents can be repatriated, a portion may be subject to withholding taxes under current tax laws. While some of Neo's subsidiaries are subject to local governmental restrictions on the flow of capital into and out of its jurisdictions (including in the form of cash dividends, loans or advances), these restrictions have not had a material impact on Neo's ability to meet its cash obligations. Therefore, Neo does not consider this to be a significant risk on its ability to meet ongoing commitments and fund operations.

In addition to cash on hand, the primary sources of liquidity for Neo's domestic and foreign subsidiaries are cash provided by operations and, in the case of the activities in China and Germany, borrowing under certain bank loans. From time to time, the sources of liquidity for Neo's operating subsidiaries may be supplemented by intercompany loans in the form of unsecured promissory notes. Neo's operating subsidiaries' liquidity generally is used to fund their working capital requirements, investments, capital expenditures (including costs related to the relocation of Neo's environmental emissions catalyst production facility) and third-party debt service requirements.

Export Development Canada credit facility

On August 16, 2022, Neo entered into a loan agreement (the "**Loan Agreement**") with EDC for a term loan of up to $75.0 million (the "**Credit Facility**"), to be advanced in three tranches of $25.0 million, to finance the relocation, expansion, and sustainability upgrades to its environmental emissions catalyst manufacturing facility (the "**NAMCO Project**"). Of the $75.0 million facility, $25.0 million was drawn in the fourth quarter of 2022.

The Credit Facility matures five years from the date of the loan agreement, on August 16, 2027, with principal repayments beginning on August 16, 2024.

The outstanding principal amount carries an interest rate equal to the SOFR, as administered by the Federal Reserve Bank of New York, plus an applicable margin. The interest is payable every three months, commencing on the borrowing date of the loan agreement.

Prior to drawing each of the three tranches, the Loan Agreement requires certain conditions to be fulfilled including detail engineering for the NAMCO Project, including all specifications, plans, documents and drawings that are issued for construction, erection and installation purposes in respect of the NAMCO Project as required by EDC, maintenance of cost performance relative to budget, disclosures related to environmental and social law compliance, and other certifications from management and third-party environmental monitoring consultants.

The Credit Facility is guaranteed by a number of Neo's Subsidiaries and contain a number of covenants (which include a maximum leverage ratio and debt service coverage ratio levels that should be maintained – as such terms are defined in the executed agreement), including specific terms relating to the timing and basis of interest payable, compliance with laws and regulations, financial statements, acquisitions, dividend payments or distributions to shareholders.

Chinese debt facility

In the third quarter of 2021, Magnequench (Tianjin) Co. Ltd., Magnequench International Trading (Tianjin) Co. Ltd., Jiangyin Jia Hua Advanced Material Resources Co. Ltd., Zibo Jiahua Advanced Material Resources Co. Ltd., Magnequench Magnetics (Chu Zhou) Co. Ltd., and NAMCO, each refer to as a ("**Borrower**") or collectively ("**Chinese Subsidiaries**"), entered into a $10.0 million Overdraft Facility ("**Tranche I**") and a $20.0 million Import Facilities or a Multiple Currency Revolving Loan Facility, collectively ("**Tranche II**") with HSBC Bank (China) ("**Lender**"). Tranche I and Tranche II (collectively, the "**Facilities**") may be drawn down in accordance with the provisions of the Facilities to finance the working capital requirement of the Chinese Subsidiaries.

Tranche I can be drawn in Chinese Renminbi ("**RMB**") only. Interest is accrued on the daily overdraft balance at a rate equal to China Loan Prime Rate ("**LPR**") plus 0.5% per annum and shall be payable monthly in arrears.

The Import Facilities under Tranche II can be drawn in either RMB or USD. If drawn in RMB, interest is accrued at a rate equal to LPR plus 0.3% per annum. If drawn in USD, interest is accrued at a rate to be agreed by the Lender and Borrower. The term of a loan shall not exceed 150 days in any case.

The Multiple Currency Revolving Loan Facility under Tranche II can be drawn in RMB, USD or EUR provided that the USD equivalent of the aggregate outstanding amount shall in no time exceed the amount of this facility. If drawn in RMB, interest is accrued at a rate equal to LPR plus 0.4% per annum. If drawn in USD or EUR, interest is accrued at a rate to be agreed by the Lender and the Borrower. The term of each loan will be 1, 3, or 6 months or such other periods as agreed by the Lender and shall not exceed 12 months in any case.

The Facilities are cross-guaranteed by the Chinese Subsidiaries and by Neo and contains a number of financial covenants (which include a debt-to-equity ratio and that minimum equity and EBITDA levels be maintained – as such terms are defined in the Facilities agreement) and commercial covenants, including specific terms relating to the timing, interest payable and maturity terms of each draw on these Facilities.

