



**Ardmore Shipping
Corporation**

2022

ANNUAL REPORT



**Ardmore Shipping
Corporation**

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Please see the Section entitled "Forward-Looking Statements" in our Form 20-F for the year ended December 31, 2022 for a description of forward-looking statements included in this report and for factors that may cause actual results to differ materially from those indicated in such forward-looking statements.

OUR COMPANY



Ardmore Shipping owns and operates a fleet of mid-size product and chemical tankers.

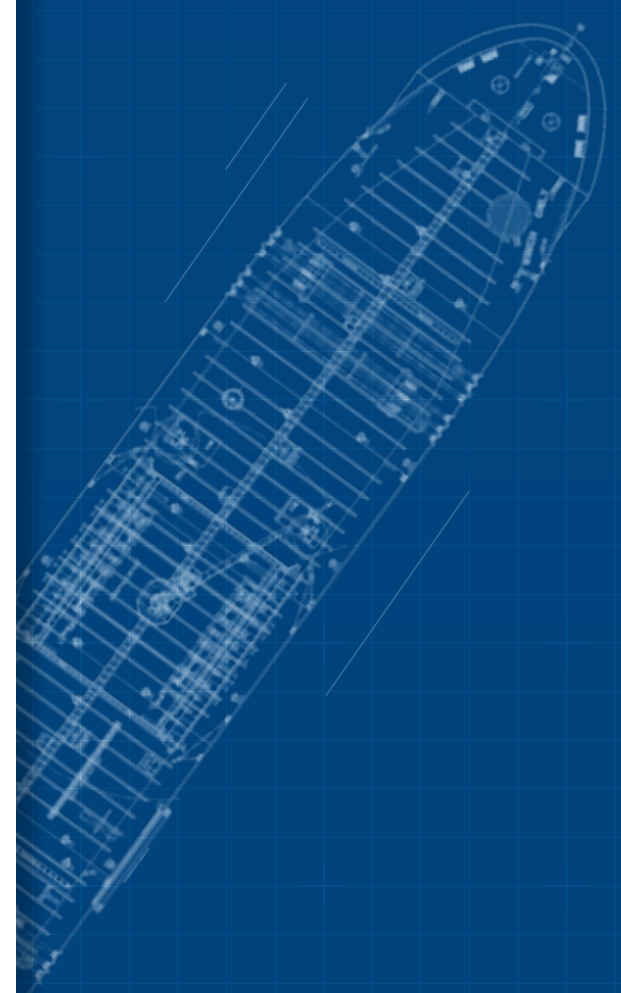
We provide seaborne transportation of chemicals, sustainable fuels, and petroleum products worldwide to oil majors, national oil companies, oil and chemical traders, and chemical companies, with our modern, fuel efficient fleet of tankers. Ardmore's core strategy is to develop a modern, high-quality fleet of product and chemical tankers through well-timed growth, build key long-term commercial relationships, and maintain our cost advantage in assets, operations, and overhead through hands-on management, while creating significant synergies and economies of scale as the Company grows. We provide our services to customers through our in-house chartering and commercial team. We maintain a broad range of vessel employment strategies to maximize commercial flexibility and customer diversification, enjoying close working relationships with key commercial and technical management partners. Maintaining outstanding customer service is a cornerstone of our business, and we seek customers who value our active approach to fuel efficiency and service delivery.



Pictured left to right: Mr. Bart Kelleher, Mr. Anthony Gurnee, Ms. Aideen O Driscoll, Mr. Mark Cameron, Mr. Gernot Ruppelt

Our Energy Transition Plan ("ETP") is focused on three key areas: (1) Transition Projects, (2) Transition Technologies, and (3) Sustainable Cargos (non-fossil fuel). Balancing the energy transition with energy realism, the ETP is an extension of our existing strategy, building on our core strengths of tanker chartering, shipping operations, technical and operational fuel efficiency improvements, technical management, construction supervision, project management, investment analysis, and ship finance. We continue to invest in diverse technological and process optimization initiatives to minimize emissions, maximize performance, and advance industry best practices.

ARDMORE STRATEGY



Energy Transition Plan ("ETP") Framework



Transition projects:
working closely with customers

Transition technologies:
efficiency and future fuels

Sustainable (non-fossil fuel) cargoes:
long-term growth

Focus



Mid-size product and chemical tankers
Driving performance while simultaneously pursuing progress
Voyage optimization
Fuel efficiency and emissions reduction



Long-Term Value Creation

Disciplined capital allocation
Conservative balance sheet
High-quality fleet
Transparent corporate structure



Effective Cost & Investment Management

Low breakeven levels
Disciplined investment
Well-timed asset acquisitions

LETTER FROM THE CHAIR

The Chair
Curtis Mc Williams



Dear Fellow Shareholders,

On behalf of the Board, I am pleased to report on the continued progress of Ardmore Shipping. Results for 2022 were the strongest on record, as our team's exceptional performance and continuous execution at all levels allowed us to take maximum advantage of the best tanker market in a generation. With supply / demand fundamentals that look to remain supportive in the coming years, in addition to the unique opportunities which the energy transition will present, the outlook for Ardmore is very exciting.

First, I would like to take this moment to acknowledge Brian Dunne, who served as a key Board member since the Company's earliest days and who sadly passed away shortly after stepping down as an Ardmore Director. Brian was a guiding light for the Company through good markets and bad, and on behalf of the entire Ardmore family, I would like to offer my condolences to Brian's family and my sincere appreciation for his significant contributions in making Ardmore what it is today.

I would also like to extend a warm welcome to our new independent Director, James Fok, who joined us in early 2023. James has extensive expertise in Asian financial markets and business culture, as well as a unique perspective on the macro-economic and geopolitical factors shaping our industry. I look forward to working with James as I'm sure his expert insights into this increasingly important part of the shipping world and global economy will be a great benefit to our shareholders.

It's worth reflecting on the fact that Ardmore is by many standards a reasonably young company, having been founded in 2010 and completing our IPO on the New York Stock Exchange in 2013. Since the beginning, the

Company has invested a significant amount of time, effort, and resources in building a best-in-class foundation for our long-term success and market leadership in a highly competitive, constantly evolving product and chemical tanker industry. Ardmore has built a very strong organization at every level and is now reaping the benefits thanks to our finely tuned teams and systems on shore and at sea, our stellar reputation and relationships in the market, and of course the operational leverage and capabilities of our fleet. We are not complacent, however, and Ardmore will continue to push itself to build, develop, and realize continual progress.

Over the last year, Ardmore has taken advantage of strong charter markets to deliver outstanding financial and operating results. As a result, we are now in a financial and strategic position to pursue all of our capital allocation priorities simultaneously: maintaining our fleet, delevering our balance sheet, pursuing accretive growth, and returning capital to shareholders. In line with this, the Board announced a quarterly cash dividend policy equivalent to one third of our adjusted earnings, followed shortly thereafter by our declaration of a \$0.45 per share dividend for 4Q 2022.

Ardmore remains keenly focused on capital allocation and financial strength, which we believe are key drivers of long-term shareholder value. In addition, 2022 saw our successful completion of a comprehensive debt refinancing, adding flexibility with a large revolver, reducing our cost of debt, and importantly transitioning the majority of our debt to sustainability-linked facilities that further align our financial incentives and strategic plans.

Sustainability is a concept and a framework that has become ever more central to Ardmore's operations and understanding of the path forward. As evidenced by our recent formation of a Board-level Sustainability Committee, Ardmore takes a holistic view of sustainability that pervades all areas of our business. True sustainability means being able to operate in a manner that is sustainable for the environments in which we operate, for the communities in which we work and live, and in the activities that we undertake, but also in a manner that enables us to be successful over the long-term. Ardmore's proactive approach to the energy transition places us at the technological forefront, trialing, stress-testing, and innovating the solutions that will drive increased efficiencies for our fleet today and inform industry best practices tomorrow. While decarbonization will not happen overnight, it is the work that our team and other like-minded teams are engaging in today, that will get us there. Our commitment to decarbonization will remain steadfast as we look to continue on our path of true sustainability.

As has been the case since Ardmore's founding, sound corporate governance practices remain critically important to Ardmore and all our stakeholders. We are pleased that our principled approach to corporate governance continues to set a leading standard within the industry, as recognized by the Webber Corporate Governance Scorecard, on which we are once again the number one-ranked publicly traded product tanker company.⁽¹⁾

Before concluding, I would like to once more offer my sincere thanks to our seafarers and on-shore teams who make Ardmore's success and leadership possible by sustaining the highest levels of professionalism and integrity day in and day out. The organization-wide commitment to embodying a 'One-Team' culture always impresses me, and the tangible results of that collaborative culture are evident everywhere, from operational excellence to customer service, cost management, and most importantly, safety.

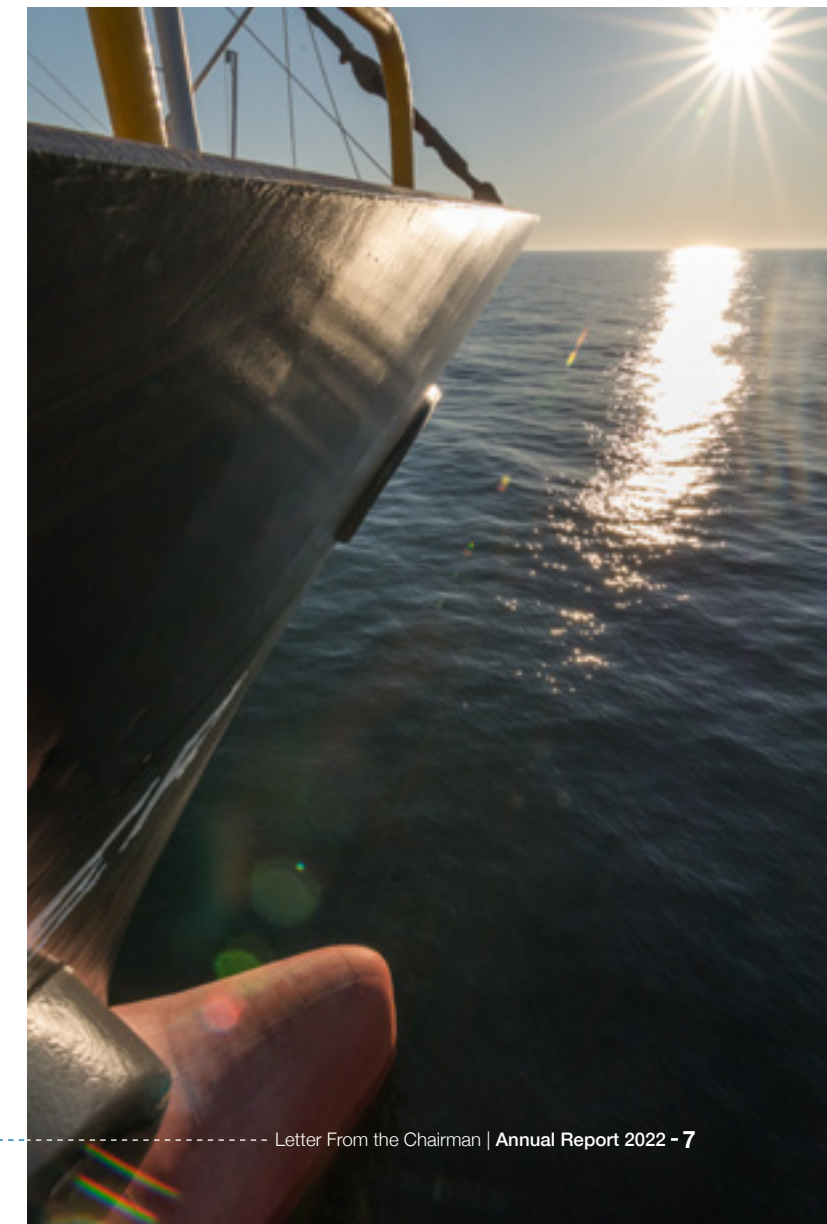
Looking forward, while there are some macro headwinds, they are outweighed by the many positive fundamental

and market factors in the tanker market. It is indeed an exciting time for Ardmore, as the momentum of a strong 2022 has been sustained through early 2023, against the backdrop of very strong supply / demand fundamentals, durable growth drivers, and the many opportunities related to the energy transition. In closing, we appreciate the strong support we receive from you and, on behalf of the Board of Directors, I would like to take this opportunity to thank you for your continued support as we look forward to continuing to work together on your behalf.

Curtis Mc Williams

Chair
Ardmore Shipping Corporation

Sources: (1) Webber Research: 2021 ESG Scorecard, June 23, 2022



LETTER FROM THE CEO

The CEO

Anthony Gurnee



Dear Shareholders,

It is my pleasure to report on the performance and progress of Ardmore Shipping Corporation for the year ended December 31, 2022.

2022 was an extraordinary year for Ardmore, both in terms of absolute and relative performance, as the Company reported its most profitable year thus far. With underlying supply / demand fundamentals very robust and the pronounced and persistent re-ordering of global trade, due to the Ukraine / Russia conflict, charter market TCE rates reached exceptional levels in the second half of the year and have remained strong through to the present.

Our commercial and operating teams have had a stellar year, outperforming our peer group on a TCE basis. In addition, we continue to be at the forefront of innovation as we act on our Energy Transition Plan ("ETP"). Our multi-pronged approach to technological improvement and performance optimization saw us execute more than a dozen such projects during 2022, driving fleet efficiency and carbon reduction. Meanwhile, with low financial leverage, a strong balance sheet, and significant operating leverage to the very strong spot charter market, our improved free cashflow generation enabled us initiate a dividend policy, consistent with our Capital Allocation Policy.

Overall, we are very pleased with the Company's performance, as we have enhanced our financial strength, effectively managed costs against the backdrop of an inflationary environment and performed operationally and commercially at the highest level. As the charter market remains robust, with very strong market fundamentals, we believe that our 'One-Team' culture, strong corporate governance, robust balance sheet, and forward-looking initiatives position us well for 2023 and beyond.

Sadly, at the time of writing, the terrible conflict in Ukraine is still ongoing. Our thoughts are with those directly caught up in this conflict and with those who have lost loved ones. We hope above all else that this profound human tragedy is resolved soon and that the suffering and loss of life are brought to an end.

Market Review

The 2022 charter market strengthened over the year as the broader implications of the Ukraine / Russia conflict unfolded. This dynamic added significant volatility, disruption, and dislocation to an already tight market, driving charter rates to truly extraordinary levels. It's important to note that, although the conflict and resulting trade dislocation have had a pronounced impact on charter rates, the underlying supply / demand fundamentals were themselves already supportive of an improving market. Global oil demand regained its pre-COVID levels after a sharp drop in recent years, with 2022 demand up 2.3 mbd versus 2021 levels. Meanwhile, 2022 product tanker net supply growth was just 2.0% and chemical tanker supply growth was 2.2%.⁽¹⁾

Product Tankers Supply Growth

< 2.0%



Performance

At Ardmore, performance is ingrained in our culture, as we believe that consistently superior operating performance is a key driver of long-term value in our business. Results from 2022 are a testament to this and our team's performance-oriented culture.

From a commercial perspective, our ability to be nimble and smart in our trading is borne out by our TCE outperformance and has been rewarded by the market with a share price increase of more than 300% over the year. We continue to build on our TCE performance through strong commercial management, deep chartering relationships, and a consistent focus on excellence in execution.

In addition, consistent with our policy on fleet renewal, we sold three older ships in early 2022, which generated cash proceeds of \$15 million. Importantly, we immediately time-chartered these ships back in at very favorable rates for two years plus options in order to maintain our scale and earnings power. In total, we had five ships time chartered in at the end of 2022 with no ships time chartered out, maximizing our operating leverage and spot market exposure beyond 100% of our owned fleet.

Operationally, during 2022, we carried 61 different cargo grades and called at 311 different load ports and 406 different discharge ports. Furthermore, it is important to acknowledge that as an organization, under a 'One-Team' approach, we have successfully managed through the COVID-19 pandemic, while continuing to monitor the operating environment in a proactive manner.

Our financial performance for the full year 2022 was our best on record, thus far. We reported net revenue of \$455.7 million and adjusted earnings of \$143.5 million, or \$3.74 / share for FY 2022.⁽²⁾ As a result of both strong earnings and an innovative and supportive refinancing, we have significantly strengthened our balance sheet and liquidity position. Our sustainability-linked refinancings totalled over \$300 million, reduced the number of vessels under lease financing from 14 to two, provided a \$185 million fully revolving credit facility, narrowed our credit spreads by 0.6%, and accelerated our transition from LIBOR to SOFR. Our year-end net leverage was 25.5%,⁽³⁾ with a strong liquidity position consisting of \$50.6 million in cash and \$170.0 million of undrawn revolver capacity.

Adjusted earnings of

143.5M

or \$3.74 / share for FY 2022.⁽²⁾



Overall, we are very pleased with our performance for the year, as we continue to drive improved profitability, minimize our emissions footprint, and engage transparently and proactively with the investment community to ensure a widespread awareness and appreciation of all that we are doing at Ardmore.

Progress

Ardmore's value-creating approach is to combine performance and progress, because we are aware that those not progressing will inevitably be left behind. During 2022, I am proud to report that not only have we performed, as outlined above, but we have also successfully progressed.

Our people are the cornerstone of our company and our success. As a company, we continue to invest in the development of our teams through cross training, educational sponsorship, and on-the-job learning. Our proactive efforts to support the professional and personal

development of our employees is incredibly important to the sustained success of Ardmore Shipping, and on a personal level it's a proud moment when our employees are then rewarded with career progression and increased responsibility. This supportive approach has been key to Ardmore's ability to attract and retain the very best employees, while also inspiring team members to buy into the collaborative spirit of our 'One-Team' culture.

At Ardmore, we believe that diversity facilitates our ability to achieve progress. We focus on supporting a diversity of thought, perspective, and background. We are fortunate to have a very experienced team, representing 10 different countries, with 50% of our new hires from non-shipping backgrounds and almost the same percentage of managerial positions held by women.

Our 'One-Team' culture operates across the Company with a seamless ship-to-shore integration. This collaboration is an important driver of progress and is seen in many instances, including the participation of our second engineers in our extended energy transition team; their full inclusion in the process, from initial brainstorming through to implementation of initiatives and measurement of results is indicative of our overall approach and is evident in the vessel performance improvements that we have been able to achieve across our fleet. We are acutely aware of the importance of our seafarers in driving performance and progress, and we are continually on the lookout for opportunities to leverage their expertise and hands-on perspectives to identify and enact process optimizations and performance enhancements.

Also in 2022, we made further progress towards the goals of our Capital Allocation Policy. This policy was introduced in March 2020 with the overall objective to build shareholder value in a highly cyclical industry by allocating our capital towards four prioritized goals: (1) maintain the fleet over time; (2) sustain our leverage below 40%; (3) pursue well-timed accretive growth; and (4) return capital to shareholders. As a result of improved market conditions that allowed us to meet our leverage target more rapidly than anticipated, we are now able to pursue all our capital allocation priorities simultaneously, including through the payment of a cash dividend for 4Q 2022.

As a company, we will continue our journey towards true sustainability as we look to deliver long-term shareholder value while continuing to be an industry leader according to environmental, social, and governance principles.

The Energy Transition

Our viewpoint on the energy transition has been consistent: decarbonization will be an evolution and not a revolution. At Ardmore, we recognise the need to balance the energy transition with 'Energy Reality'. The drive for decarbonization is without doubt an important and critical movement and one that now has momentum, but the ongoing need for fossil fuels to provide light, heat, and energy for our cities, our businesses, and our homes will mean that the process happens gradually.

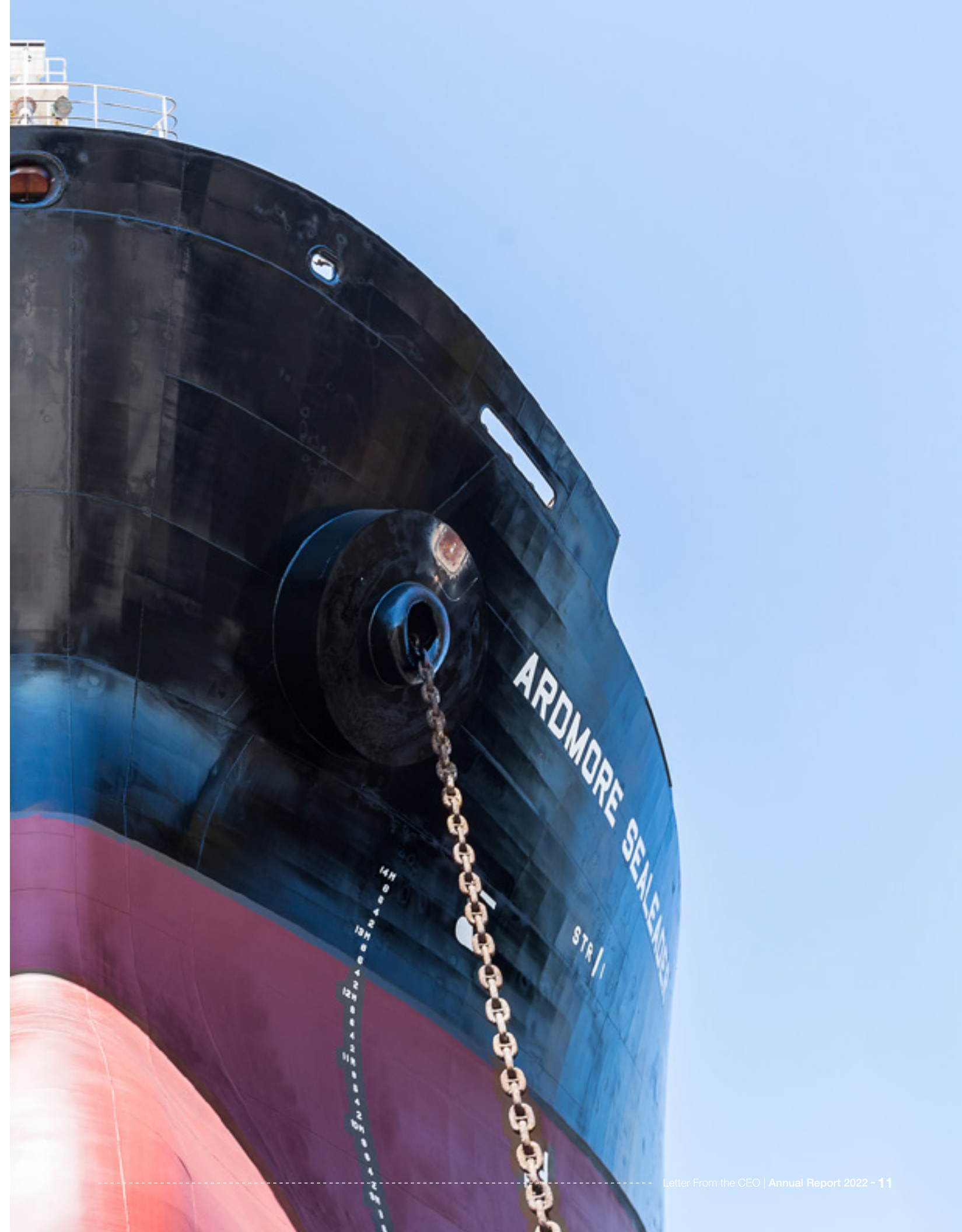
In 2022, our main ETP initiatives have been focused on investment in incremental fuel efficiency projects, including the installation of variable speed drives to reduce electrical load and fuel consumption, as well as the implementation of Lean Marine technology, which controls power to the main engine to ensure constant utilisation of the most efficient load, among a number of other such programs. These initiatives all have very healthy IRRs ranging from 20% to 140%. Although we implemented 12 initiatives in 2022, we have actually considered and assessed over 100. Staying engaged with the full range of emerging technologies and processes not only helps us determine what works best for Ardmore and what does not, but also puts us in a position to connect the dots between solutions and develop bespoke, hybrid solutions from what we have learned.

Essentially, our ETP drives performance today while positioning us for long-term success.

Market Outlook

We expect the current strong momentum in 2023 to continue, due to robust long-term demand and supply drivers.

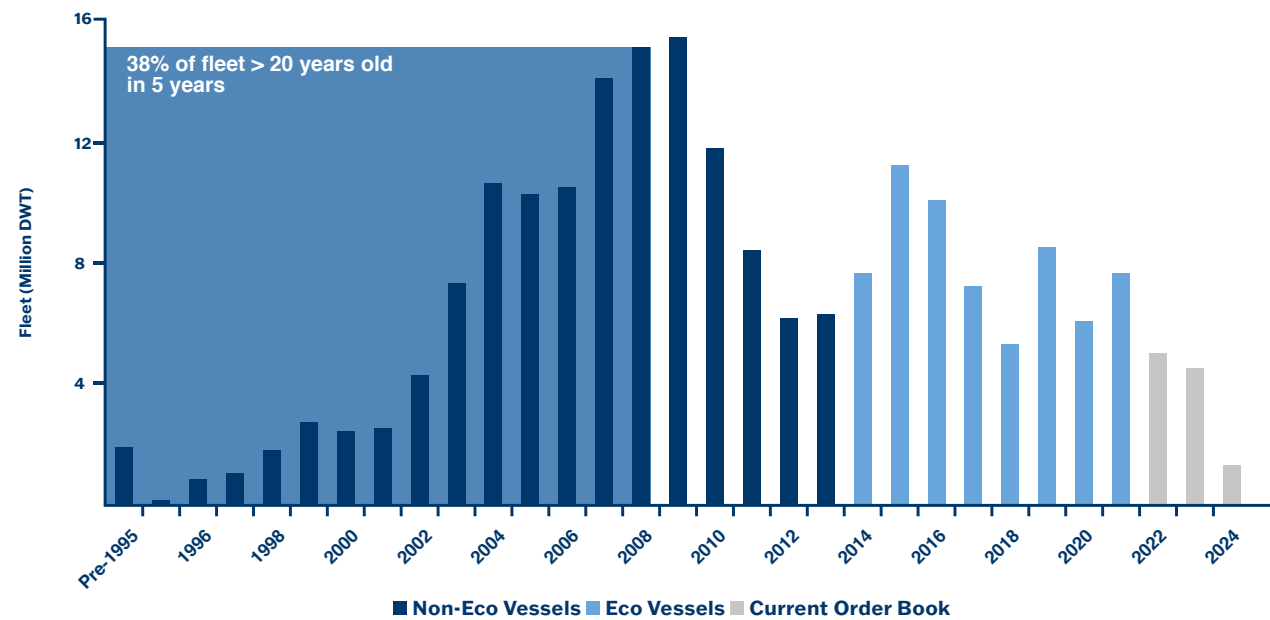
The IEA has been increasing its demand forecasts for 2023 and is currently forecasting a further 2.0 mbd of oil demand growth in 2023,⁽⁴⁾ while MSI is forecasting an 8% increase in chemical tonne-mile demand.⁽⁵⁾ On top of this, refinery dislocation continues to have a positive impact on product tanker demand. The steady shift in refinery base is continuing, with closures of older less efficient, local market-oriented refineries in the US, Europe, Japan, and Australia (5.5 mbd of refinery closures since late 2020 to date) in favor of export-oriented refinery capacity growth in the Middle East and Asia (8.5 mbd of openings forecast from 2022 to 2026)⁽⁶⁾ This is increasing both seaborne cargo volumes and average voyage distances.



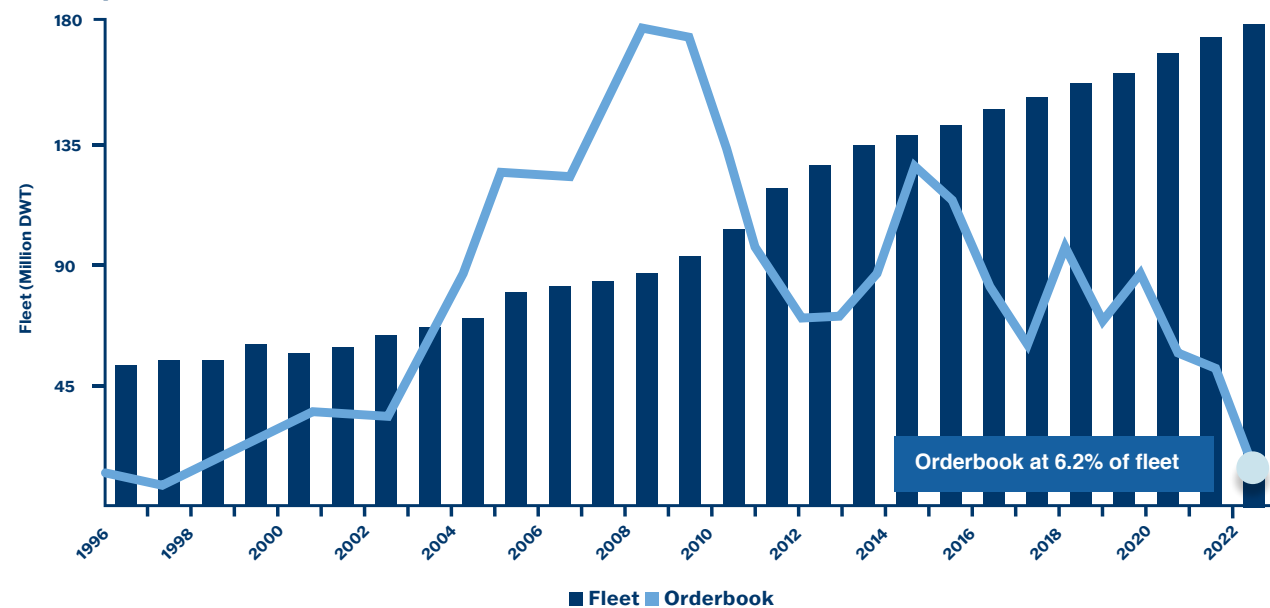
Furthermore, the dislocation of refined product trade has been impacted even further with the implementation of the EU Refined Product Embargo and G7 Price Cap on February 5, 2023. At the time of going to print we have seen a significant increase in tonne-miles and further inefficiencies in trade. It is also important to note here that we do not see the dislocation caused by this conflict to be transitory, as the current consensus view is that a return to pre-conflict levels of EU dependency on Russian energy is unlikely.

Meanwhile, the lack of clarity on how regulations, propulsion technology, and fuels may evolve is slowing new order investment. This is causing an historically low order book and presents an interesting dynamic as its set against an aging fleet. Graph 1 below highlights how in five years, 70 million dwt (or 38% of the fleet) will be greater than 20 years old (typical scrapping age is 20-25 years depending on market conditions), while Graph 2 shows that there are scheduled deliveries of only 10 million dwt over the next four years.

Graph 1: Global Product Tanker Fleet ⁽⁷⁾



Graph 2: Orderbook for Product Tankers ⁽⁷⁾



Although we must acknowledge that there are macro headwinds and recessionary concerns, they are moderating and outweighed by the positive factors stated above.

Closing Comments

I would like to take a moment to note with sadness the recent loss of Brian Dunne, who served on our Board since our earliest days and played a central role in shaping Ardmore into the company that it is today. His unique perspective and presence will be sorely missed by myself and the whole Ardmore family, and our thoughts and condolences remain with his family.

Additionally, I would like to acknowledge and thank Paul Tivnan for his significant contributions to Ardmore Shipping over the years. I speak for all of us at Ardmore in wishing him well in his future endeavors.

We have also recently welcomed some exciting additions to the Ardmore leadership team in Bart Kelleher, who joined the Company as CFO in September, and James Fok, who recently joined as a new Board member. I look forward to working closely with them both over the coming years.

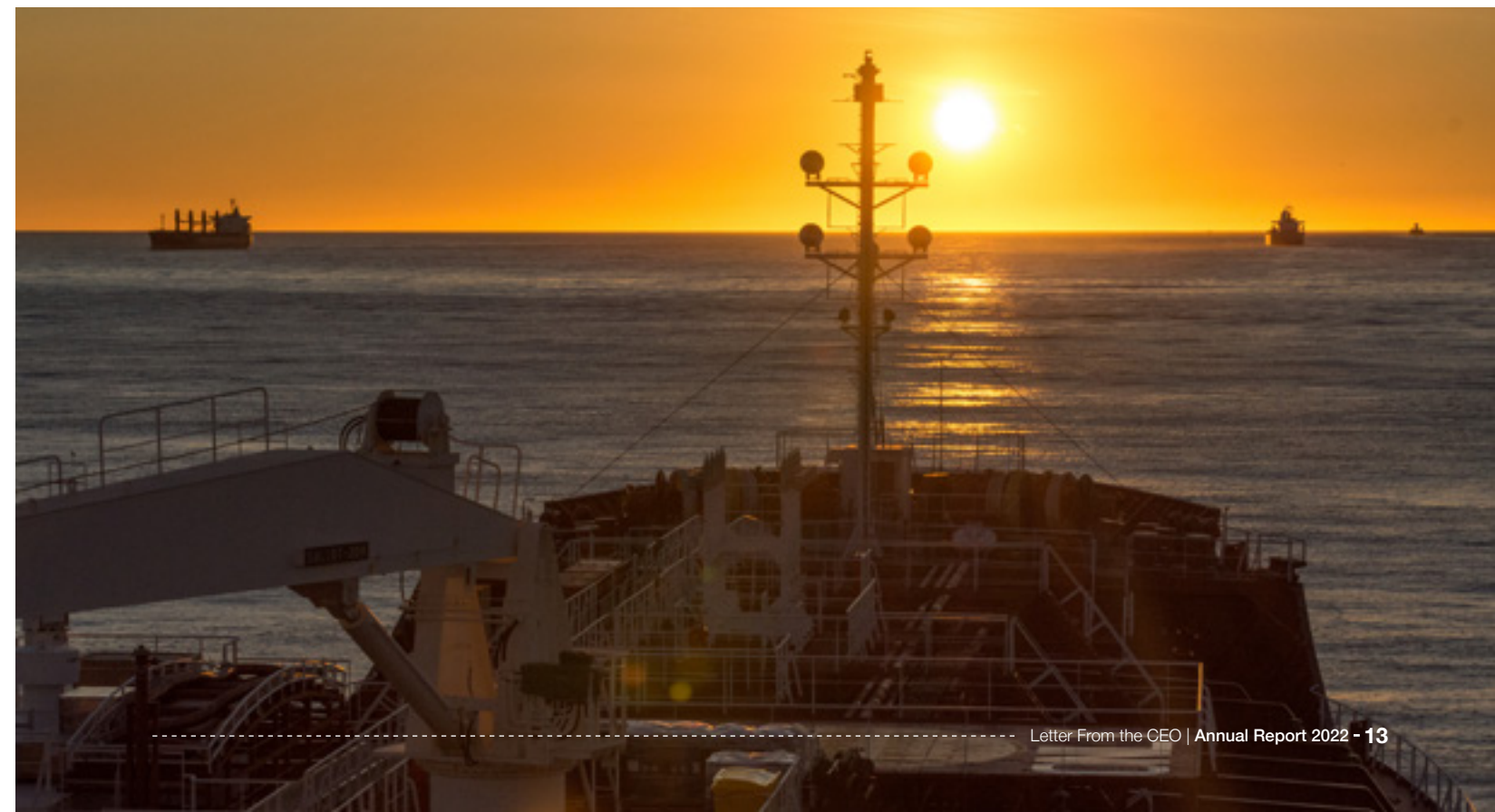
As we look ahead to 2023, we are very excited about the future of Ardmore. The strength we have built in the

organization, across our people and our fleet has put us in a great position to reap the benefits of a strong charter market, which is supported by robust supply / demand fundamentals. In addition, we believe the energy transition will provide significant further opportunities for us to create long-term value for our shareholders.

Finally, I would like to thank Ardmore’s customers, financiers, service partners, and shareholders for their continued support, and to recognize the hard work and dedication of our seafarers and shore staff, who provide the highest levels of performance as a platform for the continued progress of Ardmore Shipping.

Anthony Gurnee
Chief Executive Officer
Ardmore Shipping Corporation

(1) Clarksons Shipping Intelligence Network, January 2023.
 (2) Adjusted earnings / (loss) and adjusted EPS are non-GAAP measures. A definition of this measure and a reconciliation of these measures to their nearest GAAP comparable measures are included within Ardmore’s earnings release for the fourth quarter and year ended December 31, 2022.
 (3) Net Leverage = (Total Debt plus Preferred Stock less Cash) / (Total Debt plus Preferred Stock and Equity less Cash)
 (4) IEA Oil Market Report, March 2023
 (5) MSI, January 2023
 (6) Closures based on announcement periods; some closures scheduled to physically occur in 2023. Data sourced from Reuters, S&P Global, Barclays and Argus Media
 (7) Clarksons Shipping Intelligence Network, March 2023*



DIRECTORS

Mr. Curtis Mc Williams

Chair of the Board, Chair of the Nominating and Corporate Governance Committee, Member of the Talent and Compensation Committee and Member of the Audit Committee



Curtis Mc Williams was appointed as a director of Ardmore in January 2016 and as Ardmore's Chair effective January 1, 2019. Mr. Mc Williams has nearly 40 years of experience in finance and real estate. He currently serves as the Chair of the Board of Kalera, Inc and as a Director of Modiv Inc. From December 2021 until May 2022, Mr. Mc Williams served as Interim CEO of Kalera, Inc. He retired from his position as President and Chief Executive Officer of CNL Real Estate Advisors, Inc. in 2010 after serving in the role since 2007. Mr. Mc Williams was also the President and Chief Executive Officer of Trustreet

Properties Inc. from 1997 to 2007, and a director of the company from 2005 to 2007. He served on the Board of Directors of CNL Bank from 1999 to 2004, of Campus Crest Communities from 2015 to 2016 and of Braemar Hotels and Resorts from 2013 to 2022. Mr Mc Williams has over 13 years of investment banking experience at Merrill Lynch & Co. Mr. Mc Williams has a Master's degree in Business with a concentration in Finance from the University of Chicago Graduate School of Business and a Bachelor of Science in Engineering in Chemical Engineering from Princeton University.

Mr. Mats Berglund

Director, Chair of Talent and Compensation committee and Member of the Nominating and Corporate Governance Committee and the Sustainability Committee



Mats Berglund has been a director of Ardmore since September 2018. He was the Chief Executive Officer and Director of Pacific Basin, a Hong Kong-listed owner and operator of drybulk vessels controlling a fleet of over 200 ships from 2012-2021. Mr. Berglund has more than 30 years of shipping experience in Europe, the USA and Asia, including as Chief Financial Officer and Chief Operating Officer of marine fuel trader Chemoil Energy and Head of Crude Transportation

for Overseas Shipholding Group. Previously, he served in a variety of leadership roles across the Stena group of companies, culminating as President of Stena Rederi, Stena's parent company for all shipping activities. Mr. Berglund holds an Economist (Civilekonom) degree from the Gothenburg University Business School (1986) and is a graduate of the Advanced Management Program at Harvard.



Mr. James Fok

Director, Member of the Audit Committee and the Nominating Corporate Governance Committee

James Fok was appointed as a director of Ardmore in January 2023. Mr. Fok has more than 20 years of experience in financial services. From 2012 until 2021 he served as a senior executive at Hong Kong Exchanges and Clearing, a Hong Kong-listed operator of exchanges and clearing houses. Previously, Mr. Fok was an investment banker with multiple bulge bracket firms in

both Europe and Asia. He currently serves as an Advisor to Bain & Company, is on the Advisory Board of Hex Trust, a provider of bank-grade custody for digital assets, and serves as an International Member of Ireland for Finance's Industry Advisory Committee. Mr. Fok holds a BA (Hons) in Law and Chinese from the School of Oriental & African Studies of the University of London.

Dr. Kirsi Tikka

Director, Chair of Sustainability Committee and Member of the Talent and Compensation Committee



Kirsi Tikka was appointed as a director by the board of directors in September 2019. Dr. Tikka currently serves as a director on the board of Pacific Basin Shipping Limited and is a Foreign Member of the U.S. National Academy of Engineering. Dr. Tikka chaired the U.S. National Academies Committee on Oil in the Sea IV: Input, Date and Effects, and was a member of the U.S. National Academies Committee on U.S. Coast Guard Oversight of Recognized Organizations, reports published in 2022. She is a Fellow of the Society of Naval Architects and Marine Engineers and the Royal Institution of Naval Architects and a Trustee of

Webb Institute. Dr. Tikka has over 30 years of shipping experience having retired from the American Bureau of Shipping Classification Society ("ABS") in July 2019 as Executive Vice President, Senior Maritime Advisor. Prior to her time at ABS, Dr. Tikka was a professor of Naval Architecture at the Webb Institute in New York and worked for Chevron Shipping in San Francisco and Wärtsilä Shipyards in Finland. Dr. Tikka holds a Doctorate in Naval Architecture and Offshore Engineering from the University of California, Berkeley and a Master's degree in Mechanical Engineering and Naval Architecture from the University of Technology in Helsinki.

Ms. Helen Tveitan de Jong

Director, Chair of the Audit Committee and Member of the Sustainability Committee



Helen Tveitan de Jong has been a director of Ardmore since September 2018. She is Chair and Chief Executive Officer of Carisbrooke Shipping Holdings Ltd., a specialist owner operator of mini-bulk and project cargo ships controlling a fleet of 29 ships. Previously, Ms. Tveitan de Jong held a variety of senior ship finance roles, including as a founding partner at shipping finance advisory firm THG Capital from 2001 to 2007, and has held several positions as

interim Finance Director for shipping companies, most notably in the dry bulk sector, from 2003 to 2017. Ms. Tveitan de Jong graduated with a DRS in Economics from Rotterdam's Erasmus University in 1992. Since April 2021, Ms. Tveitan de Jong has served as an independent non-executive director of Taylor Maritime Investments Limited, an internally managed investment company listed on the premium segment of the London Stock Exchange.

DIRECTOR AND SENIOR MANAGEMENT



Mr. Anthony Gurnee

Chief Executive Officer, President and Director

Anthony Gurnee has been our President, Chief Executive Officer, and a director of Ardmore since 2010. Between 2000 and 2008, he was the Chief Executive Officer of Industrial Shipping Enterprises, Inc., a containership and chemical tanker company, and Chief Operating Officer of MTM Group, an operator of chemical tankers. From 1992 to 1997, he was the Chief Financial Officer of Teekay Corporation, where he led the company's financial restructuring and initial public offering. Mr. Gurnee

began his career as a financier with Citicorp, and he served for six years as a surface line officer in the U.S. Navy, including a tour with naval intelligence. He is a graduate of the U.S. Naval Academy and earned an MBA at Columbia Business School, is a CFA charter holder, and a fellow of the Institute of Chartered Shipbrokers. He is also a director of Simply Blue Energy, engaged in the development of offshore floating wind, wave energy, and sustainable aquaculture projects.



Mr. Mark Cameron

Executive Vice President and Chief Operating Officer

Mark Cameron is the Executive Vice President and Chief Operating Officer for Ardmore, appointed in June 2010. In 2022 Mr. Cameron relocated to Singapore and has taken on the additional role as Managing Director of Ardmore Shipping (Asia) Pte Ltd. Mr. Cameron is a past Chairman of the International Parcel Tankers Association (IPTA) and was previously an advisory Board Member to the NGO The Carbon War Room. Presently, Mr. Cameron serves on the Boards of the West of England (Luxembourg) and (Hamilton) P&I Club as well as the joint ventures 'e1 Marine LLC' and 'Anglo Ardmore Ship Management Limited'. Mr. Cameron is a member of the

Lloyds Register Marine Committee and an ABS Council Member. Prior to Ardmore, Mr. Cameron served 9 years at Teekay Corporation where, from 2008 to 2010, he served as Vice President, Strategy and Planning. Mr. Cameron has also held a number of senior management roles ashore with Safmarine and AP Moller specializing in integrating acquisitions covering all facets of ship management including sale and purchase, newbuilding supervision, personnel management, procurement, fleet management and technical projects. Mr. Cameron spent 11 years at sea rising to the rank of Chief Engineer with Safmarine.



Mr. Bart Kelleher

Chief Financial Officer

Bart Kelleher is Chief Financial Officer for Ardmore. He has over 25 years of progressive experience in the maritime, finance, energy, and industrials sectors. Most recently from 2016-2022, Mr. Kelleher held executive roles with Chembulk Tankers, an owner and operator of stainless-steel chemical tankers, serving as Chief Executive Officer, Chief Financial Officer, and Chief Strategy Officer. Prior to that from 2010-2015, he was the Chief Operating Officer of Principal Maritime Management which owned and operated a fleet of Suezmax crude carriers and chemical tankers; he also functioned as acting Chief Financial Officer during the company's start-up and initial growth phases. In addition to his executive experience in the maritime energy transportation sector, Mr. Kelleher has held roles

in investment banking, commercial banking, equity research, and capital markets in the maritime and energy-related industries at Bear Stearns and HSH Nordbank. Earlier in his career, he served as a deck officer onboard US-flag crude oil tankers and held management positions in both the cruise industry and with a leading naval architecture firm. Mr. Kelleher holds an MBA from Columbia Business School, an MS in Ocean Systems Management from Massachusetts Institute of Technology, and a BE in Naval Architecture from New York Maritime College. Mr. Kelleher serves as a Director of Element 1 Corporation, a developer of methanol to hydrogen technology, and as an Advisory Board Member to OrbitMI, an innovative technology firm offering advanced AI-based fleet performance management solutions.



Ms. Aideen O'Driscoll

Senior Vice President & Senior Director Corporate Services

Aideen O'Driscoll was appointed Ardmore's Senior Vice President and Director of Corporate Services in 2022, with responsibility for human resources, legal, office management and project management. Ms. O'Driscoll joined Ardmore in June 2015 as Legal Associate, before being appointed to the role of Director of Human Resources in 2019. Prior to Ardmore, Ms. O'Driscoll had spent five years practicing as a commercial

conveyancing and banking solicitor. Ms. O'Driscoll holds a Bachelor of Civil Law and an LLM Master's Degree in Law, both from University College Cork. Ms. O'Driscoll was admitted to the Roll of Solicitors in 2013 and has completed an Executive MBA with Cork University Business School. Ms. O'Driscoll is a member of the steering committee of the Diversity Study Group, promoting greater equality, diversity, and inclusion in the shipping industry.



Mr. Gernot Ruppelt

Senior Vice President and Chief Commercial Officer

Gernot Ruppelt is Senior Vice President and Chief Commercial Officer for Ardmore. Mr. Ruppelt has built up, lead and developed the company's global commercial platform since joining as Chartering Director in 2013. He was promoted to senior management in December 2014. Mr. Ruppelt has extensive management and commercial experience in the maritime industry. Before joining Ardmore, he was a Tanker Projects Broker with Poten & Partners in New York.

Previously, he held various positions up to Trade Manager for Maersk in the United States, Europe, and Asia. Mr. Ruppelt holds an Executive MBA from INSEAD. He also graduated from the Institute of Chartered Shipbrokers in London, Hamburg Shipping School, and Maersk International Shipping Education (MISE). Mr. Ruppelt is currently Chairman of INTERTANKO's Commercial and Markets Committee, and he serves on the Board of Anglo Ardmore Ship Management.



OUR FLEET

Ardmore Shipping operates a fleet of high-quality, modern product and chemical tankers.

Built at top-tier yards in Japan and South Korea, Ardmore's fleet incorporates optimized "Eco" hull, engine, and propeller design modifications to improve fuel efficiency and reduce our carbon footprint. Ardmore currently has a combined fleet of 26* Eco-Design and Eco-Mod product and chemical tankers trading globally.

15

Eco-Design MRs:



Medium-Range Product tankers are the most flexible in the product tanker fleet, carrying a wide range of petroleum products, easy chemicals, and edible oils across a diverse set of seaborne trade routes. Our Eco-Design vessels were delivered in 2013 or later, with latest hull form and engine design to optimize fuel efficiency and reduce carbon emissions.

5*

Eco-Mod MRs:



Our Eco-Mod vessels were built between 2008 - 2010, and have undergone modifications to engine and propeller design to optimize fuel efficiency and reduce carbon emissions.

6

Eco-Design Product / Chemical Tankers:



Our 37,000 dwt and 25,000 dwt chemical tankers have 14 tank segregations, full IMO2 notation and average tank size of less than 3,000 M³ allowing them to carry a wider range of smaller parcel chemicals, as well as to participate in petroleum product trades. Our Eco-Design chemical tankers trade globally in refined products, commodity chemicals and edible oils.

*Includes 4 x time-chartered-in vessels



VESSELS

Vessel Name	Type	Dwt	IMO	Constructed	Country	Flag	Specification	
1	Ardmore Seahawk	Product/Chemical	49,999	2/3	Nov-15	Korea	MI	Eco-Design
2	Ardmore Seawolf	Product/Chemical	49,999	2/3	Aug-15	Korea	MI	Eco-Design
3	Ardmore Seafox	Product/Chemical	49,999	2/3	Jun-15	Korea	MI	Eco-Design
4	Ardmore Sealion	Product/Chemical	49,999	2/3	May-15	Korea	MI	Eco-Design
5	Ardmore Engineer	Product/Chemical	49,420	2/3	Mar-14	Korea	MI	Eco-Design
6	Ardmore Seavanguard	Product/Chemical	49,998	2/3	Feb-14	Korea	MI	Eco-Design
7	Ardmore Exporter	Product/Chemical	49,466	2/3	Feb-14	Korea	MI	Eco-Design
8	Ardmore Seavantage	Product/Chemical	49,997	2/3	Jan-14	Korea	MI	Eco-Design
9	Ardmore Encounter	Product/Chemical	49,478	2/3	Jan-14	Korea	MI	Eco-Design
10	Ardmore Explorer	Product/Chemical	49,494	2/3	Jan-14	Korea	MI	Eco-Design
11	Ardmore Endurance	Product/Chemical	49,466	2/3	Dec-13	Korea	MI	Eco-Design
12	Ardmore Enterprise	Product/Chemical	49,453	2/3	Sep-13	Korea	MI	Eco-Design
13	Ardmore Endeavour	Product/Chemical	49,997	2/3	Jul-13	Korea	MI	Eco-Design
14	Ardmore Seaventure	Product/Chemical	49,998	2/3	Jun-13	Korea	MI	Eco-Design
15	Ardmore Seavaliant	Product/Chemical	49,998	2/3	Feb-13	Korea	MI	Eco-Design
16	Ardmore Seafarer	Product	49,999	—	Jun-10	Japan	SG	Eco-Mod
17	Ardmore Defender	Product/Chemical	37,791	2	Feb-15	Korea	MI	Eco-Design
18	Ardmore Dauntless	Product/Chemical	37,764	2	Feb-15	Korea	MI	Eco-Design
19	Ardmore Chippewa	Product/Chemical	25,217	2	Nov-15	Japan	MI	Eco-Design
20	Ardmore Chinook	Product/Chemical	25,217	2	Jul-15	Japan	MI	Eco-Design
21	Ardmore Cheyenne	Product/Chemical	25,217	2	Mar-15	Japan	MI	Eco-Design
22	Ardmore Cherokee	Product/Chemical	25,215	2	Jan-15	Japan	MI	Eco-Design
23	T Matterhorn⁽¹⁾	Product	47,981	—	Dec-10	Japan	PA	Eco-Mod
24	Hansa Sealeader⁽¹⁾	Product	47,463	—	Aug-08	Japan	MI	Eco-Mod
25	Hansa Sealancer⁽¹⁾	Product	47,451	—	Jun-08	Japan	MI	Eco-Mod
26	Hansa Sealifter⁽¹⁾	Product	47,472	—	Jul-08	Japan	MI	Eco-Mod

Fleet list as at March 21, 2023

MI = Marshall Islands; SG = Singapore; PA = Panama

(1) Time-chartered-in ship

ARDMORE'S PERFORMANCE

	2021	2022
Revenue Days	9,513	9,737
Fleet TCE per Day	\$11,216	\$30,618
Adjusted EBITDAR (\$mIn) ⁽¹⁾	\$19.9	\$199.9
Adjusted Earnings (\$mIn) ⁽²⁾	(\$37.5)	\$143.5
Annualized Dividend (\$mIn) ⁽³⁾	\$0.0	\$73.7

	Dec-2021	Dec-2022
Controlled Fleet	31	30
Owned	11	20
Leased	14	2
TC-In	2	5
Commercially Managed	4	3
Debt Outstanding (\$mIn) ⁽⁴⁾	\$368.7	\$174.3
Net Leverage ⁽⁵⁾	54.5%	25.5%
Liquidity (\$mIn)	\$67.0	\$220.6

⁽¹⁾ EBITDAR is not recognized by U.S. GAAP (i.e., non-GAAP measures) and should not be considered as alternatives to any other indicator of a company's operating performance required by U.S. GAAP. The definitions of EBITDA and EBITDAR used here may not be comparable to that used by other companies

⁽²⁾ Adjusted earnings is a non-GAAP measure. A definition of this measure and a reconciliation of this measure to the nearest GAAP comparable measures are included within Ardmore's earnings release for the quarter and year ended December 31, 2022

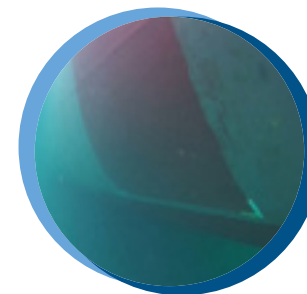
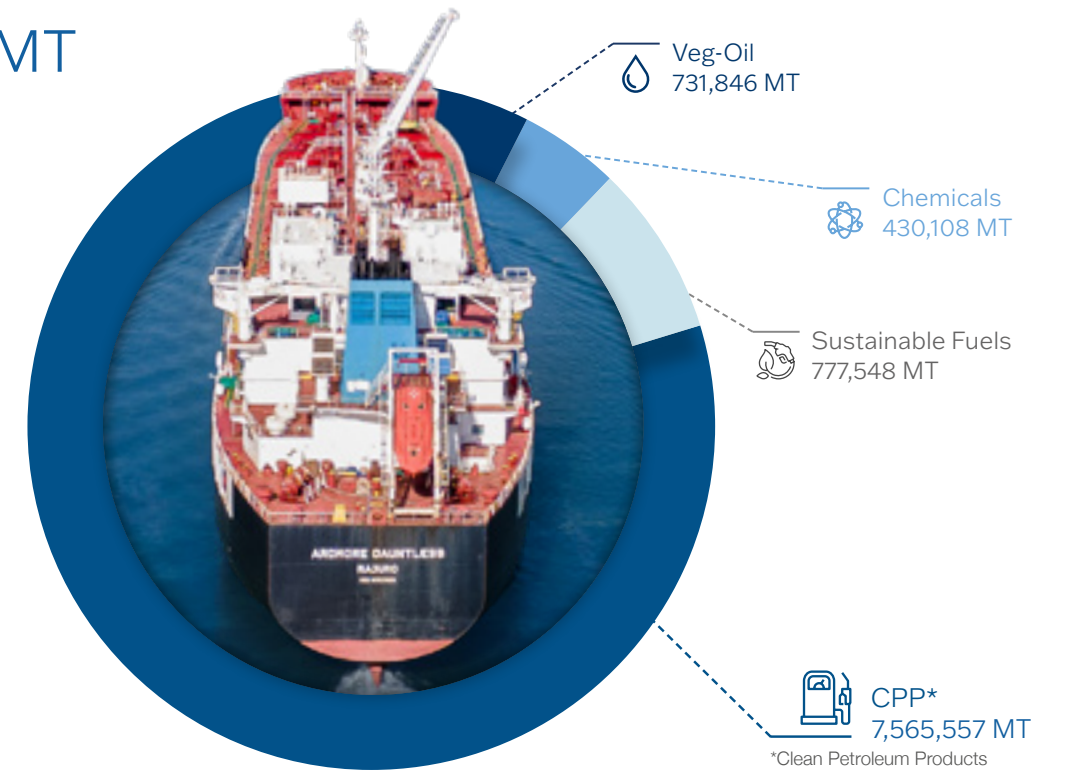
⁽³⁾ The annualized dividend amount is illustrative and calculated as 4Q dividend x 4

⁽⁴⁾ Debt Outstanding excludes amount receivable in respect of finance leases

⁽⁵⁾ Net Leverage = (Total Debt plus Preferred Stock less Cash) / Total Debt plus Preferred Stock and Equity less Cash

CARGOS CARRIED IN 2022

Total
9,505,059 MT



Advanced hull coatings



Auxiliary plant energy analysis



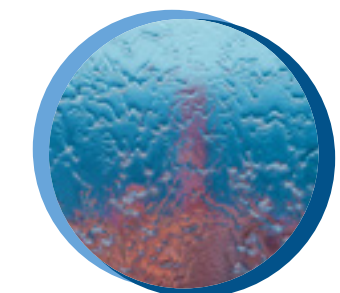
Variable speed drives



Machine learning voyage optimization software



Scrubbers



Rainwater harvesting



Environmental



2022 was another very active year for Ardmore as it both investigated and completed a number of vessel optimizing and emission reducing initiatives:

- Announced an investment in carbon capture-ready clean loop scrubbers, which are a modular system and provide filtered, neutralized and reduced water discharge
- Installing variable speed drives on our ships which reduces electrical consumption of our fans and pumps thereby reducing overall fuel consumption
- Carrying out feasibility studies on rainwater harvesting, efficient behavior software and also piloted automated hull cleaners

Social



Ardmore continues to focus on social initiatives to support our staff:

- Crew conference held in November, in Mumbai. 40 Senior officers and 13 Junior Officers attended along with Anglo Ardmore and Ardmore staff including Ardmore's CEO Anthony Gurnee and COO Mark Cameron. The theme for the seminar was "Operational leadership"
- We installed Bazeport video on demand system on board all our vessels which has helped the crew to interact more by meeting in recreational rooms to watch movies and content together
- The Bursary cadet program which was initially planned for two cadets was extended to four cadets from low-income families. All cadets have now completed their training ashore and are presently pursuing onboard training

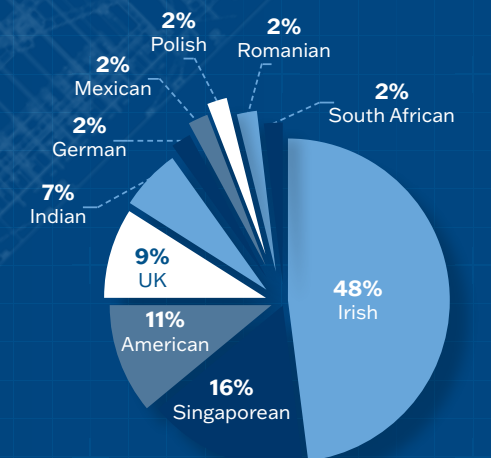
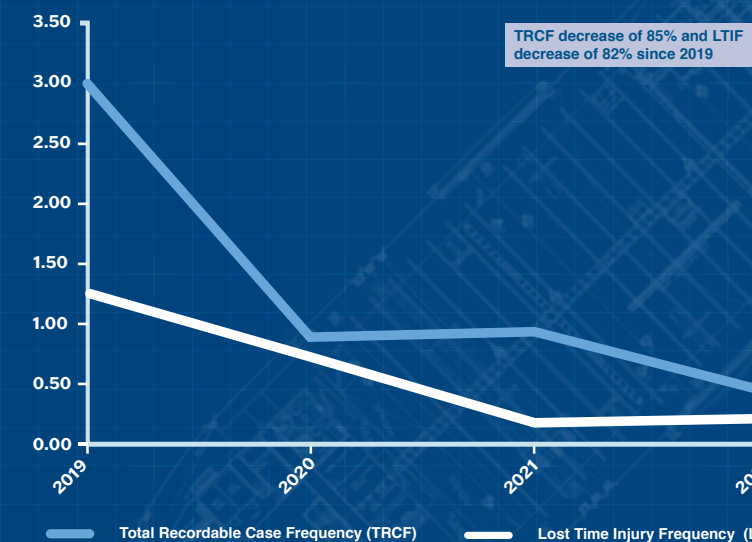
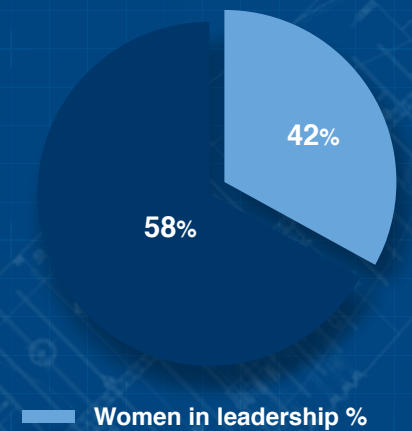
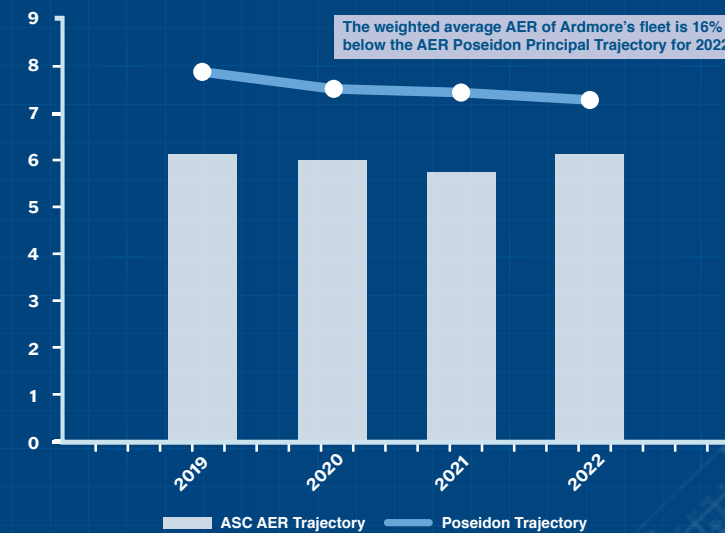
Governance



During 2022 Ardmore again finished as the number one publicly traded product tanker company for governance on the Webber ESG Scorecard.

