

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

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 _____
Commission file number 1-8590



MURPHY OIL CORPORATION
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)
9805 Katy Fwy, Suite G-200
Houston, Texas
(Address of principal executive offices)

71-0361522
(I.R.S. Employer Identification Number)
77024
(Zip Code)

(281) 675-9000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$1.00 Par Value	MUR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. 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, a non-accelerated filer or a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, 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 whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

Aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter (as of June 30, 2022) – \$3,017,884,510.

Number of shares of Common Stock, \$1.00 Par Value, outstanding as of January 31, 2023 was 155,762,646.

Documents incorporated by reference:

Portions of the Registrant's definitive Proxy Statement relating to the Annual Meeting of Stockholders on May 10, 2023 have been incorporated by reference in Part III herein.

MURPHY OIL CORPORATION
2022 FORM 10-K
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PART I

Item 1. BUSINESS

Summary

Murphy Oil Corporation is a global oil and natural gas exploration and production company, with both onshore and offshore operations and properties. As used in this report, the terms Murphy, Murphy Oil, we, our, its and Company may refer to Murphy Oil Corporation or any one or more of its consolidated subsidiaries.

The Company was originally incorporated in Louisiana in 1950 as Murphy Corporation. It was reincorporated in Delaware in 1964, at which time it adopted the name Murphy Oil Corporation and was reorganized in 1983 to operate primarily as a holding company of its various businesses. In 2013, the U.S. downstream business was separated from Murphy Oil Corporation's oil and natural gas exploration and production business. For reporting purposes, Murphy's exploration and production activities are subdivided into three geographic segments, including the United States, Canada and all other countries. Additionally, the Corporate segment includes interest income, interest expense, foreign exchange effects, corporate risk management activities and administrative costs not allocated to the exploration and production segments. The Company's corporate headquarters are located in Houston, Texas following relocation from El Dorado, Arkansas in 2020.

As part of the Company's underlying operations, the Company is continually monitoring its greenhouse gas (GHG) emissions and impact on the environment as well as other social and environmental aspects of its business. See [Sustainability](#) on page 10.

In addition to the following information about each business activity, data about Murphy's operations, properties and business segments, including revenues by class of products and financial information by geographic area, are provided on pages 32 through 47, 80 through 81, 104 through 106, 110 through 125 and 127 of this Form 10-K report.

Interested parties may obtain the Company's public disclosures filed with the Securities and Exchange Commission (SEC), including Form 10-K, Form 10-Q, Form 8-K and other documents, by accessing the Investor Relations section of Murphy Oil Corporation's Website at www.murphyoilcorp.com.

Exploration and Production

The Company produces crude oil, natural gas and natural gas liquids primarily in the U.S. and Canada and explores for crude oil, natural gas and natural gas liquids in targeted areas worldwide.

During 2022, Murphy's principal exploration and production activities were conducted in the United States by wholly-owned Murphy Exploration & Production Company – USA (Murphy Expro USA) and its subsidiaries, in Canada by wholly-owned Murphy Oil Company Ltd. (MOCL) and its subsidiaries and in Australia, Brazil, Brunei, Mexico and Vietnam by wholly-owned Murphy Exploration & Production Company – International (Murphy Expro International) and its subsidiaries. Murphy's operations and production in 2022 were in the United States, Canada and Brunei. Murphy is in the process of winding down operations in Australia.

Unless otherwise indicated, all references to the Company's offshore U.S. and total oil, natural gas liquids and natural gas production and sales volumes and proved reserves include a noncontrolling interest in MP Gulf of Mexico, LLC (MP GOM; see further details below).

Murphy's worldwide 2022 production on a barrel of oil equivalent basis (six thousand cubic feet of natural gas equals one barrel of oil) was 175,156 barrels of oil equivalent per day, an increase of 4.7% compared to 2021.

For further details on business execution, see ["Management's Discussion and Analysis of Financial Condition and Results of Operations"](#) starting on page 32. For further details on 2022 production and sales volume see pages 40 to 43.

United States

In the United States, Murphy produces crude oil, natural gas liquids and natural gas primarily from fields in the Gulf of Mexico and in the Eagle Ford Shale area of South Texas. The Company produced approximately 99,626 barrels of crude oil and natural gas liquids per day and approximately 92 MMCF of natural gas per day in the

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Item 1. Business - Continued

U.S. in 2022. These amounts represented 92.2% of the Company's total worldwide oil and natural gas liquids and 23.0% of worldwide natural gas production volumes.

Offshore

The Company holds rights to approximately 620 thousand gross acres in the Gulf of Mexico. During 2022, approximately 70% of total U.S. hydrocarbon production was produced at fields in the Gulf of Mexico, of which approximately 79% was derived from nine fields, including Khaleesi, Mormont, Cascade, Chinook, Neidermeyer, Dalmatian, St. Malo, Kodiak and Lucius. Total average daily production in the Gulf of Mexico in 2022 was 70,008 barrels of crude oil and natural gas liquids and 63 MMCF of natural gas. At December 31, 2022, Murphy had total proved reserves for Gulf of Mexico fields of 162.3 million barrels of oil and natural gas liquids and 124.9 billion cubic feet of natural gas.

The Company has various operated and non-operated fields in the U.S. Gulf of Mexico. The most significant fields are St. Malo, Khaleesi, Mormont, Samurai, Lucius and Dalmatian. The Khaleesi Mormont Samurai development project achieved first oil in 2022 and completed the initial seven well program.

Onshore

The Company holds rights to approximately 133 thousand gross acres in South Texas in the Eagle Ford Shale unconventional oil and natural gas play. During 2022, approximately 30% of total U.S. hydrocarbon production was produced in the Eagle Ford Shale. Total 2022 production in the Eagle Ford Shale area was 29,556 barrels of oil and liquids per day and 28.8 MMCF per day of natural gas. At December 31, 2022, the Company's proved reserves for the U.S. onshore business totaled 138.9 million barrels of liquids and 210 billion cubic feet of natural gas.

Canada

In Canada, the Company holds working interests in Tupper Montney (100% owned), Kaybob Duvernay (operated), Placid Montney (non-operated) and two non-operated offshore assets – the Hibernia and Terra Nova fields, located offshore Newfoundland in the Jeanne d'Arc Basin.

Onshore

Murphy has approximately 142 thousand gross acres of Tupper Montney mineral rights located in northeast British Columbia. In addition, the Company holds a 70% operated working interest in Kaybob Duvernay lands and a 30% non-operated working interest in liquids rich Placid Montney lands, both in Alberta. The Company has approximately 289 thousand gross acres of Kaybob Duvernay and Placid Montney mineral rights. Daily production in 2022 in onshore Canada averaged 4,908 barrels of liquids and 310 MMCF of natural gas. Total onshore Canada proved liquids and natural gas reserves at December 31, 2022, were approximately 21.4 million barrels and 1.9 trillion cubic feet, respectively.

The Company currently has a commitment for 483 million cubic feet per day (MMCFD) of natural gas processing capacity to support production in the Tupper Montney through April 2036, with the commitment reducing to 198 MMCFD for the remainder of the period until November 2040.

Offshore

The Company has an interest in approximately 129 thousand gross acres offshore Canada. Murphy has a 6.5% working interest in Hibernia Main, a 4.3% working interest in Hibernia South Extension and an 18% working interest at Terra Nova.

Oil production in 2022 was 2,812 barrels of oil per day for Hibernia.