Estonia debt facility

On December 23, 2021, Silmet entered into a $7.5 million (€7.0 million) credit facility with OP Corporate Bank plc Eesti filiaal ("**OP Bank**") to finance working capital and other investments at Silmet. On December 29, 2021, part of the credit facility was assigned to a bank guarantee related to the disposal of NORM residue, thus temporarily reducing the credit facility by $2.5 million (€2.3 million) to a net $5.0 million (€4.7 million) credit facility which can be drawn in Euros and accrues interest at a rate equal to the 6-month Euribor plus 1.95% per annum. On August 2, 2022, the OP Bank released the $2.5 million (€2.3 million) from the bank guarantee.

As part of the facility agreement, Silmet has pledged certain security as collateral in favour of OP Bank, including a combined mortgage over certain real estate properties for $9.6 million (€9.0 million), and certain other fixed assets for $5.3 million (€5.0 million).

The facility contains a number of financial covenants, which include a debt service coverage ratio, an equity ratio, and that a maximum net debt to EBITDA ratio not be exceeded – as such terms are defined in the facility agreement. The financial covenants are tested semi-annually as of June 30 and December 31 each year.

German debt facility

On December 13, 2022, Buss & Buss obtained an additional $7.4 million (€7.0 million) revolving line of credit to fund its working capital requirement which brings its total revolving line of credit to $13.3 million (€12.5 million) as at December 31, 2022. The revolving line of credit can be drawn either in Euros or USD. The bank is entitled to revise the interest rate if the three-month Euro Interbank Offered Rate ("**Euribor**") average rate changes by more than 0.25%, up to a maximum of 0.1% plus the actual change in average rate.

The security for the revolving line of credit includes a directly enforceable guarantee of the non-controlling shareholder of Buss & Buss amounting to $0.3 million (€0.3 million) as well as a lien amounting to $0.5 million (€0.5 million) on certain property, plant and equipment. The remainder of the revolving line of credit is secured by certain working capital of Buss & Buss.

13. Contractual Obligations

In the normal course of business, Neo is obligated to make future payments. These obligations represent contracts and other commitments that are known and non-cancellable.

	Payments Due by Period				
($000s)	**1 year**	**2 - 3 years**	**4 - 5 years**	**Therea fter**	**Total**
Bank advances and other short-term debts	$ 17,288	$ —	$ —	$ —	17,288
Accounts payable and other accrued charges	69,093	—	—	—	69,093
Derivative liability (1)	28,570	—	—	—	28,570
Estonia debt(2)	747	1,680	4,480	—	6,907
EDC debt (3)	—	5,000	20,000	—	25,000
Provisions (4)	1,369	23,604	—	—	24,973
Lease obligations (5)	1,264	731	52	30	2,077
Other liabilities	278	1,133	76	233	1,720
Total	**$ 118,609**	**$ 32,148**	**$ 24,608**	**$ 263**	**$ 175,628**

Notes:

(1) Represents the fair value of the put option on shares of the remaining shareholder of Buss & Buss.

(2) Represents $6.9 million (€6.5 million) Estonia debt facility with OP Corporate Bank plc Eesti filiaal.

(3) Represents the first tranche of the Export Development Canada credit facility term loan in the amount of $25.0 million.

(4) Represents management's best estimate of the costs to be incurred by Neo for the disposal of the hazardous NORM currently being stored at JAMR facility and an estimated damages provision related to legal proceedings (see "*Other Expenditures and Legal Contingencies*").

(5) Represents the present value of Neo's lease obligations for office space, land and office equipment.

As at December 31, 2022, Neo had $147.5 million of cash and cash equivalents and approximately $1.2 million of restricted cash. The restricted cash is held as collateral against Letters of Credit. Neo believes that the remainder of its cash, in addition to cash from operating activities, is available (or sufficient) to meet Neo's non-cancelable contractual obligations and other commercial commitments and the capital program for the next twelve months.

Neo considers cash to be "available" to the extent it can be utilized in operating activities, for capital expenditures, for intercompany loans or for repatriation. Neo also maintains access to credit facilities and short-term borrowings for its working capital needs, capital expenditures, and general corporate purposes.

14. Normal Course Issuer Bid

On June 1, 2021, Neo announced that the TSX had accepted a notice filed by Neo of its intention to make a Normal Course Issuer Bid (the "**Bid**") for up to 2,111,758 of its issued and outstanding common shares. In connection with the Bid, Neo entered into an automatic share purchase plan with its designated broker to allow for purchases of its shares (the "**Share Purchase Plan**"). The Share Purchase Plan was considered an "automatic plan" for purposes of applicable Canadian securities laws. Under the Share Purchase Plan, Neo's broker could purchase shares on any trading day during the Bid, including during self-imposed trading blackout periods. The price that Neo would pay for any shares purchased under the Bid would be the prevailing market price at the time of purchase. Any shares purchased by Neo would be canceled. The Share Purchase Plan terminated on June 3, 2022.