Ardmore announced the formation of a Sustainability Committee at Board level to ensure that Ardmore's business strategies and activities prioritize critical ESG matters which are expected to have significant, long-term impacts on the Company's performance and on the product and chemical tanker industry. The Sustainability Committee will be chaired by Dr. Kirsi Tikka, along with members Mr.Mats Berglund and Ms.Helen Tveitan de Jong.

Ardmore also announced the appointment of independent director Mr. James Fok to the Company's Board of Directors, and he will serve on the audit and nominating committees.



TRCF (Total Recordable Case Frequency) = The number of lost time injuries that occurred, reported/per 1 million man hours worked. Total Recordable Case Frequency
 LTIF (Lost Time Injury Frequency) = Total number of injuries that occurred, reported per 1 million man hours worked

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 20-F**

(Mark One)

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**
OR
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended **December 31, 2022**
OR
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____
OR
- SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Date of event requiring this shell company report _____
Commission file number: 001-36028f

ARDMORE SHIPPING CORPORATION

(Exact name of Registrant as specified in its charter)

Republic of the Marshall Islands

(Jurisdiction of incorporation or organization)

Belvedere Building, 69 Pitts Bay Road, Ground Floor, Pembroke, HM08, Bermuda
(Address of principal executive offices)

Mr. Anthony Gurnee

Belvedere Building, 69 Pitts Bay Road, Ground Floor, Pembroke, HM08, Bermuda
+ 1 441 405-7800

info@ardmoreshipping.com

(Name, Telephone, E-mail and/or Facsimile, and address of Company Contact Person)

Securities registered or to be registered pursuant to section 12(b) of the Act.

<small>Title of each class</small>	<small>Ticker Symbol</small>	<small>Name of each exchange on which registered</small>
Common stock, par value \$0.01 per share	ASC	New York Stock Exchange

Securities registered or to be registered pursuant to section 12(g) of the Act.

NONE

(Title of class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

NONE

(Title of class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2022, there were 40,626,583 shares of common stock outstanding, par value \$0.01 per share.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See the definitions of "large accelerated filer", "accelerated filer", and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Emerging Growth Company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

- U.S. GAAP
- International Financial Reporting Standards as issued by the international Accounting Standards Board
- Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow: Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

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FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides safe harbor protections for forward-looking statements in order to encourage companies to provide prospective information about their business. We desire to take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and are including this cautionary statement in connection with such safe harbor legislation.

This Annual Report and any other written or oral statements made by us or on our behalf may include forward-looking statements which reflect our current views and assumptions with respect to future events and financial performance and are subject to risks and uncertainties. Forward-looking statements include statements concerning plans, objectives, goals, expectations, projections, strategies, beliefs about future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts. In some cases, words such as “believe”, “anticipate”, “intends”, “estimate”, “forecast”, “project”, “plan”, “potential”, “will”, “may”, “should”, “expect” and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements.

Forward-looking statements in this Annual Report include, among others, such matters as

- our future operating or financial results;
- global and regional economic and political conditions;
- the strength of national economies and currencies;
- general market conditions;
- our business and growth strategies and our Energy Transition Plan (“ETP”) and other plans, and related potential benefits and opportunities;
- fleet expansion and vessel and business acquisitions, vessels and upgrades and expected capital spending or operating expenses, including bunker prices, drydocking and insurance costs;
- competition in the tanker industry;
- shipping market trends and general market conditions, including fluctuations in charter rates and vessel values and changes in demand for and the supply of tanker vessel capacity;
- business disruptions due to natural disasters or other disasters or events outside of our control;
- the effect of the Covid-19 pandemic on oil demand, our business and our financial condition and results of operations, including our earnings, cash flows and liquidity;
- the effect of Russia’s invasion of Ukraine on, among other things, oil demand, our business, our results of operations and financial condition;
- charter counterparty performance;
- changes in governmental rules and regulations or actions taken by regulatory authorities;
- our intended installation and use of carbon capture ready exhaust gas scrubbers on a majority of our vessels, and the expected benefits of scrubbers;
- our financial condition and liquidity, including estimates of our liquidity needs for 2023 and for the longer term and our ability to obtain financing in the future and the sources of financing to fund capital expenditures, acquisitions, refinancing of existing indebtedness and other general liquidity needs and corporate activities;
- our ability to comply with covenants in financing arrangements;
- our capital structure and how it supports our spot employment strategy and enhances financial and strategic flexibility to pursue acquisition opportunities;
- our exposure to inflation;
- vessel breakdowns and instances of off hire;
- future dividends;
- our ability to enter into fixed-rate charters in the future and our ability to earn income in the spot market;
- our ability to comply with, and the effects of, regulatory requirements or maritime self-regulatory organizations’ requirements and the cost of such compliance
- growth opportunities for Element 1 Corp. and e1 Marine, LLC (“e1 Marine”), with respect to which we hold equity investments;

- our status relative to PFIC regulations and our intention to conduct our affairs in a manner to avoid being classified as a PFIC with respect to any taxable year; and
- our expectations of the availability of vessels or businesses to purchase, the time it may take to construct new vessels, and vessels’ useful lives.

Many of these statements are based on our assumptions about factors that are beyond our ability to control or predict and are subject to risks and uncertainties that are described more fully under the “Risk Factors” section of this Annual Report. Any of these factors or a combination of these factors could materially affect our business, results of operations and financial condition and the ultimate accuracy of the forward-looking statements. Factors that might cause future results to differ include, among others, the following:

- changes in demand for and the supply of tanker vessel capacity;
- fluctuations in oil prices;
- changes in the markets in which we operate;
- availability of financing and refinancing;
- changes in general domestic and international political and trade conditions, including tariffs;
- changes in governmental or maritime self-regulatory organizations’ rules and regulations or actions taken by regulatory authorities;
- the impact of the Covid-19 pandemic;
- the outcome and impact of Russia’s invasion of Ukraine;
- changes in economic and competitive conditions affecting our business, including market fluctuations in charter rates;
- potential disruption of shipping routes due to accidents, piracy or political events;
- potential liability from future litigation and potential costs due to environmental damage and vessel collisions;
- the length and number of off-hire periods and dependence on third-party managers;
- developments at Element 1 Corp. and e1 Marine, and in their industries and competitive positions; and
- other factors discussed under the “Risk Factors” section of this Annual Report.

You should not place undue reliance on forward-looking statements contained in this Annual Report, because they are statements about events that are not certain to occur as described or at all. All forward-looking statements in this Annual Report are qualified in their entirety by the cautionary statements contained in this Annual Report. These forward-looking statements are not guarantees of our future performance, and actual results and future developments may vary materially from those projected in the forward-looking statements.

Except to the extent required by applicable law or regulation, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date of this Annual Report or to reflect the occurrence of unanticipated events.

PART I

Item 1. Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

Unless the context otherwise requires, when used in this Annual Report, the terms “Ardmore”, “Ardmore Shipping”, the “Company”, “we”, “our”, and “us” refer to Ardmore Shipping Corporation and our consolidated subsidiaries, except that those terms, when used in this Annual Report in connection with our common shares, shall mean specifically Ardmore Shipping Corporation. The financial information included in this Annual Report represents our financial information and the operations of our vessel-owning subsidiaries and wholly owned management company. Unless otherwise indicated, all references to “dollars”, “U.S. dollars” and “\$” in this annual report are to the lawful currency of the United States. Our consolidated financial statements are prepared in accordance with United States generally accepted accounting principles (“U.S. GAAP”). We use the term deadweight tons, or dwt, expressed in metric tons, each of which is equivalent to 1,000 kilograms, in describing the size of tankers.

A. Selected Financial Data

Reserved.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Some of the risks summarized below and discussed in greater detail in the following pages relate principally to the industry in which we operate and to our business in general. Other risks relate principally to the securities market and to ownership of our securities. The occurrence of any of the events described in this section could significantly and negatively affect our business, financial condition, operating results and ability to pay dividends on our shares of common stock, or the trading price of our shares of common stock.

Risk Factor Summary

- The tanker industry is cyclical and volatile in terms of charter rates and profitability.
- Weak spot charter markets may adversely affect our results of operations.
- Public health threats, including Covid-19, could have an adverse effect on our business and results of operation.
- Declines in oil prices may adversely affect our growth prospects and results of operations.
- Volatility in the markets in which our vessels trade may result in us having limited liquidity.
- Declines in charter rates and other market deterioration could cause us to incur impairment charges.
- Any vessel market value decreases could result in breaches of credit or lease facility covenants or impairment charges, and we may incur a loss if we sell vessels following a decline in their market value.
- An over-supply of tanker capacity may lead to reductions in charter rates, vessel values, and profitability.
- The state of global financial markets and economic conditions may adversely impact our ability to obtain additional financing or to refinance existing financing or otherwise negatively impact our business.
- Changes in fuel, or bunkers, prices may adversely affect our results of operations.
- Changes in the oil, oil products and chemical markets could result in decreased demand for our services.
- Our vessels may suffer damage due to the inherent operational risks of the shipping industry, and we may experience unexpected drydocking costs and delays or total loss of our vessels.
- We operate our vessels worldwide and, as a result, our vessels are exposed to international risks.
- Acts of piracy on ocean-going vessels could adversely affect our business.
- Political instability, terrorist or other attacks, war or international hostilities can affect the tanker industry.
- If our vessels call on ports subject to U.S. restrictions, the market for our securities could be adversely affected.
- The smuggling of drugs or other contraband onto our vessels may lead to governmental claims against us.
- Maritime claimants could arrest our vessels, which would have a negative effect on our business.
- Governments could requisition our vessels during a period of war or emergency.
- Increased demand for and supply of vessels fitted with exhaust gas scrubbers could reduce demand for the portion of our fleet not equipped with scrubbers.
- We may not realize the anticipated benefits of our proposed investment in scrubbers.
- Technological innovation could reduce our charter hire income and the value of our vessels.
- Failure to protect our information systems against security breaches or system failure could adversely affect our business and results of operations.
- If labor or other interruptions are not resolved, they could have a material adverse effect on our business.
- We will be required to make substantial capital expenditures to expand and maintain our fleet, which will depend on our ability to obtain additional financing.
- We may be unable to take advantage of favorable opportunities in the spot market to the extent any of our vessels are employed on medium to long-term time charters.
- If we do not acquire suitable vessels or shipping companies or successfully integrate any acquired vessels or shipping companies, we may not be able to effectively grow.
- Our ability to grow may be adversely affected by our dividend policy.
- Delays in vessel deliveries, cancellations of vessel orders or the inability to complete vessel acquisitions could harm our results of operations.
- Delays in the delivery of and installation of new vessel equipment could result in significant vessel down-time and adversely affect our results of operations.
- The timing of any drydockings during peak market conditions could adversely affect the level of our profitability.
- If we purchase and operate second-hand vessels, we will be exposed to increased operating costs and these vessels could adversely affect our ability to obtain profitable charters.

- An increase in operating, voyage or other expenses due to increased inflation or otherwise may decrease our earnings and cash flows.
- We may be unsuccessful in competing in the international tanker market.
- The loss of any key customers could result in a significant loss of revenues and cash flow.
- Charterers may terminate or default on their charters.
- Our ability to obtain additional debt financing may depend on the performance of charters and the creditworthiness of our charterers.
- Debt and other obligations may limit our ability to obtain financing and pursue other opportunities.
- Servicing our current or future indebtedness and lease obligations limits available funds and if we cannot service our debt, we may lose our vessels.
- We are a holding company and depend on the ability of our subsidiaries to distribute funds to us.
- Our credit facilities and lease arrangements contain restrictive covenants.
- Any interest rate increases would increase our debt service costs on variable-rate debt and lease obligations.
- Failure to maintain an effective system of internal control over financial reporting could affect our ability to accurately report our results and prevent fraud.
- We are subject to certain risks with respect to our counterparties on contracts.
- Our insurance may not be adequate to cover our losses that may result from our operations.
- We may be required to make additional insurance premium payments.
- Our investments in Element 1 Corp. and e1 Marine involve a high degree of risk.
- We are subject to complex laws and regulations which can adversely affect our business.
- Climate change and greenhouse gas restrictions may adversely affect our operating results.
- Increasing scrutiny and changing expectations about Environmental, Social and Governance (“ESG”) policies may impose additional costs on us or expose us to additional risks.
- Efforts to comply with regulations regarding ballast water discharge may adversely affect our results of operation and financial condition.
- If we fail to comply with international safety regulations, we may be subject to increased liability and may result in a denial of access to, or detention in, certain ports.
- Failure to comply with data privacy laws could harm customer relationships and expose us to claims and fines.
- Our cash and cash equivalents are exposed to credit risk, which may be adversely affected by, among other things, failures of financial institutions.
- Our operations may be subject to economic substance requirements in the Marshall Islands and other offshore jurisdictions, which could impact our business.
- Because we are incorporated in the Marshall Islands, shareholders may have fewer rights and protections under Marshall Islands law than under a typical jurisdiction in the United States.
- It may be difficult to serve process on or enforce a U.S. judgment against us, our officers and our directors.
- The amount of our quarterly dividend will vary from period to period, and we may not be able to pay dividends.
- Anti-takeover provisions in our articles of incorporation and bylaws documents could adversely affect the market price of our common shares.
- We may be required to redeem our outstanding shares of Series A Preferred Stock or to pay dividends on such shares at an increased rate.
- U.S. tax authorities could treat us as a “passive foreign investment company”, which could have adverse U.S. federal income tax consequences to U.S. holders.
- We may have to pay tax on U.S. source shipping income, which would reduce our earnings.
- We may be subject to additional taxes, which could adversely impact our business and financial results.
- Our business depends upon key members of our senior management team.
- Future sales of our common shares could cause the market price of our common shares to decline.

- Exposure to currency exchange rate fluctuations could result in fluctuations in our operating results.

RISKS RELATED TO OUR INDUSTRY

The tanker industry is cyclical and volatile in terms of charter rates and profitability, which may affect our results of operations.

The tanker industry is both cyclical and volatile in terms of charter rates and profitability. A prolonged downturn in the tanker industry could adversely affect our ability to charter our vessels or to sell them on the expiration or termination of any charters we may enter into. In addition, the rates payable in respect of any of our vessels operating in a commercial pool, or any renewal or replacement charters that we enter into, may not be sufficient for us to operate our vessels profitably. Fluctuations in charter rates and tanker values result from changes in the supply and demand for tanker capacity and changes in the supply and demand for oil, oil products and chemicals. The factors affecting the supply and demand for tankers are outside of our control, and the nature, timing and degree of changes in industry conditions are unpredictable.

Factors that influence demand for tanker capacity include:

- supply of and demand for oil, oil products and chemicals;
- regional availability of refining capacity;
- global and regional economic and political conditions;
- the distance oil, oil products and chemicals are to be moved by sea;
- changes in seaborne and other transportation patterns;
- environmental and other legal and regulatory developments;
- weather and natural disasters;
- competition from alternative sources of energy; and
- international sanctions, embargoes, import and export restrictions, nationalizations and wars.

Factors that influence the supply of tanker capacity include:

- the number of newbuilding deliveries;
- scrapping rates of older vessels;
- conversion of tankers to other uses;
- the price of steel and other raw materials;
- the number of vessels that are out of service; and
- environmental concerns and regulations.

Historically, the tanker markets have been volatile as a result of a variety of conditions and factors that can affect the price, supply and demand for tanker capacity. Demand for transportation of oil products and chemicals over longer distances was significantly reduced during the last economic downturn. In addition, from 2015 to 2019 high refined product inventory levels, continued supply of new vessels, and oil price volatility and trading levels contributed to low charter rates in the tanker industry. As of March 15, 2023, all 26 of our vessels, including four chartered-in vessels, were operating in the spot market directly, with none on time charter. If charter rates decline, we may be unable to achieve a level of charter hire sufficient for us to operate our vessels profitably or we may have to operate our vessels at a loss.

The conflict in Ukraine has significantly increased tanker demand and rates by reordering global oil trading patterns, including the rerouting of Russian oil exports away from Europe and the subsequent backfilling of imports into Europe from other more distant sources. Changes in or resolution of the conflict in Ukraine may lead to a reversal of these trading patterns or other effects that could significantly decrease tanker demand and rates.

Any decrease in spot charter rates in the future or a return of weak spot charter markets may adversely affect our results of operations.

As of March 15, 2023, all 26 of our vessels, including four chartered-in vessels, were operating directly in the spot market. The earnings of these vessels are based on the spot market charter rates of the particular voyage charters.

We may employ in the spot charter market additional vessels that we may acquire or charter-in in the future. When we employ a vessel in the spot charter market, we generally intend to employ the vessel in the spot market directly. Although spot chartering is common in the tanker industry, the spot charter market may fluctuate significantly based upon tanker and oil product/chemical supply and demand, and there have been periods when spot rates have declined below the operating cost of vessels. The successful operation of our vessels in the competitive spot charter market, including within commercial pools, depends upon, among other things, spot-charter rates and minimizing, to the extent possible, time spent waiting for charters and time spent traveling unladen to pick up cargo. If spot charter rates decline, we may be unable to operate our vessels trading in the spot market profitably or meet our obligations, including payments on indebtedness and finance lease obligations. In addition, as charter rates for spot charters are fixed for a single voyage that may last up to several weeks, during periods in which spot charter rates are rising, we will generally experience delays in realizing the benefits from such increases.

Our ability to enter into any charters in the future on existing vessels or vessels we may acquire, the charter rates payable under any such charters and for employment of our vessels in the spot market and vessel values will depend upon, among other things, economic conditions in the sectors in which our vessels operate at that time, changes in the supply and demand for vessel capacity and changes in the supply and demand for the seaborne transportation of oil and chemical products.

Public health threats, including Covid-19 or variants, could have an adverse effect on our operations and financial results.

Public health threats and highly communicable diseases, such as Covid-19, outbreaks of which have already occurred in various parts of the world near where we operate, could adversely affect our operations, the operations of our customers or suppliers and the global economy. In response to the Covid-19 pandemic, many countries, ports and organizations, including those where we conduct a large part of our operations, implemented measures to combat the outbreak, such as quarantines and travel restrictions. Such measures caused severe trade disruptions. In addition, the pandemic initially resulted and the pandemic or other future public health threats may again result in a significant decline in global demand for refined oil products. As our business is the transportation of refined oil products on behalf of oil majors, oil traders and other customers, any significant decrease in demand for the cargo we transport has and could continue to adversely affect demand for our vessels and services. The extent to which the Covid-19 pandemic or any other public health threat may impact our business, results of operations and financial condition, including possible impairments, will depend on future developments, which are uncertain and cannot be predicted, including, among others, the impact of the end of China's Zero-Covid policy and of the development of variants of the Covid virus, and the level of the effectiveness and administration of vaccines and other actions to contain or treat its impact.

Declines in oil prices may adversely affect our growth prospects and results of operations.

Global crude oil prices fluctuate significantly over time and in response to various events. Any meaningful decrease in oil prices may adversely affect our business, results of operations and financial condition and our ability to service our indebtedness and finance lease obligations and to pay dividends, as a result of, among other things:

- a possible reduction in exploration for or development of new oil fields or energy projects, or the delay or cancellation of existing projects as energy companies lower their capital expenditures budgets, which may reduce our growth opportunities;
- potential lower demand for tankers, which may reduce available charter rates and revenue to us upon chartering or rechartering of our vessels;
- customers failing to extend or renew contracts upon expiration;
- the inability or refusal of customers to make charter payments to us due to financial constraints or otherwise; or

- declines in vessel values, which may result in losses to us upon vessel sales or impairment charges against our earnings.

Volatility in the markets in which our vessels trade may result in us having limited liquidity.

As of December 31, 2022 we had \$220.6 million in liquidity available, with cash and cash equivalents of \$50.6 million and amounts available and undrawn under our revolving credit facilities of \$170.0 million. Our short-term liquidity requirements include the payment of operating expenses, drydocking expenditures, debt servicing costs, lease payments, dividends on our shares of preferred stock, dividends on our shares of common stock, scheduled repayments of long-term debt and finance lease obligations, as well as funding our other working capital requirements. Our short-term and spot charters contribute to the volatility of our net operating cash flow, and thus our ability to generate sufficient cash flows to meet our short-term liquidity needs. We expect to manage our near-term liquidity needs from our working capital, together with expected cash flows from operations and availability under credit facilities. Our existing long-term debt facilities and certain of our finance leases require, among other things, that we maintain minimum cash and cash equivalents based on the greater of a set amount per number of vessels owned and 5% of outstanding debt. The required minimum cash balance as of December 31, 2022, was \$18.75 million. Should we not meet this financial covenant or other covenants in our debt facilities, whether due to market volatility that reduces our liquidity or other factors, the lenders may declare our obligations under the applicable agreements immediately due and payable, and terminate any further loan commitments, which would significantly affect our short-term liquidity requirements. A default under financing arrangements could also result in foreclosure on any of our vessels and other assets securing the related loans or a loss of our rights as a lessee under our finance leases.

Declines in charter rates and other market deterioration could cause us to incur impairment charges.

We evaluate the carrying amounts of our vessels to determine if events have occurred that would require an impairment of their carrying amounts. The recoverable amount of vessels is reviewed based on events and changes in circumstances that would indicate that the carrying amount of the assets might not be recovered. The review for potential impairment indicators and projection of future cash flows related to our vessels is complex and requires us to make various estimates, including future charter rates, operating expenses and drydock costs. Historically, each of these items has been volatile. An impairment charge is recognized if the carrying value is in excess of the estimated undiscounted future cash flows. The impairment loss is measured based on the excess of the carrying amount over the fair market value of the asset. An impairment loss could adversely affect our results of operations.

The market values of our vessels may decrease, which could cause us to breach covenants in our credit facilities and lease arrangements or result in impairment charges, and we may incur a loss if we sell vessels following a decline in their market value.

The market values of tankers have historically experienced high volatility. The market value of our vessels will fluctuate depending on general economic and market conditions affecting the shipping industry and prevailing charter hire rates, competition from other shipping companies and other modes of transportation, the types, sizes and ages of vessels, applicable governmental and environmental regulations and the cost of newbuildings. If the market value of our fleet declines, we may not be able to obtain other financing or to incur debt on terms that are acceptable to us or at all. A decrease in vessel values could also cause us to breach certain loan-to-value covenants that are contained in our financing arrangements that we may enter into from time to time. If we breach such covenants due to decreased vessel values and we are unable to remedy the relevant breach, our lenders could accelerate our debt and foreclose on vessels in our fleet, which would adversely affect our business, results of operations and financial condition.

In addition, if we sell one or more of our vessels at a time when vessel prices have fallen, the sale price may be less than the vessel's carrying value on our consolidated financial statements, resulting in a loss on sale or an impairment loss being recognized, leading to a reduction in earnings. Also, if vessel values fall significantly, this could indicate a decrease in the estimated undiscounted future cash flows for the vessel, which may result in an impairment adjustment in our financial statements, which could adversely affect our results of operations and financial condition.

An oversupply of tanker capacity may lead to reductions in charter rates, vessel values, and profitability.

The market supply of tankers is affected by a number of factors, such as demand for energy resources, oil, petroleum and chemical products, as well as the level of global and regional economic growth. If the capacity of new ships delivered exceeds the capacity of tankers being scrapped and lost, tanker capacity will increase. The global newbuilding orderbook for product tankers equaled approximately 4.3% of the global product tanker fleet as of March 15, 2023. If the supply of product or chemical tanker capacity increases and if the demand for such respective tanker capacity does not increase correspondingly, charter rates and vessel values could materially decline. A reduction in charter rates and the value of our vessels may have a material adverse effect on our business, results of operations and financial condition.

In addition, product tankers currently used to transport crude oil and other “dirty” products may be “cleaned up” and reintroduced into the product tanker market, which would increase the available product tanker tonnage, which may affect the supply and demand balance for product tankers. This could have an adverse effect on our business, results of operations and financial position.

The state of global financial markets and economic conditions may adversely impact our ability to obtain additional financing or refinance our existing obligations on acceptable terms, if at all, and otherwise negatively impact our business.

Global financial markets and economic conditions have been, and continue to be, volatile. Several economists anticipate a potential slowing of the global economy due in part to inflationary pressures and higher interest rates, and with many nations, including the U.S., expected to enter an economic recession during 2023. In the last economic downturn, operating businesses in the global economy faced tightening credit, weakening demand for goods and services, deteriorating international liquidity conditions and declining markets. There was a general decline in the willingness of banks and other financial institutions to extend credit, particularly in the shipping industry due to the historically volatile asset values of vessels. As the shipping industry is highly dependent on the availability of credit to finance and expand operations, it was negatively affected by this decline.

In addition, as a result of concerns about the stability of financial markets generally and the solvency of counterparties specifically, the cost of borrowing funds during the last economic downturn increased as many lenders increased interest rates, enacted tighter lending standards, refused to refinance existing debt on similar terms and, in some cases, ceased to provide funding to borrowers. Due to these factors, additional financing may not be available if needed by us on acceptable terms or at all. If additional financing is not available when needed or is available only on unfavorable terms, we may be unable to meet our obligations as they come due or we may be unable to enhance our existing business, complete additional acquisitions or otherwise take advantage of business opportunities as they arise.

Changes in fuel, or bunkers, prices may adversely affect our results of operations.

Fuel, or bunkers, is a significant expense for our vessels employed in the spot market and can have a significant impact on earnings. For any vessels which may be employed on time charters, the charterer is generally responsible for the cost and supply of fuel; however, such cost may affect the time charter rates we may be able to negotiate for such vessels. Changes in the price of fuel may adversely affect our profitability. The price and supply of fuel is unpredictable and fluctuates based on events outside our control, including, among other factors, geopolitical developments, supply and demand for oil and gas, actions by the Organization of Petroleum Exporting Countries (“OPEC”) and other oil and gas producers, war and unrest in oil producing countries and regions, regional production patterns and environmental concerns. In addition, fuel price increases may reduce the profitability and competitiveness of our business versus other forms of transportation, such as truck or rail. The cost of bunker prices increased from early 2022 onwards and continues to impact the business.

Changes in the oil, oil products and chemical markets could result in decreased demand for our vessels and services.

Demand for our vessels and services in transporting oil, oil products and chemicals depends upon world and regional oil markets. Any decrease in shipments of oil, oil products and chemicals in those markets could have a material adverse effect on our business, financial condition and results of operations.

Historically, those markets have been volatile as a result of the many conditions and events that affect the price, production and transport of oil, oil products and chemicals, including competition from alternative energy sources. Past slowdowns of world economies, including the U.S., have resulted in reduced consumption of oil and oil products and decreased demand for our vessels and services, which reduced vessel earnings. Several economists anticipate a potential slowing of the global economy due in part to inflationary pressures and rising interest rates, and with many nations, including the U.S., expected to enter an economic recession during 2023. Additional slowdowns could have similar effects on our results of operations and may limit our ability to expand our fleet.

If our vessels suffer damage due to the inherent operational risks of the shipping industry, we may experience unexpected drydocking costs and delays or total loss of our vessels, which may adversely affect our business and financial condition.

The operation of an ocean-going vessel carries inherent risks. Our vessels and their cargoes will be at risk of being damaged or lost because of events, such as marine disasters, bad weather, business interruptions caused by mechanical failures, grounding, fire, explosions, collisions, human error, war, terrorism, piracy, cyber-attack, latent defects, “acts of God”, climate change and other circumstances or events. These hazards may result in death or injury to persons, loss of revenues or property, environmental damage, higher insurance rates, damage to customer relationships, market disruptions, delays or rerouting. In addition, the operation of tankers has unique operational risks associated with the transportation of oil and chemical products. An oil or chemical spill may cause significant environmental damage and the associated costs could exceed the insurance coverage available to us. Compared to other types of vessels, tankers are exposed to a higher risk of damage and loss by fire, whether ignited by a terrorist attack, collision or other causes, due to the high flammability and high volume of the oil or chemicals transported in tankers.

If our vessels suffer damage, they may need to be repaired at a drydocking facility. The costs of drydock repairs are unpredictable and may be substantial. We may have to pay drydocking costs if our insurance does not cover them in full. The loss of revenues while these vessels are being repaired and repositioned, as well as the actual cost of these repairs, may adversely affect our business, results of operations and financial condition. In addition, space at drydocking facilities is sometimes limited and not all drydocking facilities are conveniently located. We may be unable to find space at a suitable drydocking facility or our vessels may be forced to travel to a drydocking facility that is not conveniently located to our vessels’ positions. The loss of earnings while such vessels wait for space or travel or are towed to more distant drydocking facilities may be significant. The total loss of any of our vessels could harm our reputation as a safe and reliable vessel owner and operator. If we are unable to adequately maintain or safeguard our vessels, we may be unable to prevent any such damage, costs or loss, which could adversely affect our business, results of operations and financial condition.

We operate our vessels worldwide and, as a result, our vessels are exposed to international risks which may reduce revenue or increase expenses.

Changing economic, regulatory and political conditions in some countries, including political and military conflicts, have from time to time resulted in attacks on vessels, mining of waterways, piracy, terrorism, labor strikes and boycotts.

These sorts of events, as well as the emergence of epidemics or pandemics, such as the on-going Covid-19 outbreak, could interfere with shipping routes and result in market disruptions, which may reduce our revenue and increase our expenses. Our worldwide operations also expose us to the risk that an increase in restrictions on global trade will harm our business. The rise of populist or nationalist political parties and leaders in the United States, Europe and elsewhere may lead to increased trade barriers, trade protectionism and restrictions on trade. The adoption of trade barriers and imposition of tariffs by governments may reduce global shipping demand and reduce our revenue.

In addition, international shipping is subject to various security and customs inspection and related procedures in countries of origin and destination and transshipment points. Inspection procedures can result in the seizure of the cargo or vessels, delays in the loading, offloading or delivery and the levying of customs duties, fines or other penalties against vessel owners. It is possible that changes to inspection procedures could impose additional financial and legal obligations on us.

In addition, changes to inspection procedures could also impose additional costs and obligations on our customers and may, in certain cases, render the shipment of certain types of cargo uneconomical or impractical. Any such changes or developments may have a material adverse effect on our business, results of operations and financial condition.

Acts of piracy on ocean-going vessels could adversely affect our business.

Acts of piracy have historically affected ocean-going vessels trading in regions of the world such as the South China Sea, the Indian Ocean and in the Gulf of Aden. Sea piracy incidents continue to occur, particularly in the South China Sea, the Strait of Malacca, the Indian Ocean, the Arabian Sea, off the coast of West Africa, the Red Sea, the Gulf of Aden, the Gulf of Guinea, Venezuela, and in certain areas of the Middle East, with tankers particularly vulnerable to such attacks. If piracy attacks result in the characterization of regions in which our vessels are deployed as “war risk” zones or Joint War Committee “war and strikes” listed areas by insurers, premiums payable for such coverage could increase significantly and such insurance coverage may be more difficult to obtain. In addition, crew costs, including costs which may be incurred to the extent we employ onboard security guards, could increase in such circumstances. We may not be adequately insured to cover losses from these incidents, which could have a material adverse effect on us. In addition, detention or hijacking as a result of an act of piracy against our vessels, or an increase in cost, or unavailability of insurance for our vessels, could have a material adverse impact on our business, results of operations and financial condition and may result in loss of revenues, increased costs and decreased cash flows to our customers, which could impair their ability to make payments to us under our charters.

Political instability, terrorist or other attacks, war or international hostilities can affect the tanker industry, which may adversely affect our business.

We conduct most of our operations outside of the United States, and demand for our services, our business, results of operations and financial condition may be adversely affected by the effects of political instability, terrorist or other attacks, war or international hostilities. Russia’s invasion of Ukraine, continuing or escalating conflicts in the Middle East, and the presence of the United States and other armed forces in regions of conflict, may lead to further hostilities, world economic instability, uncertainty in global financial markets and may adversely affect demand for our services. In addition, insurers have increased premiums and reduced or restricted coverage for losses caused by terrorist acts generally. Uncertainty in global financial markets could also adversely affect our ability to obtain additional financing on terms acceptable to us or at all. In the past, political instability has also resulted in attacks on vessels, mining of waterways and other efforts to disrupt international shipping, particularly in the Arabian Gulf region. Acts of terrorism and piracy have also affected vessels trading in regions such as the West of Africa, South China Sea, South-East Asia, the Gulf of Guinea and the Gulf of Aden, including off the coast of Somalia. There also has been an increase in risks associated with the Straits of Hormuz due to Iranian activity. Any of these occurrences could have a material adverse impact on our business, results of operations and financial condition.

Following Russia’s invasion of Ukraine in February 2022, the U.S., several European Union nations, the UK and other countries have imposed sanctions against Russia.

The sanctions imposed by the U.S. and other countries against Russia include, among others, restrictions on selling or importing goods, services or technology in or from affected regions, travel bans and asset freezes impacting connected individuals and political, military, business and financial organizations in Russia, severing large Russian banks from U.S. and/or other financial systems, and barring some Russian enterprises from raising money in the U.S. market. The U.S., EU nations and other countries could impose wider sanctions and take other actions should the conflict further escalate. Any further sanctions imposed or actions taken by the U.S., EU nations or other countries, and any retaliatory measures by Russia in response, such as restrictions on oil shipments from Russia, could lead to increased volatility in global oil demand which, could have a material adverse impact on our business, results of operations and financial condition.

If our vessels call on ports located in countries that are subject to restrictions imposed by the U.S. government, our reputation and the market for our securities could be adversely affected.

Although no vessels owned or operated by us have, during the effect of such sanctions or embargoes, called on ports located in countries subject to country-wide or territory-wide sanctions and embargoes imposed by the U.S. government (such as Iran, North Korea, Syria, the Crimea, Luhansk and Donetsk regions, or Cuba, and countries identified by the U.S. government or other authorities as state sponsors of terrorism, such as Iran, Syria and North Korea), in the future our vessels may call on ports in these countries from time to time on charterers’ instructions in violation of contractual provisions that prohibit them from doing so. Use of our vessels by charterers in a manner that violates U.S. sanctions may result in fines, penalties or other sanctions imposed against us. Sanctions and embargo laws and regulations vary in their application, as they do not all apply to the same covered persons or proscribe the same activities, and such sanctions and embargo laws and regulations may be amended over time.

Although we believe that we have been in compliance with all applicable sanctions and embargo laws and regulations, and intend to maintain such compliance, there can be no assurance that we will be in compliance in the future, particularly as the scope of certain laws may be unclear and may be subject to changing interpretations. Any such violation could result in fines, penalties or other sanctions that could severely impact the market for our common shares, our ability to access U.S. capital markets and conduct our business and could result in some investors deciding, or being required, to divest their interest, or not to invest, in us.

Our charterers may violate applicable sanctions and embargo laws and regulations as a result of actions that do not involve us or our vessels and those violations could in turn negatively affect our reputation or the ability of our charterers to meet their obligations to us or result in fines, penalties or sanctions.

The smuggling of drugs or other contraband onto our vessels may lead to governmental claims against us.

We expect that our vessels will call on ports where smugglers may attempt to hide drugs and other contraband on vessels, with or without the knowledge of crew members. To the extent our vessels are found with contraband, whether inside or attached to the hull of our vessel and whether with or without the knowledge of any of our crew, we may face governmental or other regulatory claims which could have an adverse effect on our business, results of operations and financial condition.

Maritime claimants could arrest our vessels, which would have a negative effect on our business and results of operations.

Crew members, suppliers of goods and services to a vessel, shippers of cargo and other parties may be entitled to a maritime lien against a vessel for unsatisfied debts, claims or damages. In many jurisdictions, a maritime lien holder may enforce its lien by arresting or attaching a vessel through foreclosure proceedings. The arrest or attachment of one or more of our vessels could interrupt our business or require us to pay significant amounts to have the arrest lifted.

In addition, in some jurisdictions, such as South Africa, under the “sister ship” theory of liability, a claimant may arrest both the vessel that is subject to the claimant’s maritime lien and any “associated” vessel, which is any vessel owned or controlled by the same owner. Claimants could try to assert “sister ship” liability against one vessel in our fleet for claims relating to another of our vessels.

Governments could requisition our vessels during a period of war or emergency, which may adversely affect our business and results of operations.

A government could requisition for title or seize our vessels. Requisition for title occurs when a government takes control of a vessel and becomes the owner. Also, a government could requisition our vessels for hire. Requisition for hire occurs when a government takes control of a vessel and effectively becomes the charterer at dictated charter rates. Generally, requisitions occur during a period of war or emergency. Government requisition of one or more of our vessels could adversely affect our business, results of operations and financial condition.

A number of third-party vessel owners have installed exhaust gas scrubbers for their vessels to comply with IMO 2020 requirements to reduce the amount of sulfur in fuel globally. Increased demand for and supply of vessels fitted with exhaust gas scrubbers could reduce demand for the portion of our fleet not equipped with scrubbers and expose us to lower vessel utilization and decreased charter rates.

As of March 15, 2023, owners of approximately 17.5% of the worldwide fleet of tankers with capacity over 10,000 dwt had fitted or planned to fit scrubbers on their vessels. Fitting scrubbers allows a ship to consume high sulfur fuel oil, which is less expensive than the low sulfur fuel oil that ships without scrubbers must consume to comply with the IMO 2020 low sulfur emission requirements. Generally, owners of vessels with higher operating fuel requirements--generally larger ships--are more inclined to install scrubbers to comply with IMO 2020. Fuel expense reductions from operating scrubber-fitted ships could result in a substantial reduction of bunker cost for charterers compared to vessels in our fleet which do not have scrubbers. If (a) the supply of scrubber-fitted vessels increases, (b) the differential between the cost of high sulfur fuel oil and low sulfur fuel oil is high and (c) charterers prefer such vessels over our vessels to the extent they do not have scrubbers, demand for our vessels without scrubbers installed may be reduced and our ability to re-charter such vessels at competitive rates may be impaired, which may have a material adverse effect on our business, operating results and financial condition.

Technological innovation could reduce our charter hire income and the value of our vessels.

The charter hire rates and the value and operational life of a vessel are determined by a number of factors, including the vessel's efficiency, operational flexibility and physical life. Efficiency includes speed, fuel economy and the ability to load and discharge cargo quickly. Flexibility includes the ability to enter various harbors and ports, utilize related docking facilities and pass through canals and straits. The length of a vessel's physical life is related to its original design and construction, its maintenance and the impact of the stress of operations. If new tankers are built that are more efficient or more flexible or have longer physical lives than our vessels, competition from these more technologically advanced vessels could adversely affect the amount of charter hire payments, if any, we receive for our vessels and the resale value of our vessels could significantly decrease. As a result, our business, results of operations and financial condition could be adversely affected.

We rely on our information systems to conduct our business, and failure to protect these systems against viruses and security breaches could adversely affect our business and results of operations. Additionally, if these systems fail or become unavailable for any significant period of time, our business could be harmed.

The efficient operation of our business, including processing, transmitting and storing electronic and financial information, is dependent on computer hardware and software systems. Information systems are vulnerable to security breaches and other attacks by computer hackers and cyber terrorists. We rely on industry accepted security measures and technology to securely maintain confidential and proprietary information maintained on our information systems. However, these measures and technology may not adequately prevent security breaches.

We may be required to spend significant capital and other resources to further protect us and our information systems against threats of security breaches and computer viruses, or to alleviate problems caused by security breaches or viruses. Security breaches and viruses could also expose us to claims, litigation and other possible liabilities. Any inability to prevent security breaches (including the inability of our third-party vendors, suppliers or counterparties to prevent security breaches) could also cause existing clients to lose confidence in our information systems and could adversely affect our reputation, cause losses to us or our customers, damage our brand, and increase our costs.

In addition, the unavailability of the information systems or the failure of these systems to perform as anticipated for any reason could disrupt our business and could result in decreased performance and increased operating costs. Any significant interruption or failure of our information systems or any significant breach of security could adversely affect our business, results of operations and financial condition.

If labor or other interruptions are not resolved in a timely manner, they could have a material adverse effect on our business.

We, indirectly through our technical managers, employ masters, officers and crews to operate our vessels, exposing us to the risk that industrial actions or other labor unrest may occur. A significant portion of the seafarers that crew our vessels are employed under collective bargaining agreements. We may suffer labor disruptions if relationships deteriorate with the seafarers or the unions that represent them. The collective bargaining agreements may not prevent labor disruptions, particularly when the agreements are being renegotiated. If not resolved in a timely and cost-effective manner, industrial action or other labor unrest could prevent or hinder our operations from being carried out as we expect and could have a material adverse effect on our business, results of operations and financial condition.

RISKS RELATED TO OUR BUSINESS

We will be required to make substantial capital expenditures to expand the number of vessels in our fleet and to maintain all our vessels, which will depend on our ability to obtain additional financing.

Our business strategy is based in part upon the expansion of our fleet through the purchase and ordering of additional vessels or businesses. We will be required to make substantial capital expenditures to expand the size of our fleet. We also have incurred significant capital expenditures in previous years to upgrade secondhand vessels we have acquired to Eco-Mod standards and may be required to make additional capital expenditures in order to comply with existing and future regulatory obligations.

In addition, we will incur significant maintenance and capital costs for our current fleet and any additional vessels we acquire. A newbuilding vessel must be drydocked within five years of its delivery from a shipyard and vessels are typically drydocked every 30 to 60 months thereafter depending on the vessel, not including any unexpected repairs. We estimate the cost to drydock a vessel is between \$1.0 million and \$1.4 million, depending on the size and condition of the vessel and the location of drydocking relative to the location of the vessel.

We may be required to incur additional debt or raise capital through the sale or issuance of equity securities to fund the purchasing of vessels or businesses or for drydocking costs from time to time. However, we may be unable to access the required financing if conditions change and we may be unsuccessful in obtaining financing for future fleet growth. Use of cash from operations will reduce available cash. Our ability to obtain bank financing or to access the capital markets for future offerings may be limited by our financial condition at the time of any such financing or offering as well as by adverse market conditions resulting from, among other things, general economic conditions and contingencies and uncertainties that are beyond our control. If we finance our expenditures by incurring additional debt, our financial leverage could increase. If we finance our expenditures by issuing equity securities, our shareholders' ownership interest in us could be diluted.

We may be unable to take advantage of favorable opportunities in the spot market to the extent any of our vessels are employed on medium to long-term time charters.

As of March 15, 2023, none of our vessels were employed under fixed-rate time-charter agreements. To the extent we enter into medium or long-term time charters in the future, the vessels committed to such time charters may not be available for spot charters during periods of increasing charter hire rates, when spot charters might be more profitable.

If we do not identify suitable assets or companies for acquisition or successfully integrate any acquired assets or companies, we may not be able to grow or effectively manage our growth.

One of our principal strategies is to continue expanding our operations and our fleet. Our future growth will depend upon a number of factors, some of which may not be within our control. These factors include our ability to:

- identify suitable assets and/or businesses for acquisitions at attractive prices;
- identify suitable businesses for joint ventures;

- integrate any acquired assets or businesses successfully with our existing operations;
- hire, train and retain qualified personnel and crew to manage and operate our growing business and fleet;
- identify and successfully enter new markets;
- improve or expand our operating, financial and accounting systems and controls; and
- obtain required financing for our existing and new assets, businesses and operations.

Our failure to effectively identify, purchase, develop and integrate any assets or businesses could adversely affect our business, financial condition and results of operations. The number of employees that perform services for us and our current operating and financial systems and expertise may not be adequate as we implement our plan to expand the size of our fleet or enter new markets and we may not be able to effectively hire more employees, adequately improve those systems or develop that expertise. In addition, acquisitions may require additional equity issuances (which may dilute our shareholders' ownership interest in us) or the incurrence or assumption of additional debt (which may increase our financial leverage and debt service costs or impose more restrictive covenants). If we are unable to successfully accommodate any growth, our business, results of operations and financial condition may be adversely affected.

Growing any business by acquisition presents numerous risks such as undisclosed liabilities and obligations, difficulty in obtaining additional qualified personnel and managing relationships with customers and suppliers and integrating newly acquired assets and operations into existing infrastructures. The expansion of our fleet and business may impose significant additional responsibilities on our management and staff, and the management and staff of our technical managers, and may necessitate that we, and they, increase the number of personnel to support such expansion. We may not be successful in executing our growth plans and we may incur significant expenses and losses in connection with such growth plans.

Our ability to grow may be adversely affected by our dividend policy.

Our dividend policy is to pay a variable quarterly dividend equal to one-third of the prior quarter's Adjusted Earnings (which is a non-GAAP measure that represents our earnings per share for the quarter reported under U.S. GAAP adjusted for gain or loss on sale of vessels, write-off of deferred finance fees, and solely for the purposes of dividend calculations, the impact of unrealized gains / (losses) and certain non-recurring items). Accordingly, our growth may not be as fast as businesses that reinvest their cash to expand ongoing operations. We believe that we will generally finance any maintenance and expansion capital expenditures from cash balances or external financing sources (including borrowings under credit facilities and potential debt or equity issuances). To the extent we do not have sufficient cash reserves or are unable to obtain financing for these purposes, our dividend policy may impair our ability to meet our financial needs or to grow.

Delays in deliveries of vessels we may purchase or order, our decision to cancel an order for purchase of a vessel or our inability to otherwise complete the acquisitions of additional vessels for our fleet, could harm our results of operations.

Although we currently have no vessels on order, under construction or subject to purchase agreements, we expect to purchase and order additional vessels from time to time. The delivery of any such vessels could be delayed, not completed or cancelled, which would delay or eliminate our expected receipt of revenues from the employment of these vessels. The seller could fail to deliver these vessels to us as agreed, or we could cancel a purchase contract because the seller has not met its obligations. The delivery of any vessels we may propose to acquire could be delayed because of, among other things, hostilities or political disturbances, non-performance of the purchase agreement with respect to the vessels by the seller, our inability to obtain requisite permits, approvals or financings or damage to or destruction of vessels while being operated by the seller prior to the delivery date.

If the delivery of any vessel is materially delayed or cancelled, especially if we have committed the vessel to a charter under which we become responsible for substantial liquidated damages to the customer as a result of the delay or cancellation, our business, financial condition and results of operations could be adversely affected.

The delivery of vessels we may purchase or sell could be delayed because of, among other things, as applicable:

- work stoppages or other labor disturbances or other events that disrupt the operations of the shipyard building the vessels;
- quality or other engineering problems;
- changes in governmental regulations or maritime self-regulatory organization standards;
- lack of raw materials;
- bankruptcy or other financial crisis of the shipyard building the vessels or of the vessel buyer or seller;
- our inability to obtain requisite financing or make timely payments;
- a backlog of orders at the shipyard building the vessels;
- hostilities or political or economic disturbances in or affecting the countries where the vessels are being built, or the imposition of sanctions on such countries or applicable parties;
- weather interference or catastrophic event, such as a major earthquake or fire;
- our requests for changes to the original vessel specifications;
- shortages or delays in the receipt of necessary construction materials, such as steel;
- our inability to obtain requisite permits or approvals; or
- a dispute with the shipyard building the vessels.

Delays in the delivery of and installation of new vessel equipment could result in significant vessel down-time and have adverse impacts on our results of operations.

In order to maximize fleet performance and efficiency, we plan to invest from time to time in new technologies to be installed on our fleet. However, the delivery and installation of any new equipment depends on a number of factors, some of which are within our control, such as the location of the vessels on a given date, and other factors which are outside of our control, such as the delivery due date, the availability of qualified personnel to install new equipment and potential bottlenecks in the supply chain. Depending on the type of new equipment to be installed, we may need to co-ordinate delivery and installation in line with vessel drydockings. Any delays in the delivery or installation of new equipment could result in an increase in the number of drydock days and adversely impact our results of operation.

We may not realize all of the anticipated benefits of our proposed investment in scrubbers.

We may elect to retrofit a substantial majority of our vessels with exhaust gas cleaning systems, or scrubbers. Our initial plan is to install scrubbers on six vessels during 2023, and we are considering whether to install scrubbers on additional vessels during 2024 and 2025. The scrubbers are intended to enable our ships to use high sulfur fuel oil, which is less expensive than low sulfur fuel oil, in certain parts of the world. The total estimated investment for these systems, including estimated installation costs, is expected to be approximately \$2.0 million per vessel. There is a risk that some or all of the expected benefits of our investment in scrubbers may fail to materialize. The realization of such benefits may be affected by a number of factors, many of which are beyond our control, including, among others, the pricing differential between high and low sulfur fuel oil, the availability of low sulfur fuel oil in the ports in which we operate and the impact of changes in the laws and regulations regulating the discharge and disposal of wash water. Failure to realize the anticipated benefits of our investment in scrubbers could have a material adverse impact on our business, results of operations and financial condition.

The timing of drydockings during peak market conditions could adversely affect the level of our profitability.

We periodically drydock each of our vessels for inspection, repairs and maintenance and any modifications to comply with industry certification or governmental requirements. Generally, each vessel is drydocked every 30 months to 60 months. Depending on the type of drydocking required, a vessel will incur a number of days of downtime where it will not be in service. During times of favorable market conditions, any increase in the number of required drydockings in a given timeframe and the lost revenue days arising from this downtime could result in a material loss of earnings.

If we purchase and operate second-hand vessels, we will be exposed to increased operating costs that could adversely affect our earnings and, as our fleet ages, the risks associated with older vessels could adversely affect our ability to obtain profitable charters.

Our business strategy includes additional growth through the acquisition of new and second-hand vessels. While we typically inspect second-hand vessels prior to purchase, this does not provide us with the same knowledge about their condition that we would have had if these vessels had been built for and operated exclusively by us. Generally, we do not receive the benefit of warranties from the builders of the second-hand vessels that we acquire. These factors could increase the ultimate cost of any second-hand vessel acquisitions by us.

In general, the costs to maintain a vessel in good operating condition increase with the age of the vessel. Older vessels are typically less fuel-efficient than more recently constructed vessels due to improvements in engine technology. Cargo insurance rates increase with the age of a vessel, making older vessels less desirable to charterers. Governmental regulations, safety or other equipment standards related to the age of vessels may require expenditures for alterations or the addition of new equipment, to our vessels and may restrict the type of activities in which the vessels may engage. As our vessels age, market conditions may not justify those expenditures or enable us to operate our vessels profitably during the remainder of their useful lives.

An increase in operating, voyage or other expenses due to increased inflation or otherwise may decrease our earnings and cash flows.

As of March 15, 2023, none of our vessels were employed under fixed rate time charter agreements. For all vessels operating under time charters, the charterer is primarily responsible for voyage expenses and we are responsible for the vessel operating expenses. Under spot chartering arrangements, we will be responsible for all costs associated with operating the vessel, including operating expenses, voyage expenses, bunkers, port and canal costs.

Our vessel operating expenses, which includes the costs of crew, provisions, deck and engine stores, insurance and maintenance, repairs and spares, and our voyage expenses, which include, among other things, the costs of bunkers port and canal costs, depend on a variety of factors, many of which are beyond our control such as competition for crew and inflation. If our vessels suffer damage, they may need to be repaired at a drydocking facility. The costs of drydocking repairs are unpredictable and can be substantial. Inflation has increased significantly on a worldwide basis since mid-2021, with many countries facing their highest inflation rates in decades. Inflation has increased our vessel operating expenses, voyage expenses and certain other expenses. To the extent our charter rates do not cover increased vessel operating expenses or voyage expenses for which we are responsible, or if other costs and expenses increase, our earnings and cash flow will decrease.

We may be unsuccessful in competing in the highly competitive international tanker market, which would adversely affect our results of operations and financial condition and our ability to expand our business.

The operation of tankers and the transportation of petroleum and chemical products is extremely competitive, and our industry is capital intensive and highly fragmented. Competition arises primarily from other tanker owners, including major oil companies as well as independent tanker companies, some of which have substantially greater resources than we do. Competition for the transportation of oil products and chemicals can be intense and depends on price, location, vessel size, age, condition and the acceptability of the tanker and its operators to the charterers. We may be unable to compete effectively with other tanker owners, including major oil companies and independent tanker companies.

Our market share may decrease in the future. We may not be able to compete profitably to the extent we seek to expand our business into new geographic regions or provide new services. New markets may require different skills, knowledge or strategies than those we use in our current markets, and the competitors in those new markets may have greater financial strength and capital resources than we do.

The loss of any key customer could result in a significant loss of revenues and cash flow.

We have derived, and we may continue to derive, a significant portion of our revenues and cash flow from a limited number of customers. For example, two charterers accounted for 10% or more of our consolidated revenue for the year ended December 31, 2022. One of the two charterers also accounted for 10% or more of our consolidated revenue for the years ended December 31, 2021 and December 31, 2020. No other customer accounted for 10% or more of our consolidated revenue during any of these periods. The identity of customers which may account for 10% or more of our revenue may vary from time to time.

If we lose a key customer or if a customer exercises its right under some charters to terminate the charter, we may be unable to enter into an adequate replacement charter for the applicable vessel or vessels. The loss of any of our significant customers or a reduction in revenues from them could have a material adverse effect on our business, results of operations, cash flows and financial condition.

Charterers may terminate or default on their charters, which could adversely affect our business, results of operations and cash flow.

Any charters may terminate earlier than their scheduled expirations. The terms of any existing or future charters may vary as to which events or occurrences will cause a charter to terminate or give the charterer the option to terminate the charter, but these may include: a total or constructive loss of the relevant vessel; or the failure of the relevant vessel to meet specified performance criteria. In addition, the ability of each of our charterers to perform its obligations under a charter will depend on a number of factors that are beyond our control. These factors may include general economic conditions, the condition of the tanker industry, the charter rates received for specific types of vessels and various operating expenses. The costs and delays associated with the default by a charterer under a charter of a vessel may be considerable and may adversely affect our business, results of operations, cash flows and financial condition and our available cash.

To the extent we may enter into time charters in the future for our vessels, we cannot predict whether any charterers may, upon the expiration of their charters, re-charter our vessels on favorable terms or at all. If our charterers are unable or decide not to re-charter our vessels, we may not be able to re-charter them on terms similar to our current charters or at all. In addition, the ability and willingness of each of our counterparties to perform its obligations under a time charter agreement with us will depend on a number of factors that are beyond our control and may include, among other things, general economic conditions, the condition of the tanker shipping industry and the overall financial condition of the counterparties.