During 2022, Terra Nova did not produce as an asset life extension project was being undertaken. Production is expected to resume in the first half of 2023, with estimated asset life extended to 2032.

Total proved reserves for offshore Canada at December 31, 2022 were approximately 22.2 million barrels of liquids and 15.1 billion cubic feet of natural gas.

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Item 1. Business - Continued

Australia

In Australia, the Company has interest in approximately 482 thousand gross acres and holds one offshore exploration permit; Murphy is not the operator. The permit does not have a drilling commitment.

Brazil

The Company holds an interest in nine blocks in the offshore regions of the Sergipe-Alagoas Basin (SEAL) in Brazil (SEAL-M-351, SEAL-M-428, SEAL-M-430, SEAL-M-501, SEAL-M-503, SEAM-M-505, SEAL-M-573, SEAL-M-575 and SEAL-M-637). ExxonMobil is the operator of the blocks. Murphy has a 20% working interest, ExxonMobil has a 50% working interest and Enauta Energia SA holds a 30% working interest.

Murphy has also farmed into 3 additional blocks in the Potiguar Basin (POT-M-857, POT-M-863 and POT-M-865) with a 30% working interest; in 2022, Murphy transitioned to operator at 100% working interest when Wintershall Dea, the former operator, announced that it would terminate all operations in Brazil.

Murphy's total acreage position in Brazil as of December 31, 2022 is approximately 2.5 million gross acres, offsetting several major discoveries. There are no well commitments.

Brunei

The Company has a working interest of 8.051% in Block CA-1 as of December 31, 2022. During 2022 the Company sold its 30% working interest in Block CA-2 which was previously classified as held for sale.

Oil production in 2022 was 700 barrels of oil per day for Brunei.

Total proved reserves for our Jagus East discovery in Block CA-1 at December 31, 2022 were approximately 0.5 million barrels of liquids and 0.2 billion cubic feet of natural gas. Block CA-1 covers 1.4 million gross acres.

Mexico

In March 2017, as part of Mexico's fourth phase, round one deepwater auction, Murphy was awarded Block 5. Murphy is the operator of the block with a 40% working interest. Block 5 is located in the deepwater Salinas Basin covering approximately 640 thousand gross acres (2,600 square kilometers), with water depths ranging from 2,300 to 3,500 feet (700 to 1,100 meters). The initial exploration period for the license is four years and includes a commitment to drill one exploration well which was drilled in 2019. A further exploration well was drilled in 2022 which did not find commercial hydrocarbons.

Vietnam

The Company holds an interest in 7.3 million gross acres, consisting of a 65% working interest in blocks 144 and 145; and a 40% interest in Block 15-1/05 and Block 15-2/17. The Company is operator of each of the three Production Sharing Contracts (PSCs).

Block 15-1/05 contains the Lac Da Vang (LDV) discovered field and the consortium are awaiting final approval of the development plan. Declaration of Commerciality was made in January 2019 and the field Outline Development Plan was approved in August 2019. The Lac Da Trang (LDT) 1X exploration well, the last remaining commitment of the PSC, was completed in April 2019. The Field Development Plan of the LDV development was adopted by PetroVietnam and being progressed for final approval by the Government.

In Block 15-2/17, the Company is progressing study activity in anticipation of drilling an exploration commitment well by 2024.

In blocks 144 and 145, the Company acquired 2D seismic for these blocks in 2013 and undertook seabed surveys in 2015 and 2016. The remaining commitment for the acquisition, processing and interpretation of eight hundred square kilometers of 3D seismic is tentatively scheduled for 2024. In addition, the Company will be seeking to extend the exploration period.

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Item 1. Business - Continued
Proved Reserves

Total proved reserves for crude oil, natural gas liquids and natural gas as of December 31, 2022 are presented in the following table.

	Proved Reserves			
	All Products	Crude Oil	Natural Gas Liquids	Natural Gas ⁴
	(MMBOE)	(MMBBL)		(BCF)
Proved Developed Reserves:				
United States	264.2	194.4	27.4	254.1
Onshore	121.8	76.6	19.1	156.6
Offshore ¹	142.4	117.8	8.3	97.5
Canada	171.3	14.2	2.3	928.8
Onshore	165.0	8.6	2.3	924.8
Offshore	6.3	5.6	—	4.0
Other	0.5	0.4	—	0.2
Total proved developed reserves	436.0	209.0	29.7	1,183.1
Proved Undeveloped Reserves:				
United States	92.8	69.2	10.2	80.8
Onshore	52.0	35.5	7.7	53.4
Offshore ²	40.8	33.7	2.5	27.4
Canada	186.5	25.3	1.8	956.0
Onshore	168.0	8.7	1.8	944.9
Offshore	18.5	16.6	—	11.1
Other	0.1	0.1	—	—
Total proved undeveloped reserves	279.4	94.6	12.0	1,036.8
Total proved reserves ³	715.4	303.6	41.7	2,219.9

¹ Includes proved developed reserves of 15 MMBOE, consisting of 13.7 million barrels of oil (MMBBL) oil, 0.5 MMBBL NGLs and 4.2 BCF natural gas, attributable to the noncontrolling interest in MP GOM.

² Includes proved undeveloped reserves of 3.2 MMBOE, consisting of 2.8 MMBBL oil, 0.1 MMBBL NGLs and 1.4 BCF natural gas, attributable to the noncontrolling interest in MP GOM.

³ Includes proved reserves of 18.2 MMBOE, consisting of 16.5 MMBBL oil, 0.6 MMBBL NGLs and 5.6 BCF natural gas, attributable to the noncontrolling interest in MP GOM.

⁴ Includes proved natural gas reserves to be consumed in operations as fuel of 74.9 BCF and 43.5 BCF for the U.S. and Canada, respectively, with 0.8 BCF attributable to the noncontrolling interest in MP GOM.

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Murphy Oil's 2022 total proved reserves and proved undeveloped reserves are reconciled from 2021 as presented in the table below:

(Millions of oil equivalent barrels) ¹	Total Proved Reserves	Total Proved Undeveloped Reserves
Beginning of year	716.9	297.7
Revisions of previous estimates	(23.6)	(8.1)
Extensions and discoveries	80.1	79.4
Improved recovery	5.3	5.3
Conversions to proved developed reserves	—	(96.9)
Purchases of properties	5.0	2.0
Sale of properties	(4.4)	—
Production	(63.9)	—
End of year ²	715.4	279.4

¹ For purposes of these computations, natural gas sales volumes are converted to equivalent barrels of oil using a ratio of six MCF of natural gas to one barrel of oil.

² Includes 18.2 MMBOE and 3.2 MMBOE for total proved and proved undeveloped reserves, respectively, attributable to the noncontrolling interest in MP GOM.

During 2022, Murphy's total proved reserves decreased by 1.5 million barrels of oil equivalent (MMBOE). The decrease in reserves principally relates to production of 63.9 MMBOE in 2022 and negative price revisions in Tupper Montney from higher commodity prices resulting in increased royalty rates and accelerated royalty incentive payouts. These revisions were offset by extensions of 58.5 MMBOE in onshore Canada, 15.8 MMBOE in offshore U.S. Gulf of Mexico and offshore Canada, and 5.8 MMBOE in the Eagle Ford Shale; improved recovery in the Gulf of Mexico; as well as acquisitions of increased working interest in two producing fields in the Gulf of Mexico and offsetting dispositions in the Gulf of Mexico and the Eagle Ford Shale.