For the year ended December 31, 2022, Neo did not repurchase or cancel any shares. For the year ended December 31, 2021, Neo repurchased and canceled 3,400 shares for a nominal amount.

15. Subsequent Events

Dividends payable to equity holders of Neo

On March 3, 2023, the Board of Directors declared a quarterly dividend of Cdn $0.10 per common share payable in cash on March 29, 2023, to common shareholders of record at the close of business on March 20, 2023.

16. Off-Balance Sheet Arrangements

As of December 31, 2022, Neo's only off-balance sheet arrangements are purchase obligations.

17. Significant Management Judgment in Applying Accounting Policies

The preparation of financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue and expenses. Actual results could differ from these estimates.

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

Information about the significant judgments, estimates and assumptions that have the most significant effect on the recognition and measurement of assets, liabilities, income and expenses are discussed below.

Income taxes

In the ordinary course of business, there are many transactions for which the ultimate tax outcome is uncertain, and estimates are required for exposures related to examinations by tax authorities. Management reviews these transactions and exposures and records tax liabilities based on its assessment of many factors, including past experience and interpretations of tax law applied to the facts of each matter. The determination of tax liabilities is subjective and generally involves a significant amount of judgment. The final outcome may differ from estimates, and a change to these estimates could impact the income tax provision.

The assessment of the probability of future taxable income in which deferred tax assets can be utilized is based on Neo's expectation of future profitability by legal entity adjusted for significant non-taxable income and expenses as well as limits to the use of loss carryforwards or other tax credits. If a positive forecast of taxable income indicates the probable future use of a deferred tax asset, it is usually recognized in full. Recognition of deferred tax assets that are subject to certain legal or economic limits or uncertainties is assessed individually by management based on the specific facts and circumstances.

Impairment

An impairment loss is recognized for the amount by which an asset's or CGU's carrying amount exceeds its recoverable amount, which is the higher of fair value less cost to sell and value in use. To determine the recoverable amount, management estimates expected future cash flows from each asset or CGU and determines a suitable discount rate in order to calculate the present value of those cash flows. In the process of measuring expected future cash flows, management makes assumptions about future operating results. These assumptions relate to future events and circumstances. The actual results may vary, and may cause significant adjustments to Neo's assets in future periods. In most cases, determining the applicable discount rate involves estimating the appropriate adjustment to market risk and the appropriate adjustment to asset-specific risk factors. Similarly, when a reversal of an impairment loss previously recorded occurs (for property, plant and equipment and finite life intangible assets), the reversal is recognized with the carrying amount of the asset increased to the lesser of the revised estimate of its recoverable amount and the carrying value that would have remained had no impairment loss been recognized previously. Significant judgment is involved in determining if there is an indication that an asset or a CGU may be impaired or there is an indication that a previously recognized impairment loss of an asset or a CGU has reversed because of a change in the estimates used to determine the impairment loss.

Business combinations

On initial recognition, the identifiable assets and liabilities of the acquired business are included in the consolidated statements of financial position at their fair values. In measuring fair value management uses estimates about future cash flows and discount rates. Any measurement changes from initial recognition would affect the measurement of goodwill.

Useful lives of depreciable assets

Management reviews the useful lives of depreciable assets at each reporting date. At December 31, 2022, management assessed that the useful lives represented the expected utility of the assets to Neo.

Inventories

Inventories are measured at the lower of cost and net realizable value. In estimating net realizable values, management takes into account the most reliable evidence available at the time the estimates are made. Neo's core business is subject to changes in foreign policies and internationally accepted metal prices which may cause selling prices to change rapidly.

Provisions

A provision is recognized if, as a result of a past event, Neo has a present legal or constructive obligation that can be reliably estimated and it is probable that an outflow of economic benefits will be required to settle the obligation. The timing or amount of the outflow may still be uncertain. Management estimates the expenditure required to settle the present obligation, based on the most reliable evidence available at the reporting date, including the risks and uncertainties associated with the present obligation. Provisions are discounted when the time value of money is significant.

Defined benefit pension liability

Management estimates the defined benefit pension liability annually with the assistance of independent actuaries; however, the actual outcome may vary due to estimation uncertainties. The estimate of the defined benefit pension liability is based on estimated retirement ages, medical cost trends and mortality. Discount factors are determined based on matching the plan's projected cash flow with the independent actuaries' discount yield curve. Estimation uncertainties exist particularly with regard to medical cost trends, which may vary significantly in future estimates of Neo's defined benefit pension obligations.

Fair value of financial instruments

Management uses valuation techniques in measuring the fair value of financial instruments, where active market quotes are not available. Details of the assumptions used are given in the notes to these financial statements regarding financial assets and liabilities. In applying the valuation techniques management makes use of market inputs, and uses estimates and assumptions that are, as far as possible, consistent with observable data that market participants would use in pricing the instrument. Where applicable data is not observable, management uses its best estimate about the assumptions that market participants would make. These estimates may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date.