Charterers are sensitive to the commodity markets and may be impacted by market forces affecting commodities. In depressed market conditions, there have been reports of charterers renegotiating their charters or defaulting on their obligations under charters. Our customers may fail to pay charter hire or attempt to renegotiate charter rates. If a counterparty fails to honor its obligations under agreements with us, it may be difficult for us to secure substitute employment for such vessel, and any new charter arrangements we secure in the spot market or on time charters may be at lower rates. Any failure by our charterers to meet their obligations to us or any renegotiation of our charter agreements could have a material adverse effect on our business, financial condition and results of operations.

Our ability to obtain additional debt financing may be dependent on the performance of any then-existing charters and the creditworthiness of our charterers.

The actual or perceived credit quality of our charterers, and any defaults by them, may materially affect our ability to obtain the additional capital resources that we will require to purchase additional vessels or may significantly increase our costs of obtaining such capital. Our inability to obtain additional financing at all or the availability of financing at a higher than anticipated cost may materially affect our results of operations and our ability to implement our business strategy.

Our debt levels and lease obligations may limit our flexibility in obtaining additional financing and in pursuing other business opportunities.

As of December 31, 2022, we had \$176.9 million in aggregate principal amount of outstanding indebtedness and finance lease obligations; however, this amount is substantially lower than the amount of such indebtedness and obligations in prior years. In addition, in the future we may enter into new debt arrangements, issue debt securities or incur additional finance lease obligations or assume debt as part of acquisitions. Our level of debt and lease obligations could have important consequences to us, including the following:

- our ability to obtain additional financing, if necessary, for working capital, capital expenditures, acquisitions or other purposes may be impaired or such financing may not be available on favorable terms;
- we may need to use a substantial portion of our cash from operations to make principal and interest payments relating to our debt obligations, reducing the funds that would otherwise be available for operations and future business opportunities;
- we may be more vulnerable than our competitors with less debt to competitive pressures or a downturn in our business or the economy generally; and
- our flexibility in responding to changing business and economic conditions may be limited.

Servicing our current or future indebtedness and lease obligations limits funds available for other purposes and if we cannot service our debt, we may lose our vessels.

Borrowing under our existing credit facilities and obligations under our lease arrangements require us to dedicate a significant part of our cash flow from operations to paying principal and interest on our indebtedness under such facilities or obligations under our finance lease arrangements, and we intend to incur additional debt in the future. These payments limit funds available for working capital, capital expenditures and other purposes.

Our ability to service our debt and lease obligations will depend upon, among other things, our financial and operating performance, which will be affected by prevailing economic and industry conditions and financial, business, regulatory and other factors, some of which are beyond our control. If our results of operations and cash reserves are not sufficient to service our current or future indebtedness and lease obligations, we may be forced to:

- seek to raise additional capital;
- seek to refinance or restructure our debt;
- sell tankers;
- reduce or delay our business activities, capital expenditures, investments or acquisitions;
- reduce any dividends; or
- seek bankruptcy protection.

We may be unable to effect any of these remedies, if necessary, on satisfactory terms, and these remedies may not be sufficient to allow us to meet our debt or lease obligations. If we are unable to meet our debt or lease obligations or if some other default occurs under our credit facilities or lease arrangements, our lenders could elect to declare our debt, together with accrued interest and fees, to be immediately due and payable and proceed against the collateral vessels securing that debt or our lessors could terminate our rights under our finance leases.

We are a holding company and depend on the ability of our subsidiaries to distribute funds to us in order to satisfy our financial obligations and to make dividend payments.

We are a holding company and our subsidiaries, which are all directly and indirectly wholly owned by us, conduct our operations and own all of our operating assets. As a result, our ability to satisfy our financial obligations and to pay dividends to our shareholders depends on the ability of our subsidiaries to generate profits available for distribution to us and, to the extent that they are unable to generate profits, we will be unable to pay our creditors or dividends to our shareholders.

Our credit facilities and lease arrangements contain restrictive covenants, which among other things, limit the amount of cash we may use for other corporate activities, which could negatively affect our growth and cause our financial performance to suffer.

Our credit facilities and lease arrangements impose operating and financial restrictions on us. These restrictions may limit our ability, or the ability of our subsidiaries to, among other things:

- make capital expenditures if we do not repay amounts drawn under our credit facilities or if there is another default under our credit facilities;
- incur additional indebtedness, including the issuance of guarantees;
- incur additional lease obligations;
- create liens on our assets;
- change the flag, class or management of our vessels or terminate or materially amend the management agreement relating to each vessel;
- sell our vessels;
- pay dividends or distributions;
- merge or consolidate with, or transfer all or substantially all our assets to, another person; or
- enter into a new line of business.

Certain of our credit facilities and lease obligations require us to maintain specified financial ratios and satisfy financial covenants. These financial ratios and covenants require us, among other things, to maintain minimum solvency, cash and cash equivalents, corporate net worth, working capital, loan-to-value levels and to avoid exceeding corporate leverage maximum.

As a result of these restrictions, we may need to seek consent from our lenders in order to engage in some corporate actions. Our lenders' interests may be different from ours and we may not be able to obtain consent when needed. This may limit our ability to finance our future operations or capital requirements, make acquisitions or pursue business opportunities. Our ability to comply with covenants and restrictions contained in debt instruments and lease arrangements may be affected by events beyond our control, including prevailing economic, financial and industry conditions. If market or other economic conditions deteriorate, we may fail to comply with these covenants. If we breach any of the restrictions, covenants, ratios or tests in our financing agreements, our obligations may become immediately due and payable, we could be subject to increased rates or fees, and the lenders' commitment under our credit facilities, if any, to make further loans may terminate. A default under financing agreements or lease arrangements could also result in foreclosure on any of our vessels and other assets securing related loans or a loss of our rights as a lessee under our finance leases.

Interest rate increases will affect the interest rates under our credit facilities and finance lease facilities, which could affect our results of operations.

As of December 31, 2022, we had \$176.9 million in aggregate principal amount of outstanding indebtedness and finance lease obligations that bear interest based on variable, floating rates. We anticipate that we will enter into additional variable-rate financing obligations in the future. Increases in prevailing interest rates would increase the amounts that we would have to pay to our lenders and financing lessors, even though the outstanding principal amount remains the same, and our net income and cash flows would decrease. Interest rates have increased substantially since early 2021, with central banks implementing several rate increases during 2022 and contemplating further increases in 2023.

We have hedged a portion of the interest rate risk of our variable-rate debt and finance leasing obligations through interest rate swaps, which expire in the second quarter of 2023. Our financial condition could be materially adversely affected at any time of increasing interest rates during which we have not entered into such fixed interest rate hedging arrangements to hedge our exposure to the interest rates applicable to our variable-rate debt facilities, financing leases and any other financing arrangements we may enter into in the future. Likewise, our financial condition could be adversely affected at any time of decreasing interest rates during which we have entered into such fixed interest rate hedging arrangements. We cannot provide assurances that any hedging activities that we enter into will mitigate our interest rate risk from variable-rate obligations, if at all.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, shareholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations. In addition, any testing we conduct in connection with Section 404 of the Sarbanes-Oxley Act of 2002, or any testing conducted by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, limit our ability to access capital markets or require us to incur additional costs to improve our internal control and disclosure control systems and procedures, which could harm our business and have a negative effect on the trading price of our securities.

We are subject to certain risks with respect to our counterparties on contracts, and failure of such counterparties to meet their obligations could cause us to suffer losses or otherwise adversely affect our results of operations.

We have entered into spot and time charter contracts, commercial pool agreements, ship management agreements, credit facilities and finance lease arrangements and other commercial arrangements. Such agreements and arrangements subject us to counterparty risks. The ability and willingness of each of our counterparties to perform its obligations under a contract with us will depend on a number of factors that are beyond our control and may include, among other things, general economic conditions, the condition of our industries, the overall financial condition of the counterparty, charter rates received for specific types of vessels, and various expenses. In addition, in depressed market conditions, our charterers and customers may no longer need a vessel that is currently under charter or contract or may be able to obtain a comparable vessel at lower rates. As a result, charterers and customers may seek to renegotiate the terms of their existing charter agreements or avoid their obligations under those contracts. Should a counterparty fail to honor its obligations under agreements with us, we could sustain significant losses, which could have a material adverse effect on our business, financial condition and results of operations.

Our insurance may not be adequate to cover our losses that may result from our operations due to the inherent risks of the tanker industry.

We carry insurance to protect us against most of the accident-related risks involved in the conduct of our business, including marine hull and machinery insurance, protection and indemnity insurance, which includes pollution risks, crew insurance and war risk insurance. However, we may not be adequately insured to cover losses from our operational risks, which could have a material adverse effect on us. Additionally, our insurers may refuse to pay particular claims and our insurance may be voidable by the insurers if we take, or fail to take, certain action, such as failing to maintain certification of our vessels with applicable maritime regulatory organizations. Any significant uninsured or under-insured loss or liability could have a material adverse effect on our business, results of operations and financial condition. In addition, we may not be able to obtain adequate insurance coverage at reasonable rates in the future during adverse insurance market conditions. Changes in the insurance markets attributable to terrorist attacks may also make certain types of insurance more difficult for us to obtain due to increased premiums or reduced or restricted coverage for losses caused by terrorist acts generally.

Because we obtain some of our insurance through protection and indemnity associations, we may be required to make additional premium payments.

We receive insurance coverage for tort liability, including pollution-related liability, from protection and indemnity associations. We may be subject to increased premium payments, or calls, in amounts based on our claim records, the claim records of our managers, as well as the claim records of other members of the protection and indemnity associations. In recent years, the shipping industry has been experiencing significant increases in premiums for coverage by protection and indemnity associations.

In addition, our protection and indemnity associations may not have enough resources to cover claims made against them and be required to make calls of their members. Our payment of these calls could result in significant expense to us, which could have a material adverse effect on our business, results of operations and financial condition.

Our investments in Element 1 Corp. and e1 Marine involve a high degree of risk, including potential loss of our investments.

As part of our Energy Transition Plan, in June 2021 we (a) purchased a 10% equity stake in private company Element 1 Corp., a developer of hydrogen generation systems used to power fuel cells and (b) established a joint venture, e1 Marine LLC, with Element 1 Corp. and an affiliate of Maritime Partners LLC that seeks to deliver Element 1 Corp's hydrogen delivery system for applications in the marine sector. Element 1 Corp operates in a highly dynamic and competitive market, and there is no assurance that: it will be able to compete successfully, that demand will grow for its technology, including for in the marine sector, or it will obtain adequate funding to expand its operations or business. These are among the factors that subject our investments of time and resources in Element 1 Corp and e1 Marine to risk and may result in a loss to us of such investments.

LEGAL AND REGULATORY RISKS

We are subject to complex laws and regulations, including environmental laws and regulations, which can adversely affect our business, results of operations and financial condition.

Our operations are subject to numerous laws and regulations in the form of international conventions and treaties, national, state and local laws and national and international regulations in force in the jurisdictions in which our vessels operate or are registered, which can significantly affect the ownership and operation of our vessels. Cost of compliance with such laws and regulations may be significant and, where applicable, may require installation of costly equipment or operational changes and may affect the resale value or useful lives of our vessels. Compliance with existing and future regulatory obligations may include costs relating to, among other things: air emissions including greenhouse gases; the management of ballast and bilge waters; maintenance and inspection; elimination of tin-based paint; development and implementation of emergency procedures, Eco-Mod upgrades of secondhand vessels and insurance coverage or other financial assurance of our ability to address pollution incidents. Environmental or other incidents may result in additional regulatory initiatives or statutes or changes to existing laws that may affect our operations or require us to incur additional expenses to comply with such regulatory initiatives, statutes or laws. These costs could have a material adverse effect on our business, results of operations and financial condition.

A failure to comply with applicable laws and regulations may, among other things, result in administrative and civil penalties, criminal sanctions or the suspension or termination of operations. Environmental laws often impose strict, joint and several liability for remediation of spills and releases of oil and hazardous substances, which could subject us to liability without regard to whether we were negligent or at fault. Under the U.S. Oil Pollution Act of 1990, for example, owners, operators and bareboat charterers are jointly, severally and strictly liable for the discharge of oil in U.S. waters, including the 200-nautical mile exclusive economic zone around the United States. An oil spill could also result in significant liability, including fines, penalties, criminal liability, remediation costs and natural resource damages under international and U.S. federal, state and local laws, as well as third-party damages, and could harm our reputation with current or potential charterers of our tankers. We are required to satisfy insurance and financial responsibility requirements for potential spills of oil (including marine fuel) and other pollution incidents. Although we have arranged insurance to cover certain environmental risks, there can be no assurance that such insurance will be sufficient to cover all such risks or that any claims will not have a material adverse effect on our business, results of operations and financial condition.

Climate change and greenhouse gas restrictions may adversely affect our operating results.

An increasing concern for, and focus on climate change, has promoted extensive existing and proposed international, national and local regulations intended to reduce greenhouse gas emissions. Compliance with such regulations and our efforts to participate in reducing greenhouse gas emissions will likely increase our compliance costs, require significant capital expenditures to reduce vessel emissions and require changes to our business.

Our business includes transporting refined petroleum products. Regulatory changes and growing public concern about the environmental impact of climate change may lead to reduced demand for petroleum products and decreased demand for our services, while increasing or creating greater incentives for use of alternative energy sources. We expect regulatory and consumer efforts aimed at combating climate change to intensify and accelerate. Although we do not expect demand for oil to decline dramatically over the short-term, in the long-term climate change likely will significantly affect demand for oil and for alternatives. Any such change could adversely affect our ability to compete in a changing market and our business, financial condition and results of operations.

Increasing scrutiny and changing expectations from investors, lenders and other market participants with respect to our Environmental, Social and Governance (“ESG”) policies may impose additional costs on us or expose us to additional risks.

Companies across nearly all industries are facing increasing scrutiny relating to their ESG policies. Investor advocacy groups, certain institutional investors, investment funds, lenders and other market participants are increasingly focused on ESG practices and, in recent years, have placed increasing importance on the implications and social cost of their investments. The increased focus and activism related to ESG and similar matters may hinder access to capital, as investors and lenders may decide to reallocate capital or to not commit capital as a result of their assessment of a company’s ESG practices. Diminished access to capital could hinder our growth. Companies that do not adapt to or comply with investor, lender or other industry shareholder expectations and standards, which are evolving, or which are perceived to have not responded appropriately to concern for ESG issues, regardless of whether there is a legal requirement to do so, may suffer from reputational damage and their business, financial condition and share price may be adversely affected.

We may face increasing pressures from investors, lenders and other market participants to the extent they are increasingly focused on climate change, to prioritize sustainable energy practices, reduce our carbon footprint and promote sustainability. As a result, we may be required or determine that it is appropriate to implement more stringent ESG procedures or standards so that existing and future investors remain invested in us and make further investments in us, especially given our business of transporting refined petroleum products. In addition, it is likely we will incur additional costs and require additional resources to monitor, report and comply with wide-ranging ESG requirements, including ESG-related rules anticipated to be announced by the SEC during 2023. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition and results of operations.

In addition, the U.S. Securities and Exchange Commission (the “SEC”) has increased its focus on climate-related and other ESG-related disclosures by public companies, including by: forming a Climate and ESG Task Force in 2021; commencing several ESG disclosure-related enforcement actions; and proposing new rules that would require extensive additional ESG-related disclosure by public companies, including us, which rules are expected to be finalized in 2023.

Regulations relating to ballast water discharge may adversely affect our results of operation and financial condition.

The International Maritime Organization, the United Nations agency for maritime safety and the prevention of pollution by vessels (the “IMO”) has imposed updated guidelines for ballast water management systems specifying the maximum amount of viable organisms allowed to be discharged from a vessel’s ballast water. Depending on the date of the International Oil Pollution Prevention renewal survey, existing vessels constructed before September 8, 2017 were required to comply with the updated D-2 standard on or after September 8, 2019. For most vessels, compliance with the D-2 standard will involve installing on-board systems to treat ballast water and eliminate unwanted organisms. Ships constructed on or after September 8, 2017 are required to comply with the D-2 standards on or after September 8, 2017. All of our vessels currently comply with the updated guidelines of compliance. The cost of compliance with these regulations may be substantial and may adversely affect our results of operation and financial condition.

Furthermore, United States regulations are currently changing. Although the 2013 Vessel General Permit (“VGP”) program and U.S. National Invasive Species Act (“VIDA”) are currently in effect to regulate ballast discharge, exchange and installation, the Vessel Incidental Discharge Act, which was signed into law on December 4, 2018, requires that the U.S. Environmental Protection Agency develop national standards of performance for approximately 30 discharges, similar to those found in the VGP, within two years.

On October 26, 2020, the EPA published a Notice of Proposed Rulemaking for Vessel Incidental Discharge National Standards of Performance under VIDA. Within two years after the EPA publishes its final Vessels Incidental Discharge National Standards of Performance, the U.S. Coast Guard must develop corresponding implementation, compliance and enforcement regulations regarding ballast water. The new regulations could require the installation of new equipment, which may cause us to incur substantial costs.

If we fail to comply with international safety regulations, we may be subject to increased liability, which may adversely affect our insurance coverage and may result in a denial of access to, or detention in, certain ports.

The operation of our vessels is affected by the requirements set forth in the IMO’s International Management Code for the Safe Operation of Ships and Pollution Prevention (“ISM Code”). The ISM Code requires ship owners, ship managers and bareboat charterers to develop and maintain an extensive “Safety Management System” that includes the adoption of safety and environmental protection policies setting forth instructions and procedures for safe operation and describing procedures for dealing with emergencies. If we fail to comply with the ISM Code or similar regulations, we may be subject to increased liability or our existing insurance coverage may be invalidated or decreased for our affected vessels. Such failure may also result in a denial of access to, or detention of our vessels in, certain ports. The United States Coast Guard and European Union authorities have indicated that vessels not in compliance with the ISM Code will be prohibited from trading in U.S. and EU ports, which could have an adverse effect on our business, results of operations and financial condition.

Our failure to comply with data privacy laws could damage our customer relationships and expose us to litigation risks and potential fines.

Data privacy is subject to frequently changing rules and regulations, which sometimes conflict among the various jurisdictions and countries in which we provide services and continue to develop in ways which we cannot predict. For example, the EU’s General Data Privacy Regulation (“GDPR”), a comprehensive legal framework to govern data collection, processing, use, transfer and sharing and related consumer privacy rights took effect in May 2018 and the People’s Republic of China adopted the Personal Information Protection Law (“PIPL”), containing similar provisions, which took effect in November 2021. These laws include significant penalties for non-compliance. Our failure to adhere to or successfully implement processes in response to changing regulatory requirements in this area, insofar as they may apply to our business operations, could result in legal liability or impairment to our reputation, which could have a material adverse effect on our business, financial condition and results of operations.

Our cash and cash equivalents are exposed to credit risk, which may be adversely affected by, among other things, failures of financial institutions.

We manage our cash through various financial institutions. Substantially all of our cash and cash equivalents are currently held in ABN and Nordea, and in short-term money market funds managed by BlackRock, State Street Global Advisors and JPMorgan Asset Management. A collapse or bankruptcy of one of the financial institutions in which or through which we hold or invest our cash reserves--or rumors or the appearance of any such potential collapse or bankruptcy--might prevent us from accessing all or a portion of our cash and cash equivalents for an uncertain period of time, if at all. As demonstrated recently by Silicon Valley Bank, the collapse of a financial institution may occur very rapidly. Any material limitation on our ability to access our cash and cash equivalents could adversely affect our liquidity, results of operations and ability to meet our obligations.

Our operations may be subject to economic substance requirements, which could impact our business.

We are a Marshall Islands corporation with our headquarters in Bermuda. A majority of our subsidiaries are Marshall Islands entities and certain of our subsidiaries are either organized or registered in Bermuda. These jurisdictions have enacted economic substance laws and regulations with which we may be obligated to comply. We believe that we and our subsidiaries are compliant with the Bermuda and the Marshall Islands economic substance requirements. However, if there were a change in the requirements or interpretation thereof, or if there were an unexpected change to our operations, any such change could result in noncompliance with the economic substance legislation and related fines or other penalties, increased monitoring and audits, and dissolution of the non-compliant entity, which could have an adverse effect on our business, financial condition, or operating results.

On February 14, 2023, the Economic and Financial Affairs (ECOFIN) Council (the “Council”) adopted conclusions on the EU list of non-cooperative jurisdictions (Annex I) and the state of play with respect to commitments taken by cooperative jurisdictions to implement tax good governance principles (Annex II).

In connection with the foregoing, the Council added the Marshall Islands to the list of non-cooperative jurisdictions (Annex I). At present, the impact of being included on the list of non-cooperative jurisdictions for tax purposes is unclear. Although we have been advised by the Marshall Islands that it is committed to full cooperation with the EU and expects to be removed from the list of non-cooperative jurisdictions (Annex I) in October 2023, subject to review by the Council, there is no assurance that such a reclassification will occur.

If the Marshall Islands is not removed from the list and sanctions or other financial, tax or regulatory measures were applied by European Member States to countries on the list or further economic substance requirements were imposed by the Marshall Islands, our business could be harmed.

EU member states have agreed upon a set of measures, which they can choose to apply against non-cooperative jurisdictions (Annex I), including increased monitoring and audits, withholding taxes, special documentation requirements and anti-abuse provisions. The European Commission has stated it will continue to support member states' efforts to develop a more coordinated approach to sanctions for the listed countries. EU legislation prohibits EU funds from being channeled or transited through entities in countries on the blacklist. Other jurisdictions in which we operate could be put on the blacklist in the future.

RISKS RELATED TO AN INVESTMENT IN OUR SECURITIES

We are incorporated in the Republic of the Marshall Islands, which does not have a well-developed body of corporate case law or bankruptcy law and, as a result, shareholders may have fewer rights and protections under Marshall Islands law than under a typical jurisdiction in the United States.

Our corporate affairs are governed by our articles of incorporation and bylaws and by the Marshall Islands Business Corporations Act (the “BCA”). Many of the provisions of the BCA resemble provisions of the corporation laws of a number of states in the United States. However, there have been few judicial cases in the Republic of the Marshall Islands interpreting the BCA. The rights and fiduciary responsibilities of directors under the laws of the Republic of the Marshall Islands are not as clearly established as the rights and fiduciary responsibilities of directors under statutes or judicial precedent in existence in certain U.S. jurisdictions.

Shareholder rights may differ as well. While the BCA does specifically incorporate the non-statutory law, or judicial case law, of the State of Delaware and other states with substantially similar legislative provisions, our shareholders may have more difficulty in protecting their interests in the face of actions by management, directors or controlling shareholders than would shareholders of a corporation incorporated in a U.S. jurisdiction. In addition, the Republic of the Marshall Islands does not have a well-developed body of bankruptcy law. As such, in the case of a bankruptcy involving us, there may be a delay of bankruptcy proceedings and the ability of securityholders and creditors to receive recovery after a bankruptcy proceeding, and any such recovery may be less predictable.

It may be difficult to serve process on or enforce a U.S. judgment against us, our officers and our directors.

We are a Marshall Islands corporation and all of our executive offices are located outside of the United States. Most of our directors and officers reside outside the United States. In addition, a substantial portion of our assets and the assets of our directors and officers are located outside of the United States. As a result, our shareholders may have difficulty serving legal process upon us or any of these persons within the United States. Our shareholders may also have difficulty enforcing, both in and outside the United States, judgments they may obtain in U.S. courts against us or any of these persons in any action, including actions based upon the civil liability provisions of U.S. federal or state securities laws. In addition, there is substantial doubt that the courts of the Republic of the Marshall Islands or of non-U.S. jurisdictions in which our offices are located would enter judgments in original actions brought in those courts predicated on U.S. federal or state securities laws.

We changed our dividend policy relating to our common shares as part of our capital allocation policy. The amount of quarterly dividends will vary from period to period, and we may be unable to pay dividends on our common shares.

In November 2022, we announced our new dividend policy, under which we expect to pay a variable quarterly cash dividend on shares of our common stock equal to one-third of the prior quarter’s Adjusted Earnings (which is a non-GAAP measure that represents our earnings per share for the quarter reported under U.S. GAAP adjusted for gain or loss on sale of vessels, write-off of deferred finance fees, and solely for purposes of dividend calculations, the impact of unrealized gains / (losses) and certain non-recurring items).

There is no guarantee that we will pay any dividends to our shareholders. The declaration of any dividends is subject at all times to the discretion of our board of directors. In addition, our board of directors may change or terminate our dividend policy at any time.

The amount of any dividends we may pay in the future will depend upon, among other things, the amount of our adjusted earnings, the amount of our available cash and priorities for capital determined by the board of directors.

The amount of our adjusted earnings may fluctuate significantly from quarter to quarter, and/or the amount of cash we have available for dividends will depend upon, among other things:

- our operating cash flows, capital expenditure requirements, working capital requirements and other cash needs;
- the cyclical nature of the spot market;
- the rates we obtain from our spot charters and time charters;
- the prices and levels of production of, and demand for refined petroleum products and chemicals;
- the levels of our operating costs and any tax expenses;
- the number of off-hire days for our fleet and the timing of, and number of days required for drydocking of our vessels;
- gains or losses on vessel sales or relating to derivatives, and the levels of our depreciation and amortization expenses;
- dividend restrictions in our credit and finance lease facilities, and in any future financing arrangements;
- provisions of our articles of incorporation that prohibit the payment of cash dividends on our common stock unless all accrued and unpaid dividends have been paid on the Series A Preferred Stock;
- prevailing global and regional economic and political conditions;
- the effect of governmental regulations and maritime self-regulatory organization standards, including with respect to environmental and safety matters, on the conduct of our business;
- our fleet expansion strategy and associated uses of our cash and our financing requirements;
- the amount of any cash reserves established by our board of directors; and
- restrictions under Marshall Islands law.

Our ability to make distributions to our shareholders will also depend upon the performance of our ship-owning subsidiaries, which are our principal cash-generating assets, and their ability to distribute funds to us.

The ability of our ship-owning or other subsidiaries to make distributions to us may be restricted by, among other things, the provisions of existing or future indebtedness, applicable corporate or limited liability company laws and other laws and regulations.

In addition, the per share amount of any dividend will also be affected by the number of outstanding shares of our common stock used in calculation of the dividends, which may fluctuate substantially from period to period.

Anti-takeover provisions in our articles of incorporation and bylaws could make it difficult for our shareholders to replace or remove our current board of directors or could have the effect of discouraging, delaying or preventing a merger or acquisition, which could adversely affect the market price of our common shares.

Several provisions of our articles of incorporation and bylaws could make it difficult for our shareholders to change the composition of our board of directors in any one year, preventing them from changing the composition of management. In addition, the same provisions may discourage, delay or prevent a merger or acquisition that shareholders may consider favorable. These provisions include:

- authorizing the board of directors to issue “blank check” preferred stock without shareholder approval;
- providing for a classified board of directors with staggered, three-year terms;
- prohibiting cumulative voting in the election of directors;
- authorizing the removal of directors only for cause and only upon the affirmative vote of the holders of two-thirds of the outstanding shares of our common stock entitled to vote for the directors;
- limiting the persons who may call special meetings of shareholders; and
- establishing advance notice requirements for nominating candidates for election to our board of directors or for proposing matters that can be acted on by shareholders at shareholder meetings.

These anti-takeover provisions could substantially impede the ability of public shareholders to benefit from a change in control and, as a result, may adversely affect the market price of our common stock and our shareholders’ ability to realize any potential change of control premium.

We may be required to redeem our outstanding shares of Series A Preferred Stock or to pay dividends on such shares at an increased rate.

The Series A Preferred Stock is redeemable, in whole or in part, upon the election of us or the holder of shares of Series A Preferred Stock, upon the occurrence of certain change of control events specified in the statement of designation relating to the Series A Preferred Stock. The applicable redemption price would range between (a) 103% of the then applicable liquidation preference per share plus any accumulated and unpaid dividends through the redemption date and (b) 100% of the then applicable liquidated preference per share plus any accumulated and unpaid dividends through the redemption date, depending upon when the redemption occurred. If we were to fail to redeem all the Series A Preferred Stock elected to be redeemed following a change of control, the dividend rate payable on unredeemed shares would automatically increase to 15.0% per annum. The occurrence of other events specified in the statement of designation for the Series A Preferred Stock may also result in increases in the dividend rate of the preferred shares, up to a maximum of 15.0% per annum. As of December 31, 2022, there were 40,000 shares of Series A Preferred Stock outstanding, with an aggregate liquidation preference of \$40.0 million, excluding any accrued and unpaid dividends.

TAX RISKS

U.S. tax authorities could treat us as a “passive foreign investment company”, which could have adverse U.S. federal income tax consequences to U.S. holders.

A foreign corporation will be treated as a passive foreign investment company (“PFIC”), for U.S. federal income tax purposes if either (1) at least 75% of its gross income for any taxable year consists of “passive income” or (2) at least 50% of the average value of the corporation’s assets produce or are held for the production of “passive income”.

For purposes of these tests, “passive income” generally includes dividends, interest, and gains from the sale or exchange of investment property and rents and royalties other than rents and royalties which are received from unrelated parties in connection with the active conduct of a trade or business. For purposes of these tests, income derived from the performance of services generally does not constitute “passive income”. U.S. shareholders of a PFIC are subject to an adverse U.S. federal income tax regime with respect to the income derived by the PFIC, the distributions they receive from the PFIC and the gain, if any, they derive from the sale or other disposition of their shares in the PFIC.

Based upon our operations as described herein, we do not believe that our income from time charters should be treated as “passive income” for purposes of determining whether we are a PFIC, and, consequently, the assets that we own and operate in connection with the production of that income should not constitute passive assets. Accordingly, based on our current operations, we do not believe we will be treated as a PFIC with respect to any taxable year.

There is substantial legal authority supporting this position consisting of case law and U.S. Internal Revenue Service (“IRS”), pronouncements concerning the characterization of income derived from time charters and voyage charters as services income for other tax purposes. However, there is also authority which characterizes time charter income as rental income rather than services income for other tax purposes.

Accordingly, no assurance can be given that the IRS or a court of law will accept this position, and there is a risk that the IRS or a court of law could determine that we are a PFIC. Moreover, no assurance can be given that we would not constitute a PFIC for any future taxable year if the nature and extent of our operations change.

If the IRS were successful in asserting that we are or have been a PFIC for any taxable year, U.S. shareholders would face adverse U.S. federal income tax consequences. Under the PFIC rules, unless a shareholder makes an election available under the U.S. Internal Revenue Code of 1986, as amended, (the “Code”), which election could itself have adverse consequences for such shareholders, as discussed below under Item 10.E (“Taxation of Holders — U.S. Federal Income Tax Considerations — U.S. Federal Income Taxation of United States Holders”), excess distributions and any gain from the disposition of such shareholder’s common shares would be allocated ratably over the shareholder’s holding period of the common shares and the amounts allocated to the taxable year of the excess distribution or sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, for that taxable year, and an interest charge would be imposed with respect to such tax. See Item 10.E (“Taxation of Holders — U.S. Federal Income Tax Considerations — U.S. Federal Income Taxation of United States Holders”) for a more comprehensive discussion of the U.S. federal income tax consequences to United States shareholders if we are treated as a PFIC.

We may have to pay tax on U.S. source shipping income, which would reduce our earnings.

Under the Code, 50% of the gross shipping income of a corporation that owns or charters vessels, as we and our subsidiaries do, that is attributable to transportation that begins or ends, but that does not both begin and end, in the United States will be subject to a 4% U.S. federal income tax without allowance for deduction, unless that corporation qualifies for exemption from tax under Section 883 of the Code and the applicable Treasury Regulations promulgated thereunder or that corporation is entitled to an exemption from such tax under an applicable U.S. income tax treaty.

We expect to take the position that we qualify for this statutory exemption for U.S. federal income tax return reporting purposes for our 2022 taxable year and we intend to so qualify for future taxable years.

However, there are factual circumstances beyond our control that could cause us to lose the benefit of this tax exemption and thereby cause us to become subject to U.S. federal income tax on our U.S. source shipping income. For example, there is a risk that we could no longer qualify for exemption under Section 883 of the Code for a particular taxable year if “non-qualified” shareholders with a 5% or greater interest in our stock were, in combination with each other, to own 50% or more of the outstanding shares of our stock on more than half the days during the taxable year. Due to the factual nature of the issues involved, we can give no assurances on our tax-exempt status or that of any of our subsidiaries.

If we or our subsidiaries were not entitled to exemption under Section 883 of the Code for any taxable year, we or our subsidiaries would be subject for such year to a 4% U.S. federal income tax on 50% of the shipping income we or our subsidiaries derive during the year which is attributable to the transport of cargoes to or from the United States. The imposition of this taxation would have a negative effect on our business and would decrease our earnings available for distribution to our shareholders. For a discussion of the U.S. federal income tax treatment of our operating income, please read “Additional Information—Taxation of Holders—U.S. Federal Income Tax Considerations—U.S. Federal Income Taxation of Operating Income: In General.”

We may be subject to additional taxes, which could adversely impact our business and financial results.

We and our subsidiaries are subject to tax in certain jurisdictions in which we or our subsidiaries are organized, own assets or have operations. In computing our tax obligations in these jurisdictions, we are required to take various tax accounting and reporting positions on matters that are not entirely free from doubt and for which we have not received rulings from the governing authorities. We cannot assure you that, upon review of these positions, the applicable authorities will agree with our positions. A successful challenge by a tax authority could result in additional tax imposed on us or our subsidiaries, which could adversely impact our business and financial results.

GENERAL RISKS

Our business depends upon key members of our senior management team who may not necessarily continue to work for us.

Our future success depends to a significant extent upon certain members of our senior management team. Our management team includes members who have substantial experience in the product tanker and chemical shipping industries, some of which have worked with us since Ardmore’s inception. Our management team is crucial to the execution of our business strategies and to the growth and development of our business. If members of our management team were no longer affiliated with us, we may be unable to recruit other employees with equivalent talent and experience, and our business and financial condition may suffer as a result.

Future sales of our common shares could cause the market price of our common shares to decline.

The market price for our common shares could decline as a result of sales by existing shareholders of large numbers of our common shares, or as a result of the perception that such sales may occur. Sales of our common shares by these shareholders also might make it more difficult for us to sell equity or equity-related securities in the future at a time and at the prices that we deem appropriate.

We may issue additional securities without shareholder approval, which could dilute the ownership interests of shareholders and may depress the market price of our securities.

We may issue additional securities of equal or senior rank to our common stock in the future in connection with, among other things, future vessel or business acquisitions, repayment of outstanding indebtedness or our equity incentive plan, without shareholder approval, in a number of circumstances.

The issuance by us of additional securities of equal or senior rank to our common stock may have the following effects:

- our existing shareholders’ proportionate ownership interest in us may decrease;

- the amount of cash available, if any, for dividends or interest payments may decrease or the amount of per share dividends under our new dividend policy may decrease;
- the relative voting strength of previously outstanding securities may be diminished; and
- the market price of our securities may decline.

Exposure to currency exchange rate fluctuations could result in fluctuations in our operating results.

We operate within the international shipping market, which utilizes the U.S. Dollar as its functional currency. As a consequence, the majority of our revenues and the majority of our expenses are in U.S. Dollars.

However, we incur certain general and operating expenses, including vessel operating expenses and general and administrative expenses, in foreign currencies, the most significant of which are the Euro, Singapore Dollar, and British Pound Sterling. This partial mismatch in revenues and expenses could lead to fluctuations in net income due to changes in the value of the U.S. Dollar relative to other currencies.

Item 4. Information on the Company

A. History and Development of the Company

Ardmore Shipping provides seaborne transportation of petroleum products and chemicals worldwide to oil majors, national oil companies, oil and chemical traders, and chemical companies, with our modern, fuel-efficient fleet of mid-size product and chemical tankers. As of March 15, 2023, our fleet consists of 22 owned vessels and four chartered-in vessels, all of which are in operation.

Ardmore Shipping Corporation was incorporated under the laws of the Republic of the Marshall Islands on May 14, 2013. We commenced business operations through our predecessor company, Ardmore Shipping LLC, on April 15, 2010. On August 6, 2013, we completed our initial public offering of our common stock.

We have 79 wholly owned subsidiaries, the majority of which represent single ship-owning companies for our fleet, one 50%-owned joint venture entity, Anglo Ardmore Ship Management Limited (“AASML”), which provides technical management services to the majority of our fleet, one 33.33%-owned joint venture entity and one 10% equity stake in another entity. A list of our subsidiaries is included as Exhibit 8.1 to this Annual Report.

We maintain our principal executive and management offices at Belvedere Building, 69 Pitts Bay Road, Ground Floor, Pembroke, HM08, Bermuda. Our telephone number at these offices is +1 441 405 7800. Ardmore Maritime Services (Asia) Pte. Limited (“AMSA”), a wholly owned subsidiary incorporated in Singapore, carries out our management services and associated functions. Ardmore Shipping Services (Ireland) Limited (“ASSIL”), a wholly owned subsidiary incorporated in Ireland, provides our corporate, accounting, fleet administration and operations services. Ardmore Shipping (Asia) Pte. Limited (“ASA”), a wholly owned subsidiary incorporated in Singapore, and Ardmore Shipping (Americas) LLC (“ASUSA”), a wholly owned subsidiary incorporated in Delaware, each perform commercial management and chartering services for us.

The SEC’s website at www.sec.gov contains reports, proxy statements, and other information regarding issuers that file electronically with the SEC. Our website address is www.ardmoreshipping.com. The information contained on our website is not part of this Annual Report.

B. Business Overview

We commenced business operations in April 2010 with the goal of building an enduring product and chemical tanker company that emphasizes disciplined capital allocation, service excellence, innovation, and operational efficiency through our focus on high quality, fuel-efficient vessels. We are led by a team of experienced senior managers who have previously held senior management positions with highly regarded public shipping companies and financial institutions.

We are strategically focused on modern, fuel-efficient, mid-size product and chemical tankers. We actively pursue opportunities to exploit the overlap we believe exists between the clean petroleum product (“CPP”) and chemical sectors in order to enhance earnings, and also seek to engage in more complex CPP trades, such as multi-grade and multi-port loading and discharging operations, where our knowledge of chemical operations is beneficial to our CPP customers.

Our fuel-efficient operations are designed to enhance our operating performance and provide value-added service to our customers. We believe we are at the forefront of fuel efficiency and emissions reduction trends and are well positioned to capitalize on these developments with our fleet of Eco-design and Eco-mod vessels. Our acquisition strategy includes to continue to build our fleet with Eco-design newbuildings or Eco-design second-hand vessels and with modern second-hand vessels that can be upgraded to Eco-mod.

We believe that the global energy transition will have a profound impact on the shipping industry, including the product and chemical tanker segments. While this transition will unfold over years, the impact is already being felt through anticipated Energy Efficiency Existing Ship Index and Carbon Intensity Indicator regulations and constraints on newbuilding ordering activity. We view energy transition as less of a compliance challenge and more of an opportunity, which we have set out in our Energy Transition Plan (“ETP”), which is posted on our website. We have established Ardmore Ventures as our holding company for existing and future potential investments related to the ETP and we completed our first projects under the ETP in June 2021.

We are an integrated shipping company. The majority of our fleet is technically managed by a combination of ASSIL and our 50% owned joint venture AASML and we also retain a third-party technical manager for some of our vessels. We have a resolute focus on both high-quality service and efficient operations, and we believe that our corporate overhead and operating expenses are among the lowest of our peers.

We are commercially independent, as we have no blanket employment arrangements with third-party or related-party commercial managers. Through our in-house chartering and commercial team, we market our services directly to a broad range of customers, including oil majors, national oil companies, oil and chemical traders, chemical companies, and pooling service providers. We monitor the tanker markets to understand how to best utilize our vessels and may change our chartering strategy to take advantage of changing market conditions.

Other than technical management services provided to us by our 50% joint venture AASML we have no related-party transactions concerning our vessel operations or vessel sale and purchase activities. Certain of our wholly owned subsidiaries carry out our management and administrative services, with AMSA providing us with corporate and executive management services and associated functions, ASSIL providing corporate and accounting administrative services, as well as technical operations services and fleet administration, and ASA and ASUSA providing our commercial management and chartering services.

In terms of our industry, commodity markets remain subject to heightened levels of uncertainty in connection with Russia’s invasion of Ukraine, which could give rise to regional or broader instability and has resulted in significant economic sanctions by the U.S., European nations and other countries which, in turn, could increase uncertainty with respect to global financial markets and production from OPEC and other oil producing nations. This could affect the demand for our services.

However, we expect continued demand from such ongoing trends as refined product draws and disruption and trading activity creating longer voyages getting refined products to markets, where needed. We expect continued product tanker demand growth in the year ahead, with global economic growth and refinery activity away from points of consumption offsetting the initial impact of energy transition.

We believe that we are well positioned to benefit from a strong charter market, with our modern, fuel-efficient fleet, access to capital for growth, a diverse and high-quality customer base, an emphasis on service excellence in an increasingly demanding regulatory environment and a relative cost advantage in assets, operations and corporate overhead.

Please see Item 5 “Operating and Financial Review and Prospects – Recent Developments” for a description of certain of our recent transactions and developments.

Fleet List

As of March 15, 2023, our current fleet consists of 22 owned vessels, including 21 Eco-design and 1 Eco-mod vessel and five chartered-in vessels, all of which are in operation. The average age of our owned vessels at March 15, 2023, was 8.8 years.

<u>Vessel Name</u>	<u>Type</u>	<u>Dwt Tonnes</u>	<u>IMO</u>	<u>Built</u>	<u>Country</u>	<u>Flag</u>	<u>Specification</u>
<i>Ardmore Seavalliant</i>	Product/Chemical	49,998	2/3	Feb-13	Korea	MI	Eco-design
<i>Ardmore Seaventure</i>	Product/Chemical	49,998	2/3	Jun-13	Korea	MI	Eco-design
<i>Ardmore Seavantage</i>	Product/Chemical	49,997	2/3	Jan-14	Korea	MI	Eco-design
<i>Ardmore Seavanguard</i>	Product/Chemical	49,998	2/3	Feb-14	Korea	MI	Eco-design
<i>Ardmore Sealion</i>	Product/Chemical	49,999	2/3	May-15	Korea	MI	Eco-design
<i>Ardmore Seafox</i>	Product/Chemical	49,999	2/3	Jun-15	Korea	MI	Eco-design
<i>Ardmore Seawolf</i>	Product/Chemical	49,999	2/3	Aug-15	Korea	MI	Eco-design
<i>Ardmore Seahawk</i>	Product/Chemical	49,999	2/3	Nov-15	Korea	MI	Eco-design
<i>Ardmore Endeavour</i>	Product/Chemical	49,997	2/3	Jul-13	Korea	MI	Eco-design
<i>Ardmore Enterprise</i>	Product/Chemical	49,453	2/3	Sep-13	Korea	MI	Eco-design
<i>Ardmore Endurance</i>	Product/Chemical	49,466	2/3	Dec-13	Korea	MI	Eco-design
<i>Ardmore Encounter</i>	Product/Chemical	49,478	2/3	Jan-14	Korea	MI	Eco-design
<i>Ardmore Explorer</i>	Product/Chemical	49,494	2/3	Jan-14	Korea	MI	Eco-design
<i>Ardmore Exporter</i>	Product/Chemical	49,466	2/3	Feb-14	Korea	MI	Eco-design
<i>Ardmore Engineer</i>	Product/Chemical	49,420	2/3	Mar-14	Korea	MI	Eco-design
<i>Ardmore Seafarer</i>	Product	49,999	—	Jun-10	Japan	SG	Eco-mod
<i>Ardmore Dauntless</i>	Product/Chemical	37,764	2	Feb-15	Korea	MI	Eco-design
<i>Ardmore Defender</i>	Product/Chemical	37,791	2	Feb-15	Korea	MI	Eco-design
<i>Ardmore Cherokee</i>	Product/Chemical	25,215	2	Jan-15	Japan	MI	Eco-design
<i>Ardmore Cheyenne</i>	Product/Chemical	25,217	2	Mar-15	Japan	MI	Eco-design
<i>Ardmore Chinook</i>	Product/Chemical	25,217	2	Jul-15	Japan	MI	Eco-design
<i>Ardmore Chippewa</i>	Product/Chemical	25,217	2	Nov-15	Japan	MI	Eco-design
Total	22	973,181					

Business Strategy

Our primary objective is to solidify our position as a market leader in modern, fuel-efficient, mid-size product and chemical tankers by engaging in well-timed growth and utilizing our operational expertise and quality-focused approach to provide value-added services to our customers. Key elements of our business strategy include:

- *Disciplined capital allocation and well-timed growth.* We have a diligent and patient approach to capital allocation and expanding our fleet and we are selective as to the quality of vessels we seek to acquire. We believe that our commitment and selectivity in growing our fleet has been instrumental in building our reputation for quality and service excellence. We also believe that financial flexibility and well-timed quality fleet growth is key to delivering superior returns.
- *Focus on modern high-quality, mid-size product and chemical tankers.* We maintain a modern fleet, with all vessels built in high-quality yards in South Korea or Japan. The average sizes of our product and chemical tankers are substantially similar to the median sizes of the global fleets for product tankers and chemical tankers. We have developed our strategic focus around mainstream tanker sizes that are readily employed and actively traded worldwide in broad and deep markets.

As a result of the overlap between the product and chemical sectors, we believe that our fleet composition enables us to take advantage of opportunities, both operationally and strategically, while also providing investment diversification.

- *Optimizing fuel efficiency.* The shipping industry is experiencing a steady increase in fuel efficiency, and we intend to remain at the forefront of this development. Our Eco-design vessels incorporate many of the latest technological improvements, such as electronically controlled engines, more efficient hull forms matched with energy efficient propellers, and decreased water resistance. Our Eco-mod vessels have improved propulsion efficiency and decreased water resistance. In addition, we achieve further improvements through engine diagnostics and operational performance monitoring.
- *Commercial independence, flexibility and customer service.* Through our in-house chartering and commercial team and our ship management joint venture arrangement, we have an integrated operating platform resulting in leading commercial and operational performance. We maintain a broad range of existing and potential spot customers, and potential time-charter customers, to maximize commercial flexibility and customer diversification. Maintaining outstanding customer service is a cornerstone of our business and we seek customers that value our active approach to fuel efficiency and service delivery.
- *Low cost structure.* We have established a solid foundation for growth while cost-effectively managing our operating expenses and corporate overhead. We intend to grow our staff as needed and to realize further economies of scale as our fleet expands. At the core of our business philosophy is the belief that well-run companies can deliver high quality service and achieve efficiency simultaneously, through hands-on management, effective communication with employees, and constant re-evaluation of budgets and operational performance.

In addition, we view our ETP as being consistent with, and as an extension of, our business strategy; it builds on our core strengths, and we intend to play a leading role in moving toward true sustainability as a tanker company. The basic framework of our ETP is as follows:

- We are in the business of liquid bulk transportation, and over time we anticipate that our activity will migrate more toward non-fossil fuel cargoes for which demand is expected to grow along with the global economy. During the year ended December 31, 2022, 28% of our business included the transportation of non-fossil fuel cargo.
- In keeping with our “eco mod” philosophy, we believe there is significant opportunity in our industry for continued improvement in fuel efficiency, as well as early adoption of transition and zero carbon fuels, and that we can play a role in assisting others through partnerships.
- We believe that many of our customers have similar incentives to decarbonize their supply chains and will approach this through close collaboration with shipping companies possessing the mindset and expertise to assist them in achieving their aims.

As part of our growth strategy, we regularly monitor, evaluate and enter into discussions regarding potential expansion opportunities, including through vessel and business acquisitions and joint ventures. We are selective in implementing our growth strategy and there is no assurance that any existing or future evaluations, discussions or negotiations relating to these opportunities will result in completed or successful transactions.

Corporate Officers, Staff and Seafarers

Biographical information with respect to each of our directors and executive officers is set forth in Item 6 (“Directors, Senior Management and Employees”) of this Annual Report.

As of December 31, 2022, we employed 56 full-time staff onshore. Through AASML, our 50%-owned joint venture ship manager, and Thome Ship Management, our third-party technical manager, approximately 935 seafarers serve our fleet, including 471 officers and cadets and 464 crew.

Commercial management is provided directly by our in-house chartering and commercial team.

Customers

Our customers include national, regional, and international companies and our fleet is employed directly on the tanker spot market through our in-house chartering and commercial team. We may in the future seek to deploy our vessels on time charter arrangements or on the tanker spot market via third party commercial pool employment. We believe that developing strong relationships with the end users of our services allows us to better satisfy their needs with appropriate and capable vessels.

A prospective charterer’s financial condition, creditworthiness, and reliability track record are important factors in negotiating our vessels’ employment.

Competition

We operate in markets that are highly competitive and based primarily on supply and demand. We compete for charters on the basis of price, vessel location, size, age and condition of the vessel, as well as our reputation. Ownership of tanker vessels is highly fragmented and is divided among publicly listed companies, state-controlled owners and private ship-owners.

The International Product and Chemical Tanker Industry

The information and data contained in this section relating to the international product and chemical tanker shipping industry have been provided by Drewry Maritime Research (“Drewry”) and is taken from Drewry’s database and other sources. Drewry has advised that: (i) some information in their database is derived from estimates or subjective judgments; (ii) the information in the databases of other maritime data collection agencies may differ from the information in their database. We believe all third-party data provided in this section, “The International Product and Chemical Tanker Industry,” is reliable.

The world tanker fleet is generally divided into four main categories of vessels based on the main type of cargo carried. These categories are crude oil, refined petroleum products (both clean and dirty products) – hereinafter referred to as products – chemicals (including vegetable oils and fats) and specialist products such as bitumen. There is some overlap between the main tanker types and the cargoes carried, which is explained in the table below.

Principal Tanker Types and Main Cargoes Carried

Vessel Type	Ship Size - Dwt	Tank Type	IMO Status	Principal Cargo	Other Cargoes
ULCC/VLCC	200,000+	Uncoated	Non IMO	Crude Oil	
Suezmax	125,000 - 199,999	Uncoated	Non IMO	Crude Oil	
Aframax	85,000 - 124,999	Uncoated	Non IMO	Crude Oil	Refined Products - Dirty
Panamax	55,000 - 84,999	Uncoated	Non IMO	Crude Oil	Refined Products - Dirty
Large Range 3 (LR3)	125,000-199,999	Coated	Non IMO	Refined Products	Crude
Large Range 2 (LR2)	85,000 - 124,999	Coated	Non IMO	Refined Products	Crude
Large Range 1 (LR1)	55,000 - 84,999	Coated	Non IMO	Refined Products	Crude
Medium Range (MR)	25,000 - 54,999	Coated	IMO 2	Refined Products	Chemicals/Veg Oils
	25,000 - 54,999	Coated	IMO 3	Refined Products	Chemicals/Veg Oils
	25,000 - 54,999	Coated	Non IMO	Refined Products	
	25,000 - 54,999	Uncoated	Non IMO	Refined Products	
Small Range (SR)	10,000 - 24,999	Coated	Non IMO	Refined Products	
	10,000 - 24,999	Coated	IMO 2	Refined Products	Chemicals/Veg Oils
Stainless Steel Tankers	10,000 +	Stainless	IMO 2	Chemicals/Veg Oils	Refined Products
Specialist Tankers	10,000+	Uncoated/Coated	Non IMO	Various e.g. Bitumen	

Source: Drewry

In the product and chemical sectors, there are a number of vessels that can carry products as well as some chemicals, representing a ‘swing’ element in supply in both of these markets. However, in practice, many vessels will tend to trade in either refined products or chemicals/vegetable oils and fats.

The outbreak of COVID-19 severely affected the demand for crude oil and refined petroleum products as several major economies enforced lockdowns to contain the spread of the virus and mitigate the damage caused by the pandemic. Accordingly, the world seaborne tanker trade, including crude oil, oil products, and chemicals fell 9.1% to 3,105 million tons in 2020. Crude oil trade declined 9.4% and oil products trade declined 10.1% during the same period. However, world seaborne tanker trade grew slightly to 3,120 million tons in 2021 mainly due to a sharp recovery in global oil demand. Global oil demand increased 5.6 mbpd in 2021 fueled by robust economic growth, rising vaccination rates, and higher mobility levels. Several countries authorized emergency use of various COVID-19 vaccines and a widespread availability of these vaccines has played a key role in containing the pandemic, supporting seaborne trade and tanker demand. Global economic recovery coupled with the energy crisis, which started in October 2021, provided a further boost to oil demand in 2022. Global oil demand grew by 2.3 mbpd in 2022.

The Russia-Ukraine conflict, which started in February 2022, has led to a change in trade patterns for both crude oil and products with trades shifting from Russia-Europe to Asia-Europe, Middle East-Europe, U.S. Gulf-Europe. This has led to increased tonne-mile demand. The tanker market has also benefited from recovery in demand as economies started emerging from the impact of COVID-19. Overall, world seaborne tanker trade volumes grew 2.6% in 2022. The seaborne trade of chemicals/vegetable oils declined in 2022 because of the weakness in organics and vegetable oil markets. While the demand for organics declined due to prolonged lockdowns which lowered demand and hence imports in China, the vegetable oil market suffered from the war between the top producers of sunflower oil coupled with production losses of soybean oil in Argentina.

Between 2017 and 2022, seaborne trade fell at an annual rate of 1.9% for crude oil and 0.5% for oil products, whereas it grew at an annual rate of 1.7% for chemicals. From 2012 to 2022, chemicals were the fastest growing sector in international tanker shipping followed by refined products. Seaborne trade increased in 2022 mainly driven by a change in trade patterns following the geopolitical crisis and recovery in global economy. The full impact of the change in trade patterns may be felt in 2023 with further increases in volumes forecasted across crude oil, oil products, and chemicals. Higher Chinese oil demand and refinery runs, and growing naphtha and jet fuel trade should lead to increased seaborne trade in 2023. However, weakening global economic outlook and uncertainty over the recovery in China’s economy still pose risks to tonnage demand growth.

World Seaborne Tanker Trade Volumes

Year	Crude Oil		Oil Products		Chemicals		Total		Global GDP (IMF)
	Million tons	% y-o-y	Million tons	% y-o-y	Million tons	% y-o-y	Million tons	% y-o-y	
2012	1,988	2.4%	859	-0.2%	240	5.3%	3,087	1.9%	3.5%
2013	1,920	-3.4%	904	5.3%	252	5.1%	3,077	-0.3%	3.5%
2014	1,904	-0.9%	914	1.1%	252	-0.1%	3,070	-0.2%	3.6%
2015	1,974	3.7%	963	5.3%	266	5.4%	3,202	4.3%	3.5%
2016	2,060	4.4%	999	3.8%	267	0.6%	3,327	3.9%	3.4%
2017	2,121	2.9%	1,043	4.3%	283	5.8%	3,447	3.6%	3.8%
2018	2,116	-0.2%	1,055	1.1%	293	3.4%	3,463	0.5%	3.6%
2019	2,080	-1.7%	1,036	-1.8%	300	2.4%	3,415	-1.4%	2.8%
2020	1,885	-9.4%	931	-10.1%	289	-3.6%	3,105	-9.1%	-3.1%
2021	1,858	-1.4%	999	7.3%	311	7.5%	3,168	2.0%	5.9%
2022*	1,927	3.7%	1,015	1.6%	308	-1.0%	3,249	2.6%	3.4%
2023F	1,970	2.2%	1,045	3.0%	311	1.1%	3,326	2.4%	2.9%

* Provisional estimates

Note: Provisional number. Historical trade numbers have been revised based on changes in the number of reported countries, change in trade estimates for some of the reported countries, etc.

Source: Drewry, IMF

The Product Tanker Industry

While crude tankers transport crude oil from points of production to points of consumption (typically oil refineries in consuming countries), product tankers can carry both refined and unrefined petroleum products, including some crude oil, as well as fuel oil and vacuum gas oil (often referred to as ‘dirty products’) and gas oil, gasoline, jet fuel, kerosene, and naphtha (often referred to as ‘clean products’). Tankers with no IMO certification, but with coated cargo tanks are designed to carry products, while tankers with IMO certification (normally IMO 2 or IMO 3) and coated cargo tanks are capable of carrying both products and chemicals/vegetable oils and fats. Given the facts mentioned above, a tanker with IMO 2 certification and with an average tank size in excess of 3,000 cubic meters (“cbm”) is normally classified as a product tanker, while a tanker with IMO 2 certification and an average tank size of less than 3,000 cbm is normally categorized as a chemical tanker.

In essence, products can be carried in coated non-IMO tankers and IMO-rated coated tankers. By this definition, the product capable tanker fleet consists of nearly 45% of the total tanker fleet (above 10,000 dwt) in number terms.

The demand for product tankers is determined by world oil demand and trade, which is influenced by various factors, including economic activity, geographic changes in oil production, consumption and refinery capacity, oil prices, the availability of transport alternatives (such as pipelines), and sanctions and inventory policies of nations and oil trading companies. Tanker demand is a product of: (i) the volume of cargo transported in tankers, multiplied by (ii) the distance that cargo is transported.

Growth in oil demand and the changing location of oil supply have altered the structure of the tanker market in recent years. Between 2003 and 2008, more than half of new crude oil production was located in the Middle East and Africa. These two regions still produce around one third of global supply. However, in recent years, the U.S. and Canadian crude oil production have increased as a result of the development of shale oil deposits in the U.S. and oil sands in Canada. This has reduced the demand for U.S. seaborne crude imports but is resulting in greater oil product volumes becoming available for export from the U.S. Gulf as refiners have access to ample supplies of competitively priced feedstock.