Murphy's total proved undeveloped reserves at December 31, 2022 decreased 18.3 MMBOE from a year earlier. The proved undeveloped reserves reported in the table as extensions and discoveries during 2022 were predominantly attributable to four areas: the U.S. Gulf of Mexico, the Eagle Ford Shale in South Texas, onshore Canada areas of Tupper Montney and Kaybob Duvernay, and offshore Canada. Each of these areas had active development work ongoing during the year. The majority of proved undeveloped reserves associated with revisions of previous estimates was the result of negative price revisions in Tupper Montney from higher commodity prices resulting in increased royalty rates and accelerated royalty incentive payouts. The majority of the proved undeveloped reserves migration to the proved developed category are attributable to drilling in the Tupper Montney and Kaybob Duvernay, the Gulf of Mexico, and the Eagle Ford Shale. Other proved undeveloped increases resulted from improved recovery as well as an acquisition of increased working interest in two producing fields in the Gulf of Mexico.

The Company spent approximately \$770 million in 2022 to convert proved undeveloped reserves to proved developed reserves. In the next three years, the Company expects to spend a range of approximately \$350 million to \$650 million per year to move current undeveloped proved reserves to the developed category. The anticipated level of spending in 2023 primarily includes drilling and development in the Gulf of Mexico, Eagle Ford Shale and Tupper Montney areas.

At December 31, 2022, proved reserves are included for several development projects, including oil developments at the Eagle Ford Shale in South Texas, deepwater Gulf of Mexico; and Kaybob Duvernay in onshore Canada; as well as natural gas developments at Tupper Montney in onshore Canada. Total proved undeveloped reserves associated with various development projects at December 31, 2022 were approximately 279.4 MMBOE, which represent 39% of the Company's total proved reserves.

Certain development projects have proved undeveloped reserves that will take more than five years to bring to production. The Company currently operates deepwater fields in the Gulf of Mexico that have four undeveloped locations that exceed this five-year window. Total reserves associated with the four locations amount to approximately 1% of the Company's total proved reserves at year-end 2022. The development of certain

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Item 1. Business - Continued

reserves extends beyond five years due to limited well slot availability, thus making it necessary to wait for depletion of other wells prior to initiating further development of these locations or behind-pipe completions with significant capital costs that categorize them as undeveloped.

Murphy Oil's Reserves Processes and Policies

As per the SEC, proved oil and natural gas reserves are "those quantities of oil and natural gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward." The SEC has defined reasonable certainty for proved reserves, as a "high degree of confidence that the quantities will be recovered." Proved reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change. Moreover, estimates of proved reserves may be revised as a result of future operations, effects of regulation by governmental agencies or geopolitical or economic risks. Therefore, the proved reserves included in this report are estimates only and should not be construed as being exact quantities, and if recovered, could be more or less than the estimated amounts.

Murphy has established both internal and external controls for estimating proved reserves that follow the guidelines set forth by the SEC for oil and natural gas reporting. Certain qualified technical personnel of Murphy from the various exploration and production business units are responsible for the preparation of proved reserve estimates and these technical representatives provide the necessary information and maintain the data as well as the documentation for all properties.

Proved reserves are then consolidated and reported through the Corporate Reserves group. Murphy's General Manager Corporate Reserves (Reserves General Manager) leads the Corporate Reserves group that also includes Corporate reserve engineers and support staff, all of which are independent of the Company's oil and natural gas operational management and technical personnel. The Reserves General Manager joined Murphy in 2020 and has more than 31 years of industry experience. He has a Bachelor of Science in Mechanical Engineering and is also a licensed Professional Engineer in the State of Texas. The Reserves General Manager reports to the Executive Vice President and Chief Financial Officer and makes annual presentations to the Board of Directors about the Company's reserves. The Reserves Manager and the Corporate reserve engineers review and discuss reserves estimates directly with the Company's technical staff in order to make every effort to ensure compliance with the rules and regulations of the SEC. The Reserves General Manager coordinates and oversees the third-party audits which are performed annually and under Company policy generally target coverage of at least one-third of the barrel oil-equivalent volume of the Company's proved reserves.

The estimated proved reserves reported in this Form 10-K are prepared by Murphy's employees. Internal audits may also be performed by the Reserves General Manager and qualified engineering staff from areas of the Company other than the area being audited by third parties. In 2022, 98.0% of the Proved reserves were audited by third-party auditors and they were found to be within the acceptable 10.0% tolerance by each of the third-party firms. Murphy engaged both Ryder Scott Company, L.P. and McDaniel & Associates Consultants Ltd. to perform a reserves audit of 49.9% and 48.1% of the Company's total proved reserves, respectively.

Each significant exploration and production business unit also maintains one or more Qualified Reserve Estimators (QRE) on staff. The QRE is responsible for estimating and evaluating reserves and other reserves information for his or her assigned area. The QRE may personally make the estimates and evaluations of reserves or may supervise and approve the estimation and evaluation thereof by others. A QRE is professionally qualified to perform these reserves estimates as a result of having sufficient educational background, professional training and professional experience to enable him or her to exercise prudent professional judgment. Larger business units of the Company also employ a Regional Reserves Coordinator (RRC) who supervises the local QREs. The RRC is usually a senior QRE who has the primary responsibility for coordinating and submitting reserves information to senior management.

QRE qualification requires a minimum of five years of practical experience in petroleum engineering or petroleum production geology, with at least three years of such experience being in the estimation and evaluation of reserves, and either a bachelors or advanced degree in petroleum engineering, geology or other discipline of engineering or physical science from a college or university of recognized stature, or the equivalent thereof from an appropriate government authority or professional organization. Murphy provides annual training to all Company reserves estimators to ensure SEC requirements associated with reserves estimation and Form 10-K reporting are fulfilled. The training includes materials provided to each participant that outlines the latest

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guidance from the SEC as well as best practices for many engineering and geologic matters related to reserves estimation.

The Company's QREs maintain files containing pertinent data regarding each significant reservoir. Each file includes sufficient data to support the calculations or analogies used to develop the values. Examples of data included in the file, as appropriate, include: production histories; pertinent drilling and workover histories; bottom hole pressure data; volumetric, material balance, analogy, or other pertinent reserve estimation data; production performance curves; narrative descriptions of the methods and logic used to determine reserves values; maps and logs; and a signed copy of the documentation stating that, in their opinion, the reserves have been calculated, reviewed, documented and reported in compliance with SEC regulations. Reserves calculations are completed by technical personnel with the support of the QREs and appropriately reviewed by RRCs, the Corporate reserves engineers and the Reserves General Manager. Summaries are reviewed and approved with the heads of the Company's exploration and production business units and other senior management on an annual basis. The Company's Controller's department is responsible for preparing and filing reserves schedules within the Form 10-K report.

To ensure accuracy and security of reported reserves, the proved reserves estimates are coordinated in industry-standard software with access controls for approved users. In addition, Murphy complies with internal controls concerning the various business processes related to reserves.

More information regarding Murphy's estimated quantities of proved reserves of crude oil, natural gas liquids and natural gas for the last three years are presented by geographic area on pages 112 through 119 of this Form 10-K report. Murphy currently has no oil and natural gas reserves from non-traditional sources. Murphy has not filed and is not required to file any estimates of its total proved oil or natural gas reserves on a recurring basis with any federal or foreign governmental regulatory authority or agency other than the SEC. Annually, Murphy reports gross reserves of properties operated in the United States to the U.S. Department of Energy; such reserves are derived from the same data from which estimated proved reserves of such properties are determined.