Share-based compensation

Neo measures the cost of cash-settled and equity-settled share-based transactions with employees and directors by reference to the fair value of the equity instruments at the date at which they are granted, and re-measures the obligations related to cash-settled share-based plans with reference to the fair value of Neo's share price and the number of units that have been vested at each reporting date. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining and making assumptions about the most appropriate inputs to the valuation model including the expected life, volatility, dividend yield, forfeiture rate and expectations regarding achievement of market conditions and related timing of such achievement. Such assumptions are inherently uncertain and changes in these assumptions affect the fair value estimates.

Measurement uncertainty

Neo continues to monitor the ongoing situation of the COVID-19 pandemic and its impacts will depend on future developments such as the duration and severity of the disease, possibility of resurgence, and actions taken by authorities to control the spread of the disease. The extent of the impact the disease may have on Neo's business remains highly uncertain and cannot be predicted with confidence.

Any future developments related to the COVID-19 pandemic could have a material adverse effect on Neo's business and results of operations. In addition, because of the severity and global nature of the COVID-19 pandemic, it is possible that estimates in Neo's financial statements could change in the near term and the effect of any such changes could be material, which could result in, among other things, an impairment of non-current assets and a change in the expected credit losses on accounts receivable. Neo is regularly evaluating the COVID-19 situation and monitoring any impacts on its business.

18. Related Party Transactions and Balances

Neo's related parties are its joint venture partners, associates, directors and executive officers.

Neo's related party transactions were made on terms equivalent to those that prevail in arm's length transactions. Unless otherwise stated, none of the transactions incorporate special terms and conditions and no guarantees were given or received. Outstanding balances are usually settled in cash.

Transactions with associates

On occasion, MQTJ will supply Magnequench Powders to TMT to produce rare earth magnetic compounds. MQTJ will then purchase these compounds back from TMT in its normal course of business. Keli and GQD process rare earth oxides into metals for inclusion in Magnequench Powders.

Transactions between Neo and its associates are summarized in the table below:

	Year Ended December 31,	
($000s)	**2022**	**2021**
Purchase of goods and services from associates:		
TMT	$ 4,798	$ 2,931
Keli	87,528	87,994
GQD	18,700	21,137
Sales of goods and services to associates:		
TMT	9,888	9,189
Keli	1,374	7,007

Transactions with joint venture partners

Neo also has occasionally purchased and sold products from and to Ganzhou Qian Dong Rare Earth Group Co. Ltd. ("**Qian Dong**") and Toda Kogyo Corp. ("**Toda**").

Transactions between Neo and its joint venture partners are summarized in the table below:

	Year Ended December 31,	
($000s)	**2022**	**2021**
Sale of goods to Toda	$ 1,634	$ 1,182
Purchase of goods from Qian Dong	1,658	2,478

Transactions with other related parties

Neo, through one of its subsidiaries in China, MQCZ, has occasionally sold products to Atatsu Co., Ltd. ("**Atatsu**") for resale to third party customers. Atatsu is controlled by members of MQCZ's key management personnel. For the year ended December 31, 2022, sales to Atatsu were $1.3 million. For the year ended December 31, 2021, sales to Atatsu were $0.7 million.

Transactions between Neo and its related parties are summarized in the table below:

	Year Ended December 31,	
($000s)	**2022**	**2021**
Sale of goods and services to related parties	$ 17,023	$ 20,467
Purchase of goods and services from related parties	112,684	114,540

($000s)	Year Ended December 31,			
	2022		2021	
Trade balances:				
from related parties	$	2,374	$	2,070
due to related parties		(9,295)		(25,925)
Total	**$**	**(6,921)**	**$**	**(23,855)**

Directors and Key Management Compensation

Key management personnel consist of those persons having authority and responsibility for planning, directing and controlling the activities of Neo, directly or indirectly. Key management personnel include Neo's executive officers, vice-presidents and members of its board of directors. Neo's key management compensation expenses include short-term compensations and share-based compensation expenses.

Neo's short-term compensation for key management personnel during the years ended December 31, 2022 and 2021, was as follows:

($000s)	Year Ended December 31,			
	2022		2021	
Directors		496		348
Key Executive Management		5,204		4,050
Total	**$**	**5,700**	**$**	**4,398**

Neo's share-based compensation expense for key management personnel during the years ended December 31, 2022 and 2021, was as follows:

($000s)	Year Ended December 31,			
	2022		2021	
Directors		(890)		881
Key Executive Management		2,783		2,777
Total	**$**	**1,893**	**$**	**3,658**

19. Financial Instruments and Risk Management

The following table presents financial assets and liabilities measured at fair value in the consolidated statements of financial position in accordance with the fair value hierarchy. It does not include financial assets and liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value. This hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy has the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The level in which the financial asset or liability is classified is determined based on the lowest level of significant input to the fair value measurement. The financial assets and liabilities measured at fair value in the consolidated statement of financial position as at December 31, 2022, are grouped into the fair value hierarchy as follows:

($000s)	Level 1	Level 2	Level 3
Financial Assets:			
Equity securities	$ 902	$ —	$ —
Financial Liabilities:			
Put option issued to non-controlling interest of Buss & Buss	$ —	$ —	$ 28,570

Neo's derivative liability, classified in Level 3, uses the discounted cash flow method to determine the fair value based on significant inputs that are not based on observable market data.