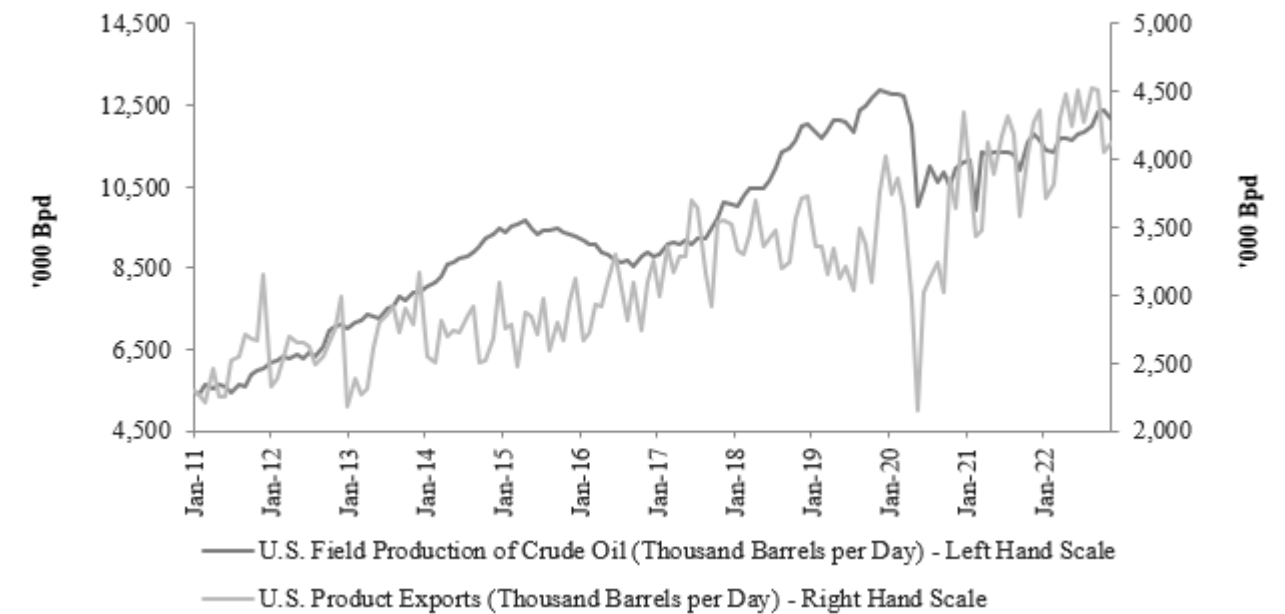
New technologies, such as horizontal drilling and hydraulic fracturing, triggered a shale oil revolution in the U.S., and in 2013, for the first time in the past two decades, the U.S. produced more oil than it imported. In view of the rising surplus in oil production, the U.S. Congress lifted a 40-year-old ban on crude oil exports in 2015, which was put in place after the Arab oil embargo in 1973, thereby allowing U.S. oil producers access to international markets.

The first shipments of U.S. crude were sent to Europe immediately after the lifting of the ban, and since then, exports to other destinations have followed. The U.S. exported nearly 0.5 mbpd of crude oil in 2015 and 2016. However, 2017 marked a very important development for U.S. crude producers as the country exported crude to every major importer, including China, India, South Korea, and several European countries. Consequently, U.S. crude oil exports averaged 1.2 mbpd and 2.1 mbpd in 2017 and 2018 respectively, with increasing production encouraging greater loadings in the Gulf of Mexico. U.S. crude exports averaged 3.0 mbpd in 2019, inching up further in the first quarter of 2020 to 3.5 mbpd. However, the outbreak of COVID-19 and the steep decline in crude oil prices in 2020 adversely affected oil production, reducing exports from March 2020 with the country exporting 2.7 mbpd in November 2020. U.S. crude exports continued to decline in 2021 due to lower crude oil production. U.S. crude oil exports increased by about 21% in 2022 on account of higher demand of U.S. crude oil following sanctions on Russia’s exports of crude oil and the U.S.’s massive release of oil from emergency reserves.

In addition, in 2014, the Energy Information Administration (“EIA”) in the U.S. began classifying exports of U.S. treated condensate as ‘kerosene and light gas oils’ in its Petroleum Supply Monthly report. This followed from a decision by the U.S. Bureau of Industry and Security (“BIS”) to allow the export of distilled condensate as a refined product. Field condensate, which can be fed into a refinery or used as a chemical plant feedstock, had been considered as an upstream product until 2014, and therefore, was restricted for export under U.S. law. However, the BIS ruling that field stabilization processing changes condensate enough that it becomes a new product opened up further export opportunities. In short, changes in the U.S. oil market have had a very positive impact on the demand of product tankers because U.S. product exports have risen sharply over the past decade.

Although exports of products collapsed in April-May 2020 due to lockdown restrictions, they recovered quickly in the following few months. U.S. product exports grew 12.5% on average to 3.8 mbpd in 2021 with recovery in oil demand. U.S. product exports continued to increase in 2023 on account of lower inventories, higher demand, and disruption in trade flows following the commencement of the Russia-Ukraine conflict in February 2022.

U.S. Crude Oil Production and U.S. Product Exports



*Source: JODI

Much of the increase in U.S. exports has helped fulfil the growing demand in South America and Africa for oil products, while other U.S. exports have been moving Transatlantic into Europe, where local refinery shutdowns have supported the rise in the import of products.

In terms of tonne-mile demand, a notable development in the patterns of world refining over the last five years has been the shift towards crude-oil-producing regions developing their own refinery capacity in addition to capacity expansion in China and India. At the same time, poor refinery margins have led to the closure of refineries in the developed world, most notably in Europe, Australia, Japan, and the U.S. In this context, it is already apparent that the closure of refining capacity in the developed world is prompting long-haul imports to cater to product demand on routes such as west coast of India to Europe and the U.S. eastern seaboard. Refinery shutdowns close to consuming regions elsewhere in the world will also support the demand for product imports. For example, in Australia, the trade from Singapore has become increasingly important to compensate for the conversion of local refineries into storage depots. This is part of a general increase in the intra-Asian trade, which is already boosting the demand for product tankers.

Between 2010 and 2019, refinery throughput in the OECD Americas and OECD Asia Oceania moved up 6.5% and 1.5% to 19.1 mbpd and 6.8 mbpd respectively, whereas refining throughput in OECD Europe declined 0.5% to 12.2 mbpd. Cumulatively, this resulted in OECD’s refining throughput of 38.1 mbpd in 2019, totaling 46.6% of global refinery throughput. However, in 2020 refinery throughput of all OCED regions declined in double digits with the OECD refinery throughput falling 13.4% to 33.1 mbpd and accounting for 44.5% of the global refinery throughput. The demand destruction due to the pandemic led to a decline in refining activity in almost every region except China. After a record drop in 2020 global refinery runs gathered steam in 2021 with improvement in oil demand, but high prices led to drawdowns in inventory of refined products, limiting the gains in refinery runs to some extent. In 2022, refinery throughput continued to increase globally, mainly driven by higher demand.

Refinery Throughput⁽¹⁾ 2012-2022

(‘000 Barrels Per Day)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
OECD Americas	18,190	18,492	18,934	18,850	18,960	19,290	19,400	19,100	16,500	17,800	18,700
OECD Europe	11,942	11,304	11,232	11,900	11,920	12,300	12,100	12,200	10,700	11,000	11,500
OECD Asia Oceania . .	6,609	6,720	6,652	6,700	6,890	7,200	7,000	6,800	5,800	5,800	6,100
FSU	6,683	6,831	7,069	6,850	6,880	6,880	7,000	6,800	6,400	6,700	6,400
Non-OECD Europe . . .	587	559	557	500	500	570	600	600	400	400	500
China	9,749	10,427	10,864	10,400	10,790	11,830	12,000	13,000	13,400	14,400	13,700
Other Asia	8,792	8,588	8,541	10,000	10,380	10,440	10,600	10,300	9,300	9,600	10,300
Latin America	4,470	4,589	4,545	4,550	4,200	3,830	3,500	3,200	3,000	3,200	3,400
Middle East	6,257	6,202	6,501	6,450	6,810	7,520	8,000	7,700	6,800	7,600	8,100
Africa	2,202	2,182	2,255	2,250	2,090	1,920	2,100	2,000	2,000	1,900	1,800
Total	75,482	75,894	77,150	78,450	79,420	81,780	82,300	81,700	74,300	78,400	80,500

(1) The difference between oil consumption and refinery throughput is accounted for by condensates, output gains, direct burning of crude oil and other non-gas liquids.

*Provisional estimates

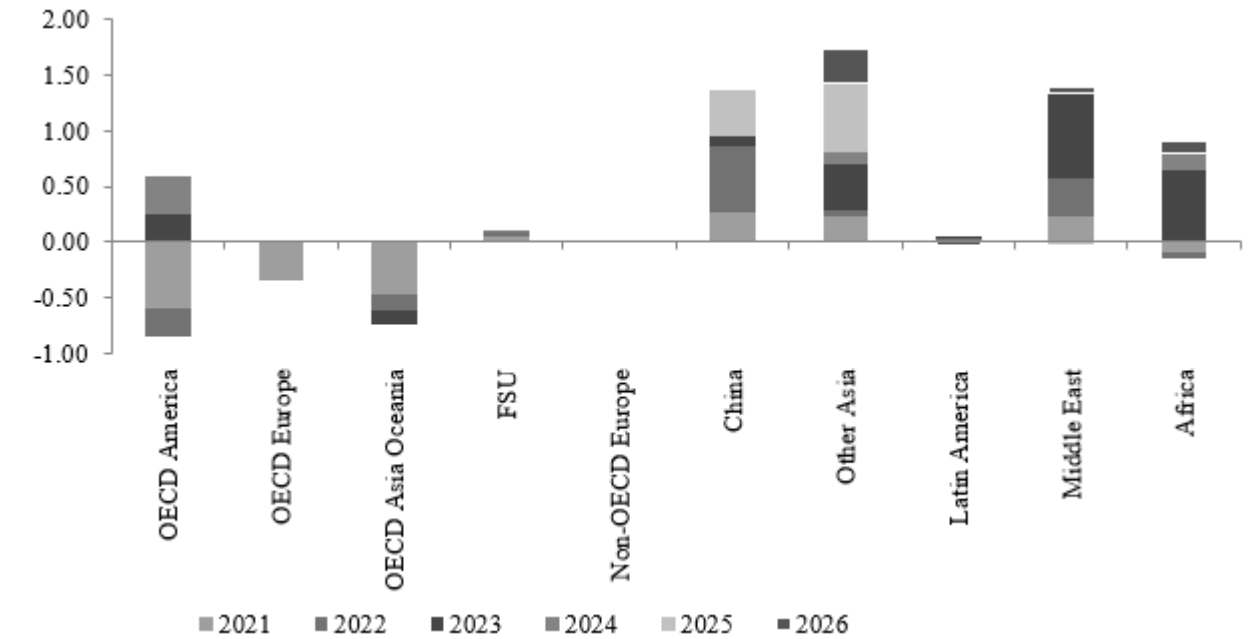
Source: IEA

In the last few years, Asia and the Middle East have steadily increased their export-oriented refinery capacity. As a result of these developments, countries such as India and Saudi Arabia have consolidated their positions as major exporters of products. Export-oriented refineries in India and the Middle East, coupled with the closure of refining capacity in the developed world, have promoted greater long-haul shipments to cater to product demand.

Nearly 0.76 mbpd of new refining capacity in the Middle East, 0.42 mbpd in Asia and 0.10 mbpd in China are scheduled to come online in 2023 with nearly 0.12 mbpd of existing refinery capacity in OECD Asia Oceania expected to be phased out during the same year. As a result of these developments, countries such as India and Saudi Arabia have consolidated their positions as major exporters of products. The shift in refinery capacity is likely to continue as refinery development plans are heavily focused on areas such as Asia and the Middle East. From 2023 to 2027, the anticipated additions to refinery capacity on a regional basis (illustrated in the chart below) is 3.7 mbpd, or 4.1% of the global refinery capacity at the end of 2021.

Planned Additions to Global Refining Capacity⁽¹⁾

(Million Barrels Per Day)

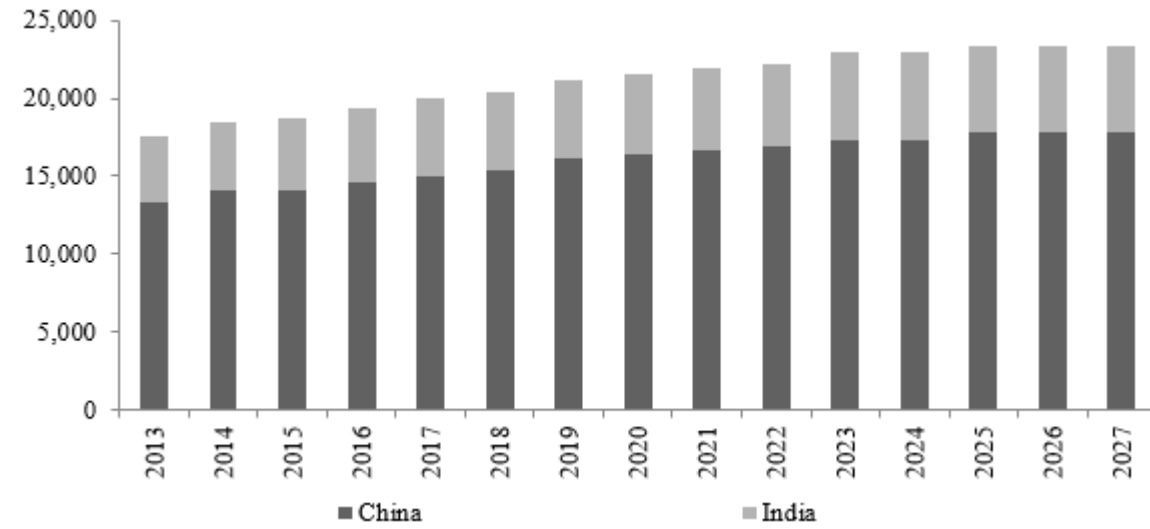


(1) Assumes all announced plans go ahead as scheduled

Source: IEA

In developed economies, refinery capacity is on the decline – a trend that is likely to continue as refinery development plans are concentrated in areas such as Asia and the Middle East or close to oil-producing centers where the new capacities coming on stream are primarily for exports. These new refineries are more competitive as they can process sour crude oil and are technically more advanced as well as more environmentally friendly compared with existing refineries in Europe, and other developed economies. By contrast, Chinese and Indian refinery capacities have grown at faster rates than any other global region in the last decade on the back of strong domestic oil consumption and the construction of export-oriented refineries. From 2012 to 2022, Chinese refining capacity increased 41.3%, while the growth for India was 24.7% (see chart below).

China and India – Refining Capacity⁽¹⁾
(*000 Barrels Per Day)



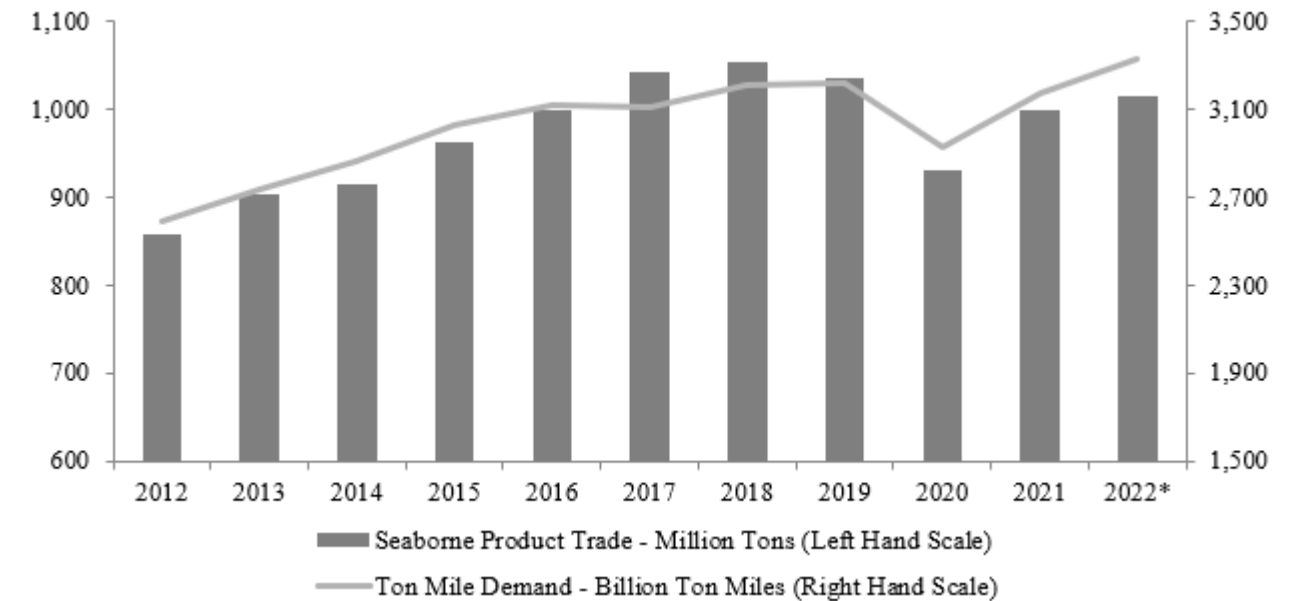
(1) Capacity for 2023 to 2027 assumes all announced plans go ahead as scheduled

Source: BP, IEA

As a result of the growth in trade and changes in the location of refinery capacity, demand for product tankers expressed in tonne-miles grew at a CAGR of 2.8% between 2010 and 2019. However, tonne-mile demand declined by 8.9% in 2020 on account of restrictions imposed by several major economies to contain the spread of COVID-19.

Product tanker ton-mile demand recovered in 2021 following the re-opening of several large economies. In 2022, product tanker tonne-mile demand grew 5% YoY mainly due to changes in trade patterns relating to long-haul Europe-Asia/Middle East trade because of the sanctions on Russia. Generally, the growth in products trade and product tanker demand is more consistent and less volatile than in crude oil trade.

Seaborne Product Trade and Tonne-Mile Demand



* Provisional estimates

Source: Drewry

Product Tanker Supply

The global product tanker fleet is classified as any non-stainless steel/specialized tanker between 10,000 dwt and 55,000 dwt, as well as coated and other ‘product-capable’ vessels over 55,000 dwt. As of December 31, 2022, the world tanker fleet consisted of 7,316 vessels with a combined capacity of 670.6 million dwt. Within the total tanker fleet, MR vessels account for 32.3% of total ship numbers with a total capacity of 107.3 million dwt. MR vessels are considered the ‘workhorses’ of the fleet.

As of December 31, 2022, the MR product tanker orderbook was 101 vessels totaling 5.0 million dwt. The MR orderbook as a percentage of the existing MR fleet, in terms of dwt, was 4.7% compared with close to 50% at the last peak in 2008. Based on scheduled deliveries, 2.4 million dwt of MR product tankers are due for delivery in 2023 and a further 1.4 million dwt in 2024. Approximately 48% of the vessels on order in the MR category are scheduled to be delivered in 2023, which will increase the MR fleet by 2.2%, assuming no vessel is scrapped. Current estimates suggest that approximately 63% of the entire existing tanker order book is scheduled for delivery in 2023, adding 17.4 million dwt to the total fleet.

The other factor that will affect future supply is demolition activity. The volume of scrapping is primarily a function of the age profile of the fleet, scrap prices in relation to the current and prospective charter market conditions, operating, repair and survey costs, and environmental regulations. Low vessel earnings in a weak tanker market encouraged scrapping activity in 2018 when 154 tankers with an aggregate capacity of 19.8 million dwt were sold to scrapyards, of which 34 tankers totaling 1.4 million dwt were MR tankers. In comparison, only 34 vessels with an aggregate capacity of 2.7 million dwt were demolished in 2019, of which 20 tankers totaling 0.8 million dwt were MRs. In 2020, 39 tankers with aggregate capacity of 3.1 million dwt were demolished. Demolition surged in 2021 in response to relatively weak crude and product tanker earnings with 143 tankers totaling 13.6 million dwt sold to scrapyards (including 52 MR tankers totaling 2.2 million dwt). High tanker rates in 2022 curbed demolitions with 96 tankers totaling 5.1 million dwt demolished (including 25 MR tankers totaling 1.0 million dwt).

The impact of the Energy Efficiency Existing Ship Index (“EEXI”) and the Carbon Intensity Indicator (“CII”) regulations is still unclear at this stage. These regulations may squeeze tonnage availability as shipowners may have to modify engines and slow steam to comply. In addition, these regulations may also lead to increased scrapping and fleet renewal.

World Tanker Fleet and Orderbook: December 31, 2022

Vessel Type/Class	Fleet			Orderbook			Orderbook Delivery Schedule (M Dwt)			
	Number	M Dwt	Size dwt	Number	M Dwt	% Fleet Dwt	2023	2024	2025	2026+
ULCC/VLCC.....	885	272.8	200,000+	26	7.9	2.9%	7.3	0.0	0.3	0.3
Suezmax.....	635	99.4	125,000-199,999	20	3.1	3.2%	1.4	0.9	0.8	0.0
Aframax (Uncoated).....	683	75.0	85,000-124,999	42	4.8	6.5%	2.7	1.0	0.7	0.4
Panamax (Uncoated).....	70	4.9	55,000-84,999	1	0.1	1.4%	0.1	0.0	0.0	0.0
Crude Tankers.....	2,273	452.1		89	16.0	3.5%	11.5	2.0	1.8	0.7
Large Range 3 (LR3).....	20	3.2	125,000-199,999	0	0.0	0.0%	0.0	0.0	0.0	0.0
Large Range (LR2).....	416	45.9	85,000-124,999	44	5.0	10.9%	2.6	1.4	1.0	0.0
Large Range 1 (LR1).....	391	28.6	55,000-84,999	1	0.1	0.2%	0.1	0.0	0.0	0.0
LR Product Tankers.....	827	77.6		45	5.1	6.5%	2.6	1.4	1.0	0.0
Coated IMO 2.....	1,173	54.0	25,000-54,999	58	2.9	5.3%	0.9	1.0	0.7	0.2
Coated IMO 3 & Non										
IMO Coated/Uncoated.....	1,193	53.3	25,000-54,999	43	2.1	4.0%	1.5	0.4	0.2	0.0
Total MR.....	2,366	107.3		101	5.0	4.7%	2.4	1.4	0.9	0.2
Small Range.....	1,035	15.3	10,000-24,999	31	0.6	3.7%	0.4	0.1	0.1	0.0
Stainless Steel Tankers.....	815	18.2	10,000+	51	1.1	6.3%	0.5	0.5	0.1	0.0
Total All Tankers.....	7,316	670.6		317	27.7	4.1%	17.4	5.4	4.0	0.9

Source: Drewry

Ballast Water Management Convention

All deep-sea vessels engaged in international trade are required to have a ballast water treatment system before September 8, 2024. For an MR tanker, the retrofit cost could be between \$1.0 and \$1.6 million per vessel (including labor). Expenditure of this kind has become another factor impacting the decision to scrap older vessels after the Ballast Water Management Convention came into force in 2019.

IMO 2020 Regulation on Low Sulfur Fuel

The second regulation, which came into force on January 1, 2020, and impacted vessel supply, particularly in 2020, is the drive to introduce low sulfur fuels. For many years, high sulfur fuel oil (“HSFO”) has been the main fuel of the shipping industry. It is relatively inexpensive and widely available, but it is ‘dirty’ from an environmental point of view. The sulfur content of HSFO is extremely high and is the reason that maritime shipping accounted for 8% of global emissions of sulfur dioxide (“SO₂”), a significant source for acid rain as well as respiratory diseases. According to the IMO, sulfur oxide emissions have declined 77% (annual reduction of about 8.5 million metric tonnes) since the implementation of the IMO 2020 regulations.

The IMO, the governing body of international shipping, has made a decisive effort to shift the industry away from HSFO to cleaner fuels with less harmful effects on the environment and human health.

Effective in 2015, ships operating within the Emission Control Areas (“ECAs”) covering the Economic Exclusive Zone of North America, the Baltic Sea, the North Sea, and the English Channel, are required to use marine gas oil with allowable sulfur content up to 1,000 parts per million (“ppm”). In the lead-up to 2020, when the shipping industry started to prepare for a new low sulfur norm, two factors were closely considered: 1) the spread between (expensive) very low-sulfur fuel and (cheaper) high-sulfur fuel, and 2) scrubber retrofitting activity. Starting in 2020, high and low sulfur fuel demand from the marine sector reported significant variation. The HSFO and LSFO price spread largely oscillated between \$300 and \$350 per metric tonne during the initial days and hovered around \$190-200 per tonne in February 2020. Despite the initial speculation, the shipping industry did not see any systemic shortage of the new low sulfur fuel oil. The premium commanded by low sulfur fuel decreased to around \$60 per tonne by December 2020 as the availability of compliant fuel was not an issue due to reduced demand and increased supply across major bunkering ports. Overall, installation of scrubbers and new fuel regulations turned out to be a non-event in the backdrop of COVID-19 and low bunker prices. However, the recent increase in crude oil prices since June 2021 and corresponding widening in the spread supports the economic rationale for a scrubber investment.

IMO GHG Strategy

The IMO has been devising strategies to reduce greenhouse gases (“GHG”) and carbon emissions from ships. According to the announcement in 2018, the IMO plans to initiate measures to reduce CO₂ emissions intensity by at least 40% by 2030 and 70% by 2050 from the levels in 2008. It also plans to introduce measures to reduce GHG emissions by 50% by 2050 from the 2008 levels. These are likely to be achieved by setting energy efficiency requirements, energy saving technologies, and encouraging shipowners to use alternative fuels such as biofuels, and electro-/synthetic fuels such as hydrogen or ammonia. It may also include limiting the speed of the ships. The GHG strategy of IMO is likely to be revised in 2023. Currently, there is uncertainty regarding the exact measures that the IMO will undertake to achieve these targets. IMO-related uncertainty is a key factor preventing ship owners from placing new orders, as the vessels with conventional propulsion systems may have a high environmental compliance cost and possible faster depreciation in asset values in the future. Some shipowners have decided to manage this risk by ordering LNG/methanol fueled ships to comply with stricter regulations that may be announced in future.

In June 2021, the IMO adopted amendments to the International Convention for the Prevention of Pollution from ships that will require vessels to reduce their greenhouse gas emissions. These amendments are a combination of technical and operational measures and came into force on November 1, 2022, with the requirements for EEXI and CII certification, effective January 1, 2023. These will be monitored by the flag administration and corrective actions will be required in the event of constant non-compliance. A review clause requires the IMO to review the effectiveness of the implementation of the CII and EEXI requirements, by January 1, 2026, at the latest. EEXI is a technical measure and would apply to ships above 400 GT. It indicates the energy efficiency of the ship compared to a baseline and is based on a required reduction factor (expressed as a percentage relative to the Energy Efficiency Design Index (“EEDI”) baseline).

On the other hand, CII is an operational measure which specifies carbon intensity reduction requirements for vessels with 5,000 GT and above. The CII determines the annual reduction factor needed to ensure continuous improvement of the ship’s operational carbon intensity within a specific rating level. The operational carbon intensity rating would be given on a scale of A, B, C, D, or E indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level, respectively. The performance level would be recorded in the ship’s Ship Energy Efficiency Management Plan (“SEEMP”). A ship rated D for three consecutive years or E would have to submit a corrective action plan to show how the required index (C or above) would be achieved. To reduce carbon intensity, shipowners can switch from oil to alternative fuels such as LNG or methanol. Some marine fuels such as ammonia and hydrogen have zero-carbon content. In the long term, ammonia may emerge as a cost-effective alternative fuel, but in the short term, it seems unviable. Other options to improve energy efficiency include propeller upgrading/polishing, hull cleaning/coating and retrofitting vessels with the wind-assisted propulsion systems. Reducing ship speeds also helps in complying with the regulations as it lowers fuel consumption, and it is easy to implement.

In addition to the IMO regulation, the EU has proposed a set of proposals including the EU Emissions Trading System (“EU ETS”) and FuelEU Maritime Initiative. Shipping emissions will be phased into the EU ETS gradually, starting in 2024, resulting in obligations to surrender allowances covering 40% of in-scope emissions in 2024, 75% in 2025 and 100% in 2026. The EU ETS will include 100% of emissions from voyages and port calls within the EU and 50% of emissions from voyages between an EU port and a non-EU country. In addition, Methane (CH₄) and Nitrous oxide (N₂O) will be included from 2026. The EU ETS provides rules regarding GHG intensity with respect to energy used on-board all ships arriving in the EU. It aims to reduce GHG emission 26% by 2040 and 75% by 2050 compared to 2020. It also requires ships to use an on-shore power supply or zero-emission technology in ports in the EU. All shipowners trading in European waters will need to comply with these regulations.

Ships will be required to undertake a combination of initiatives in order to comply with the upcoming environmental regulations. These may range from switching to low/zero carbon alternative fuels, paying carbon taxes, retrofitting energy-saving devices, propulsion improvement devices as well as voyage optimization techniques. The emission control regulations are likely to slow the speed of the vessels in the next few years. Consequently, this will lead to a reduction in the supply of ships and therefore, in the short- to medium-term, will benefit shipowners with younger fleets as charter rates should potentially increase with lower supply of ships.

Besides the IMO regulations, the decarbonization of shipping is being propelled by various state and non-state stakeholders of the shipping industry. In recent years, there have been several developments such as the Sea Cargo Charter, Poseidon Principles for ship finance banks and Poseidon Principles for Marine Insurance. In addition, there have been several industry led initiatives to facilitate movement towards low/zero-carbon shipping such as Getting to Zero Coalition, The Castor Initiative for Ammonia, the Global Centre for Maritime Decarbonization, and the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping.

Alternative Fuels for Shipping

The IMO has a target to reduce GHG emissions by 50% in 2050. This can’t be achieved with low sulfur fuel and so has encouraged innovation in alternative fuels. The IMO has also been planning other technical and operational measures in order to meet emission targets. Alternative fuels like LPG and methanol are mainly used on vessels carrying these as cargo while LNG is used as a fuel in LNG vessels and also in other vessels. Hydrogen and ammonia are in the initial stages of development as a marine fuel. LNG is expected to remain a preferred alternative fuel in the near to medium term due to its availability. However, LNG is still a fossil fuel and is unable to meet the IMO 2050 decarbonization target. Another drawback is that LNG propulsion requires an LNG capable engine which would require additional capex and increased fuel storage space. Biofuel is another potential alternative fuel because it requires no major engine modification, and therefore, no significant additional capex is required.

Energy Transition

Traditionally, fossil fuel-based energy sources such as oil, natural gas and coal have propelled the global economy, but their share has been declining over the past few years from 86.9% in 2011 to 82.3% in 2021 with the share of oil declining from about 33% in 2011 to 31% in 2021. However, the energy transition from fossil fuel-based energy to renewable sources of energy is currently underway which has received a boost from the accelerated sales of electric vehicles (“EVs”). As the cost of EVs becomes competitive against internal combustion engine vehicles, and charging infrastructure is developed across the world, sales of EVs are expected to gain momentum, reducing the demand for gasoline and diesel in the long run. Increasing focus on decarbonization will impact global oil demand going forward but the demand for naphtha and jet fuel is likely to remain robust and will be a key driver of global trade in crude and refined petroleum products.

The Product Tanker Freight Market

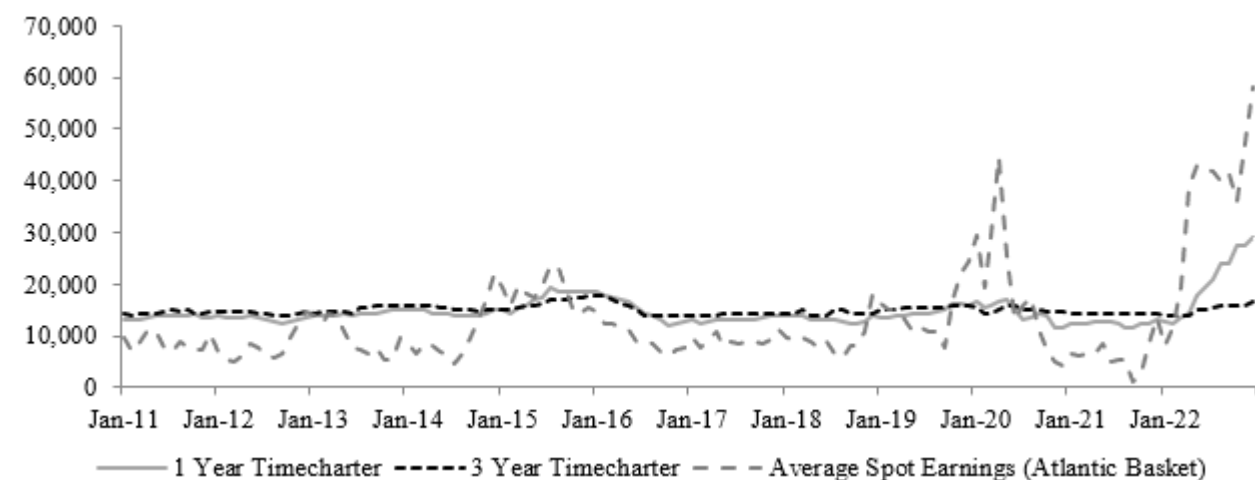
Following a period of strong TCE rates in 2015 as a result of longer voyage distances due to additional refining capacity in Asia the surge in newbuild deliveries in 2016 had a negative impact on vessel earnings, with average freight rates in the spot and one-year time charter markets falling to \$9,767 per day and \$15,125 per day, respectively. Another round of newbuilding deliveries in 2017 had an adverse effect on supply-demand dynamics, and freight rates for product tankers declined further. In 2017, average one-year time charter rate for MR tankers was \$13,188 per day, while on spot TCE basis, the average rate during 2017 was \$9,158 per day. The product tanker market remained weak in 1H 2018 and started to recover in 2H 2018 as the supply demand dynamics improved on the back of high demolitions in 2017-18, resulting in a small increase in spot TCE rates, which averaged \$9,299 per day.

In 2019, freight rates remained strong, with the average spot TCE rate and one-year time charter rate increasing to \$14,592 per day and \$14,667 per day, respectively. The surge in product tanker charter rates in 2019 was primarily driven by a spike in diesel trade before IMO 2020 regulations came into effect on January 1, 2020. Additionally, the trickle-down effect of the tight crude tanker market after U.S. sanctions on Cosco Shipping Tanker (Dalian) Co. pushed product tanker freight rates to multi-year highs towards the end of 2019 as several LR2 vessels moved into crude trade, thus reducing clean product capacity in the short term.

In 2020 the tanker market underwent an unprecedented turbulence due to the outbreak of COVID-19. The sudden demand destruction due to lockdown measures and limited availability of onshore storage led to a surge in demand for tankers for floating storage of crude oil and refined products. Accordingly, spot TCE rates of oil tankers rallied across vessel classes in March and April 2020; for instance, average spot TCE rates for MR tankers increased 131% from \$19,289 per day in February 2020 to \$44,618 per day in April 2020. However, reduced crude oil production and refinery runs since May 2020 and gradual recovery in demand led to a continuous decline in vessel earnings in the latter half of the year as several vessels locked-in for floating storage re-joined the trading fleet. As a result, in 2020 spot TCE rates and one-year time charter rates for MR tankers averaged \$18,551 per day and \$14,879 per day, respectively. In 2021, freight rates declined on account of inventory de-stocking and more vessels joining the trading fleet from floating storage.

Freight rates surged in 2022 as short-haul trade between Europe and Russia was replaced by long-haul trade between Europe and the Middle East/U.S. following the Russia-Ukraine crisis. The trend in MR spot and time charter rates from January 2011 to December 2022 is shown in the chart below.

MR Product Tanker Freight Rates
(U.S.\$ Per Day)



Source: Drewry

It should be noted that these rates are based on standard five-year old MR vessels, and there is some evidence that modern fuel-efficient vessels with ‘Eco’ specifications are commanding an additional premium of up to 10% over freight rates realized by these vessels.

Asset values

Product tanker asset values have also fluctuated over time, and there is a relationship between changes in asset values and the charter market. Newbuilding prices increased significantly between 2003 and early 2008, primarily as a result of increased tanker demand and rising freight rates. Current newbuilding prices are significantly below the peaks reported at the height of the market in 2007.

The second-hand sale and purchase market has traditionally been relatively liquid, with tankers changing hands between owners on a regular basis. Second-hand prices peaked over the summer of 2008 and have since followed a similar upward trajectory as both freight rates and newbuilding prices. Increased newbuild prices in 2021, despite weak vessel earnings, was fueled by the increased bargaining power of shipyards that have emerged as price setters with yards flushed with excess ordering, albeit from other shipping sectors. The uptrend in newbuild tanker prices coupled with higher demolition prices pushed up second-hand vessel prices in 2022. An upswing in vessel values in the second half of 2022 was a result of muted fleet expansion and higher freight rates. Newbuilding prices also increased in 2022 due to the higher cost of raw materials and limited shipyard slots. In December 2022, a five-year old MR product tanker was estimated to be valued at \$39.0 million. The trends in newbuilding prices, second-hand values, and freight rates for an MR tanker from 2012 to 2022 are summarized in the table below.

MR Product Tankers: Freight Rate and Asset Value Summary

Period Averages	Spot TCE	Time charter (U.S.\$/day)		Asset Prices (U.S.\$million)	
	(U.S.\$/day)	1 Year	3 Year	Newbuild	5 Year Old
2012	8,000	13,325	14,500	33.2	25.2
2013	9,550	14,346	15,161	33.8	26.2
2014	9,833	14,438	15,417	36.9	27.1
2015	18,375	17,271	16,458	36.1	25.8
2016	9,767	15,125	15,354	33.1	24.8
2017	9,158	13,188	14,333	32.7	23.4
2018	9,299	13,175	14,500	35.3	26.5
2019	14,592	14,667	15,500	36.0	28.8
2020	18,551	14,879	15,083	34.8	28.0
2021	6,398	12,442	14,500	37.3	27.8
2022	35,635	20,275	15,042	42.4	34.4
Dec-22	58,160	29,000	16,500	43.5	39.0
2018-2022					
5 Year Avg.	16,895	15,088	14,925	37.2	29.1
5 Year Low	1,088	11,800	13,750	34.0	25.0
5 Year High	58,160	29,000	16,500	43.5	39.0
2013-2022					
10 Year Avg.	14,116	14,980	15,135	35.8	27.3
10 Year Low	1,088	11,800	13,750	32.0	22.0
10 Year High	58,160	29,000	18,000	43.5	39.0

Source: Drewry, Note – Spot TCE and Time charter rates are for non-eco vessels, Spot rates are for Atlantic market only and will differ from reported earnings

The Chemical Tanker Industry

Introduction

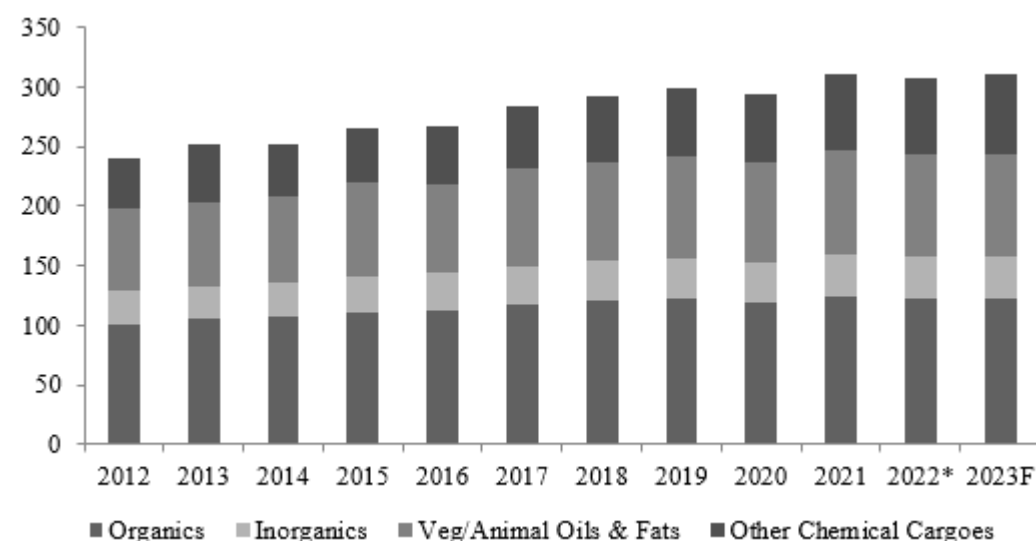
The global chemical industry is one of the largest and most diversified industries in the world, with more than 1,000 large and medium-sized companies manufacturing over 70,000 different product lines. Although most specialist chemicals are used locally, world trade is becoming an increasingly prominent part of the global chemical industry for a number of reasons. This ranges from local stock imbalances to a lack of local production of particular chemicals in various parts of the world. In broad terms, the growth of seaborne trade in bulk liquid chemicals has tracked trends in economic activity and globalization.

The seaborne transportation of chemicals is technically and logistically complex compared with the transportation of crude oil and oil products, with cargoes ranging from hazardous and noxious chemicals to products such as edible oils and fats. Consequently, the chemical tanker sector comprises a wide array of specially constructed small and medium sized tankers designed to carry chemical products in various stages of production.

Chemical Tanker Demand

The demand for chemicals is affected by, among other things, general economic conditions (including increases and decreases in industrial production and transportation), chemical prices, feedstock costs, and chemical production capacity. Since they are used in industries, chemical demand, and as a result the demand for seaborne transport, is well-correlated with global GDP. Given the geographical complexity and the diversity of cargoes involved in addition to the way in which some cargoes are transported, estimating the total seaborne trade in chemicals is difficult. Essentially, there are four main types of chemicals transported by sea: organic chemicals, inorganic chemicals, vegetable oils and fats and other commodities such as molasses.

Seaborne Chemical Trades
(Million Tons)



* Provisional estimates

Source: Drewry

Saudi Arabia and the U.S. are two key exporters of organic chemicals, accounting for approximately 25% of all exports, while China accounts for about 40% of the total organic chemical imports. South Korea and India are also important players in the trade of organic chemicals and together account for nearly 16% of all exports. The four organic chemicals most frequently traded by sea are methanol, styrene, benzene, and paraxylene. Organic chemicals represent around 40% to 45% of global seaborne trade of chemicals whereas inorganic chemical trade accounts for around 10-15% of total seaborne movements. They are not traded as widely as organic chemicals as they present several transport problems – not only are they very dense, but they are also highly corrosive. Vegetable/Animal Oils & Fats is another key component of the seaborne chemical trade and accounts for nearly 30% of the total trade of chemicals. Palm oil accounts for about half of the Vegetable/Animal Oils & Fats trade, followed by soybean oil and sunflower seed oil.

From a regional perspective, activity is focused on three main geographical areas. Europe is a mature, established producing region, contributing over one quarter of total chemical production. Much of Europe’s production serves domestic requirements. This manifests itself in increased demand for short-sea services rather than deep-sea trades. North American (predominantly the U.S.) manufacturers produce about one-fifth of the major chemical products in the world. Although most U.S. production is for domestic use, particularly where gasoline additives are involved, the country also produces above domestic requirements, which results in significant export volumes.

In the U.S., the chemicals industry will be affected by the development of shale gas. Increased supplies of natural gas in the U.S. have already served to push down domestic gas prices, and the fall in natural gas prices has had a beneficial impact on feedstock costs for the petrochemical industry. In particular, the cost of ethane has fallen significantly since 2011, thereby increasing the competitiveness of the U.S. petrochemical industry within a global perspective. Accordingly, U.S. ethylene production costs have fallen to levels where the U.S. can now compete with Middle Eastern suppliers, which opens up new opportunities to expand U.S. ethylene cracking capacity, and subsequently, petrochemical capacity. Ethylene cracker utilization in the U.S. has improved, and before the fall in oil prices in late 2014, plans had been announced for a number of new petrochemical plants.

Ethylene is a precursor for many organic chemicals shipped by sea (e.g., ethylene dichloride, ethylene glycol), so increased production will lead to increased availability of downstream chemical products for export from the U.S. Although the Middle East will continue to be the largest supplier of organic chemicals, the U.S. will be a major exporter of methanol and ethylene derivatives to the Far East market.

Chemical Tanker Supply

Chemical tankers are characterized mainly by cargo containment systems, which are technically more sophisticated than those found in conventional oil and product tankers. Since chemical tankers are often required to carry many products, which are typically hazardous and easily contaminated, cargo segregation and containment is an essential feature of these tankers.

Chemicals can only be carried in a tanker which has a current IMO Certificate of Fitness (“CoF”). The IMO regulates the carriage of chemicals by sea under the auspices of the International Bulk Chemical Code (“IBC”), which classifies potentially dangerous cargoes into three categories, typically referred to as IMO 1, IMO 2, and IMO 3. Specific IMO conventions govern the requirements for particular tanks to be classified as each grading, with the pertinent features of each tank being the internal volume and its proximity to the sides and bottom of the vessel’s hull.

The carriage of 18 cargoes is restricted to IMO 1 classified vessels, while most cargoes require IMO 2 vessels, including vegetable oils and palm oils. One concession to the IBC Code regulations is an allowance that IMO 3 tankers might carry other edible oils – an exemption introduced due to the tendency for such cargoes to be shipped in large bulk parcels. This often requires ships of up to MR size. Despite this exemption, these vessels are not ‘true’ chemical tankers in the general sense of the word as they are not able to carry IMO 2 cargoes.

As well as defining the chemical tanker fleet in terms of IMO type, it is also possible to further define the fleet according to the degree of tank segregation, tank size and tank coating as detailed below.

- **Chemical parcel tankers:** Over 75% of the tanks are segregated with an average tank size less than 3,000 cbm, all of which are stainless steel. A typical chemical parcel tanker might be IMO 2 with a capacity of 20,000 dwt and have 20 fully segregated tanks which are of stainless steel.
- **Chemical bulk tankers:** Vessels with a lower level of tank segregations (below 75%), with an average tank size below 3,000 cbm, and with coated tanks. A typical chemical bulk tanker might be 17,000 dwt with 16 coated tanks, but could also be IMO 2 with 8 segregations.

Given the above, a broad definition of a chemical tanker is any vessel with a current IMO CoF with coated and/or stainless-steel tanks and an average tank size of less than 3,000 cbm.

Overall, within the product and chemical tanker fleets, it is important to recognize that there are a group of ‘swing’ ships which can trade in either products or in chemicals, vegetable oils, and fats. For example, a product tanker with IMO 2 certification might trade from time to time in easy chemicals such as caustic soda. Equally, an IMO 2 chemical tanker can, in theory, carry products. The sector in which these ‘swing’ ships trade will depend on a number of factors, with the main influences being the exact technical specifications of the ship, the last cargo carried, the state of the freight market in each sector, and the operating policy of the ship owner/operator.

As of December 31, 2022, the global IMO 2 coated and stainless-steel tanker fleet consisted of 1,830 vessels with a combined capacity of 40.9 million dwt. The orderbook consisted of 88 vessels with an aggregate capacity of 2.5 million dwt, or 6.1% of the existing fleet. In addition, chemical tankers are relatively complex vessel types to build, which increases the barriers to entry for shipyards, and the pool of yards that shipowners are willing to consider is small.

World Coated IMO 2 and Stainless Steel Tanker Fleet and Orderbook: December 31, 2022

Ship Type	Size (DWT)	Fleet		Orderbook			Orderbook Delivery Schedule (M Dwt)			
		Number	M Dwt	Number	M Dwt	% Fleet	2023	2024	2025	2026+
Coated IMO 2	10,000+	1020	22.8	38	1.4	6.1%	0.5	0.6	0.3	0.0
Stainless Steel	10,000+	810	18.1	50	1.1	6.1%	0.5	0.5	0.1	0.0
Total		1830	40.9	88	2.5	6.1%	1.0	1.1	0.4	0.0

Source: Drewry

The Chemical Tanker Freight Market

Nearly 40% to 60% of all chemical movements are covered by Contract of Affreightment (“COAs”), while the spot market covers 35% to 40% of chemical movements. The remainder is made up of other charter arrangements and cargoes moved in the vessels controlled by exporters or importers. However, the COA-spot ratio varies depending on the vessel sizes, shipowners’/operators’ chartering strategy, and other factors. In the chemical tanker freight market, the level of reporting of fixture information is far less widespread than for the oil tanker market. Furthermore, it is not always possible to establish a monthly series of rates for an individual cargo, on a given route, because fixing is often sporadic, or more often than not covered by contract business. For these reasons, the assessment of spot freight rate trends in the freight market is made by using a small number of routes where there is sufficient fixture volume to produce meaningful measurements.

Following the global financial crisis in 2008-09, chemical tanker market TCE rates declined between 2008 and 2010. However, freight rates on most routes strengthened in 2011 followed by a decline in 2012. Freight rates continued to record small gains on the back of increased vessel demand in 2013 and 2014 due to improved seaborne chemical trade. TCE earnings of chemical tankers surged 33.7% in 2015 as many of these vessels switched to trade in a strong product tanker market limiting the supply, in addition to a growing seaborne trade of chemicals. However, TCE rates plunged 27.9% in 2016 as a result of a slowdown in demand growth and increased supply of vessels. TCE rates dropped a further 12.1% in 2017 on account of supply side pressure, due to a greater number of newbuilding deliveries and subdued demolitions in an already weak market. In 2018, freight rates declined by a further 2.4%, despite the strengthening of world seaborne trade, due to oversupply of vessels. However, TCE rates increased by 18.6% in 2019 on the back of growing trade and improved supply-demand dynamics. In 2020 global seaborne chemical trade fell 3.6%, due to weak demand on account of the COVID-19 pandemic; however, TCE rates increased by 4.6% as many vessels shifted to trade in the product tanker market which limited the availability of vessels operating in the chemical tanker market. The ongoing contraction in production and consumption of chemicals due to COVID-19 led to a slowdown in the shipping market for chemicals/vegetable oils in 2021. TCE rates increased in 2022 on account of strong chemical demand and tight vessel supply. Fleet trading in chemicals/vegetable oils contracted as ‘swing’ tankers increasingly switched to trade CPP due to higher earnings.

Chemical Tanker Asset Values

As in other shipping sectors, chemical tanker sale and purchase values also show a relationship with the charter market and newbuilding prices. Newbuilding prices are influenced by shipyard capacity and increased steel prices; second-hand vessel values may vary because of the country of construction and the level of outfitting of such vessels. Although there has been a relatively high level of activity in recent years, chemical vessels can be difficult to market to buyers due to the complexity of operations in the chemical market and they may not always achieve their initial newbuilding premium. Newbuilding price trends in the chemical tanker sector are more difficult to track than product tankers due to the lower volume of ordering and variation in specification. Newbuilding prices increased in 2022 due to high material costs, labor shortages, global inflationary pressures, and limited shipyards slots. Second-hand prices strengthened due to tight supply and high newbuilding prices. In 2022, prices were higher than the average prices over the past ten years for both newbuilding and secondhand vessels.

Chemical Tankers: Freight Rate and Asset Value Summary

Year	TCE	Newbuilding Price		Secondhand Price ⁽¹⁾	
	U.S.\$/Day	(U.S.\$million)	(U.S.\$million)	(U.S.\$million)	(U.S.\$million)
	35-37,000	22-24,000	35-37,000	22-24,000	35-37,000
2012	13,280	27.9	32.9	14.3	14.8
2013	13,864	28.6	33.6	14.5	14.1
2014	14,719	29.2	34.2	14.5	15.7
2015	19,675	27.8	32.8	13.8	17.0
2016	14,178	26.9	31.9	14.6	16.5
2017	12,462	26.0	31.0	13.4	14.6
2018	12,159	26.4	31.7	12.6	13.6
2019	14,424	29.0	34.0	12.5	14.2
2020	15,093	27.1	32.5	12.7	14.7
2021	12,264	27.6	35.5	12.9	14.8
2022*	22,400	30.6	40.6	15.1	19.3
2013-2022					
10 Year Avg	15,124	27.9	33.8	13.7	15.4
10 Year Low	12,159	26.0	31.0	12.5	13.6
10 Year High	22,400	30.6	40.6	15.1	19.3

* Provisional estimates

(1) For a 10-year old vessel

Note: The above values are for coated chemical tankers

Source: Drewry

COVID-19 Pandemic

COVID-19 initially resulted and may again result in a significant decline in global demand for refined oil products. As our business is the transportation of refined oil products on behalf of oil majors, oil traders and other customers, any significant decrease in demand for cargo we transport could adversely affect demand for our vessels and services.

Environmental and Other Regulations in the Shipping Industry

Government regulation and laws significantly affect the ownership and operation of our fleet. We are subject to international conventions and treaties, national, state and local laws and regulations in force in the countries in which our vessels may operate or are registered relating to safety and health and environmental protection including the storage, handling, emission, transportation and discharge of hazardous and non-hazardous materials, and the remediation of contamination and liability for damage to natural resources. Compliance with such laws, regulations and other requirements entails significant expense, including vessel modifications and implementation of certain operating procedures.

A variety of government and private entities subject our vessels to both scheduled and unscheduled inspections. These entities include the local port authorities (applicable national authorities such as the United States Coast Guard (“USCG”), harbor master or equivalent), classification societies, flag state administrations (countries of registry) and charterers, particularly terminal operators. Certain of these entities require us to obtain permits, licenses, certificates and other authorizations for the operation of our vessels. Failure to maintain necessary permits or approvals could require us to incur substantial costs or result in the temporary suspension of the operation of one or more of our vessels.

Increasing environmental concerns have created a demand for vessels that conform to stricter environmental standards. We are required to maintain operating standards for all of our vessels that emphasize operational safety, quality maintenance, continuous training of our officers and crews and compliance with United States and international regulations. We believe that the operation of our vessels is in substantial compliance with applicable environmental laws and regulations and that our vessels have all material permits, licenses, certificates or other authorizations necessary for the conduct of our operations. However, because such laws and regulations frequently change and may impose increasingly stricter requirements, we cannot predict the ultimate cost of complying with these requirements, or the impact of these requirements on the resale value or useful lives of our vessels. In addition, a future serious marine incident that causes significant adverse environmental impact could result in additional legislation or regulation that could negatively affect our profitability.

International Maritime Organization

The International Maritime Organization, the United Nations agency for maritime safety and the prevention of pollution by vessels (the “IMO”), has adopted the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, collectively referred to as MARPOL 73/78 and herein as “MARPOL,” the International Convention for the Safety of Life at Sea of 1974 (“SOLAS Convention”), and the International Convention on Load Lines of 1966 (the “LL Convention”). MARPOL establishes environmental standards relating to, among other things, oil leakage or spilling, garbage management, sewage, air emissions, handling and disposal of noxious liquids and the handling of harmful substances in packaged forms. IMO committees also have adopted resolutions relating to international certificates of fitness for the carriage of dangerous chemicals in bulk and providing for enhanced vessel inspection programs. MARPOL is applicable to drybulk, tanker and LNG carriers, among other vessels, and is broken into six Annexes, each of which regulates a different source of pollution. Annex I relates to oil leakage or spilling; Annexes II and III relate to harmful substances carried in bulk in liquid or in packaged form, respectively; Annexes IV and V relate to sewage and garbage management, respectively; and Annex VI, lastly, relates to air emissions. Annex VI was separately adopted by the IMO in September of 1997; new emissions standards, titled IMO-2020, took effect on January 1, 2020. We may need to make certain financial expenditures to continue to comply with these regulations. We believe that all our vessels are currently compliant in all material respects with these regulations.

Air Emissions

In September of 1997, the IMO adopted Annex VI to MARPOL to address air pollution from vessels. Effective May 2005, Annex VI sets limits on sulfur oxide and nitrogen oxide emissions from all commercial vessel exhausts and prohibits “deliberate emissions” of ozone depleting substances (such as halons and chlorofluorocarbons), emissions of volatile compounds from cargo tanks, and the shipboard incineration of specific substances. Annex VI also includes a global cap on the sulfur content of fuel oil and allows for special areas to be established with more stringent controls on sulfur emissions, as explained below. Emissions of “volatile organic compounds” from certain vessels, and the shipboard incineration (from incinerators installed after January 1, 2000) of certain substances (such as polychlorinated biphenyls, or “PCBs”) are also prohibited. We believe that all our vessels are currently compliant in all material respects with these regulations.

The Marine Environment Protection Committee, or “MEPC” adopted amendments to Annex VI regarding emissions of sulfur oxide, nitrogen oxide, particulate matter and ozone depleting substances, which entered into force on July 1, 2010. The amended Annex VI seeks to further reduce air pollution by, among other things, implementing a progressive reduction of the amount of sulfur contained in any fuel oil used on board ships. On October 27, 2016, at its 70th session, the MEPC agreed to implement a global 0.5% m/m sulfur oxide emissions limit (reduced from 3.50%) starting from January 1, 2020. This limitation can be met by using low-sulfur compliant fuel oil, alternative fuels, or certain exhaust gas cleaning systems. Ships are now required to obtain bunker delivery notes and International Air Pollution Prevention (“IAPP”) Certificates from their flag states that specify sulfur content. Additionally, at MEPC 73, amendments to Annex VI to prohibit the carriage of bunkers above 0.5% sulfur on ships, with the exception of vessels fitted with exhaust gas cleaning equipment (“scrubbers”) which can carry fuel of higher sulfur content, were adopted and took effect March 1, 2020. In November 2020, MEPC 75 adopted amendments to Annex VI which, among other things, added new paragraphs related to in-use and onboard fuel oil sampling and testing. These paragraphs would require one or more sampling points to be fitted or designated for the purpose of taking representative samples of the fuel oil being used or carried for use on board the ship. These amendments have entered into force on April 1, 2022. These regulations subject ocean-going vessels to stringent emissions controls and may cause us to incur substantial costs.

Sulfur content standards are even stricter within certain “Emission Control Areas,” or (“ECAs”). As of January 1, 2015, ships operating within an ECA were not permitted to use fuel with sulfur content in excess of 0.1% m/m. Amended Annex VI establishes procedures for designating new ECAs.