Crude oil, condensate and natural gas liquids production and sales, and natural gas sales by geographic area with weighted average sales prices for each of the three years ended December 31, 2022 are shown on pages 41 through 43 of this Form 10-K report.

Production expenses for the last three years in U.S. dollars per equivalent barrel are discussed beginning on page 38 of this Form 10-K report.

Supplemental disclosures relating to oil and natural gas producing activities are reported on pages 110 through 125 of this Form 10-K report.

PART I**Item 1. Business - Continued****Acreage and Well Count**

At December 31, 2022, Murphy held leases, concessions, contracts or permits on developed and undeveloped acreage as shown by geographic area in the following table. Gross acres are those in which all or part of the working interest is owned by Murphy. Net acres are the portions of the gross acres attributable to Murphy's interest.

Area (Thousands of acres)		Developed		Undeveloped		Total	
		Gross	Net	Gross	Net	Gross	Net
United States	Onshore	109	96	24	23	133	119
	Gulf of Mexico	60	27	560	271	620	298
	Total United States	169	123	584	294	753	417
Canada	Onshore	152	116	279	195	431	311
	Offshore	101	11	28	1	129	12
	Total Canada	253	127	307	196	560	323
Mexico		—	—	636	254	636	254
Brazil		—	—	2,453	1,110	2,453	1,110
Australia		—	—	482	241	482	241
Brunei		2	—	1,446	116	1,448	116
Vietnam		—	—	7,324	4,571	7,324	4,571
Spain		—	—	8	1	8	1
Totals		424	250	13,240	6,783	13,664	7,033

Certain acreage held by the Company will expire in the next three years.

Scheduled expirations in 2023 include 241 thousand net acres in Australia, 116 thousand net acres in Brunei, 75 thousand net acres in Brazil, 34 thousand net acres in onshore Canada, 16 thousand net acres in the Gulf of Mexico, 5 thousand net acres in Mexico and 1 thousand net acres in Spain.

Acreage currently scheduled to expire in 2024 include 4.5 million net acres in Vietnam, 47 thousand net acres in the Gulf of Mexico and 17 thousand net acres in onshore Canada.

Scheduled expirations in 2025 include 249 thousand net acres in Mexico, 37 thousand net acres in Brazil, 7 thousand net acres in the Gulf of Mexico and 5 thousand net acres in onshore Canada.

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As used in the three tables that follow, “gross” wells are the total wells in which all or part of the working interest is owned by Murphy, and “net” wells are the total of the Company’s fractional working interests in gross wells expressed as the equivalent number of wholly-owned wells. An “exploratory” well is drilled to find and produce crude oil or natural gas in an unproved area and includes delineation wells which target a new reservoir in a field known to be productive or to extend a known reservoir beyond the proved area. A “development” well is drilled within the proved area of an oil or natural gas reservoir that is known to be productive.

The following table shows the number of oil and natural gas wells producing or capable of producing at December 31, 2022.

Country		Oil Wells		Natural Gas Wells	
		Gross	Net	Gross	Net
United States	Onshore	1,139	917	30	4
	Gulf of Mexico	77	34	13	6
	Total United States	1,216	951	43	10
Canada	Onshore	18	13	400	338
	Offshore	47	5	—	—
	Total Canada	65	18	400	338
	Totals	1,281	969	443	348

Murphy’s net wells drilled and completed in the last three years are shown in the following table.

	United States		Canada		Other		Totals	
	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry
2022								
Exploration	—	—	—	—	—	0.6	—	0.6
Development	29.1	—	22.1	—	—	—	51.2	—
2021								
Exploration	—	0.1	—	—	—	—	—	0.1
Development	27.9	—	14.6	—	—	—	42.5	—
2020								
Exploration	—	0.4	0.7	—	—	—	0.7	0.4
Development	21.5	—	8.9	—	—	—	30.4	—

Murphy’s drilling wells in progress at December 31, 2022 are shown in the following table. The year-end well count includes wells awaiting various completion operations.

Country		Exploration		Development		Total	
		Gross	Net	Gross	Net	Gross	Net
United States	Onshore	—	—	15.0	7.0	15.0	7.0
	Gulf of Mexico	1.0	0.3	4.0	1.6	5.0	1.9
Canada	Onshore	—	—	5.0	5.0	5.0	5.0
	Offshore	—	—	—	—	—	—
	Totals	1.0	0.3	24.0	13.6	25.0	13.9

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Item 1. Business - Continued

Sustainability

Environment and Climate Change

We understand that our industry, and the use of our products, create emissions – which raise climate change concerns. At the same time, access to affordable, reliable energy is essential to improving the world’s quality of life and the functioning of the global economy. We believe that as the energy economy transitions, oil and natural gas will continue to play a vital role in the long-term energy mix.

We are committed to reducing our GHG emissions and are focused on understanding and mitigating our climate change risks. To guide our climate change strategy, Murphy has adopted a climate change position, and we are setting meaningful emissions reduction goals. In 2021, we endorsed the goal of eliminating routine flaring by 2030, under the current World Bank definition of routine flaring. This adds to the Company’s previously established GHG emissions intensity reduction target of 15% to 20% by 2030 from our 2019 level, excluding our discontinued and divested Malaysia operations.

Murphy recognizes that emissions are only one element of our total environmental footprint. Protecting natural resources is also an important factor in our overall sustainability efforts. See our discussion of Climate Change and Emissions on page 48.

Further, we are subject to various international, foreign, national, state, provincial and local environmental, health and safety laws and regulations, including related to the generation, storage, handling, use, disposal and remediation of petroleum products, wastewater and hazardous materials; the emission and discharge of such materials to the environment, including GHG emissions; wildlife, habitat and water protection; the placement, operation and decommissioning of production equipment; and the health and safety of our employees, contractors and communities where our operations are located.

U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA and similar state statutes impose joint and several liability, without regard to fault or legality of the conduct, on current and past owners or operators of a site where a release occurred and anyone who disposed or arranged for the disposal of a hazardous substance released at the site. Although CERCLA generally exempts “petroleum” from regulation, in the course of our operations, we may and could generate wastes that may fall within CERCLA’s definition of hazardous substances and may have disposed of these wastes at disposal sites owned and operated by others.

Water discharges. The U.S. Clean Water Act and analogous state laws impose restrictions and strict controls with respect to the discharge of pollutants, including spills and leaks of produced water and other oil and gas wastes, into regulated waters. The U.S. Oil Pollution Act (OPA) imposes certain duties and liabilities on the owner or operator of a facility, vessel or pipeline that is a source of or that poses the substantial threat of an oil discharge, or the lessee or permittee of the area in which a discharging offshore facility is located. OPA assigns joint and several liability, without regard to fault, to each liable party for oil removal costs and a variety of public and private damages. OPA also requires owners and operators of offshore oil production facilities to establish and maintain evidence of financial responsibility to cover costs that could be incurred in responding to an oil spill.

U.S. Bureau of Ocean Energy Management (BOEM) and the U.S. Bureau of Safety and Environmental Enforcement (BSEE) requirements. BOEM and BSEE have regulations applicable to lessees in federal waters that impose various safety, permitting and certification requirements applicable to exploration, development and production activities in the Gulf of Mexico and also require lessees to have substantial U.S. assets and net worth or post bonds or other acceptable financial assurance that the regulatory obligations will be met.