Changing inputs to the Level 3 valuations to reasonably possible alternative assumptions may significantly change amounts recognized in net income, total assets, total liabilities or total equity. The following is a sensitively analysis of the inputs to the valuation model of the Buss & Buss derivative liability as at December 31, 2022:

	Effect of 1% increase (1)	Effect of 1% decrease (1)
Terminal growth rate	1,241	(1,090)
Overall discount rate	(1,859)	2,124

Notes:

(1) Assuming all other inputs are unchanged

There have been no transfers between levels for the period ended December 31, 2022.

Neo is exposed to a number of risks in the normal course of business that have the potential to affect its performance. These risk factors include commodity price risk, foreign currency risk, credit risk and liquidity risk.

Commodity price risk

A portion of Neo's current business is conducted in the spot market; therefore, prices can vary with the transaction and individual bids received. Neo's products are primarily marketed to manufacturers as component materials. Prices will vary based on the demand for the end products being produced with the raw materials Neo processes.

Neo's sales and profitability are determined principally by the pricing of the advanced industrial materials it produces, and, to a lesser extent, by the price of natural gas and other supplies used in its production process. The prices of the rare earth products are influenced by the price and demand of the end products that Neo's products support, including automotive, electronics and clean energy technologies. A significant decrease in the global demand for these products may have a material adverse effect on Neo's business. Neo does not have hedging contracts for revenues and costs in place.

Neo's costs and capital investments are subject to market movements in other commodities such as natural gas and chemicals. Neo may enter into derivative contracts for a portion of the expected usage of these products, but it does not currently have any derivative contracts on these commodities, and it does not currently anticipate entering into derivative agreements on commodities.

Foreign currency risk

Neo is exposed to fluctuations of the U.S. dollar against the functional currencies of its foreign subsidiaries, including the Euro, the Canadian dollar, the Renminbi, the Thai baht and the Japanese Yen, when Neo translates its foreign subsidiaries' financial statements into U.S. dollars for inclusion in its consolidated financial statements. Cumulative translation adjustments are recorded in accumulated other comprehensive income (loss), a separate component of equity. Any increase (decrease) in the value of the U.S. dollar against those foreign currencies results in unrealized foreign currency translation losses (gains) with respect to assets acquired in, liabilities assumed from, intercompany balances with and results of operations from the foreign subsidiaries. Therefore, Neo may experience a negative impact on its comprehensive income (loss) and stockholders' equity with respect to its holdings in those subsidiaries as a result of foreign currency translation. Neo generally does not hedge against the risk that it may incur non-cash losses upon the translation of the financial statements of its foreign subsidiaries into U.S. dollars.

Credit risk

Credit risk refers to the possibility that a customer or counterparty will fail to fulfill its obligations under a contract and as a result, create a financial loss for Neo. Neo has a credit policy that defines standard credit practice. This policy dictates that all new customer accounts are reviewed prior to approval and establishes the maximum amount of credit exposure per customer. Credit worthiness and financial well-being of the customer is monitored on an ongoing basis.

Under IFRS 9, Neo calculates a loss allowance using the expected credit loss impairment model; therefore, the carrying amount of accounts receivable generally represents the maximum credit exposure. As at December 31, 2022, the loss allowance was approximately $0.5 million. The estimated credit losses are included in selling, general and administrative expenses in the consolidated statements of profit or loss and is net of any recoveries that were provided for in prior periods.

Counterparties to financial instruments may expose Neo to credit losses in the event of non-performance. Counterparties for derivative and cash transactions are limited to high credit quality financial institutions, which are monitored on an ongoing basis. Counterparty credit assessments are based on the financial health of the institutions and their credit ratings from external agencies. As at December 31, 2022, Neo does not anticipate non-performance that would materially impact Neo's financial statements.

Liquidity risk

Neo is exposed to the possibility that it may not be able to meet its financial obligations as they fall due. Neo manages liquidity risk by continuously monitoring actual and projected cash flows, taking into account its sales and receipts and matching the maturity profile of financial assets and liabilities. Neo continues to maintain sufficient cash and certain credit facilities which can be drawn upon to meet its operating and capital expenditure obligations as needed. The Board reviews and approves the annual operating and capital budgets, as well as any material transactions out of the ordinary course of business, including proposals on acquisition and other major investments.