Currently, the IMO has designated four ECAs, including specified portions of the Baltic Sea area, North Sea area, North American area and United States Caribbean area. Ocean-going vessels in these areas will be subject to stringent emission controls and may cause us to incur additional costs. Other areas in China are subject to local regulations that impose stricter emission controls. In December 2021, the member states of the Convention for the Protection of the Mediterranean Sea Against Pollution (“Barcelona Convention”) agreed to support the designation of a new ECA in the Mediterranean. The group plans to submit a formal proposal to the IMO by the end of 2022 with the goal of having the ECA implemented by 2025. If other ECAs are approved by the IMO, or other new or more stringent requirements relating to emissions from marine diesel engines or port operations by vessels are adopted by the U.S. Environmental Protection Agency (“EPA”) or the states where we operate, compliance with these regulations could entail significant capital expenditures or otherwise increase the costs of our operations.

Amended Annex VI also establishes new tiers of stringent nitrogen oxide emissions standards for marine diesel engines, depending on their date of installation. At the MEPC meeting held from March to April 2014, amendments to Annex VI were adopted which address the date on which Tier III Nitrogen Oxide (NOx) standards in ECAs will go into effect. Under the amendments, Tier III NOx standards apply to ships that operate in the North American and U.S. Caribbean Sea ECAs designed for the control of NOx produced by vessels with a marine diesel engine installed and constructed on or after January 1, 2016. Tier III requirements could apply to areas that will be designated for Tier III NOx in the future. At MEPC 70 and MEPC 71, the MEPC approved the North Sea and Baltic Sea as ECAs for nitrogen oxide for ships built on or after January 1, 2021. The EPA promulgated equivalent (and in some senses stricter) emissions standards in 2010. As a result of these designations or similar future designations, we may be required to incur additional operating or other costs.

As determined at the MEPC 70, the new Regulation 22A of MARPOL Annex VI became effective as of March 1, 2018 and requires ships above 5,000 gross tonnage to collect and report annual data on fuel oil consumption to an IMO database, with the first year of data collection having commenced on January 1, 2019. The IMO intends to use such data as the first step in its roadmap (through 2023) for developing its strategy to reduce greenhouse gas emissions from ships, as discussed further below.

As of January 1, 2013, MARPOL made mandatory certain measures relating to energy efficiency for ships. All ships are now required to develop and implement Ship Energy Efficiency Management Plans (“SEEMP”), and new ships must be designed in compliance with minimum energy efficiency levels per capacity mile as defined by the Energy Efficiency Design Index (“EEDI”). Under these measures, by 2025, all new ships built will be 30% more energy efficient than those built in 2014.

Notably, MEPC 75 adopted amendments to MARPOL Annex VI which brought forward the effective date of the EEDI's "phase 3" requirements from January 1, 2025 to April 1, 2022 for several ship types, including gas carriers, general cargo ships, and LNG carriers.

Additionally, MEPC 75 introduced draft amendments to Annex VI which imposed new regulations to reduce greenhouse gas emissions from ships. These amendments introduced requirements to assess and measure the energy efficiency of all ships and set the required attainment values, with the goal of reducing the carbon intensity of international shipping. The requirements include (1) a technical requirement to reduce carbon intensity based on a new Energy Efficiency Existing Ship Index ("EEXI"), and (2) operational carbon intensity reduction requirements, based on a new operational carbon intensity indicator ("CII"). The attained EEXI is required to be calculated for ships of 400 gross tonnage and above, in accordance with different values set for ship types and categories. With respect to the CII, the draft amendments would require ships of 5,000 gross tonnage to document and verify their actual annual operational CII achieved against a determined required annual operational CII. Additionally, MEPC 75 proposed draft amendments requiring that, on or before January 1, 2023, all ships above 400 gross tonnage must have an approved SEEMP on board. For ships above 5,000 gross tonnage, the SEEMP would need to include certain mandatory content. MEPC 75 also approved draft amendments to MARPOL Annex I to prohibit the use and carriage for use as fuel of heavy fuel oil ("HFO") by ships in Arctic waters on and after July 1, 2024. The draft amendments introduced at MEPC 75 were adopted at the MEPC 76 session on June 2021 and entered into force in November 2022, with the requirements for EEXI and CII certification coming into effect from January 1, 2023. MEPC 77 adopted a non-binding resolution which urges Member States and ship operators to voluntarily use distillate or other cleaner alternative fuels or methods of propulsion that are safe for ships and could contribute to the reduction of Black Carbon emissions from ships when operating in or near the Arctic. We may incur costs to comply with these revised standards. Additional or new conventions, laws and regulations may be adopted that could require the installation of expensive emission control systems and could adversely affect our business, results of operations, cash flows and financial condition.

Safety Management System Requirements

The SOLAS Convention was amended to address the safe manning of vessels and emergency training drills. The Convention of Limitation of Liability for Maritime Claims (the "LLMC") sets limitations of liability for a loss of life or personal injury claim or a property claim against ship owners. We believe that our vessels are in full compliance with SOLAS and LLMC standards.

Under Chapter IX of the SOLAS Convention, or the International Safety Management Code for the Safe Operation of Ships and for Pollution Prevention (the "ISM Code"), our operations are also subject to environmental standards and requirements. The ISM Code requires the party with operational control of a vessel to develop an extensive safety management system that includes, among other things, the adoption of a safety and environmental protection policy setting forth instructions and procedures for operating its vessels safely and describing procedures for responding to emergencies. We rely upon the safety management system that we and our technical management team have developed for compliance with the ISM Code. The failure of a vessel owner or bareboat charterer to comply with the ISM Code may subject such party to increased liability, may decrease available insurance coverage for the affected vessels and may result in a denial of access to, or detention in, certain ports.

The ISM Code requires that vessel operators obtain a safety management certificate for each vessel they operate. This certificate evidences compliance by a vessel's management with the ISM Code requirements for a safety management system. No vessel can obtain a safety management certificate unless its manager has been awarded a document of compliance, issued by each flag state, under the ISM Code. We have obtained applicable documents of compliance for our offices and safety management certificates for all of our vessels for which the certificates are required by the IMO. The document of compliance and safety management certificates are renewed as required.

Regulation II-1/3-10 of the SOLAS Convention governs ship construction and stipulates that ships over 150 meters in length must have adequate strength, integrity and stability to minimize risk of loss or pollution. Goal-based standards amendments in SOLAS regulation II-1/3-10 entered into force in 2012, with July 1, 2016 set for application to new oil tankers and bulk carriers.

The SOLAS Convention regulation II-1/3-10 on goal-based ship construction standards for bulk carriers and oil tankers, which entered into force on January 1, 2012, requires that all oil tankers and bulk carriers of 150 meters in length and above, for which the building contract is placed on or after July 1, 2016, satisfy applicable structural requirements conforming to the functional requirements of the International Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers ("GBS Standards").

Amendments to the SOLAS Convention Chapter VII apply to vessels transporting dangerous goods and require those vessels be in compliance with the International Maritime Dangerous Goods Code ("IMDG Code"). Effective January 1, 2018, the IMDG Code includes (1) updates to the provisions for radioactive material, reflecting the latest provisions from the International Atomic Energy Agency, (2) new marking, packing and classification requirements for dangerous goods and (3) new mandatory training requirements. Amendments which took effect on January 1, 2020 also reflect the latest material from the UN Recommendations on the Transport of Dangerous Goods, including (1) new provisions regarding IMO type 9 tanks, (2) new abbreviations for segregation groups, and (3) special provisions for carriage of lithium batteries and of vehicles powered by flammable liquid or gas. Additional amendments, which came into force on June 1, 2022, include (1) addition of a definition of dosage rate, (2) additions to the list of high consequence dangerous goods, (3) new provisions for medical/clinical waste, (4) addition of various ISO standards for gas cylinders, (5) a new handling code, and (6) changes to stowage and segregation provisions.

The IMO has also adopted the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers ("STCW"). As of February 2017, all seafarers are required to meet the STCW standards and be in possession of a valid STCW certificate. Flag states that have ratified SOLAS and STCW generally employ the classification societies, which have incorporated SOLAS and STCW requirements into their class rules, to undertake surveys to confirm compliance.

Furthermore, recent action by the IMO's Maritime Safety Committee and United States agencies indicates that cybersecurity regulations for the maritime industry are likely to be further developed in the near future in an attempt to combat cybersecurity threats. By IMO resolution, administrations are encouraged to ensure that cyber-risk management systems are incorporated by ship-owners and managers by their first annual Document of Compliance audit after January 1, 2021. In February 2021, the U.S. Coast Guard published guidance on addressing cyber risks in a vessel's safety management system. This might cause companies to create additional procedures for monitoring cybersecurity, which could require additional expenses and/or capital expenditures. The impact of future regulations is hard to predict at this time.

Pollution Control and Liability Requirements

The IMO has negotiated international conventions that impose liability for pollution in international waters and the territorial waters of the signatories to such conventions. For example, the IMO adopted an International Convention for the Control and Management of Ships' Ballast Water and Sediments (the "BWM Convention") in 2004. The BWM Convention entered into force on September 8, 2017. The BWM Convention requires ships to manage their ballast water to remove, render harmless or avoid the uptake or discharge of new or invasive aquatic organisms and pathogens within ballast water and sediments. The BWM Convention's implementing regulations call for a phased introduction of mandatory ballast water exchange requirements, to be replaced in time with mandatory concentration limits, and require all ships to carry a ballast water record book and an international ballast water management certificate.

On December 4, 2013, the IMO Assembly passed a resolution revising the application dates of the BWM Convention so that the dates are triggered by the entry into force date and not the dates originally in the BWM Convention. This, in effect, makes all vessels delivered before the entry into force date “existing vessels” and allows for the installation of ballast water management systems on such vessels at the first International Oil Pollution Prevention (“IOPP”) renewal survey following entry into force of the convention. The MEPC adopted updated guidelines for approval of ballast water management systems (G8) at MEPC 70. At MEPC 71, the schedule regarding the BWM Convention’s implementation dates was also discussed and amendments were introduced to extend the date existing vessels are subject to certain ballast water standards. Those changes were adopted at MEPC 72. Ships over 400 gross tons generally must comply with a “D-1 standard,” requiring the exchange of ballast water only in open seas and away from coastal waters. The “D-2 standard” specifies the maximum amount of viable organisms allowed to be discharged, and compliance dates vary depending on the IOPP renewal dates. Depending on the date of the IOPP renewal survey, existing vessels must comply with the D-2 standard on or after September 8, 2019. For most ships, compliance with the D-2 standard will involve installing on-board systems to treat ballast water and eliminate unwanted organisms. Ballast water management systems, which include systems that make use of chemical, biocides, organisms or biological mechanisms, or which alter the chemical or physical characteristics of the ballast water, must be approved in accordance with IMO Guidelines (Regulation D-3).

On October 13, 2019, MEPC 72’s amendments to the BWM Convention took effect making the Code for Approval of Ballast Water Management Systems, which governs assessment of ballast water management systems, mandatory rather than permissive, and formalized an implementation schedule for the D-2 standard. Under these amendments, all ships must meet the D-2 standard by September 8, 2024. Costs of compliance with these regulations may be substantial. Additionally, in November 2020, MEPC 75 adopted amendments to the BWM Convention which would require a commissioning test of the ballast water management system for the initial survey or when performing an additional survey for retrofits. This analysis will not apply to ships that already have an installed BWM system certified under the BWM Convention. These amendments have entered into force on June 1, 2022.

Once mid-ocean ballast water exchange or ballast water treatment requirements become mandatory under the BWM Convention, the cost of compliance could increase for ocean carriers and may have a material effect on our operations. However, many countries already regulate the discharge of ballast water carried by vessels from country to country to prevent the introduction of invasive and harmful species via such discharges. The U.S., for example, requires vessels entering its waters from another country to conduct mid-ocean ballast exchange, or undertake some alternate measure, and to comply with certain reporting requirements.

The IMO adopted the International Convention on Civil Liability for Oil Pollution Damage of 1969, as amended by different Protocols in 1976, 1984 and 1992, and amended in 2000 (“the CLC”). Under the CLC and depending on whether the country in which the damage results is a party to the 1992 Protocol to the CLC, a vessel’s registered owner may be strictly liable for pollution damage caused in the territorial waters of a contracting state by discharge of persistent oil, subject to certain exceptions. The 1992 Protocol changed certain limits on liability expressed using the International Monetary Fund currency unit, the Special Drawing Rights. The limits on liability have since been amended so that the compensation limits on liability were raised. The right to limit liability is forfeited under the CLC where the spill is caused by the shipowner’s actual fault and under the 1992 Protocol where the spill is caused by the shipowner’s intentional or reckless act or omission where the shipowner knew pollution damage would probably result. The CLC requires ships over 2,000 tons covered by it to maintain insurance covering the liability of the owner in a sum equivalent to an owner’s liability for a single incident. We have protection and indemnity insurance for environmental incidents. P&I Clubs in the International Group issue the required Bunkers Convention “Blue Cards” to enable signatory states to issue certificates. All of our vessels are in possession of a CLC State issued certificate attesting that the required insurance coverage is in force.

The IMO also adopted the International Convention on Civil Liability for Bunker Oil Pollution Damage (the “Bunker Convention”) to impose strict liability on ship owners (including the registered owner, bareboat charterer, manager or operator) for pollution damage in jurisdictional waters of ratifying states caused by discharges of bunker fuel. The Bunker Convention requires registered owners of ships over 1,000 gross tons to maintain insurance for pollution damage in an amount equal to the limits of liability under the applicable national or international limitation regime (but not exceeding the amount calculated in accordance with the LLMC). With respect to non-ratifying states, liability for spills or releases of oil carried as fuel in ship’s bunkers typically is determined by the national or other domestic laws in the jurisdiction where the events or damages occur.

Ships are required to maintain a certificate attesting that they maintain adequate insurance to cover an incident. In jurisdictions, such as the United States where the CLC or the Bunker Convention has not been adopted, various legislative regulatory regimes or common law govern, and liability is imposed either on the basis of fault or on a strict-liability basis.

Anti-Fouling Requirements

In 2001, the IMO adopted the International Convention on the Control of Harmful Anti-fouling Systems on Ships, or the “Anti-fouling Convention.” The Anti-fouling Convention, which entered into force on September 17, 2008, prohibits the use of organotin compound coatings to prevent the attachment of mollusks and other sea life to the hulls of vessels. Vessels of over 400 gross tons engaged in international voyages will also be required to undergo an initial survey before the vessel is put into service or before an International Anti-fouling System Certificate is issued for the first time; and subsequent surveys when the anti-fouling systems are altered or replaced. Vessels of 24 meters in length or more but less than 400 gross tons engaged in international voyages will have to carry a Declaration on Anti-fouling Systems signed by the owner or authorized agent. In November 2020, MEPC 75 approved draft amendments to the Anti-fouling Convention to prohibit anti-fouling systems containing cybutryne, which would apply to ships from January 1, 2023, or, for ships already bearing such an anti-fouling system, at the next scheduled renewal of the system after that date, but no later than 60 months following the last application to the ship of such a system. In addition, the IAFS Certificate has been updated to address compliance options for anti-fouling systems to address cybutryne. Ships which are affected by this ban on cybutryne must receive an updated IAFS Certificate no later than two years after the entry into force of these amendments. Ships which are not affected (i.e. with anti-fouling systems which do not contain cybutryne) must receive an updated IAFS Certificate at the next Anti-fouling application to the vessel. These amendments were formally adopted at MEPC 76 in June 2021.

Compliance Enforcement

Noncompliance with the ISM Code or other IMO regulations may subject the ship owner or bareboat charterer to increased liability, may lead to decreases in available insurance coverage for affected vessels and may result in the denial of access to, or detention in, some ports. The USCG and European Union authorities have indicated that vessels not in compliance with the ISM Code by applicable deadlines will be prohibited from trading in U.S. and European Union ports, respectively. As of the date of this Annual Report, each of our vessels is ISM Code certified. However, there can be no assurance that such certificates will be maintained in the future. The IMO continues to review and introduce new regulations. It is impossible to predict what additional regulations, if any, may be passed by the IMO and what effect, if any, such regulations might have on our operations.

The U.S. Oil Pollution Act of 1990 and the Comprehensive Environmental Response, Compensation and Liability Act

The U.S. Oil Pollution Act of 1990 (“OPA”) established an extensive regulatory and liability regime for the protection and cleanup of the environment from oil spills. OPA affects all “owners and operators” whose vessels trade or operate within the U.S., its territories and possessions or whose vessels operate in U.S. waters, which includes the U.S.’s territorial sea and its 200 nautical mile exclusive economic zone around the U.S. The U.S. has also enacted the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), which applies to the discharge of hazardous substances other than oil, except in limited circumstances, whether on land or at sea. OPA and CERCLA both define “owner and operator” in the case of a vessel as any person owning, operating or chartering by demise, the vessel. Both OPA and CERCLA impact our operations.

Under OPA, vessel owners and operators are “responsible parties” and are jointly, severally and strictly liable (unless the spill results solely from the act or omission of a third party, an act of God or an act of war) for all containment and clean-up costs and other damages arising from discharges or threatened discharges of oil from their vessels, including bunkers (fuel). OPA defines these other damages broadly to include:

- (1) injury to, destruction or loss of, or loss of use of, natural resources and related assessment costs;
- (2) injury to, or economic losses resulting from, the destruction of real and personal property;
- (3) loss of subsistence use of natural resources that are injured, destroyed or lost;
- (4) net loss of taxes, royalties, rents, fees or net profit revenues resulting from injury, destruction or loss of real or personal property, or natural resources;
- (5) lost profits or impairment of earning capacity due to injury, destruction or loss of real or personal property or natural resources; and
- (6) net cost of increased or additional public services necessitated by removal activities following a discharge of oil, such as protection from fire, safety or health hazards, and loss of subsistence use of natural resources.

OPA contains statutory caps on liability and damages; such caps do not apply to direct cleanup costs. Effective November 12, 2019, the USCG adjusted the limits of OPA liability for a tank vessel, other than a single-hull tank vessel, over 3,000 gross tons liability to the greater of \$2,300 per gross ton or \$19,943,400 (subject to periodic adjustment for inflation). These limits of liability do not apply if an incident was proximately caused by the violation of an applicable U.S. federal safety, construction or operating regulation by a responsible party (or its agent, employee or a person acting pursuant to a contractual relationship) or a responsible party’s gross negligence or willful misconduct. The limitation on liability similarly does not apply if the responsible party fails or refuses to (i) report the incident as required by law where the responsible party knows or has reason to know of the incident; (ii) reasonably cooperate and assist as requested in connection with oil removal activities; or (iii) without sufficient cause, comply with an order issued under the Federal Water Pollution Act (Section 311 (c), (e)) or the Intervention on the High Seas Act.

CERCLA contains a similar liability regime whereby owners and operators of vessels are liable for cleanup, removal and remedial costs, as well as damages for injury to, or destruction or loss of, natural resources, including the reasonable costs associated with assessing the same, and health assessments or health effects studies. There is no liability if the discharge of a hazardous substance results solely from the act or omission of a third party, an act of God or an act of war. Liability under CERCLA is limited to the greater of \$300 per gross ton or \$5.0 million for vessels carrying a hazardous substance as cargo and the greater of \$300 per gross ton or \$500,000 for any other vessel.

These limits do not apply (rendering the responsible person liable for the total cost of response and damages) if the release or threat of release of a hazardous substance resulted from willful misconduct or negligence, or the primary cause of the release was a violation of applicable safety, construction or operating standards or regulations. The limitation on liability also does not apply if the responsible person fails or refused to provide all reasonable cooperation and assistance as requested in connection with response activities where the vessel is subject to OPA.

OPA and CERCLA each preserve the right to recover damages under existing law, including maritime tort law. OPA and CERCLA both require owners and operators of vessels to establish and maintain with the USCG evidence of financial responsibility sufficient to meet the maximum amount of liability to which the particular responsible person may be subject. Vessel owners and operators may satisfy their financial responsibility obligations by providing a proof of insurance, a surety bond, qualification as a self-insurer or a guarantee. We comply and plan to comply going forward with the USCG’s financial responsibility regulations by providing applicable certificates of financial responsibility.

The 2010 *Deepwater Horizon* oil spill in the Gulf of Mexico resulted in additional regulatory initiatives or statutes, including higher liability caps under OPA, new regulations regarding offshore oil and gas drilling and a pilot inspection program for offshore facilities. However, several of these initiatives and regulations have been or may be revised. For example, the U.S. Bureau of Safety and Environmental Enforcement’s (“BSEE”) revised Production Safety Systems Rule (“PSSR”), effective December 27, 2018, modified and relaxed certain environmental and safety protections under the 2016 PSSR. Additionally, the BSEE amended the Well Control Rule, effective July 15, 2019 which rolled back certain reforms regarding the safety of drilling operations, and former U.S. President Trump had proposed leasing new sections of U.S. waters to oil and gas companies for offshore drilling. In January 2021, U.S. President Biden signed an executive order temporarily blocking new leases for oil and gas drilling in federal waters. However, attorney generals from 13 states filed suit in March 2021 to lift the executive order, and in June 2021, a federal judge in Louisiana granted a preliminary injunction against the Biden administration, stating that the power to pause offshore oil and gas leases “lies solely with Congress.” With these rapid changes, compliance with any new requirements of OPA and future legislation or regulations applicable to the operation of our vessels could impact the cost of our operations and adversely affect our business.

OPA specifically permits individual states to impose their own liability regimes with regard to oil pollution incidents occurring within their boundaries, provided they accept, at a minimum, the levels of liability established under OPA and some states have enacted legislation providing for unlimited liability for oil spills. Many U.S. states that border a navigable waterway have enacted environmental pollution laws that impose strict liability on a person for removal costs and damages resulting from a discharge of oil or a release of a hazardous substance. These laws may be more stringent than U.S. federal law. Moreover, some states have enacted legislation providing for unlimited liability for discharge of pollutants within their waters, although in some cases, states which have enacted this type of legislation have not yet issued implementing regulations defining vessel owners’ responsibilities under these laws. We intend to comply with all applicable state regulations in the ports where our vessels call.

We currently maintain pollution liability coverage insurance in the amount of \$1 billion per incident for each of our vessels. If the damages from a catastrophic spill were to exceed our insurance coverage, it could have an adverse effect on our business and results of operation.

Other United States Environmental Initiatives

The U.S. Clean Air Act of 1970 (including its amendments of 1977 and 1990) (“CAA”) requires the EPA to promulgate standards applicable to emissions of volatile organic compounds and other air contaminants. Our vessels are subject to vapor control and recovery requirements for certain cargoes when loading, unloading, ballasting, cleaning and conducting other operations in regulated port areas. The CAA also requires states to draft State Implementation Plans, or SIPs, designed to attain national health-based air quality standards in each state. Although state-specific, SIPs may include regulations concerning emissions resulting from vessel loading and unloading operations by requiring the installation of vapor control equipment. Our vessels operating in such regulated port areas with restricted cargoes are equipped with vapor return lines that satisfy these existing requirements.

The U.S. Clean Water Act (“CWA”) prohibits the discharge of oil, hazardous substances and ballast water in U.S. navigable waters unless authorized by a duly issued permit or exemption and imposes strict liability in the form of penalties for any unauthorized discharges. The CWA also imposes substantial liability for the costs of removal, remediation and damages and complements the remedies available under OPA and CERCLA. The scope of what constitutes U.S. waters for purposes of the regulations is subject to ongoing regulatory and judicial refinement.

The EPA and the USCG have also enacted rules relating to ballast water discharge, compliance with which requires the installation of equipment on our vessels to treat ballast water before it is discharged or the implementation of other port facility disposal arrangements or procedures at potentially substantial costs, and/or otherwise restrict our vessels from entering U.S. Waters. The EPA will regulate these ballast water discharges and other discharges incidental to the normal operation of certain vessels within United States waters pursuant to the Vessel Incidental Discharge Act (“VIDA”), which was signed into law on December 4, 2018 and replaced the 2013 Vessel General Permit (“VGP”) program (which authorizes discharges incidental to operations of commercial vessels and contains numeric ballast water discharge limits for most vessels to reduce the risk of invasive species in U.S. waters, stringent requirements for exhaust gas scrubbers, and requirements for the use of environmentally acceptable lubricants) and current Coast Guard ballast water management regulations adopted under the U.S. National Invasive Species Act (“NISA”), such as mid-ocean ballast exchange programs and installation of approved USCG technology for all vessels equipped with ballast water tanks bound for U.S. ports or entering U.S. waters. VIDA establishes a new framework for the regulation of vessel incidental discharges under the U.S. Clean Water Act (“CWA”), requires the EPA to develop performance standards for those discharges within two years of enactment, and requires the U.S. Coast Guard to develop implementation, compliance and enforcement regulations within two years of EPA’s promulgation of standards. Under VIDA, all provisions of the 2013 VGP and USCG regulations regarding ballast water treatment remain in force and effect until the EPA and U.S. Coast Guard regulations are finalized. Non-military, non-recreational vessels greater than 79 feet in length must continue to comply with the requirements of the VGP, including submission of a Notice of Intent (“NOI”) or retention of a PARI form and submission of annual reports. We have submitted NOIs for our vessels where required. Compliance with the EPA, U.S. Coast Guard and state regulations could require the installation of ballast water treatment equipment on our vessels or the implementation of other port facility disposal procedures at potentially substantial cost or may otherwise restrict our vessels from entering U.S. waters.

European Union Regulations

In October 2009, the European Union amended a directive to impose criminal sanctions for illicit ship-source discharges of polluting substances, including minor discharges, if committed with intent, recklessly or with serious negligence and the discharges individually or in the aggregate result in deterioration of the quality of water. Aiding and abetting the discharge of a polluting substance may also lead to criminal penalties. The directive applies to all types of vessels, irrespective of their flag, but certain exceptions apply to warships or where human safety or that of the ship is in danger. Criminal liability for pollution may result in substantial penalties or fines and increased civil liability claims. Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 (amending EU Directive 2009/16/EC) governs the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and, subject to some exclusions, requires companies with ships over 5,000 gross tonnage to monitor and report carbon dioxide emissions annually, which may cause us to incur additional expenses.

The European Union has adopted several regulations and directives requiring, among other things, more frequent inspections of high-risk ships, as determined by type, age and flag as well as the number of times the ship has been detained. The European Union also adopted and extended a ban on substandard ships and enacted a minimum ban period and a definitive ban for repeated offenses. The regulation also provided the European Union with greater authority and control over classification societies, by imposing more requirements on classification societies and providing for fines or penalty payments for organizations that failed to comply.

Furthermore, the EU has implemented regulations requiring vessels to use reduced sulfur content fuel for their main and auxiliary engines. The EU Directive 2005/33/EC (amending Directive 1999/32/EC) introduced requirements parallel to those in Annex VI relating to the sulfur content of marine fuels. In addition, the EU imposed a 0.1% maximum sulfur requirement for fuel used by ships at berth in the Baltic, the North Sea and the English Channel (the so called “SOx-Emission Control Area”). As of January 2020, EU member states must also ensure that ships in all EU waters, except the SOx-Emission Control Area, use fuels with a 0.5% maximum sulfur content.

On September 15, 2020, the European Parliament voted to include greenhouse gas emissions from the maritime sector in the European Union’s carbon market. On July 14, 2021, the European Parliament formally proposed its plan, which would involve gradually including the maritime sector from 2023 and phasing the sector in over a three-year period.

This will require shipowners to buy permits to cover these emissions. The Environment Council adopted a general approach on the proposal in June 2022. The European Parliament is negotiating the final EU legislation.

International Labor Organization

The International Labor Organization (the “ILO”) is a specialized agency of the UN that has adopted the Maritime Labor Convention 2006 (“MLC 2006”). A Maritime Labor Certificate and a Declaration of Maritime Labor Compliance is required to ensure compliance with the MLC 2006 for all ships that are 500 gross tonnage or over and are either engaged in international voyages or flying the flag of a Member and operating from a port, or between ports, in another country. We believe that all our vessels are in substantial compliance with and are certified to meet MLC 2006.

Greenhouse Gas Regulation

Currently, the emissions of greenhouse gases from international shipping are not subject to the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which became effective in 2005 and pursuant to which adopting countries have been required to implement national programs to reduce greenhouse gas emissions with targets extended through 2020. International negotiations are continuing with respect to a successor to the Kyoto Protocol, and restrictions on shipping emissions may be included in any new treaty. In December 2009, more than 27 nations, including the U.S. and China, signed the Copenhagen Accord, which includes a non-binding commitment to reduce greenhouse gas emissions. The 2015 United Nations Climate Change Conference in Paris resulted in the Paris Agreement, which became effective on November 4, 2016 and does not directly limit greenhouse gas emissions from ships. The U.S. initially entered into the agreement, but on June 1, 2017, former U.S. President Trump announced that the United States intends to withdraw from the Paris Agreement and the withdrawal became effective on November 4, 2020. On January 20, 2021, U.S. President Biden signed an executive order to rejoin the Paris Agreement, which the U.S. officially rejoined on February 19, 2021.

At MEPC 70 and MEPC 71, a draft outline of the structure of the initial strategy for developing a comprehensive IMO strategy on reduction of greenhouse gas emissions from ships was approved. In accordance with this roadmap, in April 2018, nations at the MEPC 72 adopted an initial strategy to reduce greenhouse gas emissions from ships. The initial strategy identifies “levels of ambition” to reducing greenhouse gas emissions, including (1) decreasing the carbon intensity from ships through implementation of further phases of the EEDI for new ships; (2) reducing carbon dioxide emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008 emission levels; and (3) reducing the total annual greenhouse emissions by at least 50% by 2050 compared to 2008 while pursuing efforts towards phasing them out entirely. The initial strategy notes that technological innovation, alternative fuels and/or energy sources for international shipping will be integral to achieve the overall ambition. These regulations could cause us to incur additional substantial expenses. At MEPC 77, the Member States agreed to initiate the revision of the Initial IMO Strategy on Reduction of GHG emissions from ships, recognizing the need to strengthen the ambition during the revision process. A final draft Revised IMO GHG Strategy would be considered by MEPC 80 (scheduled to meet in spring 2023), with a view to adoption.

The EU made a unilateral commitment to reduce overall greenhouse gas emissions from its member states from 20% of 1990 levels by 2020. The EU also committed to reduce its emissions by 20% under the Kyoto Protocol’s second period from 2013 to 2020.

Starting in January 2018, large ships over 5,000 gross tonnage calling at EU ports are required to collect and publish data on carbon dioxide emissions and other information. As previously discussed, regulations relating to the inclusion of greenhouse gas emissions from the maritime sector in the European Union’s carbon market are also forthcoming.

In the United States, the EPA issued a finding that greenhouse gases endanger the public health and safety, adopted regulations to limit greenhouse gas emissions from certain mobile sources and proposed regulations to limit greenhouse gas emissions from large stationary sources. However, in March 2017, former U.S. President Trump signed an executive order to review and possibly eliminate the EPA’s plan to cut greenhouse gas emissions, and in August 2019 the Administration announced plans to weaken regulations for methane emissions.

On August 13, 2020, the EPA released rules rolling back standards to control methane and volatile organic compound emissions from new oil and gas facilities. However, U.S. President Biden recently directed the EPA to publish a proposed rule suspending, revising, or rescinding certain of these rules. On November 2, 2021, the EPA issued a proposed rule under the CAA designed to reduce methane emissions from oil and gas sources. The proposed rule would reduce 41 million tons of methane emissions between 2023 and 2035 and cut methane emissions in the oil and gas sector by approximately 74 percent compared to emissions from this sector in 2005. The EPA issued a supplemental proposed rule in November 2022 to include additional methane reduction measures following public input and anticipates issuing a final rule in 2023. If these new regulations are finalized, they could affect our operations.

Any passage of climate control legislation or other regulatory initiatives by the IMO, the EU, the U.S. or other countries where we operate, or any treaty adopted at the international level to succeed the Kyoto Protocol or Paris Agreement, that restricts emissions of greenhouse gases could require us to make significant financial expenditures which we cannot predict with certainty at this time. Even in the absence of climate control legislation, our business may be indirectly affected to the extent that climate change may result in sea level changes or certain weather events.

Vessel Security Regulations

Since the terrorist attacks of September 11, 2001 in the United States, there have been a variety of initiatives intended to enhance vessel security such as the U.S. Maritime Transportation Security Act of 2002 (“MTSA”). To implement certain portions of the MTSA, the USCG issued regulations requiring the implementation of certain security requirements aboard vessels operating in waters subject to the jurisdiction of the United States and at certain ports and facilities, some of which are regulated by the EPA.

Similarly, Chapter XI-2 of the SOLAS Convention imposes detailed security obligations on vessels and port authorities and mandates compliance with the International Ship and Port Facility Security Code (“the ISPS Code”). The ISPS Code is designed to enhance the security of ports and ships against terrorism. To trade internationally, a vessel must attain an International Ship Security Certificate (“ISSC”) from a recognized security organization approved by the vessel’s flag state. Ships operating without a valid certificate may be detained, expelled from, or refused entry at port until they obtain an ISSC. The various requirements, some of which are found in the SOLAS Convention, include, for example, on-board installation of automatic identification systems to provide a means for the automatic transmission of safety-related information from among similarly equipped ships and shore stations, including information on a ship’s identity, position, course, speed and navigational status; on-board installation of ship security alert systems, which do not sound on the vessel but only alert the authorities on shore; the development of vessel security plans; ship identification number to be permanently marked on a vessel’s hull; a continuous synopsis record kept onboard showing a vessel’s history including the name of the ship, the state whose flag the ship is entitled to fly, the date on which the ship was registered with that state, the ship’s identification number, the port at which the ship is registered and the name of the registered owner(s) and their registered address; and compliance with flag state security certification requirements.

The USCG regulations, intended to align with international maritime security standards, exempt non-U.S. vessels from MTSA vessel security measures, provided such vessels have on board a valid ISSC that attests to the vessel’s compliance with the SOLAS Convention security requirements and the ISPS Code. Future security measures could have a significant financial impact on us. We intend to comply with the various security measures addressed by MTSA, the SOLAS Convention and the ISPS Code.

The cost of vessel security measures has also been affected by the escalation in the frequency of acts of piracy against ships, notably off the coast of West Africa and Somalia, including the Gulf of Aden and Arabian Sea area. Substantial loss of revenue and other costs may be incurred as a result of detention of a vessel or additional security measures, and the risk of uninsured losses could significantly affect our business. Costs are incurred in taking additional security measures in accordance with Best Management Practices to Deter Piracy, notably those contained in the BMP WAF and BMP5 industry standard.

Inspection by Classification Societies

The hull and machinery of every commercial vessel must be classed by a classification society authorized by its country of registry. The classification society certifies that a vessel is safe and seaworthy in accordance with the applicable rules and regulations of the country of registry of the vessel and SOLAS. Most insurance underwriters make it a condition for insurance coverage and lending that a vessel be certified “in class” by a classification society which is a member of the International Association of Classification Societies, the IACS. The IACS has adopted harmonized Common Structural Rules, or the Rules, which apply to oil tankers and bulk carriers contracted for construction on or after July 1, 2015. The Rules attempt to create a level of consistency between IACS Societies. All of our vessels are certified as being “in class” by all the applicable Classification Societies (e.g., American Bureau of Shipping, Lloyd’s Register of Shipping, and DNV-GL).

A vessel must undergo annual surveys, intermediate surveys, drydockings and special surveys. In lieu of a special survey, a vessel’s machinery may be on a continuous survey cycle, under which the machinery would be surveyed periodically over a five-year period. Every vessel is required to be physically drydocked by its fifth and tenth anniversary to coincide with its first and second special surveys, respectively, and every 30 to 36 months thereafter, for inspection of the underwater parts of the vessel. Provided the vessel has an in-water-survey notation, in-water-surveys can take place at the 2.5 to 3 years & 7.5 to 8 years anniversary of the vessel in lieu of a physical drydocking.

If any vessel does not maintain its class and/or fails any annual survey, intermediate survey, drydocking or special survey, the vessel will be unable to carry cargo between ports and will be unemployable and uninsurable which could cause us to be in violation of certain covenants in our loan agreements. Any such inability to carry cargo or be employed, or any such violation of covenants, could have a material adverse impact on our financial condition and results of operations.

Risk of Loss and Liability Insurance

General

The operation of any cargo vessel includes risks such as mechanical failure, physical damage, collision, property loss, cargo loss or damage and business interruption due to political circumstances in foreign countries, piracy incidents, hostilities and labor strikes. In addition, there is always an inherent possibility of marine disaster, including oil spills and other environmental mishaps, and the liabilities arising from owning and operating vessels in international trade. For example, OPA, which imposes virtually unlimited liability upon shipowners, operators and bareboat charterers of any vessel trading in the exclusive economic zone of the United States for certain oil pollution accidents in the United States, has made liability insurance more expensive for shipowners and operators trading in the United States market. We carry insurance coverage as customary in the shipping industry. However, not all risks can be insured, specific claims may be rejected, and we might not be always able to obtain adequate insurance coverage at reasonable rates.

Hull and Machinery Insurance

We procure hull and machinery insurance, protection and indemnity insurance, which includes environmental damage and pollution insurance and war risk insurance and freight, demurrage and defense insurance for our fleet. We generally do not maintain insurance against loss of hire (except for certain charters for which we consider it appropriate), which covers business interruptions that result in the loss of use of a vessel.

Protection and Indemnity Insurance

Protection and indemnity insurance is provided by mutual protection and indemnity associations, or “P&I Associations”, and covers our third-party liabilities in connection with our shipping activities. This includes third-party liability and other related expenses of injury or death of crew, passengers and other third parties, loss or damage to cargo, claims arising from collisions with other vessels, damage to other third-party property, pollution arising from oil or other substances and salvage, towing and other related costs, including wreck removal. Protection and indemnity insurance is a form of mutual indemnity insurance, extended by protection and indemnity mutual associations, or “clubs.”

Our current protection and indemnity insurance coverage for pollution is \$1 billion per vessel per incident. The 13 P&I Associations that comprise the International Group insure approximately 90% of the world’s commercial tonnage and have entered into a pooling agreement to reinsure each association’s liabilities. The International Group’s website states that the pool provides a mechanism for sharing all claims in excess of \$10 million up to, currently, approximately \$3.1 billion. As a member of a P&I Association, which is a member of the International Group, we are subject to calls payable to the associations based on our claim records as well as the claim records of all other members of the individual associations and members of the shipping pool of P&I Associations comprising the International Group.

Exchange Controls

Under Marshall Islands law, there are currently no restrictions on the export or import of capital, including foreign exchange controls or restrictions that affect the remittance of dividends, interest or other payments to non-resident holders of our common shares.

C. Organizational Structure

Please see Item 4.A (“Information on the Company — History and Development of the Company”) in this Annual Report for information about our organizational structure. We have 79 wholly owned subsidiaries. In addition we have one 50%-owned joint venture entity, one 33.33%-owned joint venture entity and one 10% equity stake in another entity. A list of our subsidiaries is included as Exhibit 8.1 to this Annual Report.

D. Property, Plant and Equipment

Other than our vessels, a description of which is included in Item 4.B “Business Overview — Fleet List” of this Annual Report, we own no material property. We have entered into a lease with a third party for our office space in Cork, Ireland. The lease commenced in March 2016 and is for a period of 15 years, with an option to terminate the lease after ten years. We have entered into leases with third parties for our offices in Singapore and Houston, Texas. Average aggregate payments under these leases are approximately \$0.3 million per annum.

As of March 15, 2023, 21 of our 22 owned vessels are subject to mortgages relating to our credit facilities or are subject to finance leases under which we are the lessee.

Item 4.A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The following discussion and analysis should be read in conjunction with our consolidated financial statements, accompanying notes thereto and other financial information, appearing elsewhere in this Annual Report. The consolidated financial statements as of and for the years ended December 31, 2022, 2021 and 2020, have been prepared in accordance with U.S. GAAP. The consolidated financial statements are presented in U.S. dollars unless otherwise indicated.

Please see Item 5 (“Operating and Financial Review and Prospects”) in our Annual Report on Form 20-F for the year ended December 31, 2021 for a discussion of our results of operations for the year ended December 31, 2020.

General

We are Ardmore Shipping Corporation, a company incorporated in the Republic of the Marshall Islands. We provide seaborne transportation of petroleum products and chemicals worldwide to oil majors, national oil companies, oil and chemical traders, and chemical companies, with our modern, fuel-efficient fleet of mid-size product and chemical tankers.

We are commercially independent as we have no blanket employment arrangements with third-party or related-party commercial managers. We market our services directly to our broad range of customers and commercial pool operators.

Our Charters

We generate revenue by charging customers for the transportation of their petroleum or chemical products using our vessels. Historically, these services generally have been provided under the following basic types of contractual arrangements:

- *Spot Charter.* We arrange spot employment for our vessels in-house. We are responsible for all costs associated with operating the vessel, including vessel operating expenses and voyage expenses.
- *Time Charter.* Vessels we operate, and for which we are responsible for crewing and for paying other vessel operating expenses (such as repairs and maintenance, insurance, stores, lube oils, communication expenses) and technical management fees, are chartered to customers for a fixed period of time at rates that are generally fixed, but may contain a variable component based on inflation, interest rates, or current market rates.
- *Commercial Pooling Arrangements.* Our vessels are pooled together with a group of other similar vessels for economies of scale and the earnings are pooled and distributed to the vessel owners according to a prearranged agreement.

The table below illustrates the primary distinctions among these types of charters and contracts.

	<u>Time Charter</u>	<u>Commercial Pool</u>	<u>Spot Charter</u>
Typical contract length	1 – 5 years	Indefinite	Single voyage
Hire rate basis ⁽¹⁾	Daily	Varies (daily rate reported)	Varies
Voyage expenses ⁽²⁾	Charterer pays	Pool pays	We pay
Vessel operating expenses ⁽³⁾	We pay	We pay	We pay
Off-hire ⁽⁴⁾	We pay	We pay	We pay

- (1) “Hire rate” refers to the basic payment from the charterer for the use of the vessel.
- (2) “Voyage expenses” are all expenses related to a particular voyage, which include, among other things, bunkers and port/canal costs.
- (3) “Vessel operating expenses” are costs of operating a vessel that are incurred during a charter, including costs of crewing, repairs and maintenance, insurance, stores, lube oils, communication expenses, and technical management fees.
- (4) “Off-hire” refers to the time a vessel is not available for service, due primarily to scheduled and unscheduled repairs or drydocking.

Recent Developments

Debt Financing

In June and July 2022, we finalized terms for three new sustainability-linked loan facilities for \$308.5 million in the aggregate.

The first facility is a \$185.5 million sustainability-linked revolving credit facility with Nordea and SEB, the proceeds of which we used to refinance 12 vessels, including six vessels previously financed under lease arrangements.

The second facility is a \$108 million sustainability-linked term loan with ABN AMRO and CACIB, the proceeds of which we used to refinance seven vessels, including three vessels previously financed under lease arrangements. Both of these facilities are priced at Adjusted SOFR (LIBOR equivalent) plus a margin of 2.25% and mature in 2027. The new facilities replaced the prior loans with the respective banks that were priced at LIBOR plus a margin of 2.4% and which were scheduled to mature in December 2025.

The third facility is a \$15 million sustainability-linked receivables facility with ABN AMRO, which is scheduled to mature in 2025, subject to extension options. This facility replaced our prior receivables facility and is scheduled to mature in July 2023 and is priced in line with the expiring facility.

These refinancings were completed, along with the drawdown of all tranches during October 2022.

The covenants and other conditions of the three new facilities are consistent with those of our previous debt facilities. In addition, all three new facilities contain a pricing adjustment feature linked to our performance on carbon emission reduction and other environmental and social initiatives. The facilities' targets for carbon emission reduction align with the IMO's targets for greenhouse gas emissions reduction. The facilities reflect our current strong performance on Environmental Social Governance ("ESG") initiatives, including (a) carbon emission levels which are significantly below the targets set out under the Poseidon Principles, (a global framework for responsible ship finance to help incentivize decarbonization in the shipping industry) and (b) our having a very diverse workforce and being actively involved in the education and development of future seafarers. The pricing structure in the new facilities is expected to reward us for maintaining our carbon emission reduction trajectory and overall performance on ESG.

Equity Financing

We issued 4.8 million shares of our common stock, raising \$38.9 million in net proceeds under our "at-the-market" offering from May to September 2022, which proceeds we used for general corporate purposes, including debt reduction.

New Dividend Policy and Dividend Relating to Fourth Quarter of 2022

In November 2022, our Board of Directors approved the initiation of a quarterly cash dividend as a component of our longstanding Capital Allocation Policy, under which we expect to pay a variable quarterly cash dividend on our shares of common stock equivalent in the aggregate to one-third of the prior quarter's Adjusted Earnings (which is a non-GAAP measure that represents our earnings per share for the quarter reported under U.S. GAAP adjusted for gain or loss on sale of vessels, write-off of deferred finance fees, and solely for the purposes of dividend calculations, the impact of unrealized gains / (losses) and certain non-recurring items). Consistent with this new policy, our board of directors declared a cash dividend of \$0.45 per common share which was paid on March 15, 2023, to all holders of record on February 28, 2023 of our common stock, relating to our results for the fourth quarter of 2022.

Vessel Sale and Time-charter Back

On June 2, July 14 and July 29, 2022, we completed the sales of the *Ardmore Sealeader*, *Ardmore Sealifter* and the *Ardmore Sealancer* to Leonhardt & Blumberg. All three vessels were subsequently time-chartered back by us for a period of 24 months at attractive hire rates, plus one-year extension options.

Board of Director Changes

In November 2022, Brian Dunne resigned from our board of directors and as Chair of the Audit Committee for personal reasons. In November 2022, director Helen Tveitan de Jong, who has served on the Audit Committee since September 2018, was appointed Chair of the committee and director Mats Berglund was appointed as a member of the committee, with director Curtis Mc Williams continuing as a member of the committee.

In January 2023, our board of directors appointed James Fok to the board, to fill the vacancy created by Mr. Dunne's resignation and to serve as a Class III director. He was also appointed to the Nominating and Corporate Governance Committee and replaced Mr. Berglund on the Audit Committee. Please see Item 6 ("Directors, Senior Management and Employees") of this Annual Report for biographical information about Mr. Fok.

New CFO

Effective September 28, 2022, Bart Kelleher became our new Chief Financial Officer, after the departure of Paul Tivnan. Please see Item 6 ("Directors, Senior Management and Employees") of this Annual Report for biographical information about Mr. Kelleher.

Conflict in Ukraine

Russia's invasion of Ukraine in February 2022 and the subsequent conflict has disrupted supply chains and caused instability and significant volatility in the global economy. Much uncertainty remains regarding the global impact of the conflict in Ukraine, and it is possible that such instability, uncertainty and resulting volatility could significantly increase our costs and adversely affect our business, including our ability to secure charters and financing on attractive terms. The ongoing conflict has contributed significantly to related increases in spot tanker rates.

As a result of Russia's invasion of Ukraine, the United States, several European Union nations, the United Kingdom and other countries have announced unprecedented sanctions and other measures against Russia, Belarus and certain Russian and Belarussian entities and nationals.

The sanctions imposed by the U.S. and other countries against Russia and, in some instances, Belarus include, among others, restrictions on selling or importing goods, services or technology in or from affected regions, travel bans and asset freezes impacting connected individuals and political, military, business and financial organizations in Russia, severing large Russian banks from U.S. and/or other financial systems, and barring some Russian enterprises from raising money in the U.S. market. The U.S. also banned the import of certain Russian energy products into the U.S., including crude oil, petroleum, petroleum fuels, oils, liquefied natural gas and coal.

The U.S., EU nations and other countries could impose wider sanctions and take other actions. While it is difficult to anticipate the impact the sanctions imposed to date may have on our business and us, these and any further sanctions imposed or actions taken by the U.S., EU nations or other countries, and any retaliatory measures by Russia in response, could lead to increased volatility in global oil demand which, could have a material impact on our business, results of operations and financial condition. In addition, it is possible that third parties with which we do business may be impacted by events in Russia and Ukraine, which could adversely affect us.

Pandemic

In response to the COVID-19 pandemic, many countries, ports and organizations, including those where we conduct a large part of our operations, implemented measures to combat the outbreak, such as quarantines and travel restrictions. Such measures caused severe trade disruptions. In addition, the pandemic initially resulted and potentially could again result in a significant decline in global demand for refined oil products. As our business is the transportation of refined oil products on behalf of oil majors, oil traders and other customers, any significant decrease in demand for the cargo we transport has and could continue to adversely affect demand for our vessels and services. The extent to which the pandemic may impact our results of operations and financial condition, including possible impairments, will depend on future developments, which are uncertain and cannot be predicted, including, among others, the impact of the end of China's Zero Covid policy and of the development of variants of the COVID virus, new information which may emerge concerning the virus and of its variants and the level of the effectiveness and administration of vaccines and other actions to further contain or treat its impact.

A. Operating Results

Important Financial and Operational Terms and Concepts

We use a variety of financial and operational terms and concepts. These include the following:

Revenue. Revenue is generated from spot charter arrangements, time charter arrangements and pool arrangements. Revenue is affected by hire rates and the number of days a vessel operates.

Revenue is also affected by the mix of business among spot charter arrangements, time charter arrangements and pool arrangements. Revenue from vessels employed in the spot market or in pool arrangements are more volatile, as they are typically tied to prevailing market rates.

Voyage Expenses. Voyage expenses are all expenses related to a particular voyage, which include, among other things, bunkers and port/canal costs. These expenses are subtracted from revenue to calculate TCE rates (as defined below).

Vessel Operating Expenses. We are responsible for vessel operating expenses, which include crew, repairs and maintenance and insurance costs, and fees paid to technical managers of our vessels. The largest components of our vessel operating expenses are generally crews and repairs and maintenance. Expenses for repairs and maintenance tend to fluctuate from period to period because most repairs and maintenance typically occur during periodic drydockings. We expect these expenses to increase as our fleet matures and to the extent that it expands.

Drydocking. We must periodically drydock each of our vessels for inspection, and any modifications to comply with industry certification or governmental requirements. Generally, each vessel is drydocked every 30 to 60 months. The deferred expenditures of drydockings for a given vessel are amortized on a straight-line basis to the next scheduled drydocking of the vessel.

Depreciation. Depreciation expense typically consists of charges related to the depreciation of the historical cost of our fleet (less an estimated residual value) over the estimated useful lives of the vessels and charges relating to the depreciation of upgrades to vessels, which are depreciated over the shorter of the vessel's remaining useful life or the life of the renewal or upgrade. We depreciate our vessels over an estimated useful life of 25 years from the vessel's initial delivery from the shipyard, on a straight-line basis to their residual scrap value. For the year ended December 31, 2022, depreciation is based on cost less the estimated residual scrap value of \$300 per lightweight ton ("lwt").

Effective January 1, 2023, we increased the estimated scrap value of the vessels from \$300 per lwt to \$400 per lwt prospectively based on the 15-year average scrap value of steel. The change in the estimated scrap value will result in a decrease in depreciation expense over the remaining life of the vessel assets. We expect depreciation to decrease by approximately \$1.3 million during 2023 as a result of the prospective change in the scrap value.

Amortization of Deferred Drydock Expenditures. Amortization of deferred drydock expenditures relates to the amortization of drydocking expenditures over the estimated period to the next scheduled drydocking on a straight-line basis.

Time Charter Equivalent ("TCE") Rate. TCE rate, a non-GAAP measure, represents net revenue (revenue less voyage expenses) divided by revenue days. We principally use net revenue, a non-GAAP financial measure, because it provides more meaningful information to us about the deployment of our vessels and their performance than revenue, the most directly comparable financial measure under U.S. GAAP. Net revenue utilized to calculate TCE is determined on a discharge-to-discharge basis, which is different from how we record revenue under U.S. GAAP. Under discharge-to-discharge, revenue is recognized beginning from the discharge of cargo from the prior voyage to the anticipated discharge of cargo in the current voyage, and voyage expenses are recognized as incurred.

Revenue Days. Revenue days are the total number of calendar days our vessels were in our possession during a period, less the total number of off-hire days during the period generally associated with repairs or drydockings and idle days associated with repositioning of vessels held for sale.

Operating Days. Operating days are the number of days our vessels are in operation during the year. Where a vessel is under our ownership for a full year, operating days will generally equal calendar days. Days when a vessel is in drydock are included in the calculation of operating days, as we incur operating expenses while in drydock.

Pooling Arrangements. To increase vessel utilization and thereby revenue, we may participate in commercial pools with other ship owners of similar modern, well-maintained vessels. By operating a large number of vessels as an integrated transportation system, commercial pools offer customers greater flexibility while achieving scheduling efficiencies. Pools typically employ experienced commercial charterers and operators who have close working relationships with customers and brokers, while technical management is performed by each ship owner. Pools negotiate charters with customers primarily in the spot market. The size and scope of these pools enhance utilization rates for pool vessels by securing backhaul voyages and contracts of affreightment, which may generate higher effective TCE revenue than otherwise might be obtainable in the spot market, while providing a higher level of service offerings to customers. We did not participate in commercial pools for the years ended December 31, 2022, 2021 and 2020.

Factors You Should Consider When Evaluating Our Results

We face a number of risks associated with our business and industry and must overcome a variety of challenges to utilize our strengths and implement our business strategy. These risks include, among others: the highly cyclical tanker industry; our dependence on spot charters; fluctuating charter values; changing economic, political and governmental conditions affecting our industry and business, including changes in energy prices; the ongoing energy transition; material changes in applicable laws and regulations, including climate-change regulations; level of performance by counterparties, particularly charterers; acquisitions and dispositions; increased operating expenses; capital expenditures; taxes; maintaining customer relationships; maintaining sufficient liquidity; financing availability and terms; and management turnover.

Ship-owners base economic decisions regarding the deployment of their vessels upon actual and anticipated TCE rates, and industry analysts typically measure rates in terms of TCE rates. This is because under time charters the customer typically pays the voyage expenses, while under voyage charters, also known as spot market charters, the shipowner usually pays the voyage expenses. Accordingly, the discussion of revenue below focuses on TCE rates where applicable.

Fleet Growth

As of March 15, 2023, our owned fleet consists of 22 double-hulled product and chemical tankers all of which are in operation. We acquired 11 of our vessels as second-hand vessels, all of which were upgraded to increase efficiency and improve performance; we sold a total of three such Eco-mod vessels during 2019 and one vessel in 2020 which was delivered in 2021.

In 2017, 2018, 2019, 2020, 2021 and 2022 we paid \$0.4 million, \$16.8 million (\$1.6 million of which was paid as a deposit in 2017), \$2.6 million, \$18.7 million, \$2.5 million, and \$1.3 million, respectively, for vessel acquisitions, vessel equipment and newbuilding orders.

As of December 31, 2010, our operating fleet consisted of four vessels. From 2011 through 2018, our fleet grew on a net basis by 24 vessels. During 2018, one Eco-mod vessel was classified as held for sale, which was delivered to the buyer in January 2019. In each of February and May 2019, we sold one Eco-mod vessel. In August 2020, we took delivery of one Eco-mod vessel. During 2020, one Eco-mod vessel was classified as held for sale, which was delivered to the buyer in January 2021. During 2022, we sold the *Ardmore Sealeader*, *Ardmore Sealifter*, and *Ardmore Sealancer* and subsequently chartered-in all three vessels for a period of 24 months.

Operating Results

The table below presents our operating results for the years ended December 31, 2022 and 2021 and includes related disclosure about year-to-year changes.

Consolidated Statements of Operations for the Years Ended December 31, 2022 and December 31, 2021

In thousands of U.S. Dollars	Year Ended December 31,		Variance	Variance (%)
	2022	2021		
Revenue, net	\$ 445,741	192,484	253,257	132%
Voyage expenses	(153,729)	(88,578)	(65,151)	(74%)
Vessel operating expenses	(60,020)	(60,834)	814	1%
Time charter-in				
Operating expense component	(7,809)	(3,609)	(4,200)	(116%)
Vessel lease expense component	(7,185)	(3,321)	(3,864)	(116%)
Depreciation	(29,276)	(31,702)	2,426	8%
Amortization of deferred drydock expenditures	(4,161)	(5,169)	1,008	20%
General and administrative expenses				
Corporate	(19,936)	(16,071)	(3,865)	(24%)
Commercial and chartering	(4,171)	(3,125)	(1,046)	(33%)
Loss on vessels sold	(6,917)	—	(6,917)	(100%)
Unrealized gains on derivatives	2,961	276	2,685	(973%)
Interest expense and finance costs	(15,537)	(16,202)	665	4%
Loss on extinguishment	(1,576)	(569)	(1,007)	(177%)
Interest income	471	55	416	756%
Income / (Loss) before taxes	138,856	(36,365)	175,221	482%
Income tax	(207)	(150)	(57)	(38%)
Loss from equity method investments	(195)	(317)	122	38%
Net Income / (Loss)	\$ 138,454	(36,832)	175,286	476%
Preferred dividend	(3,400)	(1,254)	(2,146)	(171%)
Net Income / (Loss) attributable to common stockholders	135,054	(38,086)	173,140	455%

Revenue, net. Revenue, net for the year ended December 31, 2022 was \$445.7 million, an increase of \$253.3 million from \$192.5 million for the year ended December 31, 2021.

Our average number of operating vessels increased to 27.0 for the year ended December 31, 2022, from 26.6 for the year ended December 31, 2021.

We had no product tankers employed under long-term time charters (i.e. greater than three months duration) as of December 31, 2022 compared with four as of December 31, 2021.

Revenue days derived from time charters were 499 for the year ended December 31, 2022, as compared to 1,560 for the year ended December 31, 2021. The decrease in revenue days for long term time-chartered vessels resulted in a decrease in revenue of \$14.2 million.

We had 9,238 spot revenue days for the year ended December 31, 2022, as compared to 7,953 for the year ended December 31, 2021. We had 27 and 23 vessels employed directly in the spot market as of December 31, 2022 and 2021, respectively. We consider employment under voyage charters, trip charters and time charters of less than three months duration as being employed in the spot market. Changes in spot rates resulted in an increase of revenue of \$240.0 million, while the increase in spot revenue days resulted in an increase in revenue of \$27.5 million.