These include, in the Gulf of Mexico, well design, well control, casing, cementing, real-time monitoring and subsea containment, among other items. Under applicable requirements, BOEM evaluates the financial strength and reliability of lessees and operators active on the Outer Continental Shelf, including the Gulf of Mexico. If the BOEM determines that a company does not have the financial ability to meet its decommissioning and other obligations, that company will be required to post additional financial security as assurance.

Air emissions and climate change. The U.S. Clean Air Act and comparable state laws and regulations govern emissions of various air pollutants through the issuance of permits and other authorization requirements. Since 2009, the U.S. Environmental Protection Agency (EPA) has been monitoring and regulating GHG emissions, including carbon dioxide and methane, from certain sources in the oil and gas sector due to their association

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Item 1. Business - Continued

with climate change. In addition, international climate efforts, including the 2015 “Paris Agreement” and the 2021 and 2022 Conferences of the Parties of the UN Framework Convention on Climate Change (COP26 and COP27, respectively), have resulted in commitments from many countries to reduce GHG emissions and have called for parties to eliminate certain fossil fuel subsidies and pursue further action on non-carbon dioxide GHGs.

Murphy is currently required to report GHG emissions from its U.S. operations in the Gulf of Mexico and onshore in south Texas and in its Canadian onshore business in British Columbia and Alberta. In British Columbia and Alberta, Murphy is subject to a carbon tax on the purchase or use of many carbon-based fuels. Additionally, starting in 2017, a carbon tax began to be applied to certain operations in Alberta. Any limitations or further regulation of GHG, such as a cap and trade system, technology mandate, emissions tax, or expanded reporting requirements, could cause the Company to restrict operations, curtail demand for hydrocarbons generally, and/or cause costs to increase. Examples of cost increases include costs to operate and maintain facilities, install pollution emission controls and administer and manage emissions trading programs.

Endangered and threatened species. The U.S. Endangered Species Act was established to protect endangered and threatened species. If a species is listed as threatened or endangered, restrictions may be imposed on activities adversely affecting that species’ habitat. Similar protections are offered to migratory birds, under the Migratory Bird Treaty Act, and marine mammals under the Marine Mammal Protection Act.

As noted above, Murphy is subject to various laws and regulatory regimes governing similar matters in other jurisdictions in which it operates. More specifically, Murphy’s operations in Canada are subject to and conducted under Canadian laws and regulations that address many of the same environmental, health and safety issues as those in the U.S., including, without limitation, pollution and contamination, air quality and emissions, water discharges and other health and safety concerns.

Health and Safety

Murphy’s commitment to safety is strong, and so are our actions to protect our workforce and communities. Our employees are our most valuable asset. Murphy strives to achieve incident-free operations through continuous improvement processes managed by the Company’s Health, Safety, Environment (HSE) Management System (HSE-MS), which engages all personnel, contractors and partners associated with Murphy operations and facilities, and provides a consistent method for integrating HSE concepts into our procedures and programs. We work hard to build a culture of safety across our organization, with regular training, exercise drills and key targeted safety initiatives.

Response to COVID-19. During the COVID-19 pandemic, a proactive approach was taken by Murphy and we adopted strict protocols to protect our employees and their families, contractors and the communities in which we work from the virus. Our response program was led by our Incident Management Team (IMT), under the guidance of our Crisis Management Team (CMT), leveraging the advice and recommendations of infectious disease experts and establishing safety protocols for all workers.

Safety. The Company is subject to the requirements of the U.S. Occupational Safety and Health Act (OSHA) and comparable foreign and state laws that regulate the protection of the health and safety of workers. In addition, the OSHA hazard communication standard requires that certain information regarding hazardous materials used or produced in Murphy’s operations be maintained and provided to employees, state and local government authorities and citizens. In Canada, the Company is subject to Federal Occupational Health and Safety (OH&S) Legislation, the provincially-administered Occupational Health and Safety Act (Alberta), the Workers Compensation Act (British Columbia) and the Workplace Hazardous Materials Information System (WHMIS).

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Item 1. Business - Continued

Human Capital Management

At Murphy, we believe in providing energy that empowers people, and that is what our 691 employees do every day. As of December 31, 2022, we had 400 office-based employees and 291 field employees, all of whom are guided by our mission, vision, values and behaviors. Together with the Executive Leadership Team, the Vice President of Human Resources and Administration, who reports directly to our President and Chief Executive Officer, is responsible for developing and executing our human capital management strategy. This includes the attraction, recruitment, development and engagement of talent to deliver on our strategy, the design of employee compensation, health and welfare benefits, and talent programs. We focus on the following factors in order to implement and develop our human capital strategy:

- Employee Compensation Programs
- Employee Performance and Feedback
- Talent Development and Training
- Diversity, Equity and Inclusion
- Health and Welfare Benefits

The Board of Directors receives related updates from management on a regular basis including the review of compensation, benefits, succession and talent development and diversity, equity and inclusion.

Employee Compensation Programs

Our purpose, to empower people, includes tying a portion of our employees' pay to performance in a variety of ways, including incentive compensation and performance-based bonus programs, while maintaining the best interest of stockholders. We benchmark for market practices, and regularly review our compensation against the market to ensure it remains competitive to attract and retain the best talent. We believe our current practices align our employees' compensation with the interests of our stockholders, and support our focus on cash flow generation, capital return and environmental stewardship. For further detail on the Company's compensation framework please see the Compensation Discussion and Analysis section of the forthcoming Proxy Statement relating to the Annual Meeting of Stockholders on May 10, 2023.

Employee Performance and Feedback

We are committed to efforts to enhance our employees' professional growth and development through feedback that utilizes our internal performance management system (Murphy Performance Management - MPM). The purpose of the MPM process is to show our commitment to the development of all employees and to better align rewards with Company and individual performance. The goals of the MPM process are the following:

- Drive behavior to align with the Company's mission, vision, values and behaviors
- Develop employee capabilities through effective feedback and coaching
- Maintain a process that is consistent throughout the organization to measure employee performance and is tied to Company and stockholder interests

All employees' performance is evaluated at least annually through self-assessments that are reviewed in discussions with supervisors. Employees' performance is evaluated on various key performance indicators set annually, including behaviors that support our mission, vision, values and contributions toward executing our company's goals/business strategy.

Talent Development and Training

Employees are able to participate in continuous training and development, with the goal of equipping them for success and providing increased opportunities for growth at Murphy. Through our digital platform, My Murphy Learning, employees can access self-directed courses, external articles and videos that cover topics such as business, technology and productivity. We also administer mandatory compliance training for our employees through My Murphy Learning, with a 100% utilization. Further, we strive to empower our leadership, so we sponsor several programs to address career advancement for emerging leaders. Plus, we provide a tuition reimbursement program for those who choose to acquire additional knowledge to increase their effectiveness in their present position or to prepare for career advancement. Murphy holds internal technical ideas forums each year designed to share best practice and technical advances across the Company, including safety and environmental topics.

PART I**Item 1. Business - Continued**

We encourage employee engagement and solicit feedback through internal surveys and our employee driven Ambassador program to gain insights into workplace experiences. Employees are provided opportunities to raise suggestions and collaborate with leadership to improve programs and increase their alignment with Murphy's mission, vision, values and behaviors.