20. Recent Accounting Pronouncements

20.1 Neo adopted the following accounting standards and amendments to accounting standards during the year ended December 31, 2022:

20.1.1 Onerous Contracts - Costs of Fulfilling a Contract (Amendments to IAS 37)

On May 14, 2020, the IASB issued amendments to IAS 37 Onerous Contracts - Cost of Fulfilling a Contract to specify that the 'cost of fulfilling' a contract comprise both:

- incremental costs of fulfilling that contract, for example direct labour and materials; and

- an allocation of other costs that relate directly to fulfilling contracts, for example the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract.

The amendments were effective for annual periods beginning on or after January 1, 2022 and apply to contracts existing at the date when the amendments are first applied. The amendment was adopted by Neo on January 1, 2022. The amendment did not have a material impact on the interim condensed consolidated financial statements.

20.1.2 Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)

On January 23, 2020, the IASB issued amendments to IAS 1 Presentation of Financial Statements to clarify the requirements for classifying liabilities as current or non-current. More specifically:

- the amendments specify that the conditions which exist at the end of the reporting period are those which will be used to determine if a right to defer settlement of a liability exists;
- the amendments clarify that classification is unaffected by expectations, or to any periods retrospectively, about whether an entity will exercise its right to defer settlement of a liability; and
- the amendments clarify the situations that are considered settlement of a liability.

This amendment to IAS 1 is effective for annual periods starting on or after January 1, 2023, earlier application is permitted. The amendment was adopted by Neo on January 1, 2022. The amendment did not have a material impact on the consolidated financial statements.

In October 2022, the IASB issued Non-current Liabilities with Covenants (Amendments to IAS 1) to clarify how covenant with which an entity must comply within twelve months after the reporting period affect the classification of a liability.

The amendments are effective for annual periods beginning on or after January 1, 2024. Early adoption is permitted.

Neo does not anticipate that any of these amendments will have a material impact on its consolidated financial statements.

20.2 The following are new accounting pronouncements or amendments that have been issued by the IASB but have not yet been adopted by Neo:

20.2.1 Definition of Accounting Estimates (Amendments to IAS 8)

On February 12, 2021, the IASB issued Definition of Accounting Estimates (Amendments to IAS 8) to introduce a new definition for accounting estimates, clarifying that they are monetary amounts in the financial statements that are subject to measurement uncertainty. The amendments also clarify the relationship between accounting policies and accounting estimates by specifying that a company develops an accounting estimate to achieve the objective set out by an accounting policy.

The new guidance will be effective for annual periods starting on or after January 1, 2023 and will be applied prospectively, with earlier application permitted.

20.2.2 Disclosure Initiative - Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)

On February 12, 2021, the IASB issued Disclosure Initiative - Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2) to help companies provide useful accounting policy disclosures. The key amendments include:

- requiring companies to disclose their material accounting policies rather than their significant accounting policies;

- clarifying that accounting policies related to immaterial transactions, other events or conditions are themselves immaterial and as such need not be disclosed; and
- clarifying that not all accounting policies that relate to material transactions, other events or conditions are themselves material to a company's financial statements.

The amendments are effective for annual periods beginning on or after January 1, 2023 and will be applied prospectively, with early adoption permitted.

20.2.3 Deferred Tax Related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12)

In May 2021, the IASB issued amendments to IAS 12 Income Taxes to clarify how entities should account for deferred tax on certain transactions such as leases and decommissioning provisions. The amendments narrow the scope of the initial recognition exemption so that it does not apply to transactions that give rise to equal and offsetting temporary differences.

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted.

20.2.4 Lease Liability in a Sale and Leaseback (Amendments to IFRS 16)

In September 2022, the IASB issued Lease Liability in a Sale and Leaseback (Amendments to IFRS 16) with amendments that clarify how a seller-lessee subsequently measures sale and leaseback transactions that satisfy the requirements in IFRS 15 to be accounted for as a sale.

The amendments are effective for annual periods beginning on or after January 1, 2024. Early adoption is permitted.

Neo does not anticipate that any of these amendments will have a material impact on its consolidated financial statements.

21. Internal Control Over Financial Reporting and Disclosure Controls and Procedures

Disclosure controls and procedures

Neo's Chief Executive Officer ("**CEO**") and Chief Financial Officer ("**CFO**") are responsible for establishing and maintaining disclosure controls and procedures for Neo. Neo maintains a set of disclosure controls and procedures designed to provide reasonable assurance that information required to be publicly disclosed is recorded, processed, summarized and reported on a timely basis. The CEO and CFO have evaluated the design and operating effectiveness of Neo's disclosure controls and procedures ("**DC&P**") as at December 31, 2022 and based on the evaluation, the CEO and CFO have concluded that the DC&P were effective.