For vessels employed directly in the spot market, we typically pay all voyage expenses, and revenue is recognized on a gross freight basis, while under time chartering and pool arrangements, the charterer typically pays voyage expenses and revenue is recognized on a net basis.

Voyage Expenses. Voyage expenses were \$153.7 million for the year ended December 31, 2022, an increase of \$65.2 million from \$88.6 million for the year ended December 31, 2021. Voyage expenses increased primarily due to an increase in bunker prices and spot days, resulting in an increase of \$53.2 million. Port and commission costs also increased by \$12.0 million for the year ended December 31, 2022, as compared to the year ended December 31, 2021.

TCE Rate. The average TCE rate for our fleet was \$30,618 per day for the year ended December 31, 2022, an increase of \$19,402 per day from \$11,216 per day for the year ended December 31, 2021. The increase in average TCE rate was the result of higher spot rates for the year ended December 31, 2022 as compared to the year ended December 31, 2021.

Vessel Operating Expenses. Vessel operating expenses were \$60.0 million for the year ended December 31, 2022, a decrease of \$0.8 million from \$60.8 million for the year ended December 31, 2021. Vessel operating expenses, by their nature, are prone to fluctuations between periods. Average fleet operating expenses per day, including technical management fees, were \$6,823 for the year ended December 31, 2022, as compared to \$6,426 for the year ended December 31, 2021. This increase was as a result of higher costs due to additional crew changes, as well as an overall increase in costs due to inflation, offset by lower operating days due to the sale of three vessels during the year ended December 31, 2022.

Charter Hire Costs. Total charter hire expenses were \$15.0 million for the year ended December 31, 2022, an increase of \$8.1 million from \$6.9 million for the year ended December 31, 2021. This increase is the result of our having chartered-in five vessels for the year ended December 31, 2022 compared to two vessels for the year ended December 31, 2021. Total charter hire expenses were comprised of an operating expense component of \$7.8 million and a vessel lease expense component of \$7.2 million.

Depreciation. Depreciation expense for the year ended December 31, 2022 was \$29.3 million, a decrease of \$2.4 million from \$31.7 million for the year ended December 31, 2021. This decrease was due to the sale of the *Ardmore Sealeader*, *Ardmore Sealifter* and *Ardmore Sealancer* during the year ended December 31, 2022.

Amortization of Deferred Drydock Expenditures. Amortization of deferred drydock expenditures for the year ended December 31, 2022 was \$4.2 million, a decrease of \$1.0 million from \$5.2 million for the year ended December 31, 2021. The deferred costs of drydockings for a given vessel are amortized on a straight-line basis to the next scheduled drydocking of the vessel.

General and Administrative Expenses: Corporate. Corporate-related general and administrative expenses for the year ended December 31, 2022 were \$19.9 million, an increase of \$3.8 million from \$16.1 million for the year ended December 31, 2021. The increase in corporate-related general and administrative expenses is primarily due to increases in variable-based compensation in line with strong results during the year ended December 31, 2022, compared to the year ended December 31, 2021.

General and Administrative Expenses: Commercial and Chartering. Commercial and chartering expenses are the expenses attributable to our chartering and commercial operations departments in connection with our spot trading activities. Commercial and chartering expenses for the year ended December 31, 2022 were \$4.2 million, an increase of \$1.1 million from \$3.1 million for the year ended December 31, 2021. The increase in costs was primarily due to an increase in variable-based compensation in line with strong results during the year ended December 31, 2022, compared to the year ended December 31, 2021.

Interest Expense and Finance Costs. Interest expense and finance costs include loan interest, finance lease interest, and amortization of deferred finance fees. Interest expense and finance costs for the year ended December 31, 2022 were \$15.5 million, a decrease of \$0.7 million from \$16.2 million for the year ended December 31, 2021. Cash interest expense increased by \$3.3 million to \$17.5 million for the year ended December 31, 2022, from \$14.2 million for the year ended December 31, 2021. The increase in interest expense and finance costs is primarily due to an increased average LIBOR/SOFR during the year ended December 31, 2022, compared to the year ended December 31, 2021. Amortization of deferred finance fees for the year ended December 31, 2022 was \$1.5 million, a decrease of \$0.1 million from \$1.6 million for the year ended December 31, 2021.

Loss on Extinguishment. Loss on extinguishment for the year ended December 31, 2022 was \$1.6 million, an increase of \$1.0 million from \$0.6 million for the year ended December 31, 2021. This loss relates to the refinancing of debt for 11 vessels in the third and fourth quarters of 2022 and to the prepayment and exercise of the purchase options associated with the *Ardmore Sealeader*, *Ardmore Sealifter* and *Ardmore Sealancer* vessels, which were sold during 2022.

B. Liquidity and Capital Resources

Our primary sources of liquidity are cash and cash equivalents, cash flows provided by our operations, our undrawn credit facilities and capital raised through financing transactions. As of December 31, 2022 we had \$220.6 million in liquidity available, with cash and cash equivalents of \$50.6 million (December 31, 2021: \$55.4 million) and amounts available and undrawn under our revolving credit facilities of \$170.0 million (December 31, 2021: \$11.6 million). We believe that our working capital, together with expected cash flows from operations will be sufficient for our present requirements.

Our short-term liquidity requirements include the payment of operating expenses (including voyage expenses and bunkers from spot chartering our vessels), drydocking expenditures, debt servicing costs, lease payments, quarterly preferred stock dividends, interest rate swap settlements, any dividends on our shares of common stock, as well as funding our other working capital requirements. Our short-term and spot charters, including participating in spot charter pooling arrangements, contribute to the volatility of our net operating cash flow, and thus our ability to generate sufficient cash flows to meet our short-term liquidity needs. Historically, the tanker industry has been cyclical, experiencing volatility in profitability and asset values resulting from changes in the supply of, and demand for, vessel capacity. In addition, tanker spot markets historically have exhibited seasonal variations in charter rates. Tanker spot markets are typically stronger in the winter months as a result of increased oil consumption in the northern hemisphere and unpredictable weather patterns that tend to disrupt vessel scheduling. Time charters provide contracted revenue that may reduce the volatility (as rates can fluctuate within months) and seasonality from revenue generated by vessels that operate in the spot market. Commercial pools reduce revenue volatility because they aggregate the revenues and expenses of all pool participants and distribute net earnings to the participants based on an agreed upon formula. Spot charters preserve flexibility to take advantage of increasing rate environments, but also expose the ship-owner to decreasing rate environments. Variability in our net operating cash flow also reflects changes in interest rates, fluctuations in working capital balances, the timing and the amount of drydocking expenditures, repairs and maintenance activities and the average number of vessels in service. The number of vessel dry dockings tends to vary each period depending on the vessel's maintenance schedule and required maintenance.

Our primary known and estimated liquidity needs for 2023 include obligations related to finance leases (\$5.7 million), scheduled repayments of long-term debt (\$13.4 million), debt and lease service costs (\$9.2 million), quarterly preferred stock dividend distributions (\$3.4 million), committed capital expenditures (\$14.8 million), drydocking expenditures (\$12.1 million), operating lease payments (\$6.6 million), variable quarterly common stock dividend distributions and the funding of general working capital requirements and funding any common stock repurchases we may undertake.

The capital expenditures are related to our obligations under the purchase and installation of ballast water treatment systems. For at least the one-year period following the filing of this Annual Report, we expect that our existing liquidity, combined with the cash flow we expect to generate from our operations, will be sufficient to finance our liquidity needs for this period.

Our long-term capital needs are primarily for capital expenditures and debt repayment and finance lease payments. Our long-term known and estimated liquidity needs from 2024 through to 2027 include obligations related to finance leases (\$22.0 million), scheduled repayments and maturities of long-term debt (\$117.2 million), forecasted drydock expenditures (\$20.8 million), debt and lease service costs (\$20.4 million), aggregate capital expenditures (\$3.4 million), operating lease payments (\$4.0 million), our quarterly preferred stock dividend distributions (\$13.6 million per annum) and quarterly common stock dividend distributions. Our scheduled finance lease payment obligations beyond 2027 through 2030 total \$32.2 million. Additional information on our annual scheduled obligations under our debt, finance and operating leases are described in Notes 6 (“Debt”), 7 (“Finance leases”) and 8 (“Operating leases”) to our consolidated financial statements included in Item 18 of this Annual Report. Debt and lease service costs are estimated based on assumed SOFR forward curve rates. Generally, we expect that our long-term sources of funds will be cash balances, long-term bank borrowings, lease financings and other debt or equity financings.

We expect that we will rely upon internal and external financing sources, including, cash balances, bank borrowings, lease financings and the issuance of debt and equity securities, to fund vessel acquisitions or newbuildings and expansion capital expenditures.

Our credit facilities and finance leases are described in Notes 6 (“Debt”) and 7 (“Finance leases”) to our consolidated financial statements included in Item 18 of this Annual Report. Our financing facilities contain covenants and other restrictions we believe are typical of debt financing collateralized by vessels, including those that restrict the relevant subsidiaries from incurring or guaranteeing additional indebtedness, granting certain liens, and selling, transferring, assigning or conveying assets. Our financing facilities do not impose a restriction on dividends, distributions, or returns of capital unless an event of default has occurred, is continuing or will result from such payment. The majority of our financing facilities require us to maintain various financial covenants. Should we not meet these financial covenants or other covenants, the lenders may declare our obligations under the agreements immediately due and payable, and terminate any further loan commitments, which would significantly affect our short-term liquidity requirements. As of December 31, 2022, we were in compliance with all covenants relating to our financing facilities.

Our debt facilities and certain of our obligations related to finance leases typically require us to make interest payments based on SOFR. Significant increases in interest rates could adversely affect results of operations and our ability to service our debt; however, as part of our strategy to minimize financial risk, we use interest rate swaps to reduce our exposure to market risk from changes in interest rates. Our current positions are described in further detail in Note 9 (“Interest Rate Swaps”) to our consolidated financial statements included in Item 18 of this Annual Report.

Cash Flow Data for the Years Ended December 31, 2022 and 2021

<i>In thousands of U.S. Dollars</i>	For the Years Ending December 31,	
	2022	2021
CASH FLOW DATA		
Net cash provided by / (used in) operating activities	\$ 124,207	(2,885)
Net cash provided by investing activities	\$ 35,410	1,627
Net cash (used in) financing activities	\$ (164,497)	(1,658)

Cash provided by / (used in) operating activities

Changes in net cash flow from operating activities primarily reflect changes in fleet size, fluctuations in spot tanker rates, changes in interest rates, fluctuations in working capital balances, and the timing and the amount of drydocking expenditures, repairs and maintenance activities. Our exposure to the highly cyclical spot tanker market and the growth of our fleet have contributed significantly to historical fluctuations in operating cash flows.

For the year ended December 31, 2022, cash flow provided by operating activities was \$124.2 million. The increase in cash flows from operating activities was primarily due to a significant increase in TCE rates, which was partially offset by an increase in receivables of \$59.6 million due to the increase in TCE rates and an increase in inventories resulting from higher bunker prices.

For the year ended December 31, 2021, cash flow used in operating activities was \$2.9 million. Net loss of \$36.8 million for the year was due to poor market conditions, offset by non-cash items such as depreciation of \$31.7 million and amortizations of \$5.2 million.

Cash provided by investing activities

For the year ended December 31, 2022, net cash provided by investing activities was \$35.4 million, with net proceeds from the sale of the *Ardmore Sealeader* in June 2022, and the *Ardmore Sealifter* and *Ardmore Sealancer* in July 2022, of \$39.9 million partially offset by payments made for equity investments of \$0.6 million, as well as payments in relation to vessel equipment, advances for ballast water treatment and scrubber systems, and other non-current assets of \$3.9 million.

For the year ended December 31, 2021, the net cash used in investing activities was \$1.6 million, with proceeds from the sale of the *Ardmore Seamariner* in January 2021 of \$9.9 million partially offset by payments made for our investments in Element 1 Corp. and our e1 Marine joint venture and related transaction costs of \$5.5 million, as well as payments in relation to vessel equipment, advances for ballast water treatment systems and other non-current assets of \$2.7 million.

Cash (used in) financing activities

For the year ended December 31, 2022, the net cash used in financing activities was \$164.5 million. Proceeds from the issuance of debt amounted to \$131.9 million and total principal repayments of finance lease arrangements were \$13.7 million. Net proceeds from the issue of common stock were \$38.9 million and net repayment of long-term debt was \$148.2 million. Preferred Stock Dividend payments amounted to \$3.3 million. Prepayment of finance lease obligations was \$166.6 million. Payments for deferred finance fees were \$3.5 million.

For the year ended December 31, 2021, the net cash used in financing activities was \$1.7 million. Repayments of debt amounted to \$66.9 million and total principal repayments of finance lease arrangements were \$20.0 million. Net proceeds from the issue of preferred stock were \$38.0 million and proceeds from finance lease arrangements were \$49.0 million. Dividend payments on preferred stock amounted to \$0.8 million. We issued 25,000 shares of Series A Preferred Stock in June 2021 and an additional 15,000 shares in December 2021.

Capital Expenditures

Drydock

Four of our vessels completed drydock surveys in 2022. The drydocking schedule through December 31, 2026 for our vessels that were in operation as of December 31, 2022 is as follows:

	For the Years Ending December 31,			
	2023	2024	2025	2026
Number of vessels in drydock (excluding in-water surveys)	8	3	6	—

We intend to continue to seek to stagger drydockings across the fleet. As our fleet matures and expands, our drydock expenses are likely to increase. Ongoing costs for compliance with environmental regulations and society classification surveys (including ballast water treatment systems) are a component of our vessel operating expenses.

Ballast Water Treatment System Installation

The ballast water treatment system (“BWTS”) installation schedule for our vessels that were in operation as of December 31, 2022 is as follows:

	For the Years Ending December 31,			
	2023	2024	2025	2026
Number of ballast water treatment system installations	7	3	—	—

We endeavor to manage the timing of future BWTS installation across the fleet in order to minimize the number of vessels that are completing BWTS installations at any one time by performing this work during scheduled dry dockings.

Scrubbers

We intend to install scrubber systems to six of our vessels which are due for drydocking in 2023. We may elect to install scrubbers on additional vessels within our fleet in 2024 and 2025.

Newbuildings

We currently have no newbuildings on order. However, our growth strategy contemplates expansion of our fleet through vessel acquisitions and newbuildings.

Upgrades

We intend to continue our investment program for vessel upgrades, primarily following acquisition of second-hand vessels, where feasible to maintain operational efficiency, optimum commercial performance and preservation of asset value.

Dividends

In November 2022, our Board of Directors approved the initiation of a quarterly cash dividend as a component of our longstanding Capital Allocation Policy, pursuant to which our board of directors declared a cash dividend of \$0.45 per common share, which was paid on March 15, 2023, to all holders of record on February 28, 2023 of our common stock, relating to our results for the fourth quarter of 2022. Our most recent dividend paid on shares of our common stock prior to the February 2023 dividend was made in February 2020. Please see Item 5 “Operating and Financial Review and Prospects – Recent Developments – New Dividend Policy and Dividend Relating to the Fourth Quarter of 2022” for additional information about our new dividend policy and the recent dividend payment on shares of our common stock. The declaration and payment of dividends is subject to the discretion of our board of directors.

C. Research and Development, Patent and Licenses, etc.

Not applicable.

D. Trend Information

Our results of operations depend primarily on the charter hire rates that we are able to realize for our vessels, which primarily depend on the demand and supply dynamics characterizing the tanker market at any given time, and on the size of our fleet. The oil tanker industry has been highly cyclical in recent years, experiencing volatility in charter hire rates and vessel values resulting from changes in the supply of and demand for crude oil and tanker capacity and, more recently from disruptions and trading pattern changes related to Russia’s invasion of Ukraine.

For other trends affecting our business, please see the other discussions above in this Item 4 (“Information on the Company — Business Overview — The International Product and Chemical Tanker Industry”) and Item 5 (“Operating and Financial Review and Prospects”).

E. Critical Accounting Estimates

In the application of our accounting policies, which are prepared in conformity with U.S. GAAP, we are required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities, and revenue and expenses that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The significant judgments and estimates are as follows:

Revenue recognition. Revenue, net is generated from spot charter arrangements, time charter arrangements and pool arrangements. Refer to Note 2 (“Significant Accounting Policies”) to our consolidated financial statements included in Item 18 of this Annual Report for a discussion on time charter and pool arrangements.

Spot charter arrangements

Our spot charter arrangements are for single voyages for the service of the transportation of cargo that are generally short in duration (less than two months) and we are responsible for all costs incurred during the voyage, which include bunkers and port/canal costs, as well as general vessel operating costs (e.g. crew, repairs and maintenance and insurance costs; and fees paid to technical managers of our vessels). Accordingly, under spot charter arrangements, key operating decisions and the economic benefits associated with a vessel’s use during a spot charter reside with us.

As of its adoption on January 1, 2018, we apply revenue recognition guidance in Financial Accounting Standards Board (“FASB”) Accounting Standards Codification 606, Revenue from Contracts with Customers (“ASC 606”) to account for our spot charter arrangements.

The consideration that we expect to be entitled to receive in exchange for our transportation services is recognized as revenue ratably over the duration of a voyage on a load-to-discharge basis (i.e. from when cargo is loaded at the port to when it is discharged after the completion of the voyage). The consideration that we expect to be entitled to receive includes estimates of revenue associated with the loading or discharging time that exceed the originally estimated duration of the voyage, which is referred to as “demurrage revenue”, when it is determined there will be incremental time required to complete the contracted voyage. Demurrage revenue is not considered a separate deliverable in accordance with ASC 606 as it is part of the single performance obligation in a spot charter arrangement, which is to provide cargo transportation services to the completion of a contracted voyage.

Share-based compensation. We may grant share-based payment awards, such as restricted stock units (“RSUs”), stock appreciation rights (“SARs”) and dividend equivalent rights (“DERs”), as incentive-based compensation to certain employees. We granted to certain employees, directors and officers SARs in 2013, 2014, 2015, 2016 and SARs which included dividend equivalent rights (“DERs”) in 2018, 2019, 2020 and 2021. We granted RSUs which included DERs, to certain directors and officers in 2019, 2020, 2021 and in March, June and September 2022. We granted stand-alone DERs to certain directors and officers in November 2019. During the year ended December 31, 2021 all DER’s expired, unexercised. We measure the cost of such awards, which are equity-settled transactions, using the grant date fair value of the award and recognizing that cost, net of estimated forfeitures, over the requisite service period, which generally equals the vesting period, which we calculate according to the FASB Accounting Standards Codification 718, Compensation — Stock Compensation (“ASC 718”), see Note 16 (“Share-based compensation”).

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 the most appropriate inputs to the valuation model, including the expected life of the award, volatility and dividend yield, and making certain other assumptions about the award.

Depreciation. Vessels are depreciated on a straight-line basis over their estimated useful economic life from the date of initial delivery from the shipyard. The useful life of our vessels is estimated at 25 years from the date of initial delivery from the shipyard. For the year ended December 31, 2022, depreciation is based on cost less the estimated residual scrap value of \$300 per lwt.

Effective January 1, 2023, we increased the estimated scrap value of the vessels from \$300 per lwt to \$400 per lwt prospectively based on the 15-year average scrap value of steel. The change in the estimated scrap value will result in a decrease in depreciation expense over the remaining life of the vessel assets. We expect depreciation to decrease by approximately \$1.3 million during 2023 as a result of the prospective change in the scrap value.

Vessel impairment. Vessels and equipment that are “held and used” are assessed for impairment when events or circumstances indicate the carrying amount of the asset may not be recoverable. When such indicators are present, a vessel to be held and used is tested for recoverability by comparing the estimate of undiscounted future cash flows expected to be generated by the use of the vessel over its remaining useful life and its eventual disposition to its carrying amount, together with the carrying value of deferred drydock expenditures and special survey costs related to the vessel.

Undiscounted future cash flows are determined by applying various assumptions based on historical trends as well as future expectations. In estimating future revenue, we consider charter rates for each vessel class over the estimated remaining lives of the vessels using both historical average rates for us over the last five years, where available, and historical average one-year time charter rates for the industry over the last 10 years. Recognizing that rates tend to be cyclical and considering market volatility based on factors beyond our control, management believes it is reasonable to use estimates based on a combination of more recent internally generated rates and the 10-year average historical average industry rates. An impairment charge is recognized if the carrying value is in excess of the estimated undiscounted future cash flows. The impairment loss is measured based on the excess of the carrying amount over the fair market value of the asset.

Undiscounted future cash flows are determined by applying various assumptions regarding future revenue net of voyage expenses, vessel operating expenses, scheduled drydockings, expected off-hire and scrap values, and taking into account historical market and Company specific revenue data as discussed above, and also considering other external market sources, including analysts’ reports and freight forward agreement curves. Projected future charter rates are the most significant and subjective assumption that management uses for its impairment analysis.

Although management believes that the assumptions used to evaluate potential impairment are reasonable and appropriate at the time they were made, such assumptions are highly subjective and likely to change, possibly materially, in the future. There can be no assurance as to how long charter rates and vessel values will remain at their current levels or whether they will improve by a significant degree. If charter rates were to be at depressed levels, future assessments of vessel impairment would be adversely affected.

In recent years, the market values of vessels have experienced particular volatility, with substantial declines in many of the charter-free market values, or basic market values, of various vessel classes. As a result, the value of our vessels may have declined below those vessels’ carrying values, even though we did not impair those vessels’ carrying values under our impairment accounting policy. This is due to our projection that future undiscounted cash flows expected to be earned by such vessels over their operating lives would exceed such vessels’ carrying amounts.

Our estimates of basic market value assume that our vessels are all in good and seaworthy condition without the need for repair and, if inspected, that they would be certified in class without notations of any kind.

Our estimates are based on the estimated market values for our vessels that we have received from independent ship brokers, reports by industry analysts and data providers that focus on our industry and related dynamics affecting vessel values, and news and industry reports of similar vessel sales. Vessel values are highly volatile and as such, our estimates may not be indicative of the current or future basic market value of our vessels or prices that we could achieve if we were to sell them.

The table below indicates the carrying value of each of our owned vessels as of December 31, 2022 and 2021. At December 31, 2022, no vessels were classified as held for sale. MR charter rates increased significantly in 2022 as a result of market recovery due to strong market fundamentals and the ongoing war in Ukraine. In addition, we have determined that as of December 31, 2022, the aggregate fair market price of our owned vessels was \$775.5 million, based on the average of vessel valuations as obtained from two independent brokers, while the aggregate net book value (“NBV”) of our owned vessels was \$541.6 million. As such, management have concluded that there were no indicators of impairment on any of our vessels during 2022, and as such we have not recorded an impairment charge for the year ended December 31, 2022.

Carrying value includes, as applicable, vessel costs, deferred drydock expenditures, vessel equipment, advances for ballast water treatment systems, capitalized interest, supervision fees and other newbuilding pre-delivery costs. Deposits paid, or costs incurred, in relation to the acquisition of second-hand vessels are not presented in the table below.

	Built	DWT	Carrying Value as of	
			Dec 31, 2022	Dec 31, 2021
<i>Ardmore Seavalliant</i> [#]	2013	49,998	\$ 29,101,149	\$ 27,200,718
<i>Ardmore Seaventure</i> [#]	2013	49,998	27,484,714	27,697,704
<i>Ardmore Seavantage</i> [#]	2014	49,997	27,740,157	29,191,064
<i>Ardmore Seavanguard</i> [#]	2014	49,998	27,820,727	29,133,950
<i>Ardmore Sealion</i> [*]	2015	49,999	26,643,964	28,030,224
<i>Ardmore Seafox</i> [*]	2015	49,999	26,562,015	28,200,076
<i>Ardmore Seawolf</i> [*]	2015	49,999	26,836,416	28,440,165
<i>Ardmore Seahawk</i> [*]	2015	49,999	27,306,627	28,865,349
<i>Ardmore Endeavour</i> [#]	2013	49,997	25,518,438	26,750,543
<i>Ardmore Enterprise</i> [*]	2013	49,453	22,438,628	22,754,719
<i>Ardmore Endurance</i> [*]	2013	49,466	21,449,633	22,389,407
<i>Ardmore Explorer</i> [*]	2014	49,494	22,631,705	23,795,435
<i>Ardmore Encounter</i> [*]	2014	49,478	23,411,851	24,560,509
<i>Ardmore Exporter</i> [*]	2014	49,466	22,778,577	23,839,088
<i>Ardmore Engineer</i> [*]	2014	49,420	23,584,508	24,691,398
<i>Ardmore Sealancer</i> ⁽¹⁾	2008	47,451	—	15,028,188
<i>Ardmore Sealeader</i> ⁽²⁾	2008	47,463	—	16,623,556
<i>Ardmore Seafarer</i> [*]	2010	49,999	14,944,658	15,905,521
<i>Ardmore Sealifter</i> ⁽¹⁾	2008	47,472	—	16,213,655
<i>Ardmore Dauntless</i> [#]	2015	37,764	26,423,868	28,208,864
<i>Ardmore Defender</i> [#]	2015	37,791	26,676,370	28,488,800
<i>Ardmore Cherokee</i> [*]	2015	25,215	22,486,530	23,862,279
<i>Ardmore Cheyenne</i> [*]	2015	25,217	22,706,602	24,178,178
<i>Ardmore Chinook</i> [*]	2015	25,217	23,407,342	24,942,859
<i>Ardmore Chippewa</i> [#]	2015	25,217	23,669,703	25,146,451
Total			\$ 541,624,182	\$ 614,138,700

(1) In July 2022, we sold the *Ardmore Sealifter* and *Ardmore Sealancer*.

(2) In June 2022, we sold the *Ardmore Sealeader*.

* Indicates vessels for which we believe, as of December 31, 2022, the basic market value is higher than the vessel’s carrying value.

Indicates vessels for which we believe, as of December 31, 2021, the basic market value is lower than the vessel’s carrying value. We believe that the carrying values of our vessels as of December 31, 2021 were recoverable as the projected undiscounted future cash flows of these vessels exceeded their carrying value by a significant amount.

At December 31, 2022, we estimate that the aggregate basic market value of our owned vessels exceeded their aggregate carrying value by approximately \$233.9 million. At December 31, 2021, we estimated that the aggregate carrying value of our owned vessels exceeded their aggregate basic market value by approximately \$11.4 million.

We believe that all 22 of our vessels’ basic market values exceeded their carrying values as of December 31, 2022 and 14 of our vessels’ basic market values exceeded their carrying values as of December 31, 2021. We did not record an impairment of any vessels due to our impairment accounting policy for the year ended December 31, 2022.

Recent Accounting Pronouncements

Please see Note 2.4 “Recent accounting pronouncements” to our consolidated financial statements included in Item 18 of this Annual Report for a description of recently issued accounting pronouncements that may apply to us.

G. Safe Harbor

Forward-looking information discussed in this Item 5 includes assumptions, expectations, projections, intentions and beliefs about future events. These statements are intended as “forward-looking statements”.

We caution that assumptions, expectations, projections, intentions and beliefs about future events may and often do vary from actual results and the differences can be material. Please see the section entitled “Forward-Looking Statements” at the beginning of this Annual Report.

Item 6. Directors, Senior Management and Employees

A. Directors and Senior Management

Set forth below are the names, ages and positions of our directors and executive officers. Our board of directors currently consists of six directors. Each director elected holds office for a three-year term or until his or her successor has been duly elected and qualified, except in the event of the director’s death, resignation, removal or the earlier termination of the director’s term of office. The term of office of each director is as follows: Class I directors serve for a term expiring at the 2023 annual meeting of shareholders, Class II directors serve for a term expiring at the 2024 annual meeting of shareholders, and Class III directors serve for a term expiring at the 2025 annual meeting of the shareholders. Officers are elected from time to time by vote of our board of directors and hold office until a successor is elected. The business address for each director and executive officer is Belvedere Building, 69 Pitts Bay Road, Ground Floor, Pembroke HM08, Bermuda.

Name	Age	Class	Position
Mr. Mats Berglund	60	I	Director, Chair of the Talent and Compensation Committee and Member of the Nominating and Corporate Governance Committee and the Sustainability Committee
Mr. Mark Cameron	57	N/A	Executive Vice President and Chief Operating Officer
Mr. James Fok	43	III	Director, Member of the Audit Committee and the Nominating and Corporate Governance Committee
Mr. Anthony Gurnee	63	II	Chief Executive Officer, President and Director
Mr. Bart Kelleher	48	N/A	Chief Financial Officer, Secretary
Mr. Curtis Mc Williams	67	III	Chair of the Board, Chair of the Nominating and Corporate Governance Committee and Member of the Talent and Compensation Committee and the Audit Committee
Ms. Aileen O’Driscoll	36	N/A	Senior Vice President and Director of Corporate Services
Mr. Gernot Ruppelt	41	N/A	Senior Vice President and Chief Commercial Officer
Dr. Kirsi Tikka	66	I	Director, Chair of the Sustainability Committee and Member of the Talent and Compensation Committee
Ms. Helen Tveitan de Jong	55	II	Director, Chair of the Audit Committee and Member of the Sustainability Committee

Biographical information with respect to each of our directors and executive officers is set forth below.

Mats Berglund has been a director of Ardmores since September 2018. He was the Chief Executive Officer and Director of Pacific Basin, a Hong Kong-listed owner and operator of drybulk vessels controlling a fleet of over 200 ships from 2012-2021. Mr. Berglund has more than 30 years of shipping experience in Europe, the USA and Asia, including as Chief Financial Officer and Chief Operating Officer of marine fuel trader Chemoil Energy and Head of Crude Transportation for Overseas Shipholding Group. Previously, he served in a variety of leadership roles across the Stena group of companies, culminating as President of Stena Rederi, Stena's parent company for all shipping activities. Mr. Berglund holds an Economist (Civilekonom) degree from the Gothenburg University Business School (1986) and is a graduate of the Advanced Management Program at Harvard.

Mark Cameron is the Executive Vice President and Chief Operating Officer for Ardmores, appointed in June 2010. In 2022 Mr. Cameron relocated to Singapore and has taken on the additional role as Managing Director of Ardmores Shipping (Asia) Pte Ltd. Mr. Cameron is a past Chairman of the International Parcel Tankers Association (IPTA) and was previously an advisory Board Member to the NGO The Carbon War Room. Presently, Mr. Cameron serves on the Boards of the West of England (Luxembourg) and (Hamilton) P&I Club as well as the joint ventures 'el Marine LLC' and 'Anglo Ardmores Ship Management Limited'. Mr. Cameron is a member of the Lloyds Register Marine Committee and an ABS Council Member. Prior to Ardmores, Mr. Cameron served 9 years at Teekay Corporation where, from 2008 to 2010, he served as Vice President, Strategy and Planning. Mr. Cameron has also held a number of senior management roles ashore with Safmarine and AP Moller specializing in integrating acquisitions covering all facets of ship management including sale and purchase, newbuilding supervision, personnel management, procurement, fleet management and technical projects. Mr. Cameron spent 11 years at sea rising to the rank of Chief Engineer with Safmarine.

James Fok was appointed as a director of Ardmores in January 2023. Mr. Fok has more than 20 years of experience in financial services. From 2012 until 2021 he served as a senior executive at Hong Kong Exchanges and Clearing, a Hong Kong-listed operator of exchanges and clearing houses. Previously, Mr. Fok was an investment banker with multiple bulge bracket firms in both Europe and Asia. He currently serves as an Advisor to Bain & Company, is on the Advisory Board of Hex Trust, a provider of bank-grade custody for digital assets, and serves as an International Member of Ireland for Finance's Industry Advisory Committee. Mr. Fok holds a BA (Hons) in Law and Chinese from the School of Oriental & African Studies of the University of London.

Anthony Gurnee has been our President, Chief Executive Officer, and a director of Ardmores since 2010. Between 2000 and 2008, he was the Chief Executive Officer of Industrial Shipping Enterprises, Inc., a containership and chemical tanker company, and Chief Operating Officer of MTM Group, an operator of chemical tankers. From 1992 to 1997, he was the Chief Financial Officer of Teekay Corporation, where he led the company's financial restructuring and initial public offering. Mr. Gurnee began his career as a financier with Citicorp, and he served for six years as a surface line officer in the U.S. Navy, including a tour with naval intelligence. He is a graduate of the U.S. Naval Academy and earned an MBA at Columbia Business School, is a CFA charter holder, and a fellow of the Institute of Chartered Shipbrokers. He is also a director of Simply Blue Energy, engaged in the development of offshore floating wind, wave energy, and sustainable aquaculture projects.

Bart Kelleher is the Chief Financial Officer for Ardmores. He joined Ardmores in 2022 and he has over 25 years of progressive experience in the maritime, finance, energy, and industrials sectors. From 2016-2022, Mr. Kelleher held executive roles with Chembulk Tankers, an owner and operator of stainless-steel chemical tankers, serving as Chief Executive Officer, Chief Financial Officer and Chief Strategy Officer. From 2010-2015, he was the Chief Operating Officer of Principal Maritime Management which owned and operated a fleet of Suezmax crude carriers and chemical tankers; he also functioned as acting Chief Financial Officer during the company's start-up and initial growth phases. In addition to his executive experience in the maritime energy transportation sector, Mr. Kelleher has held roles in investment banking, commercial banking, equity research, and capital markets in the maritime and energy-related industries at Bear Stearns and HSH Nordbank. Earlier in his career, he served as a deck officer onboard US-flag crude oil tankers and held management positions in both the cruise industry and with a leading naval architecture firm. Mr. Kelleher holds an MBA from Columbia Business School, an MS in Ocean Systems Management from Massachusetts Institute of Technology, and a BE in Naval Architecture from New York Maritime College. Mr. Kelleher serves as a Director of Element 1 Corporation, a developer of methanol to hydrogen technology, and as an Advisory Board Member to OrbitMI, an innovative technology firm offering advanced AI-based fleet performance management solutions.

Curtis Mc Williams was appointed as a director of Ardmores in January 2016 and as Ardmores's Chair effective January 1, 2019. Mr. Mc Williams has nearly 40 years of experience in finance and real estate. He currently serves as the Chair of the Board of Kalera, Inc and as a Director of Modiv Inc. From December 2021 until May 2022, Mr. Mc Williams served as Interim CEO of Kalera, Inc. He retired from his position as President and Chief Executive Officer of CNL Real Estate Advisors, Inc. in 2010 after serving in the role since 2007. Mr. Mc Williams was also the President and Chief Executive Officer of Truststreet Properties Inc. from 1997 to 2007, and a director of the company from 2005 to 2007. He served on the Boards of Directors of CNL Bank from 1999 to 2004, of Campus Crest Communities from 2015 to 2016 and of Braemar Hotels and Resorts from 2013 to 2022. Mr. Mc Williams has over 13 years of investment banking experience at Merrill Lynch & Co. Mr. Mc Williams has a Master's degree in Business with a concentration in Finance from the University of Chicago Graduate School of Business and a Bachelor of Science in Engineering in Chemical Engineering from Princeton University.

Aideen O'Driscoll was appointed Ardmores's Senior Vice President and Director of Corporate Services in 2022, with responsibility for human resources, legal, office management and project management. Ms. O'Driscoll joined Ardmores in June 2015 as Legal Associate, before being appointed to the role of Director of Human Resources in 2019. Prior to Ardmores, Ms. O'Driscoll had spent five years practicing as a commercial conveyancing and banking solicitor. Ms. O'Driscoll holds a Bachelor of Civil Law and an LL.M. Master's Degree in Law, both from University College Cork. Ms. O'Driscoll was admitted to the Roll of Solicitors in 2013 and has completed an Executive MBA with Cork University Business School. Ms. O'Driscoll is a member of the steering committee of the Diversity Study Group, promoting greater equality, diversity, and inclusion in the shipping industry.

Gernot Ruppelt is Senior Vice President and Chief Commercial Officer for Ardmores. Mr. Ruppelt has built up, lead and developed the company's global commercial platform since joining as Chartering Director in 2013. He was promoted to senior management in December 2014. Mr. Ruppelt has extensive management and commercial experience in the maritime industry. Before joining Ardmores, he was a Tanker Projects Broker with Poten & Partners in New York. Previously, he held various positions up to Trade Manager for Maersk in the United States, Europe, and Asia. Mr. Ruppelt holds an Executive MBA from INSEAD. He also graduated from the Institute of Chartered Shipbrokers in London, Hamburg Shipping School, and Maersk International Shipping Education (MISE). Mr. Ruppelt is currently Chairman of INTERTANKO's Commercial and Markets Committee, and he serves on the Board of Anglo Ardmores Ship Management.

Kirsi Tikka was appointed as a director by the board of directors in September 2019. Dr. Tikka currently serves as a director on the board of Pacific Basin Shipping Limited and is a Foreign Member of the U.S. National Academy of Engineering. Dr. Tikka chaired the U.S. National Academies Committee on Oil in the Sea IV: Input, Date and Effects, and was a member of the U.S. National Academies Committee on U.S. Coast Guard Oversight of Recognized Organizations, reports published in 2022. She is a Fellow of the Society of Naval Architects and Marine Engineers and the Royal Institution of Naval Architects and a Trustee of Webb Institute. Dr. Tikka has over 30 years of shipping experience having retired from the American Bureau of Shipping Classification Society ("ABS") in July 2019 as Executive Vice President, Senior Maritime Advisor. Prior to her time at ABS, Dr. Tikka was a professor of Naval Architecture at the Webb Institute in New York and worked for Chevron Shipping in San Francisco and Wärtsilä Shipyards in Finland. Dr. Tikka holds a Doctorate in Naval Architecture and Offshore Engineering from the University of California, Berkeley and a Master's degree in Mechanical Engineering and Naval Architecture from the University of Technology in Helsinki.

Helen Tveitan de Jong has been a director of Ardmores since September 2018. She is Chair and Chief Executive Officer of Carisbrooke Shipping Holdings Ltd., a specialist owner operator of mini-bulk and project cargo ships controlling a fleet of 29 ships. Previously, Ms. Tveitan de Jong held a variety of senior ship finance roles, including as a founding partner at shipping finance advisory firm THG Capital from 2001 to 2007, and has held several positions as interim Finance Director for shipping companies, most notably in the dry bulk sector, from 2003 to 2017. Ms. Tveitan de Jong graduated with a DRS in Economics from Rotterdam's Erasmus University in 1992. Since April 2021, Ms. Tveitan de Jong has served as an independent non-executive director of Taylor Maritime Investments Limited, an internally managed investment company listed on the premium segment of the London Stock Exchange.

B. Compensation of Directors and Senior Management

We paid \$2.1 million in aggregate cash compensation to members of our senior executive officers for 2022. For 2022, each of our non-employee directors annually received cash compensation in the aggregate amount of \$65,000, plus an additional fee of \$20,000 for a director serving as Chair of the Audit Committee, \$15,000 for a director serving as Chair of other committees, \$10,000 for each member of the Audit Committee and \$5,000 for each member of other standing committees, plus reimbursements for actual expenses incurred while acting in their capacity as a director. Our Chair received incremental cash compensation of \$42,500. We paid \$0.4 million in aggregate compensation to our directors for 2022.

Our officers and directors are eligible to receive awards under our equity incentive plan, which is described below under “— Equity Incentive Plan.” We do not have a retirement plan for our officers or directors.

We believe that it is important to align the interests of our directors and management with those of our shareholders. In this regard, we have determined that it generally is beneficial to us and to our shareholders for our directors and management to have a stake in our long-term performance. We expect that a meaningful component of the compensation packages for our directors and management will consist of equity interests in Ardmore in order to promote this alignment of interests.

Equity Incentive Plan

We currently have an equity incentive plan, the 2013 Equity Incentive Plan (the “plan”), under which directors, officers, and employees (including any prospective officer or employee) of us and our subsidiaries and affiliates, and consultants and service providers (including persons who are employed by or provide services to any entity that is itself a consultant or service provider) to us and our subsidiaries and affiliates, as well as entities wholly-owned or generally exclusively controlled by such persons, may be eligible to receive incentive stock options, non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, dividend equivalents, unrestricted stock and other equity-based or equity-related awards that the plan administrator determines are consistent with the purposes of the plan and our interests. Subject to adjustment for changes in capitalization, the aggregate number of shares of our common stock with respect to which awards may at any time be granted under the plan will not exceed 8% of the issued and outstanding shares of our common stock at the time of issuance of the award. The plan is administered by the Talent and Compensation Committee of our board of directors.

Under the terms of the plan, stock options and stock appreciation rights granted under the plan will have an exercise price equal to the fair market value of a common share on the date of grant, unless otherwise determined by the plan administrator, but in no event will the exercise price be less than the fair market value of a common share on the date of grant. Options and stock appreciation rights are exercisable at times and under conditions as determined by the plan administrator, but in no event will they be exercisable later than ten years from the date of grant. The plan administrator may grant dividend equivalents with respect to grants of options and stock appreciation rights.

The plan administrator may grant shares of restricted stock and awards of restricted stock units subject to vesting, forfeiture and other terms and conditions as determined by the plan administrator. With respect to restricted stock units, the award recipient will be paid an amount equal to the number of vested restricted stock units multiplied by the fair market value of a common share on the date of vesting, which payment may be paid in the form of cash or common shares or a combination of both, as determined by the plan administrator. The plan administrator may grant dividend equivalents with respect to grants of restricted stock units.

Adjustments may be made to outstanding awards in the event of a corporate transaction or change in capitalization or other extraordinary event. In the event of a “change in control” (as defined in the plan), unless otherwise provided by the plan administrator in an award agreement, awards then outstanding will become fully vested and exercisable in full.

Our board of directors may amend or terminate the plan and the plan administrator may amend outstanding awards, provided that no such amendment or termination may be made that would materially impair any rights, or materially increase any obligations, of a grantee under an outstanding award without the consent of the grantee.

Shareholder approval of plan amendments may be required under certain circumstances. Unless terminated earlier by our board of directors, the plan will expire ten years from the date the plan is adopted.

Stock Appreciation Rights (“SARs”)

As of December 31, 2022, ASC had granted a total of 3,710,473 SARs (inclusive of 5,779 forfeited SARs) to certain of its officers and directors under its 2013 Equity Incentive Plan. Under a SAR award, the grantee is entitled to receive the appreciation of a share of ASC’s common stock following the grant of the award.

Each SAR provides for a payment of an amount equal to the excess, if any, of the fair market value of a share of ASC’s common stock at the time of exercise of the SAR over the per share exercise price of the SAR, multiplied by the number of shares for which the SAR is then exercised. Payment under the SAR will be made in the form of shares of ASC’s common stock, based on the fair market value of a share of ASC’s common stock at the time of exercise of the SAR.

Restricted Stock Units (“RSUs”)

On March 30, 2022, ASC granted 593,671 RSUs to certain members of management that will vest in three equal annual tranches from the date of grant.

On June 10, 2022, ASC granted 60,415 RSUs to certain of its directors that will vest in twelve months from the date of grant.

On September 1, 2022, ASC granted 106,724 RSUs to certain members of management that will vest in three equal annual tranches from the date of grant.

Under an RSU award, the grantee is entitled to receive a share of ASC’s common stock for each RSU at the end of the vesting period. Payment under the RSU will be made in the form of shares of ASC’s common stock. The RSU awards include dividend equivalent rights equal in number to the number of shares underlying the award of RSUs granted.

Please see Note 16 “Share-based compensation” to our consolidated financial statements included in this Annual Report for additional information about our SAR awards and RSUs.

C. Board Practices

Our board of directors currently consists of six directors, all of whom, other than our Chief Executive Officer, Anthony Gurnee, have been determined by our board of directors to be independent under the rules of the New York Stock Exchange and, for members of the Audit Committee the rules and regulations of the SEC. Our board of directors has instituted a policy of holding executive sessions of non-management directors following each regularly scheduled meeting of the full Board.

Additional executive sessions of non-management directors may be held from time to time as required. The director serving as the presiding director during executive sessions currently is Curtis Mc Williams, the Chair of the Board.

Our Audit Committee consists of Helen Tveitan de Jong, as Chair, Curtis Mc Williams and James Fok. Each member of our Audit Committee is financially literate under the current listing standards of the New York Stock Exchange and the SEC. The Audit Committee, among other things, reviews our external financial reporting, engages our external auditors, and oversees our financial reporting procedures and the adequacy of our internal accounting controls.

The Nominating and Corporate Governance Committee consists of Curtis Mc Williams as Chair, Mats Berglund and James Fok. The Nominating and Corporate Governance Committee is responsible for recommending to the board of directors nominees for director and directors for appointment to board committees and advising the board with regard to corporate governance practices. Our shareholders may also nominate directors in accordance with the procedures set forth in our bylaws.

The Talent and Compensation Committee consists of Mats Berglund, as Chair, and Curtis Mc Williams and Kirsi Tikka. The Talent and Compensation Committee oversees our equity incentive plan and recommends director and senior employee compensation.

The Sustainability Committee consists of Kirsi Tikka, as Chair, and Mats Berglund and Helen Tveitan de Jong. The Sustainability Committee oversees and advises on all matters related to corporate sustainability, including environmental, social and energy transition matters.

There are no service contracts between us and any of our directors providing for benefits upon termination of their employment or service. Each of the committees is currently comprised of independent members and operates under a written charter adopted by the board of directors. All of the committee charters are available under “Corporate Governance” in the Investors section of our website at www.ardmoreshipping.com.

D. Employees

As of December 31, 2022, approximately 935 seagoing staff serve on the vessels that we manage and 56 full-time staff on shore. This compares with 993 seafarers and 47 full-time staff and seven part-time staff on shore as of December 31, 2021. Many of our seafarers employed by our ship managers are unionized under various jurisdictions and are employed under various collective bargaining agreements that expose us to a risk of potential labor unrest at times when those collective bargaining agreements are being re-negotiated.

We have entered into employment agreements with five of our executives: Mark Cameron, our Executive Vice President and Chief Operating Officer; Anthony Gurnee, our President and Chief Executive Officer; Bart Kelleher, our Chief Financial Officer; Aideen O’Driscoll, our Senior Vice President and Director of Corporate Services and Gernot Ruppelt, our Senior Vice President and Chief Commercial Officer. Pursuant to the terms of their respective employment agreements, our executive officers are prohibited from disclosing or unlawfully using any of our material confidential information. The employment agreements, which include compensation provisions, and one-year non-solicitation and non-compete clauses following the cessation of the employee’s employment with us.

The employment agreements require that we maintain director and officer insurance and that we indemnify and hold the employee harmless against all expenses, liability and loss (including reasonable and necessary attorneys’ fees, judgments, fines and amounts paid in settlement) in connection with any threatened or pending action, suit or proceeding, to which the employee is a party or is threatened to be made a party as a result of the employee’s employment with us. The indemnification provisions exclude fraud, willful misconduct or criminal activity on the employee’s behalf.

E. Share Ownership

The total amount of common stock owned by all of our officers and directors as a group is set forth below in Item 7. (“Major Shareholders and Related Party Transactions — A. Major Shareholders”).

Item 7. Major Common Shareholders and Related Party Transactions

A. Major Common Shareholders

The following table sets forth information regarding beneficial ownership, as of March 15, 2023 (except as otherwise noted), of our common stock by:

- each person or entity known by us to beneficially own 5% or more of our common stock; and
- all our current directors and executive officers and senior management as a group.

The information provided in the table is based on information filed with the SEC and information provided to us.

The number of shares beneficially owned by each person, entity, director, executive officer or other member of senior management is determined under SEC rules and the information is not necessarily indicative of beneficial ownership for any other purpose. Under SEC rules, a person or entity beneficially owns any shares as to which the person or entity has or shares voting or investment power. In addition, a person or entity beneficially owns any shares that the person or entity has the right to acquire as of the date 60 days after March 15, 2023 through the exercise of any stock option or other right; however, any such shares are not deemed outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, each person or entity has sole voting and investment power (or shares such powers with his or her spouse) with respect to the shares set forth in the following table.

Identity of person or group	Shares Beneficially Owned	
	Number	Percentage ⁽¹⁾
BlackRock Institutional Trust ⁽²⁾	3,541,099	8.6 %
Dimensional Fund Advisors ⁽³⁾	2,291,314	5.6 %
Aristotle Capital Management, LLC ⁽⁴⁾	2,196,367	5.4 %
Alder Tree Investments II BV ⁽⁵⁾	2,035,567	5.0 %
All directors and executive officers as a group	*	*

- (1) Based on 40,998,294 shares of common stock outstanding on March 15, 2023.
 - (2) This information is based on the Amendment No. 6 to Schedule 13G filed with the SEC on February 3, 2023. According to this Amendment No. 6 to Schedule 13G, BlackRock Inc. possessed sole voting power over 3,309,808 shares and sole dispositive power over 3,541,099 shares.
 - (3) This information is based on the Amendment No. 4 to Schedule 13G filed with the SEC on February 10, 2023. According to this Amendment No. 4 to Schedule 13G, Dimensional Fund Advisors possessed sole voting power over 2,242,834 shares and sole dispositive power over 2,291,314 shares.
 - (4) This information is based on the Amendment No. 6 to Schedule 13G filed with the SEC on February 14, 2023. According to this Amendment No. 6 to Schedule 13G, Aristotle Capital Boston, LLC possessed sole voting power over 1,651,914 shares and sole dispositive power over 2,196,367 shares.
 - (5) This information is based on the Schedule 13G filed with the SEC on December 23, 2022. According to this Schedule 13G, Alder Tree Investments II B.V. possessed sole voting power over 2,035,567 shares and sole dispositive power over 2,035,567 shares.
- * Less than 1% of outstanding shares of our common stock.

As of March 15, 2023, we had three shareholders of record located in the United States, one of which is CEDE & CO., a nominee of The Depository Trust Company, which held an aggregate of 40,992,119 shares of our common stock, representing approximately 99.98% of our outstanding shares of common stock. We believe that the shares held by CEDE & CO. include shares of common stock beneficially owned by both United States and non-U.S. beneficial owners.

Our major shareholders have the same voting rights as our other shareholders. No corporation or foreign government or other natural or legal person owns more than 50% of our outstanding common stock. We are not aware of any arrangements, the operation of which may at a subsequent date result in a change in control of Ardmare.

B. Related Party Transactions

We have a 50%-owned joint venture entity, Anglo Ardmare Ship Management Limited (“AASML”), owned in equal shares by the third-party technical manager Anglo-Eastern and our wholly-owned subsidiary Ardmare Shipping (Bermuda) Limited. AASML was incorporated in June 2017 and began providing technical management services exclusively to the Ardmare fleet on January 1, 2018. We have entered into standard Baltic and International Maritime Council (BIMCO) ship management agreements with AASML for the provision of technical management services to 14 of our vessels as of December 31, 2022 (2021: 17 vessels). AASML provides the vessels with a wide range of shipping services such as repairs and maintenance, provisioning and crewing.

C. Interest of Experts and Counsel

Not applicable.

Item 8. Financial Information

A. Consolidated Financial Statements and Other Financial Information

See Item 18.

Legal Proceedings

Although we may, from time to time, be involved in litigation and claims arising out of our operations in the normal course of business, we are not at present party to any legal proceedings or aware of any proceedings against us, or contemplated to be brought against us, that would reasonably be expected to have a material effect on our business, financial position, results of operations or liquidity. We maintain insurance policies with insurers in amounts and with coverage and deductibles as our board of directors believes are reasonable and prudent. We expect that these claims would be covered by insurance, subject to customary deductibles. Those claims, even if lacking merit, could result in the expenditure of significant financial and managerial resources.

Capital Allocation Policy

On March 9, 2020, we transitioned to a new capital allocation policy which sets out our priorities among fleet maintenance, financial strength, accretive growth and, once the other priorities are achieved, returning capital to shareholders.

Dividend Policy

As part of our capital allocation policy, in November 2022, our Board of Directors approved the initiation of a quarterly cash dividend, under which we expect to pay a variable quarterly cash dividend on our shares of common stock equivalent in the aggregate to one-third of the prior quarter’s Adjusted Earnings (which is a non-GAAP measure that represents our earnings per share for the quarter reported under U.S. GAAP adjusted for gain or loss on sale of vessels, write-off of deferred finance fees, and solely for the purposes of dividend calculations, the impact of unrealized gains / (losses) and certain non-recurring items).

The amount of our Adjusted Earnings, the amount of cash we have available for any dividends and the number of shares used to calculate any per share dividends on our common stock may vary significantly from period to period.

There is no guarantee that we will pay any dividends to our shareholders. The declaration of any dividends is subject at all times to the discretion of our board of directors. In addition, our board of directors may change or terminate our dividend policy or capital allocation policy at any time. For more information about our dividend policy, as well as certain risks and restrictions relating to our ability to pay any dividends in the future, please see Item 5 “Operating and Financial Review and Prospects – Recent Developments – New Dividend Policy and Dividend Relating to the Fourth Quarter of 2022” and Item 3 “Risk Factors – Risks Related to an Investment in Our Securities – We changed our dividend policy relating to our common shares as part of our capital allocation policy. The amount of quarterly dividends will vary from period to period, and we may be unable to pay dividends on our common shares.”

B. Significant Changes

Not applicable.

Item 9. The Offer and Listing

Shares of our common stock trade on the New York Stock Exchange under the symbol “ASC”.

Item 10. Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

Our Amended and Restated Articles of Incorporation and Amended and Restated Bylaws have been filed as Exhibits 3.1 and 3.2, respectively, to Form F-1/A (Registration Number 333-189714), declared effective by the Securities and Exchange Commission on July 31, 2013.

Our Amended and Restated Articles of Incorporation were modified by the Statement of Designation relating to our Series A Preferred Stock filed as Exhibit 1.1 to our Report on Form 6-K furnished to the Securities and Exchange Commission on June 17, 2021. The information contained in these exhibits is incorporated by reference into this Annual Report.

The rights, preferences and restrictions attaching to our shares of common stock are described in Exhibit 2.2 (Description of Capital Stock) of this Annual Report.

There are no limitations on the rights to own our securities, including the rights of non-resident or foreign shareholders to hold or exercise voting rights on the securities, imposed by the laws of the Republic of The Marshall Islands or by our Articles of Incorporation or Bylaws.

C. Material Contracts

Attached or incorporated by reference as exhibits to this Annual Report are the contracts we consider to be both material and not entered into in the ordinary course of business. Descriptions are included in Note 6 (“Debt”) to our consolidated financial statements included in this Annual Report with respect to our credit facilities and Note 7 (“Finance Leases”) with respect to our finance leases. Other than these contracts, we have not entered into any other material contracts in the two years immediately preceding the date of this Annual Report, other than contracts entered into in the ordinary course of business.

D. Exchange Controls

Under Marshall Islands law, there are currently no restrictions on the export or import of capital, including foreign exchange controls or restrictions that affect the remittance of dividends, interest or other payments to non-resident holders of our common shares.

E. Taxation of Holders

The following is a discussion of the material Marshall Islands and U.S. federal income tax considerations that may be relevant to us and our shareholders. This discussion does not purport to deal with the tax consequences of owning common stock to all categories of investors, some of which, such as financial institutions, regulated investment companies, real estate investment trusts, tax-exempt organizations, insurance companies, persons holding our common shares as part of a hedging, integrated, conversion or constructive sale transaction or a straddle, traders in securities that have elected the mark-to-market method of accounting for their securities, persons liable for an alternative minimum tax, persons who are investors in partnerships or other pass-through entities for U.S. federal income tax purposes, dealers in securities or currencies, U.S. Holders whose functional currency is not the U.S. dollar, investors that own, actually or under applicable constructive ownership rules, 10% or more of our common shares and investors that are required to recognize income pursuant to an “applicable financial statement”, and persons subject to the “base erosion and anti-avoidance” tax, may be subject to special rules. This discussion deals only with holders who hold the common stock as a capital asset. You are encouraged to consult your own tax advisors concerning the overall tax consequences arising in your own particular situation under U.S. federal, state, local or foreign law of the ownership of common stock.

Marshall Islands Tax Considerations

The following are the material Marshall Islands tax consequences of our activities to us and of our common shares to our shareholders. We are incorporated in the Marshall Islands. Under current Marshall Islands law, we are not subject to tax on income or capital gains, and no Marshall Islands withholding tax will be imposed upon payments of dividends by us to our shareholders.

U.S. Federal Income Tax Considerations

The following are the material U.S. federal income tax consequences to (a) us and (b) U.S. Holders and Non-U.S. Holders, each as defined below, of the common shares. The following discussion of U.S. federal income tax matters is based on the Code, judicial decisions, administrative pronouncements, and existing and proposed regulations issued by the United States Department of the Treasury (“Treasury Regulations”), all of which are subject to change, possibly with retroactive effect. The discussion below is based, in part, on the description of our business as described in this Annual Report and assumes that we conduct our business as described herein. References in the following discussion to the “Company”, “we”, “our” and “us” are to Ardmore Shipping Corporation and its subsidiaries on a consolidated basis.

U.S. Federal Income Taxation of Operating Income: In General

We anticipate that we will earn substantially all our income from spot, time charter and pool arrangements, all of which we refer to as “shipping income”.

Unless we qualify from an exemption from U.S. federal income taxation under either an applicable tax treaty or the rules of Section 883 of the Code (“Section 883”), as discussed below, a foreign corporation such as us will be subject to United States federal income taxation on its “shipping income” that is treated as derived from sources within the United States (“U.S. source shipping income”). For U.S. federal income tax purposes, “U.S. source shipping income” includes 50% of shipping income that is attributable to transportation that begins or ends, but that does not both begin and end, in the United States.

Shipping income attributable to transportation exclusively between non-U.S. ports will be considered to be 100% derived from sources entirely outside the United States. Shipping income derived from sources outside the United States will not be subject to any U.S. federal income tax.

Shipping income attributable to transportation exclusively between U.S. ports is considered to be 100% derived from U.S. sources. However, we are not permitted by United States law to engage in the transportation of cargoes that produces 100% U.S. source shipping income.