To monitor the effectiveness of our human capital investment and development programs, we track voluntary turnover. This data is shared on a regular basis with our Executive Leadership Team, who use it in addition to other pertinent data to develop our human capital strategy. In 2022, our voluntary employee turnover rate was 10.5%.

Health and Welfare Benefits

We believe that doing our part to aid in maintaining the health and welfare of our employees is a critical element in Murphy achieving success. As such, we provide our employees and their families with a comprehensive set of subsidized benefits that are competitive and aligned to Murphy's mission, vision, values and behaviors. We also believe that the well-being of our employees is enhanced when they can give back to their local communities or charities either through the Company "Impact – Murphy Makes a Difference" program or on their own and receive a Company match for donations.

In addition, we offer an Employee Assistance Program (EAP) that provides confidential assistance to employees and their immediate family members for mental and physical well-being, as well as legal and financial issues. We also maintain an Ethics Hotline that is available to all our employees to report, anonymously if desired, any matter of concern. Communications to the hotline, which is facilitated by an independent third party, are routed to appropriate functions, Human Resources, Law or Compliance, for investigation and resolution.

Diversity, Equity and Inclusion

We are committed to fostering work environments that value diversity, equity and inclusion (DE&I). This commitment includes providing equal access to and participation in programs and services without regard to race, creed, religion, color, national origin, disability, sex (including pregnancy), sexual orientation, gender identity, veteran status, age or stereotypes or assumptions based thereon. We also support interest-based groups such as sports, hobbies and charity volunteering. We welcome our employees' differences, experiences and beliefs and we are investing in a more productive, engaged, diverse and inclusive workforce. The Board of Directors receives DE&I updates on Demographic Data, Strategic Partnerships, Recruiting Strategies and Programs from management on a regular cadence.

We seek input and program recommendations from our DE&I Committee with the support of the Executive Leadership team and through the sponsorship of our Vice President, Human Resources and Administration. Our DE&I Committee consists of diverse employees at various levels from across the organization that share a passion for DE&I. Our Board currently includes three women directors with at least one female director on each committee. Our Nominating and Governance Committee is actively focused on DE&I issues as part of its overall mandate.

Female Representation (U.S. and International)	December 31, 2022
Executive and Senior Level Managers	16 %
First- and Mid-Level Managers	23 %
Professionals	35 %
Other (Administrative Support and Field)	5 %
Total	21 %
Minority ¹ Representation (U.S.-Based Only)	December 31, 2022
Executive and Senior Level Managers	26 %
First- and Mid-Level Managers	26 %
Professionals	39 %
Other (Administrative Support and Field)	30 %
Total	33 %

¹ As defined by the U.S. Equal Employment Opportunity Commission (EEOC).

PART I

Item 1. Business - Continued

We believe that it is important we attract employees with diverse backgrounds where we operate and are focusing on attracting and retaining women and minorities in our workforce ensuring a vibrant talent pipeline.

Environmental, Social and Governance (ESG) Disclosure

We publish an annual sustainability report according to internationally recognized ESG reporting frameworks and standards, including Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD), Global Reporting Initiative (GRI): Core option, Ipieca and American Petroleum Institute (API).

As this is an area of continual improvement across our industry, we strive to update our disclosures in line with operating developments and with emerging best practice ESG reporting standards. In 2022, we published our fourth annual sustainability report, located on the Company's website.

Website Access to SEC Reports

Murphy Oil's internet Website address is <http://www.murphyoilcorp.com>. The information contained on the Company's Website is not part of, or incorporated into, this report on Form 10-K.

The Company's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available on Murphy's Website, free of charge, as soon as reasonably practicable after such reports are filed with, or furnished to, the SEC. You may also access these reports at the SEC's Website at <http://www.sec.gov>.

PART I

Item 1A. RISK FACTORS

The Company faces risks in the normal course of business and through global, regional and local events that could have an adverse impact on its reputation, operations, and financial performance. The Board of Directors exercises oversight of the Company's enterprise risk management program, which includes strategic, operational and financial matters, as well as compliance and legal risks. The Board of Directors receives updates annually on the risk management processes.

The following are some important factors that could cause the Company's actual results to differ materially from those projected in any forward-looking statements. If any of the events or circumstances described in any of the following risk factors occurs, our business, results of operations and/or financial condition could be materially and adversely affected, and our actual results may differ materially from those contemplated in any forward-looking statements we make in any public disclosures.

Price Risk Factors

Volatility in the global prices of crude oil, natural gas liquids and natural gas can significantly affect the Company's operating results, cash flows and financial condition.

Among the most significant variable factors impacting the Company's results of operations are the sales prices for crude oil and natural gas that it produces. Many of the factors influencing prices of crude oil and natural gas are beyond our control. These factors include:

- the occurrence or threat of epidemics or pandemics, such as the outbreak of coronavirus disease 2019 (COVID-19), or any government response to such occurrence or threat which may lower the demand for hydrocarbon fuels;
- worldwide and domestic supplies of, and demand for, crude oil, natural gas liquids and natural gas;
- the ability of the members of OPEC and certain non-OPEC members, for example, Russia, to agree to maintain or adjust production levels;
- the production levels of non-OPEC countries, including, amongst others, production levels in the shale plays in the United States;
- political instability or armed conflict in oil and natural gas producing regions, such as the Russia-Ukraine conflict;
- the level of drilling, completion and production activities by other exploration and production companies, and variability therein, in response to market conditions;
- changes in weather patterns and climate, including those that may result from climate change;
- natural disasters such as hurricanes and tornadoes, including those that may result from climate change;
- the price, availability and the demand for and of alternative and competing forms of energy, such as nuclear, hydroelectric, wind or solar;
- the effect of conservation efforts and focus on climate-change;
- technological advances affecting energy consumption and energy supply;
- increased activism against, or change in public sentiment for, oil and gas exploration, development, and production activities and considerations including climate change and the transition to a lower carbon economy;
- domestic and foreign governmental regulations and taxes, including further legislation requiring, subsidizing or providing tax benefits for the use or generation of alternative energy sources and fuels; and
- general economic conditions worldwide, including inflationary conditions and related governmental policies and interventions.

West Texas Intermediate (WTI) crude oil prices averaged \$94 per barrel in 2022, compared to \$68 in 2021, \$39 in 2020 and \$57 in 2019. Certain U.S. and Canadian crude oils are priced from oil indices other than WTI, and these indices are influenced by different supply and demand forces than those that affect WTI prices. The most

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Item 1A. Risk Factors - Continued

common crude oil indices used to price the Company's crude include Mars, WTI Houston (MEH), Heavy Louisiana Sweet (HLS) and Brent.

The average New York Mercantile Exchange (NYMEX) natural gas sales price was \$6.38 per million British Thermal Units (MMBTU) in 2022, compared to \$3.84 in 2021 and \$1.99 in 2020. The Company also has exposure to the Canadian benchmark natural gas price, AECO, which averaged US\$4.09 per MMBTU in 2022, compared to US\$2.89 in 2021 and US\$1.66 in 2020. The Company has entered into certain forward fixed price contracts as detailed in the Outlook section on page 54 and spot contracts providing exposure to other market prices at specific sales points such as Malin (Oregon, U.S.) and Dawn (Ontario, Canada).