Internal controls over financial reporting

Neo's internal controls over financial reporting ("**ICFR**") are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Neo's management is responsible for establishing and maintaining adequate ICFR for Neo. National Instrument 52-109 of the Canadian Securities Administrators requires the CEO and CFO to certify that they are responsible for establishing and maintaining ICFR for Neo and that those internal controls have been designed and are effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. The CEO and CFO are also responsible for disclosing any changes to Neo's internal controls during the most recent period that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting. There have been no material changes during the quarter ended December 31, 2022. Neo's management, under the supervision of the CEO and CFO, has evaluated the design and operating effectiveness of Neo's ICFR based on the Internal Control - Integrated Framework issued in

2013 by the Committee of Sponsoring Organizations of the Treadway Commission. As at December 31, 2022, management assessed that Neo's ICFR were effective.

In designing such controls, management, including the CEO and CFO, recognized that due to inherent limitations, any controls, no matter how well designed and operating effectively, can provide only reasonable assurance of achieving the desired control objectives and may not prevent or detect all errors and fraud with respect to the financial statement preparation and presentation. Additionally, management is required to use judgment in evaluating controls and procedures.

22. Business Risks and Uncertainties

Neo's business activities exposes Neo to both risks and opportunities. Risk oversight and management processes are integral elements of Neo's approach to risk management and strategic planning initiatives to address both risks and opportunities.

Numerous risks and uncertainties could cause Neo's actual results or shareholder returns to differ materially from those expressed or implied, including those in the Forward-Looking Information, Financial Statements, other areas of this MD&A and Neo's 2022 Annual Information Form ("**AIF**") for the year ended December 31, 2022. Such risks and uncertainties include:

- Volatility in the price of Neo's common shares related to price or volume that may be unrelated to Neo's operating results;
- Payment of future dividends, which is at the discretion of the Board and may be subject to future restrictions or strategic initiatives;
- Difficulty in enforcing judgments in the jurisdictions in which Neo operates;
- The existence of a significant shareholder that may be able to direct a significant amount of voting power;
- Risks relating to the COVID-19 pandemic;
- Risks related to other geopolitical factors such as the current conflict in Ukraine, including risks associated with procuring raw material from various regions of the world, including Russia;
- Risks associated with the planned relocation of Neo's environmental emissions catalyst production facility in Zibo such as the inability to successfully design and build the new plant in compliance with applicable regulatory standards and necessary customer specifications;
- The variability in quarterly results particularly as it relates to commodity price changes and the inability to pass-through cost changes;
- Failure to adapt to new products and technologies that may impact the sales of Neo's products;
- Disruptions to manufacturing processes and supply related to internal or external factors;
- Risks associated with the international nature of the business, including foreign legal requirements and differences in business practices;
- Changes to the general economic, industry and market conditions, both domestically and in foreign markets;
- Potentially adverse tax consequences in various jurisdictions, including the repatriation of cash to other jurisdictions;
- The inability to maintain permits and operating licenses in the jurisdictions and segments in which Neo operates;
- The inability to continue to procure cost effective material, including rare earths as well as material subject to conflict materials regulations;
- Trade barriers, exchange controls, export restrictions and other matters related to the export of materials from the manufacturing locations;
- The inability to maintain technical advantages through continuous development, protecting know-how and trade secrets as well as enforcing intellectual property rights in the various jurisdictions;
- The inability to defend against various intellectual property rights and applications currently asserted or potentially asserted in the future, including the inability to continue to supply parts to Neo's customers without significant economic penalty;

- The inability to arrange additional financing required in order to make further investments or take advantage of future opportunities, on terms satisfactory to Neo;
- The inability to maintain or satisfy the obligations under the credit facilities and other debt instruments;
- The management and expiry of the Joint Ventures that form part of Neo's operations;
- Changes in other regulations related to operating in the various jurisdictions, including changes with respect to the regulated rare earth industry in China;
- The inability to manage risks associated with the potential unauthorized use of Company Chops in China or any other unauthorized use of authority;
- Customers and supplier dependence, including the inability to continually develop new products that meet changing standards and requirements;
- The inability to manage environmental liability exposure and continue to operate in environmentally sensitive areas with respect to legal requirements that may continue to change over time;
- The inability to maintain the services of key personnel including senior management, key technical people and other key employees;
- The inability to protect Neo's information technology systems and protect against cybersecurity attacks or any other situations that may cause disruption to Neo's inability to access its data and manage its business;
- The entrance of other competitors or substituted technologies into the markets in which Neo operates.

In addition to other information contained in this MD&A, readers should carefully consider the preceding factors before making an investment in common shares of Neo. All risk factors should be considered because they could cause Neo's actual results or financial condition to differ materially from those discussed in forward-looking statements contained elsewhere in this MD&A. The preceding risk factors are not an all-inclusive listing of risks. Risks and uncertainties that are either not known to Neo or that Neo considers at this time to be immaterial or insignificant could also be detrimental to the ongoing affairs of Neo. If any of these risks occur, Neo's business, financial position, results of operations or cash flows could be materially adversely affected. Further discussion of the risk factors set out above can be found in Neo's AIF.