Exemption of Operating Income from U.S. Federal Income Taxation

Under Section 883 and the Treasury Regulations promulgated thereunder, a foreign corporation will be exempt from U.S. federal income taxation of its U.S. source shipping income if:

- (1) it is organized in a “qualified foreign country” which is one that grants an “equivalent exemption” from tax to corporations organized in the United States in respect of each category of shipping income for which exemption is being claimed under Section 883; and
- (2) one of the following tests is met:
 - (A) more than 50% of the value of its shares is beneficially owned, directly or indirectly, by “qualified shareholders”, which as defined includes individuals who are “residents” of a qualified foreign country, to which we refer as the “50% Ownership Test”; or
 - (B) its shares are “primarily and regularly traded on an established securities market” in a qualified foreign country or in the United States, to which we refer as the “Publicly-Traded Test”.

The Marshall Islands, the jurisdiction where we and our ship-owning subsidiaries are incorporated, has been officially recognized by the IRS, as a qualified foreign country that grants the requisite “equivalent exemption” from tax in respect of each category of shipping income we earn and currently expect to earn in the future. Therefore, we will be exempt from U.S. federal income taxation with respect to our U.S. source shipping income if we satisfy either the 50% Ownership Test or the Publicly Traded Test.

We believe that we satisfy the Publicly Traded Test for our 2022 taxable year and therefore qualify for an exemption from tax under Section 883. We anticipate that we will continue to satisfy the Publicly Traded Test but, as discussed below, this is a factual determination made on an annual basis. We do not currently anticipate circumstances under which we would not be able to satisfy the 50% Ownership Test.

Publicly Traded Test

The Treasury Regulations under Section 883 provide, in pertinent part, that shares of a foreign corporation will be considered to be “primarily traded” on an established securities market in a country if the number of shares of each class of stock that are traded during any taxable year on all established securities markets in that country exceeds the number of shares in each such class that are traded during that year on established securities markets in any other single country. Our common shares, which constitute our sole class of issued and outstanding stock are “primarily traded” on the New York Stock Exchange (“NYSE”).

Under the Treasury Regulations, our common shares will be considered to be “regularly traded” on an established securities market if one or more classes of our shares representing more than 50% of our outstanding stock, by both total combined voting power of all classes of stock entitled to vote and total value, are listed on such market, (the “listing threshold”). Since all our common shares are listed on the NYSE, we satisfy the listing threshold.

The Treasury Regulations also require that with respect to each class of stock relied upon to meet the listing threshold, (i) such class of stock traded on the market, other than in minimal quantities, on at least 60 days during the taxable year or one-sixth of the days in a short taxable year (“trading frequency test”); and (ii) the aggregate number of shares of such class of stock traded on such market during the taxable year must be at least 10% of the average number of shares of such class of stock outstanding during such year or as appropriately adjusted in the case of a short taxable year (the “trading volume test”). We believe that we satisfy the trading frequency and trading volume tests with respect to the 2022 taxable year. Even if this were not the case, the Treasury Regulations provide that the trading frequency and trading volume tests will be deemed satisfied if, as is the case with our common shares, such class of stock is traded on an established securities market in the United States and such shares are regularly quoted by dealers making a market in such shares.

Notwithstanding the foregoing, the Treasury Regulations provide, in pertinent part, that a class of shares will not be considered to be “regularly traded” on an established securities market for any taxable year in which 50% or more of the vote and value of the outstanding shares of such class are owned, actually or constructively under specified share attribution rules, on more than half the days during the taxable year by persons who each own 5% or more of the vote and value of such class of outstanding stock (“5% Override Rule”).

For purposes of being able to determine the persons who actually or constructively own 5% or more of the vote and value of our common shares (“5% Shareholders”) the Treasury Regulations permit us to rely on those persons that are identified on Schedule 13G and Schedule 13D filings with the United States Securities and Exchange Commission, as owning 5% or more of our common shares. The Treasury Regulations further provide that an investment company which is registered under the Investment Company Act of 1940, as amended, will not be treated as a 5% Shareholder for such purposes.

In the event the 5% Override Rule is triggered, the Treasury Regulations provide that the 5% Override Rule will nevertheless not apply if we can establish that within the group of 5% Shareholders, qualified shareholders (as defined for purposes of Section 883) own sufficient number of shares to preclude non-qualified shareholders in such group from owning 50% or more of our common shares for more than half the number of days during the taxable year.

We believe that we satisfy the Publicly Traded Test for the 2022 taxable year and were not subject to the 5% Override Rule, and we intend to take that position on our 2022 U.S. federal income tax return. However, there are factual circumstances beyond our control that could cause us to lose the benefit of the Section 883 exemption for any future taxable year. For example, there is a risk that we could no longer qualify for Section 883 exemption for a particular taxable year if one or more 5% Shareholders were to own 50% or more of our outstanding common shares on more than half the days of the taxable year. Under these circumstances, we would be subject to the 5% Override Rule and we would not qualify for the Section 883 exemption unless we could establish that our shareholding during the taxable year was such that non-qualified 5% Shareholders did not own 50% or more of our common shares on more than half the days of the taxable year. Under the Treasury Regulations, we would have to satisfy certain substantiation requirements regarding the identity of our shareholders. These requirements are onerous and there is no assurance that we would be able to satisfy them. Given the factual nature of the issues involved, we can give no assurances in regard to our or our subsidiaries’ qualification for the Section 883 exemption.

Taxation in Absence of Section 883 Exemption

If the benefits of Section 883 are unavailable, our U.S. source shipping income would be subject to a 4% tax imposed by Section 887 of the Code on a gross basis, without the benefit of deductions, or the “4% gross basis tax regime”, to the extent that such income is not considered to be “effectively connected” with the conduct of a United States trade or business, as described below. Since under the sourcing rules described above, no more than 50% of our shipping income would be treated as being U.S. source shipping income, the maximum effective rate of U.S. federal income tax on our shipping income would never exceed 2% under the 4% gross basis tax regime.

To the extent our U.S. source shipping income is considered to be “effectively connected” with the conduct of a U.S. trade or business, as described below, any such “effectively connected” U.S. source shipping income, net of applicable deductions, would be subject to U.S. federal income tax, currently imposed at a rate of 21%.

In addition, we would generally be subject to the 30% “branch profits” tax on earnings effectively connected with the conduct of such trade or business, as determined after allowance for certain adjustments, and on certain interest paid or deemed paid attributable to the conduct of our U.S. trade or business.

Our United States source shipping income would be considered “effectively connected” with the conduct of a United States trade or business only if:

- we have, or are considered to have, a fixed place of business in the United States involved in the earning of U.S. source shipping income; and
- substantially all of our U.S. source shipping income is attributable to regularly scheduled transportation, such as the operation of a vessel that follows a published schedule with repeated sailings at regular intervals between the same points for voyages that begin or end in the United States.

We do not intend to have, or permit circumstances that would result in having, any vessel sailing to or from the United States on a regularly scheduled basis. Based on the foregoing and on the expected mode of our shipping operations and other activities, it is anticipated that none of our U.S. source shipping income will be “effectively connected” with the conduct of a U.S. trade or business.

United States Taxation of Gain on Sale of Vessels

Regardless of whether we qualify for an exemption under Section 883, we will not be subject to U.S. federal income tax with respect to gain realized on a sale of a vessel, provided the sale is considered to occur outside of the United States under U.S. federal income tax principles. In general, a sale of a vessel will be considered to occur outside of the United States for this purpose if title to the vessel, and risk of loss with respect to the vessel, pass to the buyer outside of the United States. It is expected that any sale of a vessel by us will be considered to occur outside of the United States.

U.S. Federal Income Taxation of United States Holders

As used herein, the term “U.S. Holder” means a holder that for U.S. federal income tax purposes is a beneficial owner of our common shares and is an individual U.S. citizen or resident, a U.S. corporation or other U.S. entity taxable as a corporation, an estate the income of which is subject to U.S. federal income taxation regardless of its source, or a trust if (a) a court within the United States is able to exercise primary jurisdiction over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust or (b) the trust has a valid election in effect to be treated as a U.S. person.

If a partnership holds the common shares, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. If you are a partner in a partnership holding the common shares, you are encouraged to consult your tax advisor.

Distributions

Subject to the discussion of passive foreign investment companies below, any distributions made by us with respect to our common shares to a U.S. Holder will generally constitute dividends to the extent of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles.

Distributions in excess of such earnings and profits will be treated first as a non-taxable return of capital to the extent of the U.S. Holder’s tax basis in our common shares and thereafter as capital gain. Because we are not a U.S. corporation, U.S. Holders that are corporations will generally not be entitled to claim a dividends received deduction with respect to any distributions they receive from us. Dividends paid with respect to our common shares will generally be treated as foreign source dividend income and will generally constitute “passive category income” for purposes of computing allowable foreign tax credits for U.S. foreign tax credit purposes.

Subject to applicable limitations, including a holding period requirement, dividends paid on our common shares to certain non-corporate U.S. Holders will generally be treated as “qualified dividend income” that is taxable to such U.S. Holders at preferential tax rates provided that (1) the common shares are readily tradable on an established securities market in the U.S. (such as the NYSE, on which our common shares are traded); and (2) we are not a passive foreign investment company for the taxable year during which the dividend is paid or the immediately preceding taxable year (which, as discussed below, we do not believe that we are or will be for any future taxable years).

There is no assurance that any dividends paid on our common shares will be eligible for these preferential rates in the hands of such non-corporate U.S. Holders, although, as described above, we expect such dividends to be so eligible provided an eligible non-corporate U.S. Holder meets all applicable requirements. Any dividends paid by us which are not eligible for these preferential rates will be taxed as ordinary income to a non-corporate U.S. Holder.

Special rules may apply to any “extraordinary dividend” — generally, a dividend in an amount which is equal to or in excess of 10% of a shareholder’s adjusted tax basis in a common share — paid by us. If we pay an “extraordinary dividend” on our common shares that is treated as “qualified dividend income”, then any loss derived by certain non-corporate U.S. Holders from the sale or exchange of such common shares will be treated as long-term capital loss to the extent of such dividend.

Sale, Exchange or Other Disposition of Common Shares

Assuming we do not constitute a passive foreign investment company for any taxable year, a U.S. Holder generally will recognize taxable gain or loss upon a sale, exchange or other disposition of our common shares in an amount equal to the difference between the amount realized by the U.S. Holder from such sale, exchange or other disposition and the U.S. Holder’s tax basis in such shares. Such gain or loss will be treated as long-term capital gain or loss if the U.S. Holder’s holding period is greater than one year at the time of the sale, exchange or other disposition. Such capital gain or loss will generally be treated as U.S. source income or loss, as applicable, for U.S. foreign tax credit purposes.

Long-term capital gains of certain non-corporate U.S. Holders are currently eligible for reduced rates of taxation. A U.S. Holder’s ability to deduct capital losses is subject to certain limitations.

3.8% Tax on Net Investment Income

A U.S. Holder that is an individual, estate, or, in certain cases, a trust, will generally be subject to a 3.8% tax on the lesser of (1) the U.S. Holder’s net investment income for the taxable year and (2) the excess of the U.S. Holder’s modified adjusted gross income for the taxable year over a certain threshold (which in the case of individuals will be between \$125,000 and \$250,000). A U.S. Holder’s net investment income will generally include distributions we make on the common stock which are treated as dividends for U.S. federal income tax purposes and capital gains from the sale, exchange or other disposition of the common stock. This tax is in addition to any income taxes due on such investment income.

Passive Foreign Investment Company Status and Significant Tax Consequences

Special U.S. federal income tax rules apply to a U.S. Holder that holds shares in a PFIC for U.S. federal income tax purposes. In general, we will be treated as a PFIC with respect to a U.S. Holder if, for any taxable year in which such holder holds our common shares, either:

- at least 75% of our gross income for such taxable year consists of passive income (e.g., dividends, interest, capital gains and rents derived other than in the active conduct of a rental business); or
- at least 50% of the average value of our assets during such taxable year produce, or are held for the production of, passive income.

For purposes of determining whether we are a PFIC, cash held by us will be treated as passive assets. In addition, we will be treated as earning and owning our proportionate share of the income and assets, respectively, of any of our subsidiary corporations in which we own at least 25% of the value of the subsidiary’s stock. Income earned, or deemed earned, by us in connection with the performance of services would not constitute passive income. By contrast, rental income would generally constitute “passive income” unless we were treated under specific rules as deriving our rental income in the active conduct of a trade or business.

Based on our current and anticipated operations, we do not believe that we are currently a PFIC or will be treated as a PFIC for any future taxable year. Our belief is based principally on the position that the gross income we derive from time chartering activities should constitute services income, rather than rental income. Accordingly, such income should not constitute passive income, and the assets that we own and operate in connection with the production of such income, in particular, the vessels, should not constitute passive assets for purposes of determining whether we are a PFIC. There is substantial legal authority supporting this position consisting of case law and IRS pronouncements concerning the characterization of income derived from time charters as services income for other tax purposes. However, there is also authority which characterizes time charter income as rental income rather than services income for other tax purposes. Accordingly, no assurance can be given that the IRS or a court of law will accept this position, and there is a risk that the IRS or a court of law could determine that we are a PFIC. In addition, although we intend to conduct our affairs in a manner to avoid being classified as a PFIC with respect to any taxable year, we cannot assure you that the nature of our operations will not change in the future.

As discussed more fully below, if we were to be treated as a PFIC for any taxable year, a United States Holder would be subject to different taxation rules depending on whether the United States Holder makes an election to treat us as a “Qualified Electing Fund” (“QEF election”). As an alternative to making a QEF election, a United States Holder should be able to make a “mark-to-market” election with respect to our common shares, as discussed below. A United States holder of shares in a PFIC will be required to file an annual information return on IRS Form 8621 containing information regarding the PFIC as required by applicable Treasury Regulations.

Taxation of United States Holders Making a Timely QEF Election

If a United States Holder makes a timely QEF election, which United States Holder we refer to as an “Electing Holder”, the Electing Holder must report for United States federal income tax purposes its pro rata share of our ordinary earnings and net capital gain, if any, for each of our taxable years during which we are a PFIC that ends with or within the taxable year of the Electing Holder, regardless of whether distributions were received from us by the Electing Holder. No portion of any such inclusions of ordinary earnings will be treated as “qualified dividend income”. Net capital gain inclusions of certain non-corporate United States Holders would be eligible for preferential capital gains tax rates. The Electing Holder’s adjusted tax basis in the common shares will be increased to reflect any income included under the QEF election. Distributions of previously taxed income will not be subject to tax upon distribution but will decrease the Electing Holder’s tax basis in the common shares. An Electing Holder would not, however, be entitled to a deduction for its pro rata share of any losses that we incur with respect to any taxable year. An Electing Holder would generally recognize capital gain or loss on the sale, exchange or other disposition of our common shares. A U.S. Holder would make a timely QEF election for our common shares by filing one copy of IRS Form 8621 with its United States federal income tax return for the first year in which it held such shares when we were a PFIC. If we determine that we are a PFIC for any taxable year, we would provide each United States Holder with all necessary information in order to make the QEF election described above.

Taxation of United States Holders Making a Mark-to-Market Election

Alternatively, if we were to be treated as a PFIC for any taxable year and, as we anticipate will be the case, our shares are treated as “marketable stock”, a United States Holder would be allowed to make a “mark-to-market” election with respect to our common shares, provided the United States Holder completes and files IRS Form 8621 in accordance with the relevant instructions and related Treasury Regulations. If that election is made, the United States Holder generally would include as ordinary income in each taxable year the excess, if any, of the fair market value of the common shares at the end of the taxable year over such Holder’s adjusted tax basis in the common shares.

The U.S. Holder would also be permitted an ordinary loss in respect of the excess, if any, of the U.S. Holder's adjusted tax basis in the common shares over its fair market value at the end of the taxable year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. A U.S. Holder's tax basis in its common shares would be adjusted to reflect any such income or loss amount recognized. In a year when we are a PFIC, any gain realized on the sale, exchange or other disposition of our common shares would be treated as ordinary income, and any loss realized on the sale, exchange or other disposition of the common shares would be treated as ordinary loss to the extent that such loss does not exceed the net mark-to-market gains previously included by the U.S. Holder.

Taxation of U.S. Holders Not Making a Timely QEF or Mark-to-Market Election

If we were to be treated as a PFIC for any taxable year, a U.S. Holder who does not make either a QEF election or a "mark-to-market" election for that year, whom we refer to as a "Non-Electing Holder", would be subject to special rules with respect to (i) any excess distribution (i.e., the portion of any distributions received by the Non-Electing Holder on the common shares in a taxable year in excess of 125% of the average annual distributions received by the Non-Electing Holder in the three preceding taxable years, or, if shorter, the Non-Electing Holder's holding period for the common shares), and (ii) any gain realized on the sale, exchange or other disposition of our common shares. Under these special rules:

- the excess distribution or gain would be allocated ratably over the Non-Electing Holder's aggregate holding period for the common shares;
- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which we were a PFIC, would be taxed as ordinary income and would not be "qualified dividend income"; and
- the amount allocated to each of the other taxable years would be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year, and an interest charge for the deemed tax deferral benefit would be imposed with respect to the resulting tax attributable to each such other taxable year.

U.S. Federal Income Taxation of Non-U.S. Holders

As used herein, the term "Non-U.S. Holder" means a holder that, for U.S. federal income tax purposes, is a beneficial owner of common shares (other than a partnership) that is not a U.S. Holder.

If a partnership holds our common shares, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. If you are a partner in a partnership holding our common shares, you are encouraged to consult your tax advisor.

Dividends on Common Shares

A Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on dividends received from us with respect to our common shares, unless that income is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States.

Sale, Exchange or Other Disposition of Common Shares

A Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on any gain realized upon the sale, exchange or other disposition of our common shares, unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the U.S.; or
- the Non-U.S. Holder is an individual who is present in the U.S. for 183 days or more during the taxable year of disposition and other conditions are met.

Income or Gains Effectively Connected with a U.S. Trade or Business

If the Non-U.S. Holder is engaged in a U.S. trade or business for U.S. federal income tax purposes, dividends on the common shares and gain from the sale, exchange or other disposition of the shares, that is effectively connected with the conduct of that trade or business (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment), will generally be subject to regular U.S. federal income tax in the same manner as discussed in the previous section relating to the taxation of U.S. Holders. In addition, in the case of a corporate Non-U.S. Holder, its earnings and profits that are attributable to the effectively connected income, which are subject to certain adjustments, may be subject to an additional branch profits tax at a rate of 30%, or at a lower rate as may be specified by an applicable U.S. income tax treaty.

Backup Withholding and Information Reporting

In general, dividend payments, or other taxable distributions, and the payment of the gross proceeds on a sale of our common shares, made within the U.S. to a non-corporate U.S. Holder will be subject to information reporting. Such payments or distributions may also be subject to backup withholding if the non-corporate U.S. Holder:

- fails to provide an accurate taxpayer identification number;
- is notified by the IRS that it has failed to report all interest or dividends required to be shown on its federal income tax returns; or
- in certain circumstances, fails to comply with applicable certification requirements.

Non-U.S. Holders may be required to establish their exemption from information reporting and backup withholding with respect to dividends payments or other taxable distribution on our common shares by certifying their status on an applicable IRS Form W-8. If a Non-U.S. Holder sells our common shares to or through a U.S. office of a broker, the payment of the proceeds is subject to both U.S. backup withholding and information reporting unless the Non-U.S. Holder certifies that it is a non-U.S. person, under penalties of perjury, or it otherwise establishes an exemption. If a Non-U.S. Holder sells our common shares through a non-U.S. office of a non-U.S. broker and the sales proceeds are paid outside the U.S., then information reporting and backup withholding generally will not apply to that payment.

However, U.S. information reporting requirements, but not backup withholding, will apply to a payment of sales proceeds, even if that payment is made outside the U.S., if a Non-U.S. Holder sells our common shares through a non-U.S. office of a broker that is a U.S. person or has some other contacts with the U.S. Such information reporting requirements will not apply, however, if the broker has documentary evidence in its records that the Non-U.S. Holder is not a U.S. person and certain other conditions are met, or the Non-U.S. Holder otherwise establishes an exemption.

Backup withholding is not an additional tax. Rather, a refund may generally be obtained of any amounts withheld under backup withholding rules that exceed the taxpayer's U.S. federal income tax liability by filing a timely refund claim with the IRS.

Individuals who are U.S. Holders (and to the extent specified in applicable Treasury regulations, Non-U.S. Holders and certain U.S. entities) who hold "specified foreign financial assets" (as defined in Section 6038D of the Code) are required to file IRS Form 8938 with information relating to the asset for each taxable year in which the aggregate value of all such assets exceeds \$75,000 at any time during the taxable year or \$50,000 on the last day of the taxable year (or such higher dollar amount as prescribed by applicable Treasury Regulations). Specified foreign financial assets would include, among other assets, our common shares, unless the common shares are held in an account maintained with a U.S. financial institution.

Substantial penalties apply to any failure to timely file IRS Form 8938, unless the failure is shown to be due to reasonable cause and not due to willful neglect. Additionally, in the event an individual U.S. Holder (and to the extent specified in applicable Treasury Regulations, a Non-U.S. Holder or a U.S. entity) that is required to file IRS Form 8938 does not file such form, the statute of limitations on the assessment and collection of U.S. federal income taxes of such holder for the related tax year may not close until three years after the date that the required information is filed. U.S. Holders (including U.S. entities) and Non-U.S. Holders are encouraged to consult their own tax advisors regarding their reporting obligations in respect of our common shares.

F. Dividends and Paying Agents

Not applicable.

G. Statements by Experts

Not applicable.

H. Documents on Display

Documents concerning us that are referred to herein may be inspected at our principal executive offices at Belvedere Building, 69 Pitts Bay Road, Ground Floor, Pembroke, HM08, Bermuda.

I. Subsidiary Information

Not applicable.

Item 11. Quantitative and Qualitative Disclosures about Market Risks

Operational risk

We are exposed to operating costs arising from various vessel operations. Key areas of operating risk include drydock, repair costs, insurance, piracy and fuel prices. Our risk management includes various strategies for technical management of drydock and repairs coordinated with a focus on measuring cost and quality. Our modern fleet helps to minimize the risk. Given the potential for accidents and other incidents that may occur in vessel operations, the fleet is insured against various types of risk. We have established a set of countermeasures in order to minimize the risk of piracy attacks during voyages, particularly through regions which the Joint War Committee or our insurers consider high risk, or which they recommend monitoring, to make the navigation safer for sea staff and to protect our assets. The price and supply of fuel is unpredictable and can fluctuate from time to time; fuel prices increased significantly during 2022. We periodically consider and monitor the need for fuel hedging to manage this risk.

Foreign exchange risk

The majority of our transactions, assets and liabilities are denominated in U.S. Dollars, our functional currency. We incur certain general and operating expenses in other currencies (primarily the Euro, Singapore Dollar and Pounds Sterling) and as a result there is a transactional risk to us that currency fluctuations will have a negative effect on the value of our cash flows. Such risk may have an adverse effect on our financial condition and results of operations. We believe these adverse effects to be immaterial and did not enter into any derivative contracts for either transaction or translation risk during the year ended December 31, 2022.

Interest rate risk

We are exposed to the impact of interest rate changes, primarily through borrowings that require us to make interest payments based on the Adjusted Secured Overnight Financing Rate (SOFR). Significant increases in interest rates could adversely affect our results of operations and our ability to repay debt. We regularly monitor interest rate exposure and enter into swap arrangements to hedge exposure where it is considered economically advantageous to do so.

We are exposed to the risk of credit loss in the event of non-performance by the counterparties to the interest rate swap agreements. In order to minimize counterparty risk, we have only entered into derivative transactions with investment grade counterparties at the time of the transactions. In addition, to the extent possible and practical, interest rate swaps are entered into with different counterparties to reduce concentration risk.

During the year ended December 31, 2020, we entered into floating-to-fixed interest rate swap agreements over a three-year term with multiple counterparties. In accordance with these transactions, we will pay an average fixed-rate interest amount of 0.32% and will receive floating rate interest amounts based on LIBOR. These interest rate swaps have a total notional amount of \$230.8 million, of which \$71.5 million are designated as cash flow hedges. The swaps are due to expire in mid-2023 and as interest rates are currently rising, interest costs could increase significantly on expiration of the swaps.

LIBOR is scheduled to be phased out by June 30, 2023. During the three months ended September 30, 2022, we entered into new financing arrangements with ABN AMRO and CACIB and with Nordea/SEB. These new facilities are priced at SOFR, which tracks the cost of funds in the overnight Treasury repo market and has been chosen to replace LIBOR in the U.S. Interest on these facilities is being paid from the fourth quarter of 2022 onwards.

During the three months ended September 30, 2022, we entered into two new financing arrangements, the first with Nordea and SEB and the second with ABN AMRO and CACIB. Both facilities are priced at SOFR plus a margin of 2.5% (Adjusted SOFR, equivalent to LIBOR, plus a margin of 2.25%) and mature in 2027.

The disclosure in the immediately following paragraph about the potential effects of changes in interest rates are based on a sensitivity analysis, which models the effects of hypothetical interest rate shifts. A sensitivity analysis is constrained by several factors, including the necessity to conduct the analysis based on a single point in time and by the inability to include the extraordinarily complex market reactions that normally would arise from the market shifts. Although the following results of a sensitivity analysis for changes in interest rates may have some limited use as a benchmark, they should not be viewed as a forecast. This forward-looking disclosure also is selective in nature and addresses only the potential impacts on our borrowings.

Assuming we do not hedge our exposure to interest rate fluctuations, a hypothetical 100 basis-point increase or decrease in our variable interest rates would have increased or decreased our interest expense for the year ended December 31, 2022 by \$2.8 million (2021: \$3.1 million) using the average long-term debt and finance lease balance and actual interest incurred in each period.

Credit risk

There is a concentration of credit risk with respect to our cash and cash equivalents to the extent that substantially all of the amounts are held in ABN and Nordea, and in short-term funds (with a credit risk rating of at least AA) managed by BlackRock, State Street Global Advisors and JPMorgan Asset Management. While we believe this risk of loss is low, we intend to review and revise our policy for managing cash and cash equivalents if considered prudent to do so.

We limit our credit risk with trade accounts receivable by performing ongoing credit evaluations of our customers' financial condition. We generally do not require collateral for our trade accounts receivable.

We may be exposed to a credit risk in relation to vessel employment and at times may have multiple vessels employed by one charterer. We consider and evaluate concentration of credit risk regularly and perform on-going evaluations of these charterers for credit risk and credit concentration risk. As of December 31, 2022 our 27 vessels in operation were employed with 17 different charterers.

Liquidity risk

Our principal objective in relation to liquidity is to ensure that we have access, at minimum cost, to sufficient liquidity to enable us to meet our obligations as they fall due and to provide adequately for contingencies. Our policy is to manage our liquidity by strict forecasting of cash flows arising from or expenses relating to voyage and time charter revenue, pool revenue, vessel operating expenses, general and administrative overhead and servicing of debt.

Inflation

With inflation becoming a significant factor in the global economy, inflationary pressures are expected to result in increased operating, voyage (including bunkers) and general and administrative costs. Inflationary pressures on bunker costs could adversely affect our operating results to the extent our spot charter rates do not adequately cover the cost of any increases in bunker costs.

Item 12. Description of Securities Other than Equity Securities

Not applicable.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Shareholders and Use of Proceeds

None.

Item 15. Controls and Procedures

A. Disclosure Controls and Procedures

We evaluated pursuant to Rule 13a-15(b) of the Exchange Act the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2022. Based on that evaluation, our Principal Executive Officer and Principal Financial Officer concluded that our disclosure controls and procedures were effective to provide, as of December 31, 2022, reasonable assurance that the information required to be disclosed by us in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

B. Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal controls over our financial reporting. Our internal controls were designed to provide reasonable assurance as to the reliability of our financial reporting and the preparation and presentation of the consolidated financial statements for external purposes in accordance with U.S. GAAP.

Our internal controls over financial reporting include those policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made in accordance with authorizations of management and our directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Management evaluated the effectiveness of our internal control over financial reporting as of December 31, 2022, using the framework set forth in the report of the Treadway Commission's Committee of Sponsoring Organizations in Internal Control Integrated Framework (2013).

Management's evaluation as of December 31, 2022 included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Because of its inherent limitations, internal controls over financial reporting may not prevent or detect misstatements even when determined to be effective and can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate. Based on the evaluation, management determined that internal controls over financial reporting were effective as of December 31, 2022.

C. Attestation Report of the Registered Public Accounting Firm

The independent registered public accounting firm, Deloitte & Touche LLP, that audited our consolidated financial statements as of and for the year ended December 31, 2022 and included in this Annual Report, has issued an attestation report on our internal control over financial reporting which is provided on page F-2.

D. Changes in Internal Control Over Financial Reporting

There were no changes in our internal controls over financial reporting that occurred during or related to the period covered by this Annual Report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16. Reserved

Item 16.A. Audit Committee Financial Expert

Our board of directors has determined that director and Chair of the Audit Committee, Helen Tveitan de Jong, qualifies as an Audit Committee financial expert and is independent under applicable NYSE and SEC standards.

Item 16.B. Code of Ethics

We have adopted a code of conduct and ethics applicable to our directors, chief executive officer, chief financial officer, principal accounting officer and other key management personnel. The code is available for review on our website at www.ardmoreshipping.com.

Item 16.C. Principal Accountant Fees and Services

Our principal accountants for the years ended December 31, 2022 and 2021 were Deloitte & Touche LLP (PCAOB ID No. 34).

Audit Fees

The audit fees for the audit of the years ended December 31, 2022 and 2021 were \$0.8 million and \$0.6 million, respectively.

Audit-Related Fees

Audit-related fees relating to work performed by our principal accountants for the years ended December 31, 2022 and 2021 were \$0.0 million and \$0.1 million, respectively.

Tax Fees

There were no tax fees billed by our principal accountants in 2022 or 2021.

All Other Fees

There were no other fees billed by our principal accountants in 2022 or 2021.

Audit Committee

The Audit Committee is responsible for the appointment, replacement, compensation, evaluation and oversight of the work of the independent auditors. As part of this responsibility, the Audit Committee pre-approves the audit and non-audit services performed by the independent auditors in order to assure that they do not impair the auditors' independence. The Audit Committee has adopted a policy which sets forth the procedures and the conditions pursuant to which services proposed to be performed by the independent auditors may be pre-approved.

The Audit Committee separately pre-approved all engagements and fees paid to our principal accountants in 2022 and 2021.

Item 16.D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16.E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In September 2020, our Board of Directors authorized a new share repurchase plan (the "Repurchase Plan"), expanding and replacing our earlier plan. Pursuant to the Repurchase Plan, we may purchase up to \$30 million of our common shares through September 30, 2023, at times and prices that are considered by us to be appropriate. We expect to repurchase shares under the plan in the open market or in privately negotiated transactions, but we are not obligated under the terms of the plan to repurchase any shares, and, at any time, we may suspend, delay or discontinue the Repurchase Plan. During the year ended December 31, 2020, we repurchased 98,652 shares, all under our Repurchase Plan, at a weighted-average price of \$2.91 per share (including fees and commission of \$0.02 per share) for a total of \$286,856. We repurchased all of these shares during November 2020. During the years ended December 31, 2021 and 2022, we did not repurchase any shares of our common stock. The total remaining share repurchase authorization under the Repurchase Plan at December 31, 2022, was \$29.7 million.

Item 16.F. Change in Registrant's Certifying Accountant

Not applicable.

Item 16.G. Corporate Governance

We, as a foreign private issuer, are not required to comply with certain corporate governance practices followed by U.S. companies under the New York Stock Exchange ("NYSE") listing standards. We believe that our established practices in the area of corporate governance provide adequate protection to our shareholders. In this respect, we have voluntarily adopted a number of NYSE required practices, such as having a majority of independent directors, establishing a Compensation Committee and a Nominating and Corporate Governance Committee each composed of independent directors, adopting corporate governance guidelines and holding regular executive meetings of non-management directors.

The following is the significant way in which our corporate governance practices differ from those followed by U.S. domestic companies listed on the NYSE, and which difference is permitted by NYSE rules for "foreign private issuers" such as Ardmore Shipping Corporation:

- The NYSE requires that U.S. issuers obtain shareholder approval prior to the adoption of equity compensation plans and prior to certain equity issuances, including, among others, issuing 20% or more of our outstanding shares of common stock or voting power in a transaction. Our board of directors approves the adoption of equity compensation plans in lieu of such shareholder approval, and we currently do not intend to seek shareholder approval prior to equity issuances that otherwise would require such approval if we were not a foreign private issuer.

Item 16.H. Mine Safety Disclosures

Not applicable.

Item 16.I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III**Item 17. Financial Statements**

Not applicable.

Item 18. Financial Statements

See index to Financial Statements on page F-1.

Item 19. Exhibits

The following exhibits are filed as part of this Annual Report:

Exhibit Number	Description
1.1	Amended and Restated Articles of Incorporation of the Company (incorporated herein by reference to Exhibit 3.1 to the Company's Registration Statement on Form F-1/A (Registration Number 333-189714), filed with the SEC on July 22, 2013).
1.2	Amended and Restated Bylaws of the Company (incorporated herein by reference to Exhibit 3.2 to the Company's Registration Statement on Form F-1/A (Registration Number 333-189714), filed with the SEC on July 22, 2013).
1.3	Statement of Designation of the 8.5% Cumulative Redeemable Perpetual Preferred Shares—Series A of the Company (incorporated herein by reference to Exhibit 1.1 to the Company's Report on Form 6-K filed with the SEC on June 17, 2021).
2.1	Form of Stock Certificate (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form F-1/A (Registration Number 333-189714), filed with the SEC on July 22, 2013).
2.2	Description of Securities.
4.1	Equity Incentive Plan (incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form F-1/A (Registration Number 333-189714), filed with the SEC on July 22, 2013).
4.2	Term Loan Facility, dated December 11, 2019, by and among Fitzroy Shipco LLC, Bailey Shipco LLC, Cromarty Shipco LLC, Dogger Shipco LLC, Ardmere Shipping LLC, the Company, ABN Amro Bank NV, Credit Agricole Corporate and Investment Bank and the other banks and financial institutions party thereto (incorporated herein by reference to Exhibit 4.2 to the Company's Annual Report on Form 20-F filed with the SEC on April 3, 2020).
4.3	Term Loan and Revolving Facilities, dated December 11, 2019, by and among Faroe Shipco LLC, Plymouth Shipco LL, Portland Shipco LLC, Fisher Shipco LLC, Fair Isla Shipco LLC, Humber Shipco LLC, Forth Shipco LLC, Trafalgar Shipco LLC, Ardmere Shipping LLC, the Company, Nordea Bank ABP, Filial I Norge, Skandinaviska Enskilda Banken Ab (Publ) and the other banks and financial institutions party thereto (incorporated herein by reference to Exhibit 4.3 to the Company's Annual Report on Form 20-F filed with the SEC on April 3, 2020).
4.4	Open Market Sale Agreement, dated August 30, 2019, by and between the Company and Evercore Group L.L.C., Jefferies LLC and Wells Fargo Securities, LLC (incorporated herein by reference to Exhibit 1.1 to the Company's Report on Form 6-K filed with the SEC on August 30, 2019).
4.5	Open Market Sale Agreement, dated as of August 20, 2021, among the Company and Evercore Group L.L.C., DNB Markets, Inc. and Stifel, Nicolaus & Company, Incorporated (incorporated herein by reference to Exhibit 1.1 to the Company's Form F-3 (Registration Number 333-258974) filed with the SEC on August 20, 2021).
4.6	Preferred Stock Purchase Agreement, dated June 3, 2021, by and between Ardmere Shipping Corporation and ARF Innovation, LLC (incorporated herein by reference to Exhibit 10.1 to the Company's Report on Form 6-K filed with the SEC on June 4, 2021).
4.7	Amendment to Preferred Stock Purchase Agreement, dated June 17, 2021, by and between the Company and ARF Innovation, LLC.
4.8	Term and Accordion Facilities, dated August 2, 2022, by and among Fitzroy Shipco LLC, Bailey Shipco LLC, Cromarty Shipco LLC, Dogger Shipco LLC, Lundy Shipco LLC, Viking Shipco LLC, Tramore Shipco LLC, Ardmere Shipping LLC, the Company, ABN Amro Bank N.V and Crédit Agricole Corporate and Investment Bank.
4.9	Term Loan and Revolving Facilities, dated July 29, 2022, by and among Faroe Shipco LLC, Fisher Shipco LLC, Fair Isle Shipco LLC, Humber Shipco LLC, Forth Shipco LLC, Trafalgar Shipco LLC, Wight Shipco LLC, Saltee Shipco LLC, Blasket Shipco LLC, Kilmore Shipco LLC, Killary Shipco

	LLC, Ballycotton Shipco LLC, Ardmere Shipping LLC, the Company, Nordea Bank ABP, Filial I Norge and Skandinaviska Enskilda Banken AB (Publ).
4.10	Open Market Sales Agreement, dated as of September 2, 2022, among the Company and Evercore Group L.L.C, DNB Markets, Inc. and Stifel, Nicolaus & Company., Incorporated (incorporated herein by reference to Exhibit 1.1 to the Company's Form F-3 (Registration Number 333-267260) filed with the SEC on September 2, 2022).
8.1	Subsidiaries of the Company
12.1	Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act 2002
12.2	Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act 2002
13.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1	Consent of Independent Registered Public Accounting Firm (Deloitte & Touche LLP)
101	The following materials from the Company's Annual Report on Form 20-F for the fiscal year ended December 31, 2022, formatted in Inline XBRL: <ul style="list-style-type: none"> (i) Consolidated Balance Sheets as of December 31, 2022 and 2021; (ii) Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020; (iii) Consolidated Statements of Comprehensive Loss for the years ended December 31, 2022, 2021 and 2020; (iv) Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020; (v) Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020; and (vi) Notes to Consolidated Financial Statements
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

ARDMORE SHIPPING CORPORATION

By: /s/ Anthony Gurnee
Anthony Gurnee
Chief Executive Officer
(Principal Executive Officer)

Date: March 24, 2023

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Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of Ardmere Shipping Corporation:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ardmere Shipping Corporation and subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income/(loss), changes in redeemable preferred stock and stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Determination of Vessel Asset Impairment Indicators — Refer to Note 2.16 to the financial statements

Critical Audit Matter Description

The Company's evaluation of vessel assets for impairment involves an initial assessment of each vessel asset to determine whether events or changes in circumstances exist that may indicate that the carrying amounts of vessel assets are no longer recoverable. Total Vessels and vessel equipment, net as of December 31, 2022 and 2021, were \$531 million and \$603 million, respectively.

Possible indicators of impairment may include events or changes in circumstances affecting the legal environment, the business climate, employment, charter hire rates, market value, useful economic life and physical condition of the vessel assets. When events or changes in circumstances exist, the Company evaluates its vessel assets for impairment by comparing undiscounted future cash flows expected to be generated over the life of each vessel asset to the respective carrying amount. If the Company's estimate of undiscounted future cash flows for any vessel asset for which indicators of impairment exist is lower than the vessel asset's carrying value, and the vessel's carrying value is greater than its fair value, the carrying value is written down, by recording a charge to operations, to the vessel asset's fair value as provided by third parties.

The Company makes significant assumptions to evaluate vessel assets for possible indicators of impairment. Changes in these assumptions could have a significant impact on the vessel assets identified for further analysis. For the years ended December 31, 2022, 2021 and 2020, no impairment loss has been recognized on vessel assets.

We identified the determination of impairment indicators for vessel assets as a critical audit matter because of the significant assumptions management makes when determining whether events or changes in circumstances have occurred indicating that the carrying amounts of vessel assets may not be recoverable. This required a high degree of auditor judgment and an increased extent of effort when performing audit procedures to evaluate whether management appropriately identified impairment indicators.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the evaluation of vessel assets for possible indicators of impairment included the following, among others:

- We tested the effectiveness of the controls over management’s identification of possible circumstances that may indicate that the carrying amounts of vessel assets are no longer recoverable, including controls over management’s estimates of the legal environment, the business climate, employment, charter hire rates, market value, useful economic life, and physical condition of the vessel assets.
- We evaluated management’s impairment analysis by:
 - Testing vessel assets for possible indicators of impairment, including searching for adverse asset-specific and/or market conditions.
 - Developing an independent expectation of impairment indicators and comparing such expectation to management’s analysis.
 - Obtained from the Company’s management the vessel assets impairment indicators analysis and the assumptions used in the legal environment, the business climate, employment, charter hire rates, market value, and physical condition of the vessel assets, and considered the consistency of the assumptions used with evidence obtained in other areas of the audit. This included, among others, 1) internal communications by management to the board of directors, and 2) external communications by management to analysts and investors.

/s/ Deloitte & Touche LLP

New York, New York

March 24, 2023

We have served as the Company's auditor since 2019.

Ardmore Shipping Corporation
Consolidated Balance Sheets
(Expressed in U.S. Dollars, except shares and as otherwise indicated)

	Notes	As of December 31	
		2022	2021
<i>In thousands of U.S. Dollars, except as indicated</i>			
ASSETS			
Current assets			
Cash and cash equivalents		50,569	55,449
Receivables, net of allowance for bad debts of \$2.2 million (2021: \$0.8 million)		79,843	20,304
Prepaid expenses and other assets		4,521	3,511
Advances and deposits		2,160	3,551
Inventories		15,718	11,095
Current portion of derivative assets		4,927	307
Total current assets		157,738	94,217
Non-current assets			
Investments and other assets, net of accumulated depreciation of \$2.1 million (2021: \$1.9 million)	4	11,219	11,082
Vessels and vessel equipment, net of accumulated depreciation of \$210.0 million (2021: \$201.7 million)		531,378	603,227
Deferred drydock expenditures, net of accumulated amortization of \$18.7 million (2021: \$18.4 million)		4,716	8,879
Advances for ballast water treatment and scrubber systems		5,530	2,033
Amount receivable in respect of finance leases		—	2,880
Deferred finance fees, net		2,717	—
Non-current portion of derivative assets		—	982
Operating lease, right-of-use asset	8	10,561	1,232
Total non-current assets		566,121	630,315
TOTAL ASSETS		723,859	724,532
LIABILITIES AND EQUITY			
Current liabilities			
Accounts payable		8,814	8,578
Accrued expenses and other liabilities	5	20,890	10,742
Deferred revenue		1,220	2,070
Accrued interest on debt and finance leases		863	651
Current portion of long-term debt	6	12,927	15,103
Current portion of finance lease obligations	7	1,857	21,084
Current portion of operating lease obligations	8	6,358	273
Total current liabilities		52,929	58,501
Non-current liabilities			
Non-current portion of long-term debt	6	115,869	129,998
Non-current portion of finance lease obligations	7	43,643	205,371
Non-current portion of operating lease obligations	8	3,969	722
Other non-current liabilities	10	1,007	943
Total non-current liabilities		164,488	337,034
TOTAL LIABILITIES		217,417	395,535
Redeemable Preferred Stock			
Cumulative Series A 8.5% redeemable preferred stock	10	37,043	37,043
Total redeemable preferred stock		37,043	37,043
Stockholders' equity			
Common stock (\$0.01 par value, 225,000,000 shares authorized, 42,646,636 issued and 40,626,583 outstanding as of December 31, 2022 and 36,383,937 issued and 34,363,884 outstanding as of December 31, 2021)		426	364
Additional paid in capital		468,006	426,102
Accumulated other comprehensive income		1,468	1,044
Treasury stock (2,020,053 shares as of December 31, 2022 and December 31, 2021)		(15,636)	(15,636)
Retained earnings / (accumulated deficit)		15,135	(119,920)
Total stockholders' equity		469,399	291,954
Total redeemable preferred stock and stockholders' equity		506,442	328,997
TOTAL LIABILITIES, REDEEMABLE PREFERRED STOCK AND EQUITY		723,859	724,532

The accompanying notes are an integral part of these consolidated financial statements.

Ardmore Shipping Corporation
Consolidated Statements of Operations
(Expressed in U.S. Dollars, except for shares)

<i>In thousands of U.S. Dollars except share data</i>	Notes	For the years ended December 31		
		2022	2021	2020
Revenue, net	3	445,741	192,484	220,058
Voyage expenses		(153,729)	(88,578)	(81,253)
Vessel operating expenses		(60,020)	(60,834)	(62,547)
Charter hire costs				
Operating expense component		(7,809)	(3,609)	(712)
Vessel lease expense component		(7,185)	(3,321)	(655)
Depreciation		(29,276)	(31,702)	(32,187)
Amortization of deferred drydock expenditures		(4,161)	(5,169)	(6,200)
General and administrative expenses				
Corporate		(19,936)	(16,071)	(15,123)
Commercial and chartering		(4,171)	(3,125)	(2,781)
Loss on vessel held for sale	11	—	—	(6,447)
Loss on vessels sold	11	(6,917)	—	—
Unrealized gains / (losses) on derivatives		2,961	276	(114)
Interest expense and finance costs	12	(15,537)	(16,202)	(18,168)
Loss on extinguishment	12	(1,576)	(569)	—
Interest income		471	55	282
Income / (Loss) before taxes and equity method investments		138,856	(36,365)	(5,847)
Income tax	13	(207)	(150)	(199)
Loss from equity method investments	4	(195)	(317)	—
Net Income / (Loss)		138,454	(36,832)	(6,046)
Preferred dividend		(3,400)	(1,254)	—
Net Income / (Loss) attributable to common stockholders		135,054	(38,086)	(6,046)
Net income / (loss) per share, basic	14	3.63	(1.12)	(0.18)
Net income / (loss) per share, diluted	14	3.52	(1.12)	(0.18)
Weighted average number of shares outstanding, basic	14	37,235,599	33,882,932	33,241,936
Weighted average number of shares outstanding, diluted	14	38,359,985	33,882,932	33,241,936

The accompanying notes are an integral part of these consolidated financial statements.

Ardmore Shipping Corporation
Consolidated Statements of Comprehensive Income / (Loss)
(Expressed in U.S. Dollars)

<i>In thousands of U.S. Dollars</i>	For the years ended December 31		
	2022	2021	2020
Net Income / (Loss)	138,454	(36,832)	(6,046)
Other comprehensive income / (loss), net of tax			
Net change in unrealized gains / (losses) on cash flow hedges	424	1,773	(729)
Other comprehensive income / (loss), net of tax	424	1,773	(729)
Comprehensive Income / (Loss)	138,878	(35,059)	(6,775)

The accompanying notes are an integral part of these consolidated financial statements.

Ardmore Shipping Corporation
Consolidated Statements of Changes in Redeemable Preferred Stock and Stockholders' Equity
(Expressed in U.S. Dollars, except for shares)

	Redeemable Preferred Stock		Common Stock		Additional paid in capital	Accumulated other comprehensive income / (loss)	Treasury stock	Retained Earnings / (Accumulated deficit)	TOTAL
	Shares	Amount	Shares	Amount					
<i>In thousands of U.S. Dollars and shares</i>									
Balance as of January 1, 2020	—	—	33,098	350	416,841	—	(15,349)	(75,787)	326,055
Issue of common stock	—	—	187	2	(2)	—	—	—	—
Share-based compensation	—	—	—	—	3,001	—	—	—	3,001
Payment of dividend	—	—	—	—	(1,659)	—	—	—	(1,659)
Repurchase of common stock	—	—	(99)	—	—	—	(287)	—	(287)
Changes in unrealized loss on cash flow hedges	—	—	—	—	—	(729)	—	—	(729)
Net loss	—	—	—	—	—	—	—	(6,046)	(6,046)
Balance as of December 31, 2020	—	—	33,186	352	418,181	(729)	(15,636)	(81,833)	320,335
Issue of redeemable preferred stock, net of issuance costs	40	37,043	—	—	—	—	—	—	—
Issue of common stock	—	—	1,177	12	5,308	—	—	—	5,320
Share-based compensation	—	—	—	—	2,613	—	—	—	2,613
Changes in unrealized gain on cash flow hedges	—	—	—	—	—	1,773	—	—	1,773
Preferred stock dividend	—	—	—	—	—	—	—	(1,254)	(1,254)
Net loss	—	—	—	—	—	—	—	(36,832)	(36,832)
Balance as of December 31, 2021	40	37,043	34,363	364	426,102	1,044	(15,636)	(119,920)	291,954
Issue of common stock	—	—	1,419	14	(14)	—	—	—	—
Share-based compensation	—	—	—	—	3,057	—	—	—	3,057
Changes in unrealized gain on cash flow hedges	—	—	—	—	—	424	—	—	424
Net Proceeds from Equity Offering	—	—	4,844	48	38,861	—	—	(3,400)	38,909
Preferred stock dividend	—	—	—	—	—	—	—	—	(3,400)
Net income	—	—	—	—	—	—	—	138,454	138,454
Balance as of December 31, 2022	40	37,043	40,626	426	468,006	1,468	(15,636)	15,135	469,399

The accompanying notes are an integral part of these consolidated financial statements.

Ardmore Shipping Corporation
Consolidated Statements of Cash Flows
(Expressed in U.S. Dollars)

	Notes	For the years ended December 31		
		2022	2021	2020
<i>In thousands of U.S. Dollars</i>				
CASH FLOWS FROM OPERATING ACTIVITIES				
Net income / (loss)		138,454	(36,832)	(6,046)
Adjustments to reconcile net income / (loss) to net cash provided by / (used in) operating activities:				
Depreciation		29,276	31,702	32,187
Amortization of deferred drydock expenditures		4,161	5,169	6,200
Share-based compensation		3,057	2,613	3,001
Loss on vessel held for sale	11	—	—	6,447
Loss on vessels sold	11	6,917	—	—
Amortization of deferred finance fees		1,461	1,623	1,765
Loss on extinguishment		1,576	569	—
Unrealized (gains) / losses on derivatives		(2,961)	(276)	114
Foreign exchange		2	(72)	109
Loss from equity method investments		195	317	—
Deferred drydock payments		(1,913)	(5,883)	(7,003)
Changes in operating assets and liabilities:				
Receivables		(59,559)	(2,496)	12,273
Prepaid expenses and other assets		(1,010)	173	(1,744)
Advances and deposits		1,391	(1,034)	1,597
Inventories		(4,623)	(821)	(115)
Accounts payable		(1,612)	1,151	2,543
Accrued expenses and other liabilities		10,033	(701)	(5,099)
Deferred revenue		(850)	2,070	—
Accrued interest		212	(157)	(135)
Net cash provided by / (used in) operating activities		124,207	(2,885)	46,094
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sale of vessels		39,912	9,895	—
Payments for acquisition of vessels and vessel equipment		(1,335)	(2,475)	(18,720)
Advances for ballast water treatment and scrubber systems		(2,473)	(158)	(2,184)
Payments for other non-current assets		(106)	(94)	(89)
Payments for equity investments		(588)	(5,541)	—
Net cash provided by / (used in) investing activities		35,410	1,627	(20,993)
CASH FLOWS FROM FINANCING ACTIVITIES				
Prepayment of finance lease obligation		(166,580)	—	—
Proceeds from long-term debt		131,884	—	20,375
Repayments of long-term debt		(148,245)	(66,912)	(18,018)
Proceeds from finance leases		—	49,000	—
Repayments of finance leases		(13,675)	(19,960)	(18,650)
Payments for deferred finance fees		(3,505)	(980)	(220)
Repurchase of common stock		—	—	(287)
Payment of dividend		—	—	(1,659)
Issuance of common stock, net		38,909	—	—
Issuance of preferred stock, net		—	37,986	—
Payment of preferred dividend		(3,285)	(792)	—
Net cash used in financing activities		(164,497)	(1,658)	(18,459)
Net (decrease) / increase in cash and cash equivalents		(4,880)	(2,916)	6,642
Cash and cash equivalents at the beginning of the year		55,449	58,365	51,723
Cash and cash equivalents at the end of the year		50,569	55,449	58,365
Cash paid during the period for interest in respect of debt		5,739	4,510	6,526
Cash paid during the period for interest in respect of finance leases		11,559	9,793	9,902
Cash paid during the period for operating lease liabilities		719	462	501
Cash paid during the period for income taxes		51	198	139
Non-cash investing activity: Investment in Element 1 by issuing 950,000 shares of common stock		—	5,320	—
Non-cash financing activity: MP Profits Interest	10	1,007	943	—
Non-cash financing activity: Accrued preferred dividends		578	462	—

The accompanying notes are an integral part of these consolidated financial statements.

1. Overview

1.1. Background

Ardmore Shipping Corporation (NYSE: ASC) (“ASC”), together with its subsidiaries (collectively the “Company”), provides seaborne transportation of petroleum products and chemicals worldwide to oil majors, national oil companies, oil and chemical traders, and chemical companies, with its modern, fuel-efficient fleet of mid-size product and chemical tankers and the Company operates its business in one operating segment, the transportation of refined petroleum products and chemicals. As of December 31, 2022, the Company had 22 owned vessels and five chartered-in vessels in operation. The average age of the Company’s owned fleet as of December 31, 2022 was 8.6 years.

1.2. Management and organizational structure

ASC was incorporated in the Republic of the Marshall Islands on May 14, 2013. ASC commenced business operations through its predecessor company, Ardmore Shipping LLC, on April 15, 2010.

As of December 31, 2022, ASC had (a) 79 wholly owned subsidiaries, the majority of which represent single ship-owning companies for ASC’s fleet, (b) one 50%-owned joint venture, Anglo Ardmore Ship Management Limited (“AASML”), which provides technical management services to a majority of the ASC fleet, (c) a 33.33% interest in the e1 Marine LLC joint venture, which was formed in 2021 to market and sell Element 1 Corp.’s methanol-to-hydrogen technology to the marine sector, and (d) a 10% equity stake, on a fully diluted basis, in Element 1 Corp. During the three months ended June 30, 2021, the Company paid an aggregate of \$5.0 million in cash and \$5.3 million through the issuance of ASC common shares for the Company’s equity stake in Element 1 Corp. and its equity interest in e1 Marine which is included in Investments and other assets, net in the consolidated balance sheet as of December 31, 2022 and 2021.

Ardmore Maritime Services (Asia) Pte. Limited, a wholly owned subsidiary incorporated in Singapore, carries out the Company’s management services and associated functions. Ardmore Shipping Services (Ireland) Limited, a wholly owned subsidiary incorporated in Ireland, provides the Company’s corporate, accounting, fleet administration and operations services. Each of Ardmore Shipping (Asia) Pte. Limited and Ardmore Shipping (Americas) LLC, wholly owned subsidiaries incorporated in Singapore and Delaware, respectively, performs commercial management and chartering services for the Company.

1.3. Vessels

As of December 31, 2022, the Company owned and operated a modern fleet of 22 product/chemical vessels, 21 with Marshall Island flags and one with a Singapore flag, and with a combined carrying capacity of 973,181 deadweight tonnes (“dwt”) and an average age of approximately 8.6 years.

Vessel Name	Type	Dwt	IMO	Built	Country	Specification
<i>Ardmore Seavaliant</i>	Product/Chemical	49,998	2/3	Feb-13	Korea	Eco-design
<i>Ardmore Seaventure</i>	Product/Chemical	49,998	2/3	Jun-13	Korea	Eco-design
<i>Ardmore Seavantage</i>	Product/Chemical	49,997	2/3	Jan-14	Korea	Eco-design
<i>Ardmore Seavanguard</i> . .	Product/Chemical	49,998	2/3	Feb-14	Korea	Eco-design
<i>Ardmore Sealion</i>	Product/Chemical	49,999	2/3	May-15	Korea	Eco-design
<i>Ardmore Seafox</i>	Product/Chemical	49,999	2/3	Jun-15	Korea	Eco-design
<i>Ardmore Seawolf</i>	Product/Chemical	49,999	2/3	Aug-15	Korea	Eco-design
<i>Ardmore Seahawk</i>	Product/Chemical	49,999	2/3	Nov-15	Korea	Eco-design
<i>Ardmore Endeavour</i>	Product/Chemical	49,997	2/3	Jul-13	Korea	Eco-design
<i>Ardmore Enterprise</i>	Product/Chemical	49,453	2/3	Sep-13	Korea	Eco-design
<i>Ardmore Endurance</i>	Product/Chemical	49,466	2/3	Dec-13	Korea	Eco-design
<i>Ardmore Encounter</i>	Product/Chemical	49,478	2/3	Jan-14	Korea	Eco-design
<i>Ardmore Explorer</i>	Product/Chemical	49,494	2/3	Jan-14	Korea	Eco-design
<i>Ardmore Exporter</i>	Product/Chemical	49,466	2/3	Feb-14	Korea	Eco-design
<i>Ardmore Engineer</i>	Product/Chemical	49,420	2/3	Mar-14	Korea	Eco-design
<i>Ardmore Seafarer</i>	Product	49,999	—	Jun-10	Japan	Eco-mod
<i>Ardmore Dauntless</i>	Product/Chemical	37,764	2	Feb-15	Korea	Eco-design
<i>Ardmore Defender</i>	Product/Chemical	37,791	2	Feb-15	Korea	Eco-design
<i>Ardmore Cherokee</i>	Product/Chemical	25,215	2	Jan-15	Japan	Eco-design
<i>Ardmore Cheyenne</i>	Product/Chemical	25,217	2	Mar-15	Japan	Eco-design
<i>Ardmore Chinook</i>	Product/Chemical	25,217	2	Jul-15	Japan	Eco-design
<i>Ardmore Chippewa</i>	Product/Chemical	25,217	2	Nov-15	Japan	Eco-design
Total	22	973,181				

(1) International Maritime Organization (“IMO”) cargo classification

2. Significant accounting policies

2.1. Basis of preparation

The accompanying consolidated financial statements, which include the accounts of ASC and its subsidiaries, have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). All subsidiaries are 100% directly or indirectly owned by ASC. AASML and e1 Marine, which are joint ventures in which the Company has 50% and 33.33% interests, respectively, are accounted for using the equity method. The Company’s 10% investment in Element 1 Corp. is also accounted using the equity method. All intercompany balances and transactions have been eliminated on consolidation.