Lower prices, should they occur, will materially and adversely affect our results of operations, cash flows and financial condition. Lower oil and natural gas prices could reduce the amount of oil and natural gas that the Company can economically produce, resulting in a reduction in the proved oil and natural gas reserves we could recognize, which could impact the recoverability and carrying value of our assets. The Company cannot predict how changes in the sales prices of oil and natural gas will affect the results of operations in future periods. The Company may hedge a portion of its exposure to the effects of changing prices of crude oil and natural gas by selling forwards, swaps and other forms of derivative contracts.

Lower oil and natural gas prices adversely affect the Company in several ways:

- Lower sales value for the Company's oil and natural gas production reduces cash flows and net income.
- Lower cash flows may cause the Company to reduce its capital expenditure program, thereby potentially restricting its ability to grow production and add proved reserves.
- Lower oil and natural gas prices could lead to impairment charges in future periods, therefore reducing net income.
- Reductions in oil and natural gas prices could lead to reductions in the Company's proved reserves in future years. Low prices could make a portion of the Company's proved reserves uneconomic, which in turn could lead to the removal of certain of the Company's year-end reported proved oil reserves in future periods. These reserve reductions could be significant.
- In order to manage the potential volatility of cash flows and credit requirements, we maintain appropriate bank credit facilities. Inability, as a result of low oil and natural gas prices, to access, renew or replace such credit facilities or access other sources of funding as they mature would negatively impact our liquidity.
- Lower prices for oil and natural gas could cause the Company to lower its dividend because of lower cash flows.

See [Note L](#) for additional information on the derivative instruments used to manage certain risks related to commodity prices.

Murphy's commodity price risk management may limit the Company's ability to fully benefit from potential future price increases for oil and natural gas.

The Company, from time to time, enters into various contracts to protect its cash flows against lower oil and natural gas prices. To the extent that the Company enters into these contracts and in the event that prices for oil and natural gas increase in future periods, the Company will not fully benefit from the price improvement on all production. See [Note L](#) for additional information on the derivative instruments used to manage certain risks related to commodity prices.

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Item 1A. Risk Factors - Continued

Operational Risk Factors

Murphy operates in highly competitive environments which could adversely affect it in many ways, including its profitability, cash flows and its ability to grow.

Murphy operates in the oil and natural gas industry and experiences competition from other oil and natural gas companies, which include major integrated oil companies, independent producers of oil and natural gas, and state-owned foreign oil companies. Many of the major integrated and state-owned oil companies and some of the independent producers that compete with the Company have substantially greater resources than Murphy.

In addition, the oil industry as a whole competes with other industries in supplying energy requirements around the world. Within the industry, Murphy competes for, among other things, valuable acreage positions, exploration licenses, drilling equipment and talent.

Exploration drilling results can significantly affect the Company's operating results.

The Company drills exploratory wells which subjects its exploration and production operating results to exposure to dry hole expense, which has in the past and may in the future, adversely affect our results of operations. The Company's strategy is to participate in three to five exploration wells per year. In 2022, the Company participated in two exploration wells, the Cutthroat well located in Brazil and the Tulum-1EXP well located in Mexico, that failed to encounter commercial hydrocarbons. In addition, in December of 2022, the Company commenced drilling of the Oso-1 well in the Gulf of Mexico, with drilling to continue through the first quarter of 2023. The Company has budgeted \$100 million for its 2023 exploration program, which includes finishing the Oso-1 well and drilling two additional Gulf of Mexico operated exploration wells.

If Murphy cannot replace its oil and natural gas reserves, it may not be able to sustain or grow its business.

Murphy continually depletes its oil and natural gas reserves as production occurs. To sustain and grow its business, the Company must successfully replace the oil and natural gas it produces with additional reserves. Therefore, it must create and maintain a portfolio of good prospects for future reserves additions and production. The Company must find, acquire or develop, and produce reserves at a competitive cost to be successful in the long-term. Murphy's ability to operate profitably in the exploration and production business, therefore, is dependent on its ability to find (and/or acquire), develop and produce oil and natural gas reserves at costs that are less than the realized sales price for these products.

Murphy's proved reserves are based on the professional judgment of its engineers and may be subject to revision.

Proved reserves of crude oil, natural gas liquids (NGL) and natural gas included in this report on pages 110 through 119 have been prepared according to the SEC guidelines by qualified Company personnel or qualified independent engineers based on an unweighted average of crude oil, NGL and natural gas prices in effect at the beginning of each month of the respective year as well as other conditions and information available at the time the estimates were prepared. Estimation of reserves is a subjective process that involves professional judgment by engineers about volumes to be recovered in future periods from underground oil and natural gas reservoirs. Estimates of economically recoverable crude oil, NGL and natural gas reserves and future net cash flows depend upon a number of variable factors and assumptions, and consequently, different engineers could arrive at different estimates of reserves and future net cash flows based on the same available data and using industry accepted engineering practices and scientific methods. In 2022, 98.0% of the Proved reserves were audited by third-party auditors.

Murphy's actual future oil and natural gas production may vary substantially from its reported quantity of proved reserves due to a number of factors, including:

- Oil and natural gas prices which are materially different from prices used to compute proved reserves;
- Operating and/or capital costs which are materially different from those assumed to compute proved reserves;
- Future reservoir performance which is materially different from models used to compute proved reserves; and
- Governmental regulations or actions which materially impact operations of a field.

PART I

Item 1A. Risk Factors - Continued

The Company's proved undeveloped reserves represent significant portions of total proved reserves. As of December 31, 2022, and including noncontrolling interests, approximately 31% of the Company's crude oil and condensate proved reserves, 29% of natural gas liquids proved reserves and 47% of natural gas proved reserves are undeveloped. The ability of the Company to reclassify these undeveloped proved reserves to the proved developed classification is generally dependent on the successful completion of one or more operations, which might include further development drilling, construction of facilities or pipelines and well workovers.

The discounted future net revenues from our proved reserves as reported on pages 123 and 124 should not be considered as the market value of the reserves attributable to our properties. As required by generally accepted accounting principles (GAAP), the estimated discounted future net revenues from our proved reserves are based on an unweighted average of the oil and natural gas prices in effect at the beginning of each month during the year. Actual future prices and costs may be materially higher or lower than those used in the reserves computations.

In addition, the 10% discount factor that is required to be used to calculate discounted future net revenues for reporting purposes under GAAP is not necessarily the most appropriate discount factor based on our cost of capital, the risks associated with our business and the risk associated with the industry in general.

Murphy is sometimes reliant on joint venture partners for operating assets, and/or funding development projects and operations.

Certain of the Company's major oil and natural gas producing properties are operated by others. Therefore, Murphy does not fully control all activities at certain of its revenue generating properties. During 2022, approximately 21% of the Company's total production was at fields operated by others, while at December 31, 2022, approximately 15% of the Company's total proved reserves were at fields operated by others.

Additionally, the Company relies on the availability of transportation and processing facilities that are often owned and operated by others. These third-party systems and facilities may not always be available to the Company and, if available, may not be available at a price that is acceptable to the Company.

Some of Murphy's development projects entail significant capital expenditures and have long development cycle times. As a result, the Company's partners must be able to fund their share of investment costs through the development cycle, through cash flow from operations, external credit facilities, or other sources, including financing arrangements. Murphy's partners are also susceptible to certain of the risk factors noted herein, including, but not limited to, commodity price, fiscal regime changes, government project approval delays, regulatory changes, credit downgrades and regional conflict. If one or more of these factors negatively impacts a project partners' cash flows or ability to obtain adequate financing, it could result in a delay or cancellation of a project, resulting in a reduction of the Company's reserves and production, which negatively impacts the timing and receipt of planned cash flows and expected profitability.