23. Outstanding Shares Data

Class of Equity Security	Numbers Outstanding as at December 31, 2022
Common Shares	45,196,921
Stock Options*	1,158,228
Restricted Share Units & Performance Stock Units	285,487

*Each stock option can be exercised to purchase one common share.

The number of common shares outstanding as at March 28, 2023 is 45,196,921.

24. Legal Proceedings and Regulatory Actions

Legal Proceedings

From time to time, Neo and its subsidiaries are subject to litigation claims arising in the ordinary course of business, most of which involve alleged violations of the intellectual property rights of others. Neo manufactures and sells many products that use scientific formulations and processes, and its competitors may from time to time allege that they hold a patent on such formulations or processes that Neo has infringed. Neo generally believes that it has meritorious defenses to the actions that have been brought against it and vigorously pursues the defense of each such action, including but not limited to initiating legal proceedings to revoke or invalidate the patents Neo is alleged to have infringed. However, litigation outcomes are inherently unpredictable and may be even harder to predict for patent litigation since patents are issued separately by each country or applicable jurisdiction with different standards for infringement or invalidation, as well as differing levels of damages, including as a result of the number of customers and level of activity of Neo in a given country or jurisdiction.

If many or most of the proceedings initiated against Neo in respect of the patents held by others, described under *"Other Expenditures and Legal Contingencies"*, are finally determined in a manner adverse to Neo, there can be no assurance that such determinations would not have a material adverse effect upon Neo or upon its operations, cash flows, prospects or financial condition, and in some countries (or jurisdictions) listed in *"Other Expenditures and Legal Contingencies"*, management expects that an injunction or other remedy imposed for infringement would be materially adverse to Neo. It is not possible at this time to predict with any degree of certainty the impact upon Neo's operations in the event of such final adverse determinations. If injunctions were granted against it, Neo would be prohibited from manufacturing and distributing certain products in those jurisdictions subject to those injunctive orders. Neo could, in such event, re-establish its manufacturing capability for such products in jurisdictions not prohibited by any such orders, and thus would expect to encounter interruptions in its manufacturing of such products and in its ability to distribute such products to customers in jurisdictions not subject to such orders. The litigation proceedings described in this section affect certain products manufactured by Neo's C&O segment for use in auto catalysts. Neo manufactures a wide variety of products that are used in the production of auto catalysts, which accounted for 10% to 20% of total revenue. These products include multiple formulations in multiple jurisdictions sold to a number of different customers. Neo notes; however, these claims do not affect all of the products manufactured by Neo's C&O segment, for use in auto catalysts nor do these claims pertain to all markets where such products are sold. Neo is not currently restricted with respect to the manufacture or distribution of any of its products as a result of ongoing litigation. However, in the event of final adverse determinations, Neo expects to take all available actions to mitigate the impacts of such rulings, including but not limited to continuing to pursue invalidation of the applicable patent (if not already decided) appealing the adverse rulings, obtaining licensing rights and finding new customer outlets. The geographically diverse nature of Neo's operations and that of certain of its customers potentially provides Neo with a measure of flexibility to manufacture the same products in certain other jurisdictions and continue to supply certain of its customers with the same products in certain other jurisdictions. Neo also has the ability to work with customers to develop new products that may have a lower risk of potentially falling within the scope of existing patent claims.

Where appropriate, accruals are made in accordance with accounting standards for contingencies to provide for matters that are probable of resulting in an estimated loss. Based upon the status of the various cases, management's assessments of the likelihood of damages, and the advice of counsel, Neo has made accruals, as of December 31, 2022, for some of the proceedings outlined in *"Other Expenditures and Legal Contingencies"*, where Neo believes it would be more likely than not that it would be liable for damages and other outflows of resources. Neo considers some of the other outstanding litigation as currently being too uncertain to result in accruals. Several of these actions are at a preliminary stage and have not gone to trial.

As mentioned above the laws concerning patents differ from country to country. Damages for patent infringement in Europe and China may include lost profits or a reasonable royalty, but enhanced damages for wilful infringement are generally not available, unlike the case in the United States.

See section entitled "*Legal Proceedings and Regulatory Actions*" in Neo's AIF.

Regulatory Actions

There have been no penalties or sanctions imposed against Neo by a court relating to provincial and territorial securities legislation or by securities regulatory authority since incorporation.

25. Additional Information

Additional information is included in Neo's AIF available on Neo's website at www.neomaterials.com and on SEDAR at www.sedar.com.

MD&A Endnotes

I. See Section 8 "*Non-IFRS Measures*", which includes reconciliation of such non-IFRS measures to the most directly comparable IFRS measures.

II. See Sectional 8 "*Non-IFRS Measures*", which includes definitions and calculations of such non-IFRS ratios.