2.2. Uses of estimates

The preparation of the consolidated financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. On an on-going basis, management evaluates the estimates and judgments, including those related to uncompleted voyages, future drydock dates, the selection of useful lives for vessels, vessel valuations, residual value of vessels, expected future cash flows from vessels to support vessel impairment tests, provisions necessary for receivables from charterers, the selection of inputs used in the valuation model for share-based payment awards, provisions for legal disputes and contingencies. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable. Actual results could differ from those estimates.

2.3. Reporting currency

The consolidated financial statements are stated in U.S. Dollars. The functional currency of the Company is U.S. Dollars because the Company operates in international shipping markets in which most transactions are denominated in the U.S. Dollar. Transactions involving other currencies during the year are converted into U.S. Dollars using the exchange rates in effect at the time of the transactions. Resulting gains and losses are included in the accompanying consolidated statements of operations.

2.4. Recent accounting pronouncements

In March 2020, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2020-04, “Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting (“ASU 2020-04”)” which provides temporary optional expedients and exceptions to the guidance in U.S. GAAP on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (“LIBOR”) and other interbank offered floating interest rates to alternative reference rates. In January 2021, the FASB issued ASU 2021-01, “Reference Rate Reform (Topic 848) – Scope (“ASU 2021-01”),” which permits entities to apply optional expedients in Topic 848 to derivative instruments modified because of discounting transition resulting from reference rate reform. In December 2022, the FASB issued ASU 2022-06, “Reference Rate Reform (Topic 848) – Deferral of the Sunset Date of Topic 848” which defers the sunset date of Topic 848 from December 31, 2022 to December 31, 2024 after which entities will no longer be permitted to apply the relief in Topic 848. ASU 2020-04 became effective upon issuance and may be applied prospectively to contract modification made on or before December 31, 2024 (as extended by ASU 2022-06, Deferral of the Sunset Date of Topic 848). ASU 2021-01 became effective upon issuance and may be applied on a full retrospective basis as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020 or prospectively for contract modifications made on or before December 31, 2022. The Company has adopted ASU 2020-04 and ASU 2021-01.

2.5. Revenue

Revenue is generated from spot charter arrangements, time charter arrangements and pool arrangements.

Spot charter arrangements

The Company’s spot charter arrangements are for single voyages for the service of the transportation of cargo that are generally short in duration (less than two months) and the Company is responsible for all costs incurred during the voyage, which include bunkers and port/canal fees, as well as general vessel operating costs (e.g. crew, repairs and maintenance and insurance costs; and fees paid to technical managers of its vessels). Accordingly, under spot charter arrangements, key operating decisions and the economic benefits associated with a vessel’s use during the charter period reside with the Company.

The Company applies revenue recognition guidance in Accounting Standards Codification 606 (“ASC 606”) to account for its spot charter arrangements.

The consideration that the Company expects to be entitled to receive in exchange for its transportation services is recognized as revenue ratably over the duration of a voyage on a load-to-discharge basis (i.e. from when cargo is loaded at the port to when it is discharged after the completion of the voyage).

The consideration that the Company expects to be entitled to receive includes estimates of revenue associated with the loading or discharging time that exceed the originally estimated duration of the voyage, which is referred to as “demurrage revenue”, when it is determined there will be incremental time required to complete the contracted voyage. Demurrage revenue is not considered a separate deliverable in accordance with ASC 606 as it is part of the single performance obligation in a spot charter arrangement, which is to provide cargo transportation services to the completion of a contracted voyage.

Time charter arrangements

The Company’s time charter arrangements are for a specified period of time and key decisions concerning the use of the vessel during the duration of the time charter period reside with the charterer. In time charter arrangements, the Company is responsible for the crewing, maintenance and insurance of the vessel, and the charterer is generally responsible for voyage specific costs, which typically include bunkers and port/canal costs.

As the charterer holds sufficient latitude in its rights to determine how and when the vessel is used on voyages and the charterer is also responsible for costs incurred during the voyage, the charterer derives the economic benefits from the use of the vessel, as control over the use of the vessel is transferred to the charterer during the specified time charter period. Accordingly, time charters are considered operating leases and the Company applies guidance for lessors in FASB Accounting Standards Codification 842 - Leases (“ASC 842”). Revenue for time charters is recognized on a straight-line basis ratably over the term of the charter.

Pooling arrangements

The Company participates in commercial pooling arrangements to charter certain of its vessels from time to time. In these arrangements, the participating members seek to benefit from the more efficient employment of their vessels as the manager of the vessels in the pool leverages the size of the fleet commercially and operationally. The manager is responsible for the commercial management on behalf of the members of the pool, including responsibility for voyage expenses such as fuel and port charges. The pool members are responsible for maintaining the vessel operating expenses of their participating vessels, including crewing, repairs and maintenance and insurance of their participating vessels.

The earnings from all vessels are pooled and shared by the members of the arrangement based on the earnings allocation terms of the arrangement, which consider the number of days a vessel operates in the pool with weighted adjustments made to reflect the vessels’ differing capacities and performance capabilities. Therefore, the earnings allocation represents the pool members’ consideration for their different contribution to the collaborative arrangement. The Company recognizes its earnings allocation as revenue in accordance with the guidance for collaborative arrangements.

The Company did not participate in commercial pooling arrangements during the years ended December 31, 2022, 2021 or 2020. The Company did recognize an immaterial revenue runoff in each of the three periods as per the table in Note 3 (“Business and segment reporting”).

2.6. Voyage and vessel operating expenses

Voyage expenses

Voyage expenses represent costs the Company is responsible to incur in charter arrangements during a voyage that are directly related to a voyage. Voyage expenses include bunkers and port/canal costs, which are expensed as incurred.

Voyage expenses also include contract fulfillment costs that are incurred by the Company prior to a voyage.

These costs are from the later of when a vessel departed from its prior charter discharge port and when a vessel entered a new charter to the arrival at the loading port for the new charter and are deferred and amortized ratably over the new charter for charters accounted for in accordance with ASC 606. Such costs are typically comprised of bunkers.

Vessel operating expenses

Vessel operating expenses represent costs the Company incurs to operate its vessels that are not directly related to a voyage. Vessel operating expenses include crew, repairs and maintenance, insurance, stores, lube oils, communication expenses, and technical management fees. Vessel operating expenses are expensed as incurred.

2.7. Cash and cash equivalents

The Company classifies investments with an original maturity date of three months or less as cash and cash equivalents. The Company is required to maintain a minimum cash balance in accordance with its long-term debt facility agreements (see Note 6) and finance lease facility agreements (see Note 7).

2.8. Receivables

Receivables include amounts due from charterers for hire and other recoverable expenses due to the Company. As of the balance sheet date, all potentially uncollectible accounts are assessed individually for the purposes of determining the appropriate allowance for bad debt.

2.9. Prepaid expenses and other assets

Prepaid expenses and other assets consist of payments made in advance for insurance or other expenses, and insurance claims outstanding and certain assets held by vessel managers. Insurance claims are recorded, net of any deductible amounts, for insured damages which are recognized when recovery is virtually certain under the related insurance policies and where the Company can make an estimate of the amount to be reimbursed following the insurance claim. As of the balance sheet date, all potentially uncollectible accounts are assessed individually for the purposes of determining the appropriate provision for doubtful accounts.

2.10. Advances and deposits

Advances and deposits primarily include amounts advanced to third-party technical managers and AASML for expenses incurred by them in operating the vessels, together with other necessary deposits paid during the course of business.

2.11. Inventories

Inventories consist of bunkers, lubricating oils and other consumables on board the Company's vessels. Inventories are valued at the lower of cost or net realizable value on a first-in first-out basis. Cost is based on the normal levels of cost and comprises the cost of purchase, being the suppliers' invoice price with the addition of charges such as freight or duty where appropriate. Spares are expensed as incurred.

2.12. Vessel held for sale

Assets are classified as held for sale when management, having the authority to approve the action, commits to a plan to sell the asset, the sale is probable within one year, and the asset is available for immediate sale in its present condition. Consideration is given to whether an active program to locate a buyer has been initiated, whether the asset is marketed actively for sale at a price that is reasonable in relation to its current fair value, and whether actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. When assets are classified as held for sale, they are measured at the lower of their carrying amount or fair value less cost to sell and they are tested for impairment.

A loss is recognized when the carrying value of the asset exceeds the estimated fair value, less transaction costs. Assets classified as held for sale are no longer depreciated.

2.13. Vessels and vessel equipment

Vessels and vessel equipment are recorded at their cost less accumulated depreciation.

Vessel cost comprises acquisition costs directly attributable to the vessel and the expenditures made to prepare the vessel for its initial voyage. Vessels are depreciated on a straight-line basis over their estimated useful economic life from the date of initial delivery from the shipyard. The useful life of the Company's vessels is estimated at 25 years from the date of initial delivery from the shipyard. For the year ended December 31, 2022, depreciation is based on cost less the estimated residual scrap value of \$300 per lightweight ton ("lwt").

Effective January 1, 2023, the Company increased the estimated scrap value of the vessels from \$300 per lwt to \$400 per lwt prospectively based on the 15-year average scrap value of steel. The change in the estimated scrap value will result in a decrease in depreciation expense over the remaining life of the vessel assets. We expect depreciation to decrease by approximately \$1.3 million during 2023 as a result of the prospective change in the scrap value.

Vessel equipment comprises the costs of significant replacements, renewals and upgrades to the Company's vessels. Vessel equipment is depreciated over the shorter of the vessel's remaining useful life or the life of the renewal or upgrade. The amount capitalized is based on management's judgment as to expenditures that extend a vessel's useful life or increase the operational efficiency of a vessel. Costs that are not capitalized are recorded as a component of direct vessel operating expenses during the period incurred. Expenses for routine maintenance and repairs are expensed as incurred.

2.14. Deferred drydock expenditures

The Company follows the deferral method of accounting for drydock expenditures whereby actual expenditures incurred are deferred and are amortized on a straight-line basis through to the date of the next scheduled drydocking, generally 30 to 60 months. Expenditures deferred as part of the drydock include direct costs that are incurred as part of the drydocking to meet regulatory requirements. Direct expenditures that are deferred include the shipyard costs, parts, inspection fees, steel, blasting and painting. Expenditures for normal maintenance and repairs, whether incurred as part of the drydocking or not, are expensed as incurred. Unamortized drydock expenditures of vessels that are sold are written off and included in the calculation of the resulting gain or loss in the year of the vessels' sale. Unamortized drydock expenditures are written off as drydock amortization if the vessels are drydocked before the expiration of the applicable amortization period.

2.15. Advances for ballast water treatment systems

The Company is in the process of installing ballast water treatment systems on each of its vessels that do not currently have the system installed. This is a requirement of the International Maritime Organization. The Company capitalizes and depreciates the costs of ballast water treatment systems, including installation costs, on each vessel from the date of completion of the system over the remaining useful life of the vessel.

2.16. Vessel impairment

Management regularly reviews the carrying amounts of the Company's vessels that are "held and used" for recoverability. Vessels are assessed for impairment when events or circumstances indicate the carrying amount of the asset may not be recoverable. When such indicators are present, a vessel to be held and used is tested for recoverability by comparing the estimate of undiscounted future cash flows expected to be generated by the use of the vessel over its remaining useful life and its eventual disposition to its carrying amount together with the carrying value of deferred drydock expenditures and special survey costs related to the vessel.

For purposes of testing for recoverability, undiscounted future cash flows are determined by applying various assumptions based on historical trends as well as future expectations. In estimating future revenue, the Company considers charter rates for each vessel class over the estimated remaining lives of the vessels using both historical average rates for the Company over the last five years, where available, and historical average one-year time charter rates for the industry over the last 10 years. Recognizing that rates tend to be cyclical and considering market volatility based on factors beyond the Company's control, management believes it is reasonable to use estimates based on a combination of more recent internally generated rates and the 10-year average historical average industry rates. Undiscounted future cash flows are determined by applying various assumptions regarding future revenue net of voyage expenses, vessel operating expenses, scheduled drydockings, expected off-hire and scrap values, and taking into account historical market and Company specific revenue data as discussed above, and also considering other external market sources, including analysts' reports and freight forward agreement curves.

When the estimate of undiscounted cash flows, excluding interest charges, expected to be generated by the use of the asset is less than its carrying amount, the Company will evaluate the asset for an impairment loss. Measurement of the impairment loss is based on the fair value of the asset as provided by third parties. Management regularly reviews the carrying amount of the vessels in connection with the estimated recoverable amount for each of the Company's vessels. The Company did not recognize a vessel impairment charge for the years ended December 31, 2022, 2021 and 2020.

2.17. Other non-current assets

Other non-current assets relate to office equipment, fixtures and fittings and leasehold improvements. Office equipment and fixtures and fittings are recorded at their cost less accumulated depreciation and are depreciated based on an estimated useful life of five years. Leasehold improvements relate to fit-out costs for work completed on the Company's offices in Ireland and Singapore. Leasehold improvements are recorded at their cost less accumulated depreciation and are depreciated over the life of the respective leases.

2.18. Amount receivable in respect of finance leases

As part of finance lease arrangements, in 2017 the Company provided a lessor with \$2.9 million in the aggregate which was to be repaid at the end of the lease period, or upon the exercise of any of the purchase options. In March 2022, the Company gave notice to exercise the purchase options for both the *Ardmore Sealeader* and the *Ardmore Sealifter*. The associated finance lease liability of \$2.9 million was offset against amounts due on the transaction.

2.19. Operating leases

Under ASC 842, lessees are required to recognize a right-of-use asset and a lease liability for substantially all leases. The standard continues to classify leases as either financing or operating, with classification affecting the pattern of expense recognition. For operating leases, ASC 842 requires recognition in an entity's income statement of a single lease expense, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. Right-of-use assets represent a right to use an underlying asset for the lease term and the related lease liability represents an obligation to make lease payments pursuant to the contractual terms of the lease agreement. Operating lease right-of-use assets are assessed for any potential impairment on each balance sheet date.

At lease commencement, a lessee must develop a discount rate to calculate the present value of the lease payments so that it can determine lease classification and measure the lease liability. When determining the discount rate to be used at lease commencement, a lessee must use the rate implicit in the lease unless that rate cannot be readily determined. When the rate implicit in the lease cannot be readily determined, the lessee should use its incremental borrowing rate. The incremental borrowing rate is the rate that reflects the interest a lessee would have to pay to borrow funds on a collateralized basis over a similar term and in a similar economic environment.

2.20. Finance leases

Finance leases relate to financing arrangements for vessels in operation. Interest costs are expensed to interest expense and finance costs in the consolidated statements of operations using the effective interest method over the life of the lease.

2.21. Accounts payable

Accounts payable include all financial obligations to vendors for goods or services that have been received or will be received in the future.

2.22. Accrued expenses and other liabilities

Accrued expenses and other liabilities include all accrued liabilities in relation to the operating and running of the vessels, along with amounts accrued for general and administrative expenses.

2.23. Derivatives

As required by FASB Accounting Standards Codification 815 - Derivatives and Hedging ("ASC 815"), the Company records all derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a particular risk, such as interest rate risk, are considered fair value hedges. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedging instrument with the recognition of the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk in a fair value hedge or the earnings effect of the hedged forecasted transactions in a cash flow hedge. The Company may enter into derivative contracts that are intended to economically hedge certain of its risk, even though hedge accounting does not apply, or the Company elects not to apply hedge accounting.

The Company elected to classify settlement payments as operating activities within the statement of cash flows. The Company has elected to apply the hedge accounting expedients related to probability and the assessments of effectiveness for future LIBOR/SOFR-indexed cash flows to assume that the index upon which future hedged transactions will be based matches the index on the corresponding derivatives. Application of these expedients preserves the presentation of derivatives consistent with past presentation. The Company continues to evaluate the impact of the guidance and may apply other elections as applicable as additional changes in the market occur.

2.24. Equity method investments

The Company's investments in AASML, e1 Marine and Element 1 Corp. are accounted for using the equity method of accounting. Under the equity method of accounting, the Company initially recorded the investments in AASML and e1 Marine at cost and adjusts the carrying amounts of the investments to recognize their respective share of earnings or losses of the investee. The Company's total investment in Element 1 Corp. of \$9.7 million is allocated to the investment in the ordinary shares of \$9.4 million and warrants exercisable for ordinary shares of \$0.3 million based upon the relative fair values at the date of the investment. The carrying amount of the investment is adjusted to recognize the share of earnings or losses of the investee. Dividends received from an investee reduce the carrying amount of the equity investments. The Company evaluates its equity method investment for impairment when events or circumstances indicate that the carrying value of such investments may have experienced an other than temporary decline in value below their carrying values. If the estimated fair value is less than the carrying value, the carrying value is written down to its estimated fair value and the resulting impairment is recorded in the Company's consolidated statements of operations. As of December 31, 2022, there are no impairment indicators for the investment in Element 1 Corp. The Company adjusts the fair value of the Element 1 Corp. warrants at each reporting period with changes in the fair value recorded directly in earnings.

2.25. Contingencies

Claims, suits and contingencies arise in the ordinary course of the Company's business. The Company provides for these contingencies when (i) it is probable that a liability has been incurred at the date of the financial statements and (ii) the amount of the loss can be reasonably estimated. Disclosure in the notes to the financial statements is required for contingencies that do not meet both these conditions if there is a reasonable possibility that a liability may have been incurred as of the balance sheet date.

2.26. Distributions to shareholders

Subject to the Board of Directors' approval, distributions to common shareholders are applied first to accumulated surplus. When accumulated surplus is not sufficient, distributions are applied to the additional paid in capital account.

2.27. Equity issuance costs

Incremental costs incurred that are directly attributable to a proposed or actual offering of equity securities are deferred and deducted from the related proceeds of the offering, and the net amount is recorded as contributed shareholders' equity in the period when such shares are issued. Other costs incurred that are not directly attributable, but are related, to a proposed or actual offering are expensed as incurred.

2.28. Debt and finance lease issuance costs

Financing charges which include fees, commissions and legal expenses associated with securing loan facilities and finance lease agreements are presented in the consolidated balance sheets as a direct deduction from the carrying amount of the debt liability or finance lease obligation. These costs are amortized to interest expense and finance costs in the consolidated statements of operations using the effective interest rate method over the life of the related debt or finance lease.

2.29. Share-based compensation

The Company may grant share-based payment awards, such as restricted stock units ("RSUs"), stock appreciation rights ("SARs") as incentive-based compensation to certain employees. The Company measures the cost of such awards, which are equity-settled transactions, using the grant date fair value of the award and recognizes that cost, net of estimated forfeitures, over the requisite service period, which generally equals the vesting period. Once the fair value has been determined, the associated expense is recognized in the consolidated statements of operations over the requisite service period.

The SARs are settled through the delivery of Ardmore shares, not cash. Hence, in accordance with the guidance in ASC 718, the Company has classified the plan as an equity settled share-based payment plan. The cost of each tranche of SARs is being recognized by the Company on a straight-line basis.

Under an RSU award, the grantee is entitled to receive a share of ASC's common stock for each RSU at the end of the vesting period. Payment under the RSU will be made in the form of shares of ASC's common stock. The cost of RSUs will be recognized by the Company on a straight-line basis over the vesting period. The Company's policy for issuing shares upon the vesting of the RSUs is to register and issue new common shares to the grantee.

2.30. Treasury stock

When shares are acquired for a reason other than formal or constructive retirement, the shares are presented separately as a deduction from equity. If the shares are retired or subsequently sold, any gain would be allocated as an increase in additional paid in capital and cumulative losses as an increase to accumulated deficit.

2.31. Financial instruments

The carrying values of cash and cash equivalents, accounts receivable and accounts payable reported in the consolidated balance sheets are reasonable estimates of their fair values due to their short-term nature. The fair values of long-term debt approximate the recorded values due to the variable interest rates payable.

2.32. Income taxes

Republic of the Marshall Islands

Ardmore Shipping Corporation, Ardmore Shipping LLC, Ardmore Maritime Services LLC, and all vessel owning subsidiaries are incorporated in the Republic of the Marshall Islands with the exception of Lahinch Shipco (Pte.) Limited which is incorporated in Singapore. Ardmore Shipping Corporation believes that neither it, nor its subsidiaries, are subject to taxation under the laws of the Republic of the Marshall Islands and that distributions by its subsidiaries to Ardmore Shipping Corporation will not be subject to any taxes under the laws of the Republic of the Marshall Islands.

Bermuda

Ardmore Shipping (Bermuda) Limited is incorporated in Bermuda. Ardmore Shipping Corporation, Ardmore Shipping LLC and Ardmore Shipping (Bermuda) Limited are managed and controlled in Bermuda. Ardmore Shipping Corporation is subject to taxation under the laws of Bermuda and distributions by its subsidiaries to Ardmore Shipping Corporation will be subject to any taxes under the laws of Bermuda.

Ireland

Ardmore Shipping Services (Ireland) Limited and Ardmore E1 Marine Ventures Limited, which was established to act as the immediate parent company of e1 Marine, the joint venture jointly owned by Ardmore, Element 1 Corp. and Maritime Partners, are incorporated in Ireland. Trading profits are taxable at the standard corporation tax rate which is currently 12.5% based on generally accepted accounting principles in Ireland. Any non-trading / passive income is taxed at the higher corporation tax rate which is currently 25%.

United States of America

Ardmore Shipping (Americas) LLC ("ASUSA") and Ardmore Trading (USA) LLC ("ATUSA") are incorporated in Delaware and treated as corporations for U.S. tax purposes. ASUSA and ATUSA will be subject to U.S. tax on their worldwide net income.

Singapore

Ardmore Shipping (Asia) Pte. Limited, Ardmore Tanker Trading (Asia) Pte. Limited, Ardmore Maritime Services (Asia) Pte. Limited and Lahinch Shipco (Pte.) Limited are incorporated in Singapore. Ardmore Shipping (Asia) Pte. Limited qualified as an "Approved International Shipping Enterprise" by the Singapore authorities with effect from August 1, 2015. This entitles the company to tax exemption on profits derived from ship operations for any vessels which are owned or chartered in by Ardmore Shipping (Asia) Pte. Limited. Lahinch Shipco (Pte.) Limited is a ship-owning company and therefore exempt from taxes under the law of Singapore. Ardmore Tanker Trading (Asia) Pte. Limited and Ardmore Maritime Services (Asia) Pte. Limited are subject to Singapore tax on their worldwide profits.

Deferred taxation

Deferred income tax assets and liabilities are recognized for the future tax consequences attributed to differences between the financial statements and tax basis of existing assets and liabilities using enacted rates applicable to the periods in which the differences are expected to affect taxable income. Deferred income tax balances included on the consolidated balance sheets reflect the effects of temporary differences between the carrying amounts of assets and liabilities and their tax basis and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. Deferred income tax assets represent amounts available to reduce income taxes payable on taxable income in future years. The recoverability of these future tax deductions is evaluated by assessing the adequacy of future taxable income, including the reversal of temporary differences and forecasted operating earnings. If it is deemed more likely than not that the deferred tax assets will not be realized, the Company provides for a valuation allowance. Income taxes have been provided for all items included in the consolidated statements of operations regardless of when such items were reported for tax purposes or when the taxes were actually paid or refunded. Deferred tax for the year ended December 31, 2022 amounted to \$Nil (2021: \$Nil, 2020: \$Nil).

Uncertainties related to income taxes

Companies are to determine whether it is more-likely-than-not that the tax position taken or expected to be taken in a tax return will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. If a tax position meets the more-likely-than-not threshold it is measured to determine the amount of benefit to recognize in the financial statements. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. Uncertainties related to income taxes recognized for the year ended December 31, 2022 amounted to \$Nil (2021: \$Nil, 2020: \$Nil).

3. Business and segment reporting

The Company is primarily engaged in the ocean transportation of petroleum and chemical products in international trade through the ownership and operation of a fleet of tankers. Tankers are not bound to specific ports or schedules and therefore can respond to market opportunities by moving between trades and geographical areas. The Company charters its vessels to commercial shippers through a combination of spot, time-charter, and pool arrangements. The chief operating decision maker (“CODM”) does not use discrete financial information to evaluate the operating results for each such type of charter. Although revenue can be identified for these types of vessel employment, management cannot and does not identify expenses, profitability or other financial information for these charters or other forms of employment. As a result, the CODM reviews operating results solely by revenue per day and operating results of the fleet. Furthermore, when the Company charters a vessel to a charterer, the charterer is free to trade the vessel worldwide (subject to certain sanctions-related restrictions) and, as a result, the disclosure of geographic information is impracticable. In this respect, the Company has determined that it operates under one reportable segment relating to its operations of its vessels.

The following table presents consolidated revenues for charterers that accounted for more than 10% of the Company’s consolidated revenues during the years presented:

<i>In thousands of U.S. Dollars</i>	For the years ended December 31		
	2022	2021	2020
Charterer A	55,626	23,152	<10 %
Charterer B	53,345	<10 %	26,759

The following table presents the Company’s revenue contributions by nature of vessel employment.

<i>In thousands of U.S. Dollars</i>	For the years ended December 31		
	2022	2021	2020
Spot charters ⁽¹⁾	437,189	169,632	206,351
Time charters ⁽²⁾	7,917	22,106	13,697
Pooling arrangements ⁽³⁾	3	14	10
Other revenue ⁽⁴⁾	632	732	—
	445,741	192,484	220,058

- (1) Represents revenue recognized by the Company associated with charters that were accounted for in accordance with ASC 606.
- (2) Represents revenue recognized by the Company associated with charters that were accounted for in accordance with ASC 842.
- (3) Represents revenue recognized by the Company associated with pooling arrangements that were accounted for in accordance with the guidance for collaborative arrangements.
- (4) Represents revenue recognized by the Company associated with the management of four third party chemical tankers employed under spot that were accounted for in accordance with ASC 606.

4. Equity Investments

Element 1 Corp. - On June 17, 2021, the Company purchased a 10% equity stake in Element 1 Corp. (“E1”), a developer of advanced hydrogen generation systems used to power fuel cells, in exchange for \$4.0 million in cash and \$5.3 million through the issuance of the Company’s common shares. The Company’s 10% equity stake consists of 581,795 shares of E1’s common stock and the Company also received warrants to purchase 286,582 additional common shares of Element 1 Corp. common stock, which expire on the third anniversary from the date of the investment. The Company’s total investment in E1 amounted to \$9.3 million and is allocated to investment in the ordinary shares and warrants based on their relative fair values as of the date of acquisition. The Company holds one board seat out of five, resulting in 20% voting rights and thus an ability to exercise significant influence in E1. Accordingly, the Company accounts for the investment in the common shares of E1 using the equity method in accordance with FASB Accounting Standards Codification 323 - Investments – Equity Method and Joint Ventures (“ASC 323”) and the warrants are being accounted for at their fair value in accordance with FASB Accounting Standards Codification ASC 321 – Investments – Equity Securities.

e1 Marine LLC - On June 17, 2021, the Company established a joint venture, e1 Marine LLC, with E1. and an affiliate of Maritime Partners LLC (“MP”), which seeks to deliver E1’s hydrogen delivery system to the marine sector, with each joint venture partner owning 33.33% of e1 Marine. The Company accounts for the investment in e1 Marine LLC using the equity method in accordance with ASC 323.

The Company records its share of earnings and losses in these investments on a quarterly basis, with an aggregate loss of \$0.2 million recognized in the year ended December 31, 2022. The Company recorded an investment of \$10.8 million, inclusive of transaction costs (E1 investment of \$9.7 million and e1 Marine LLC investment of \$1.1 million), which is included in investments and other assets, net in the consolidated balance sheet as of December 31, 2022.

5. Accrued expenses and other liabilities

Accrued expenses and other liabilities consist of the following as of December 31, 2022 and 2021:

<i>In thousands of U.S. Dollars</i>	As of December 31	
	2022	2021
Accrued vessel operating expenses and voyage expenses	13,159	7,569
Other accrued expenses	7,731	3,173
Total accrued expenses	20,890	10,742

6. Debt

As of December 31, 2022, the Company had three loan facilities, which it has used primarily to finance vessel acquisitions or vessels under construction, or to refinance such original financings, and also for working capital. The Company's applicable ship-owning subsidiaries have granted first-priority mortgages against the relevant vessels in favor of the lenders as security for the Company's obligations under the loan facilities, which totaled 19 vessels as of December 31, 2022. ASC and its subsidiary Ardmere Shipping LLC have provided guarantees in respect of the loan facilities and ASC has granted a guarantee over its trade receivables in respect of the ABN AMRO Revolving Facility. These guarantees can be called upon following a payment default.

The outstanding principal balances in the table below approximate the fair value for the Company's variable-rate debt, which is considered to be a Level 2 item for fair values purposes as the Company considers the estimate of rates it could obtain for similar debt. The fair value of an asset or liability is based on assumptions that market participants would use in pricing the asset or liability. The hierarchies of inputs used when determining fair value are described below:

Level 1: Valuations based on quotes prices in active markets for identical instruments that the Company is able to access. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these instruments does not entail a significant degree of judgment.

Level 2: Valuations based on quoted prices in active markets for instruments that are similar, or quoted prices in markets that are not active for identical or similar instruments, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3: Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The outstanding principal balances on each loan facility as of December 31, 2022 and 2021 were as follows:

<i>In thousands of U.S. Dollars</i>	As of December 31	
	2022	2021
Old Nordea/SEB Joint Bank Facility and Nordea / SEB Revolving Facility	—	85,553
Nordea/SEB Revolving Facility	22,500	—
Old ABN/CACIB Joint Bank Facility	—	51,339
ABN/CACIB Joint Bank Facility	104,927	—
ABN AMRO Revolving Facility	3,184	1,680
IYO Bank Facility	—	8,400
Total debt	130,611	146,972
Deferred finance fees	(1,815)	(1,871)
Net total debt	128,796	145,101
Current portion of long-term debt	13,429	15,834
Current portion of deferred finance fees	(502)	(731)
Total current portion of long-term debt	12,927	15,103
Non-current portion of long-term debt	115,869	129,998

Future minimum scheduled repayments under the Company's loan facilities for each year are as follows:

<i>In thousands of U.S. Dollars</i>	As of
	December 31
2023	13,429
2024	13,429
2025	16,613
2026	13,429
2027	73,711
	130,611

Old Nordea / SEB Joint Bank Facility and Nordea / SEB Revolving Facility

On December 11, 2019, eight of ASC's subsidiaries entered into a \$100 million long-term loan facility and a \$40 million revolving credit facility with Nordea Bank AB (publ) ("Nordea") and Skandinaviska Enskilda Banken AB (publ) ("SEB"). The facility was fully drawn down in December 2020 and 2019. Interest was calculated at a rate of LIBOR plus 2.4%. Principal repayments on the term loans were made on a quarterly basis, with a balloon payment payable with the final installment. The revolving facility could be drawn down or repaid with five days' notice.

On June 25, 2021, Ardmere partially repaid the facility in connection with the refinancing of two of the vessels under a new sale and leaseback arrangement. The revolving credit facility was repaid in full on July 27, 2022 and the term loan facility was repaid in full on August 5, 2022 and refinanced with the Nordea / SEB revolving facility discussed below, which was accounted for as a modification.

Nordea / SEB Revolving Facility

On August 5, 2022, 12 of ASC's subsidiaries entered into a \$185.5 million sustainability-linked revolving credit facility with Nordea and SEB (the "Nordea / SEB Revolving Facility"), the proceeds of which were used to refinance 12 vessels, including six vessels previously financed under lease arrangements. Interest is calculated at a rate of SOFR plus 2.5% (Adjusted SOFR, equivalent to LIBOR, plus a margin of 2.25%). The revolving credit facility may be drawn down or repaid with five days' notice. The revolving credit facility matures in June 2027. As of December 31, 2022, \$22.5 million of the revolving credit facility was drawn down and \$158.2 million was undrawn.

Old ABN/CACIB Joint Bank Facility

On December 11, 2019, four of ASC's subsidiaries entered into a \$61.5 million long-term loan facility with ABN AMRO Bank N.V. ("ABN AMRO") and Credit Agricole Corporate and Investment Bank ("CACIB"). Interest was calculated at a rate of LIBOR plus 2.4%. Principal repayments on the term loans were made on a quarterly basis, with a balloon payment payable with the final installment. On August 5, 2022, the loan facility was repaid in full and refinanced with the ABN / CACIB facility discussed below, which was accounted for as a modification.

ABN/CACIB Joint Bank Facility

On August 5, 2022, seven of ASC's subsidiaries entered into a \$108 million sustainability-linked long-term loan facility with ABN AMRO and CACIB (the "ABN/CACIB Joint Bank Facility"), the proceeds of which were used to finance seven vessels, including three vessels previously financed under lease arrangements. Interest is calculated at SOFR plus 2.5% (Adjusted SOFR, equivalent to LIBOR, plus a margin of 2.25%). Principal repayments on the term loans are made on a quarterly basis, with a balloon payment payable with the final installment. The loan facility matures in August 2027.

Old ABN AMRO Revolving Facility

On October 24, 2017, the Company entered into a \$15 million revolving credit facility with ABN AMRO to fund working capital. Interest under this facility was calculated at a rate of LIBOR plus 3.9%. On October 7, 2021, the Company exercised an option to extend this facility for a further year to June 2023. Interest payments were payable on a quarterly basis. The facility was repaid in full in July 2022.

ABN AMRO Revolving Facility

On August 9, 2022, the Company entered into a new sustainability-linked \$15 million revolving credit facility with ABN AMRO to fund working capital. Interest under this facility is calculated at a rate of SOFR plus 3.9%. Interest payments are payable on a quarterly basis. The facility matures in August 2025 with further options for extension.

IYO Bank Facility

On December 17, 2020, one of ASC's subsidiaries entered into a \$10.0 million long-term loan facility with IYO Bank to finance a secondhand vessel acquisition which delivered to the Company in 2020. The facility was drawn down in December 2020. Interest is calculated at a rate of LIBOR plus 2.25%. The facility was repaid in full in December 2022.

Long-term debt financial covenants

The Company's existing long-term debt facilities described above include certain covenants. The financial covenants require that the Company:

- maintain minimum solvency of not less than 30%;
- maintain minimum cash and cash equivalents (of which at least 60% of such minimum amount is held in cash and which includes the undrawn portion of the Nordea/SEB Revolving Facility), based on the number of vessels owned and chartered-in and 5% of outstanding debt; the required minimum cash and cash equivalents as of December 31, 2022, was \$18.75 million;
- ensure that the aggregate fair market value of the applicable vessels plus any additional collateral is, depending on the facility, no less than 130% of the debt outstanding for the applicable facility;
- maintain a corporate net worth of not less than \$200 million; and
- maintain positive working capital, excluding current portion of debt and leases, balloon repayments and amounts outstanding under the ABN AMRO Revolving Facility, provided that the facility has a remaining maturity of more than three months.

The Company was in full compliance with all of its long-term debt financial covenants as of December 31, 2022 and 2021.

7. Finance lease

As of December 31, 2022, the Company was a party, as the lessee, to one finance lease facility. The Company's applicable ship-owning subsidiaries have granted first-priority mortgages against the relevant vessels in favor of the lenders as security for the Company's obligations under the finance lease facilities, which totaled two vessels as of December 31, 2022 (2021: 14 vessels). ASC has provided guarantees in respect of the finance lease facility. These guarantees can be called upon following a payment default. The outstanding principal balances on each finance lease facility as of December 31, 2022 and 2021 were as follows:

<i>In thousands of U.S. Dollars</i>	As of December 31	
	2022	2021
Japanese Leases No.1 and 2	—	21,677
Japanese Lease No.3	—	10,747
CMBFL Leases No.1 to 4	—	65,187
Ocean Yield ASA	—	50,320
Japanese Lease No.4	—	19,942
China Huarong Leases	—	37,385
CMBFL / Shandong	59,930	65,625
Finance lease obligations	59,930	270,883
Amounts representing interest and deferred finance fees	(14,430)	(44,428)
Finance lease obligations, net of interest and deferred finance fees	45,500	226,455
Current portion of finance lease obligations	1,976	21,783
Current portion of deferred finance fees	(119)	(699)
Non-current portion of finance lease obligations	44,328	207,592
Non-current portion of deferred finance fees	(685)	(2,221)
Total finance lease obligations, net of deferred finance fees	45,500	226,455

Maturity analysis of the Company's finance lease facilities for each year are as follows:

<i>In thousands of U.S. Dollars</i>	As of
	December 31, 2022
2023	5,694
2024	5,710
2025	5,694
2026	5,486
2027 - 2029	37,346
Finance lease obligations	59,930
Amounts representing interest and deferred finance fees	(14,430)
Finance lease obligations, net of interest and deferred finance fees	45,500

Assets recorded under finance leases consist of the following:

<i>In thousands of U.S. Dollars</i>	As of December 31	
	2022	2021
Vessels and vessel equipment, net of accumulated depreciation	53,545	326,600
Deferred drydock expenditures, net of accumulated amortization	598	5,353
Advances for ballast water systems	—	1,080
	54,143	333,033

Japanese Leases No. 1 and 2

On May 30, 2017, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Sealeader and Ardmere Sealifter, with JPV No. 7 and JPV No. 8, respectively. The facility was drawn down in May 2017. Repayments on the leases were made on a monthly basis and included principal and interest. The finance leases were scheduled to expire in 2023 and included purchase options exercisable by the Company. As part of the lease arrangement, the Company provided the purchasers with \$2.9 million in the aggregate to be repaid at the end of the lease period, or upon the exercise of any of the purchase options. This amount was included in the consolidated balance sheet at December 31, 2021 as "Amount receivable in respect of finance leases", with the associated finance lease liability presented gross of the \$2.9 million. On May 31, 2022, Ardmere exercised the purchase option for both vessels and repaid the facility in full.

Japanese Lease No. 3

On January 30, 2018, one of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Sealancer with Neil Co., Ltd. The facility was drawn down in January 2018. Repayments on the lease were made on a monthly basis and included principal and interest. The finance lease was scheduled to expire in 2024 and included purchase options exercisable by the Company. As part of the lease arrangement, the Company provided the purchaser with \$1.4 million in the aggregate to be repaid at the end of the lease period, or upon the exercise of any of the purchase options. This amount was offset against the finance lease liability in the consolidated balance sheets, with the associated finance lease liability presented net of the \$1.4 million. On July 1, 2022, Ardmere exercised the purchase option and repaid the facility in full.

CMBFL Leases No. 1 to 4

On June 26, 2018, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Endurance and Ardmere Enterprise, respectively, with CMB Financial Leasing Co., Ltd ("CMBFL"). The facility was drawn down in June 2018. Interest was calculated at a rate of LIBOR plus 3.10%. Principal repayments on the leases were made on a quarterly basis. The finance leases were scheduled to expire in 2025 and include a mandatory purchase obligation for the Company to repurchase the vessels, as well as purchase options exercisable by the Company, which the Company could elect to exercise at an earlier date. On September 26, 2022, Ardmere exercised the purchase option for both vessels and repaid the facility in full. Both vessels were refinanced through the Nordea / SEB Revolving Facility.

On October 25, 2018, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Encounter and Ardmere Explorer, respectively, with CMBFL. The facility was drawn down in October 2018. Interest was calculated at a rate of LIBOR plus 3.00%. Principal repayments on the leases were made on a quarterly basis. The finance leases were scheduled to expire in 2025 and included a mandatory purchase obligation for the Company to repurchase the vessels, as well as purchase options exercisable by the Company, which the Company could elect to exercise at an earlier date. During the third quarter of 2022, the Company delivered notice to exercise its purchase options on both vessels, which purchases closed on October 28, 2022. The Company repaid the facility in full and both vessels were refinanced through the Nordea / SEB Revolving Facility.

Ocean Yield ASA

On October 25, 2018, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Dauntless and Ardmere Defender, respectively, with Ocean Yield ASA. The facility was drawn down in October 2018. Interest was calculated at a rate of LIBOR plus 4.50%. Principal repayments on the leases were made on a monthly basis.

The finance leases were scheduled to expire in 2030 and included a mandatory purchase obligation for the Company to repurchase the vessels, as well as purchase options exercisable by the Company, which the Company could elect to exercise at an earlier date. During the third quarter of 2022, the Company delivered notice to exercise its options on both vessels which purchases closed on October 31, 2022 and the Company repaid the facility in full. Subsequent to October 31, 2022, the Ardmere Dauntless was refinanced through the Nordea / SEB Revolving Facility and the Ardmere Defender was refinanced through the ABN/CACIB Joint Bank Facility.

Japanese Lease No. 4

On November 30, 2018, one of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement), of the Ardmere Engineer with Rich Ocean Shipping. The facility was drawn down in December 2018. Interest was calculated at a rate of LIBOR plus 3.20%. Principal repayments on the lease were made on a monthly basis. The finance lease was scheduled to expire in 2029 and included a mandatory purchase obligation for the Company to repurchase the vessel, as well as purchase options exercisable by the Company, which the Company could elect to exercise at an earlier date. During the third quarter of 2022, the Company delivered notice to exercise its purchase option on this vessel which purchase closed on October 11, 2022. The Company repaid the facility in full and refinanced it through the Nordea / SEB Revolving Facility.

China Huarong Leases

On November 30, 2018, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement), of the Ardmere Seavanguard and Ardmere Exporter, respectively, with China Huarong Financial Leasing Co., Ltd ("China Huarong"). The facility was drawn down in December 2018. Interest was calculated at a rate of LIBOR plus 3.50%. Principal repayments on the leases were made on a quarterly basis. The finance leases were scheduled to expire in 2025 and included a mandatory purchase obligation for the Company to repurchase the vessels, as well as purchase options exercisable by the Company, which the Company could elect to exercise at an earlier date. On September 6, 2022, Ardmere exercised the purchase option for both vessels and repaid the facility in full. Both vessels were refinanced through the ABN/CACIB Joint Bank Facility.

CMBFL / Shandong

On June 25, 2021, two of ASC's subsidiaries entered into an agreement for the sale and leaseback (under a finance lease arrangement) of the Ardmere Seawolf and Ardmere Seahawk with CMBFL / Shandong, resulting in gross proceeds of \$49.0 million less fees of \$1.0 million. The facility was drawn down in June 2021. Principal repayments on the leases are made on a monthly basis. The finance leases are scheduled to expire in 2026, with options to extend up to 2029. Repurchase options, exercisable by the Company, are also included which begin in June 2024.

8. Operating leases

The following are the types of contracts the Company has, which are accounted for under lease guidance, ASC 842:

Time charter-in contracts: Long term operating leases

The Company sold the *Ardmore Sealeader*, the *Ardmore Sealifter* and *Ardmore Sealancer* on June 5, 2022, July 16, 2022 and July 31, 2022, respectively and subsequently chartered the vessels back from the buyer for a period of 24 months. Chartered-in vessels include both lease and non-lease components. The lease component relates to the cost to a lessee to control the use of the vessel and the non-lease components relate to the cost to the lessee for the lessor to operate the vessel. For time charters-in, the Company has elected to separate lease and non-lease components.

Operating leases are included in operating lease, right-of-use (“ROU”) asset, current portion of operating lease obligations, and non-current portion of operating lease obligations in the Company’s consolidated balance sheets. The ROU asset represents our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

As our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The incremental borrowing rate used by the Company of 4.5% is obtained independently and is comparable with what the Company would have had to borrow at the time of the transactions to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term.

The Company makes significant judgments and assumptions to separate the lease component from the non-lease component of its time chartered-in vessels. The Company uses readily determinable and observable data for the purposes of determining the standalone cost of the vessel lease and operating service components of the Company’s time charters. The Company proportionately allocates the consideration of the contract to lease and non-lease components based on their relative standalone prices.

Time charter-in contracts: Short term operating leases

The Company entered into two short term lease agreements with one agreement effective July 30, 2021 to charter-in a 2010-built vessel for a period of 12 months and the other agreement effective March 1, 2022 to charter-in a 2009-built vessel for a period of six months. The Company elected the practical expedient of ASC 842, which allows for leases with an initial lease term of 12 months or less to be excluded from the operating lease right-of-use assets and lease liabilities. The Company recognizes the lease costs for all vessel-related operating leases as charter hire expenses, split between lease and non-lease components, on the consolidated statements of operations on a straight-line basis over the lease term.

Office leases

The Company’s consolidated balance sheets include a right-of-use asset and a corresponding liability for operating lease contracts for the Company’s offices in Cork, Ireland, Singapore and Houston, Texas. For office operating leases, the Company has elected to combine lease and non-lease components on the consolidated balance sheets. The discount rate used to measure the lease liability is the incremental cost of borrowing since the rate implicit in the lease cannot be determined.

The liabilities described below are denominated in various currencies. The weighted average remaining term of the office leases as of December 31, 2022 was 3.0 years. Under ASC 842, the right-of-use asset is a nonmonetary asset and is remeasured into the Company’s reporting currency of the U.S. Dollar using the exchange rate for the applicable currency as of the adoption date of ASC 842. The operating lease liability is a monetary liability and is remeasured quarterly using the current exchange rates, with changes recognized in a manner consistent with other foreign-currency-denominated liabilities in general and administrative expenses in the consolidated statements of operations.

<i>In thousands of U.S. Dollars</i>	As of December 31	
	2022	2021
<i>Non-Current Assets</i>		
Operating lease, right-of-use asset - Time Charter in Vessels	9,568	—
Operating lease, right-of-use asset - Offices	993	1,232
	10,561	1,232
<i>Lease liabilities - Current portion</i>		
Current portion of lease liabilities - Time Charter in Vessels	6,076	—
Current portion of lease liabilities - Offices	282	273
	6,358	273
<i>Lease liabilities - Non-current portion</i>		
Non-current portion of lease liabilities - Time Charter in Vessels	3,492	—
Non-current portion of lease liabilities - Offices	477	722
	3,969	722
Total operating lease, right of use assets	10,561	1,232
Total lease liabilities	10,327	995

As of December 31, 2022, the Company had the following maturity of operating lease obligations:

<i>In thousands of U.S. Dollars</i>	As of
	December 31
	2022
2023	6,626
2024	3,765
2025	237
2026	40
2027	—
Total lease payments	10,668
Less imputed interest	(341)
Present value of lease liabilities	10,327

9. Interest Rate Swaps

The Company's objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish these objectives, the Company primarily uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.

During the second quarter of 2020, the Company entered into floating-to-fixed interest rate swap agreements, associated with existing variable-rate debt and financing facilities, over a three-year term with multiple counterparties. In accordance with these transactions, the Company will pay an average fixed-rate interest amount of 0.32% and will receive floating rate interest amounts based on LIBOR. These interest rate swaps have a total notional amount of \$230.8 million, of which \$71.5 million is designated as cash flow hedges as of December 31, 2022.

For derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in Accumulated Other Comprehensive Income (Loss) and subsequently reclassified into interest expense in the same period(s) during which the hedged transaction affects earnings. Reclassification adjustments related to the interest rate swaps amounted to approximately \$3.4 million for the year ended December 31, 2022.

Derivatives not designated as hedges are not speculative and are used to manage the Company's exposure to interest rate movements and other identified risks but do not meet the strict hedge accounting requirements and/or the Company has not elected to apply hedge accounting. Changes in the fair value of derivatives not designated in hedging relationships are recorded directly in earnings.

The Company records the fair value of the interest rate swaps as an asset or liability on its balance sheet. Interest rate swaps are considered to be a Level 2 item. The following table shows the interest rate swap assets as of December 31, 2022 and December 31, 2021:

<u>Derivatives designated as hedging instruments (in thousands of U.S. Dollars)</u>	<u>Balance Sheet location</u>	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Interest rate swap	Current portion of derivative assets	\$ 1,468	254
Interest rate swap	Non - current portion of derivative assets	\$ —	795

The following table shows the interest rate swap assets not designated as hedging instruments as of December 31, 2022 and December 31, 2021:

<u>Derivatives not designated as hedging instruments (in thousands of U.S. Dollars)</u>	<u>Balance Sheet location</u>	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Interest rate swap	Current portion of derivative assets	\$ 3,459	53
Interest rate swap	Non - current portion of derivative assets	\$ —	187

10. Preferred Stock

On June 17, 2021 and on December 3, 2021, ASC issued 25,000 shares and 15,000 shares, respectively, of Series A Cumulative Redeemable Perpetual Preferred Shares ("Series A Preferred Stock") to an affiliate of Maritime Partners LLC. The liquidation preference of the Series A Preferred Stock is \$1,000.00 per share. The shares of Series A Preferred Stock accrue cumulative dividends, whether or not declared, at an initial annual rate of 8.5% per \$1,000.00 of liquidation preference per share, which rate may change based on certain matters. Dividends are payable on January 30, April 30, July 30 and October 30 of each year, commencing July 30, 2021. So long as any share of the Series A Preferred Stock remains outstanding, no cash dividend may be declared or paid on ASC's common stock unless, among other things, all accrued and unpaid dividends have been paid on the Series A Preferred Stock. The Company may redeem, in whole or in part, the shares of Series A Preferred Stock outstanding, at a cash redemption price equal to (a) 103% of the liquidation preference per share plus any accumulated and unpaid dividends on or after the third anniversary of the original issuance date of the Series A Preferred Stock and prior to the fourth anniversary, (b) 102% of the liquidation preference per share plus any accumulated and unpaid dividends after such fourth anniversary and prior to the fifth anniversary and (c) 100% of the liquidated preference per share plus any accumulated and unpaid dividends after such fifth anniversary.

The Series A Preferred Stock is redeemable, in whole or in part, upon the election of the Company or the holder of shares of Series A Preferred Stock, upon the occurrence of certain change of control events, including if a person or group becomes the beneficial owner of a majority of ASC's total voting power. As it is possible, regardless of the probability of such occurrence, that a person or group could acquire beneficial ownership of a majority of the voting power of ASC's outstanding common stock without Company approval and thereby trigger a "change of control," the Series A Preferred Stock is classified as temporary equity for accounting purposes. The Company's obligations to the holder of shares of Series A Preferred Stock are secured by a pledge of the Company's stake in E1. The Series A Preferred Stock is presented in the Company's financial statements net of the related stock issuance costs.

As part of the issuance of the Preferred Stock to Maritime Partners, the Company agreed that Maritime Partners shall have the right to a profits interest of 20% of all cash or in-kind distributions and proceeds received in respect of the E1 investment which can only be distributed after the Company receives its return of its initial investment of \$9.3 million. As the agreement includes a mandatory redemption date, for the profits interest that is the 10th anniversary of the date of the agreement, it renders the profits interest as a liability which will need to be marked to fair value each period with changes in the fair value recorded directly in earnings. The Company recorded a liability of \$1.0 million, which is included in non-current liabilities in the consolidated balance sheet as of December 31, 2022 (December 31, 2021 \$0.9 million).

The Company paid \$3.3 million and accrued \$0.1 million in preferred stock dividends during the year ended December 31, 2022. The Company paid \$0.8 million and accrued \$0.5 million in preferred stock dividends during the year ended December 31, 2021. No preferred stock dividends were accrued or paid during the year ended December 31, 2020.

11. Loss on sale of vessels

In March 2022, the Company agreed to terms for the sale of the *Ardmore Sealeader*, *Ardmore Sealifter* and *Ardmore Sealancer*. Effective March 28, 2022, the Company reclassified the vessels as held for sale and ceased to depreciate them. The Company repaid the outstanding lease facilities on the *Ardmore Sealeader* and *Ardmore Sealifter* in May 2022 and on the *Ardmore Sealancer* in July 2022. The sales proceeds received for the vessels were \$40.7 million, in aggregate, resulting in a loss of \$6.9 million when the vessels were delivered to the buyer in June 2022 and July 2022.

The loss on the sale of vessels for the year ended December 31, 2022 is calculated as follows:

<i>In thousands of U.S. Dollars</i>	<u>Sealeader</u>	<u>Sealifter</u>	<u>Sealancer</u>	<u>Total</u>
Sales proceeds	13,239	13,239	14,249	40,727
Net book value of vessels	(16,251)	(15,886)	(14,692)	(46,829)
Sales related costs	(265)	(265)	(285)	(815)
Loss on sale of vessels	(3,277)	(2,912)	(728)	(6,917)

Changes in the SARs for the year ended December 31, 2022 are set forth below:

	No. of SARs	Weighted average exercise price
Balance as of January 1, 2022	3,704,694	\$ 6.40
SARs granted during the year ended December 31, 2022	—	—
SARs exercised during the year ended December 31, 2022	(3,138,053)	\$ (6.30)
SARs forfeited / expired during the year ended December 31, 2022	(37,797)	\$ (10.25)
Balance as of December 31, 2022 (none of which are exercisable or convertible) ...	528,844	\$ 4.74

The total cost related to non-vested awards expected to be recognized through 2024 is set forth below:

In thousands of U.S. Dollars

Period	TOTAL
2023	393
2024	57
	450

Restricted stock units

As of December 31, 2022, the Company had granted 1,710,994 RSUs to certain of its officers and directors under its 2013 Equity Incentive Plan.

A summary of awards is as follows:

Grant Date	RSUs Awarded	Service Period	Grant Price
02-Jan-19	176,659	2 years	\$ 4.64
07-Mar-19	86,210	3 years	\$ 5.10
28-May-19	59,237	1 year	\$ 7.47
04-Mar-20	94,105	3 years	\$ 5.25
29-May-20	78,510	1 year	\$ 5.84
04-Mar-21	56,957	1 year	\$ 4.28
04-Mar-21	302,923	3 years	\$ 4.28
07-Jun-21	95,583	1 year	\$ 4.31
30-Mar-22	593,671	3 years	\$ 4.54
10-Jun-22	60,415	1 year	\$ 8.07
01-Sep-22	106,724	3 years	\$ 9.35

Changes in the RSUs for the year ended December 31, 2022 is set forth below:

	No. of RSUs	Weighted average fair value at grant date
Balance as of January 1, 2022	546,935	\$ 4.44
RSUs granted during the year ended December 31, 2022	760,810	\$ 5.50
RSUs vested during the year ended December 31, 2022	(399,536)	\$ (4.47)
RSUs forfeited during the year ended December 31, 2022	—	—
Balance as of December 31, 2022 (none of which are vested)	908,209	\$ 5.31

The total cost related to non-vested awards expected to be recognized through 2025 is set forth below:

In thousands of U.S. Dollars

Period	TOTAL
2023	1,747
2024	1,214
2025	427
	3,388

Dividend Equivalent Rights

During the year ended December 31, 2021 all DER's expired, unexercised.

17. Repurchase of common stock

In September 2020, the Company's Board of Directors authorized a new share repurchase plan, expanding and replacing the Company's earlier plan. Pursuant to the new share repurchase plan, the Company may purchase up to \$30 million of its common shares through September 30, 2023, at times and prices that are considered to be appropriate by the Company. The Company expects to repurchase these shares in the open market or in privately negotiated transactions, but is not obligated under the terms of the plan to repurchase any shares, and at any time, the Company may suspend, delay or discontinue the plan.

During the year ended December 31, 2020, the Company repurchased 98,652 common shares at a weighted-average price of \$2.91 per share (including fees and commission of \$0.02 per share) for a total of approximately \$0.3 million.

During the years ended December 31, 2022 and 2021, no shares were repurchased.

18. Commitments and Contingencies

Debt commitments are disclosed above in Note 6. Finance lease commitments are disclosed above in Note 7.

During the fourth quarter of 2022, the Company entered into contracts for the purchase of scrubber systems for the *Ardmore Enterprise* and the *Ardmore Seaventure*. The projected costs, including installation, are approximately \$2.0 million per scrubber system. The Company intends to complete these installations during scheduled drydockings in 2023. As of December 31, 2022, the Company recorded \$1.6 million as advances paid towards the purchase and installation of scrubber systems as non-current assets in its Consolidated Balance Sheet.

19. Subsequent Events

On February 14, 2023, Ardmore announced that its Board of Directors declared a cash dividend of \$0.45 per share for the quarter ended December 31, 2022. The cash dividend of \$18.3 million was paid on March 15, 2023, to all shareholders of record on February 28, 2023.

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER

I, Anthony Gurnee, certify that:

1. I have reviewed this Annual Report on Form 20-F of Ardmore Shipping Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the Annual Report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Dated: March 24, 2023

By: /s/ Anthony Gurnee
 Anthony Gurnee
 President, Chief Executive Officer and Director
 (Principal Executive Officer)

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER

I, Bart B. Kelleher, certify that:

1. I have reviewed this Annual Report on Form 20-F of Ardmore Shipping Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Dated: March 24, 2023

By: /s/ Bart B. Kelleher
 Bart B. Kelleher
 Chief Financial Officer and Secretary
 (Principal Financial Officer)

PRINCIPAL EXECUTIVE OFFICER CERTIFICATION

PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Annual Report of Ardmore Shipping Corporation (the “Company”) on Form 20-F for the year ended December 31, 2022 as filed with the Securities and Exchange Commission (the “SEC”) on or about the date hereof (the “Report”), I, Anthony Gurnee, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.

Dated: March 24, 2023

By: /s/ Anthony Gurnee
 Anthony Gurnee
 President, Chief Executive Officer and Director
 (Principal Executive Officer)

PRINCIPAL FINANCIAL OFFICER CERTIFICATION

PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Annual Report of Ardmore Shipping Corporation (the “Company”) on Form 20-F for the year ended December 31, 2022 as filed with the Securities and Exchange Commission (the “SEC”) on or about the date hereof (the “Report”), I, Bart B. Kelleher, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.

Dated: March 24, 2023

By: /s/ Bart B. Kelleher
 Bart B. Kelleher
 Chief Financial Officer and Secretary
 (Principal Financial Officer)

EXHIBIT 15.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statement Nos. 333-267260, 333-203205, and 333-258974 on Form F-3 and Registration Statement No. 333-213344 on Form S-8 of our report dated March 24, 2023, relating to the financial statements of Ardmore Shipping Corporation and the effectiveness of Ardmore Shipping Corporation's internal control over financial reporting appearing in this Annual Report on Form 20-F for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

New York, New York

March 24, 2023

Ardmore Shipping Corporation

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Stock Listing

Ardmore Shipping Corporation's common stock is traded on the New York Stock Exchange under the ticker "ASC".

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