Murphy's business is subject to operational hazards, severe weather events, physical security risks and risks normally associated with the exploration and production of oil and natural gas, which could become more significant as a result of climate change.

The Company operates in urban and remote, and sometimes inhospitable, areas around the world. The occurrence of an event, including but not limited to acts of nature such as hurricanes, floods, earthquakes (and other forms of severe weather), mechanical equipment failures, industrial accidents, fires, explosions, acts of war, civil unrest, piracy and acts of terrorism could result in the loss of hydrocarbons and associated revenues, environmental pollution or contamination, personal injury, (including death), and property damages for which the Company could be deemed to be liable and which could subject the Company to substantial fines and/or claims for punitive damages. This risk extends to actions and operational hazards of other operators in the industry, which may also impact the Company.

The location of many of Murphy's key assets causes the Company to be vulnerable to severe weather, including hurricanes and tropical storms. Many of the Company's offshore fields are in the U.S. Gulf of Mexico, where hurricanes and tropical storms can lead to shutdowns and damages. The U.S. hurricane season runs from June through November. Moreover, it should be noted that scientists have predicted that increasing concentrations of GHG in the earth's atmosphere may produce climate changes that increase significant weather events, such as

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Item 1A. Risk Factors - Continued

increased frequency and severity of storms, droughts, and floods and other climatic events. If such effects were to occur, our operations could be adversely affected. Although the Company maintains insurance for such risks as described elsewhere in this Form 10-K report, due to policy deductibles and possible coverage limits, weather-related risks to our operations are not fully insured.

In addition, certain customer and supplier assets, such as storage terminals, processing facilities, refineries and pipelines, are located in areas that may be prone to severe weather events, including hurricanes, winter storms, floods and major tropical storms. Severe weather events that significantly affect facilities belonging to such customers or suppliers may reduce demand for our products and interrupt our ability to bring products to market and may therefore materially and adversely affect our results of operations, cash flows and financial condition, even if our own facilities escape significant damage.

Murphy is subject to numerous environmental, health and safety laws and regulations, and such existing and any potential future laws and regulations may result in material liabilities and costs.

The Company's operations are subject to various international, foreign, national, state, provincial and local environmental, health and safety laws, regulations, governmental actions and permit requirements, including related to the generation, storage, handling, use, disposal and remediation of petroleum products, wastewater and hazardous materials; the emission and discharge of such materials to the environment, including GHG emissions; wildlife, habitat and water protection; the placement, operation and decommissioning of production equipment; the health and safety of our employees, contractors and communities where our operations are located, including indigenous communities; and the causes and impacts of climate change. The laws, regulations, governmental actions and permit requirements are subject to frequent change and have tended to become stricter over time and at times may be motivated by political considerations. They can impose permitting and financial assurance obligations, as well as operational controls and/or siting constraints on our business, and can result in additional capital and operating expenditures. It is possible in the future, certain regulatory bodies such as the Railroad Commission of Texas may enact regulation that bans or reduces flaring for U.S. Onshore operations and certain regulatory bodies in Canada may decide to revoke permits or pause the issuance of permits as a result of non-compliance with, or litigation related to, environmental, health and safety laws and regulations. Compliance with such regulations could result in capital investment which would reduce the Company's net cash flows and profitability.

Murphy also could be subject to strict liability for environmental contamination in various jurisdictions where it operates, including with respect to its current or former properties, operations and waste disposal sites, or those of its predecessors. Contamination has been identified at some locations, and the Company has been required, and in the future may be required, to investigate, remove or remediate previously disposed wastes; or otherwise clean up contaminated soil, surface water or groundwater, address spills and leaks from pipelines and production equipment, and perform remedial plugging operations. In addition to significant investigation and remediation costs, such matters can result in fines and also give rise to third-party claims for personal injury and property or other environmental damage.

The Company's onshore North America oil and natural gas production is dependent on a technique known as hydraulic fracturing whereby water, sand and certain chemicals are injected into deep oil and natural gas bearing reservoirs in North America. This process occurs thousands of feet below the surface and creates fractures in the rock formation within the reservoir which enhances migration of oil and natural gas to the wellbore. The Company primarily uses this technique in the Eagle Ford Shale in South Texas and in Kaybob Duvernay and Tupper Montney in Western Canada. Texas law imposes permitting, disclosure, disposal and well construction requirements on hydraulic fracturing operations, as well as public disclosure of certain information regarding the components used in the hydraulic fracturing process. Regulations in the provinces of British Columbia and Alberta also govern various aspects of hydraulic fracturing activities under their jurisdictions. It is possible that Texas, other states in which we may conduct fracturing in the future, the U.S., Canadian provinces and certain municipalities may adopt further laws or regulations which could render the process unlawful, less effective or drive up its costs. If any such action is taken in the future, the Company's production levels could be adversely affected, or its costs of drilling and completion could be increased. Once new laws and/or regulations have been enacted and adopted, the costs of compliance are appraised.

Hydraulic fracturing operations subject the Company to operational risks inherent in the drilling and production of oil and natural gas. These risks include underground migration or surface spillage due to releases of oil,

PART I

Item 1A. Risk Factors - Continued

natural gas, formation water or well fluids, as well as any related surface or groundwater contamination, including from petroleum constituents or hydraulic fracturing chemical additives. Ineffective containment of surface spillage and surface or groundwater contamination resulting from hydraulic fracturing operations, including from petroleum constituents or hydraulic fracturing chemical additives, could result in environmental pollution, remediation expenses and third-party claims alleging damages, which could adversely affect the Company's financial condition and results of operations. In addition, hydraulic fracturing requires significant quantities of water; the wastewater from oil and natural gas operations is often disposed of through underground injection. Certain increased seismic activities have been linked to underground water injection. Any diminished access to water for use in the hydraulic fracturing process, any inability to properly dispose of wastewater, or any further restrictions placed on wastewater, could curtail the Company's operations or otherwise result in operational delays or increased costs.

In addition, BOEM and BSEE have regulations applicable to lessees in federal waters that impose various safety, permitting and certification requirements applicable to exploration, development and production activities in the Gulf of Mexico, and also require lessees to have substantial U.S. assets and net worth or post bonds or other acceptable financial assurance that the regulatory obligations will be met. These include, in the Gulf of Mexico, well design, well control, casing, cementing, real-time monitoring, and subsea containment, among other items. Under applicable requirements, BOEM evaluates the financial strength and reliability of lessees and operators active on the OCS. If the BOEM determines that a company does not have the financial ability to meet its decommissioning and other obligations, that company will be required to post additional financial security as assurance.

In addition, various executive orders by the current presidential administration and the Department of Interior over the course of 2021 regarding a temporary suspension of normal-course issuance of permits for fossil fuel development on federal lands and a pause on new oil and gas leases on public lands and offshore waters, and the Secretary of Interior's related review of permitting and leasing practices, could adversely impact Murphy's operations. Despite the pauses on oil and gas leases in 2021, in August 2022, the Inflation Reduction Act was passed by the U.S. Congress and included provisions which required the Department of Interior to hold previously announced offshore lease sales in the Gulf of Mexico and Alaska within two years. These developments demonstrate the uncertainty regarding the current presidential administration's approach to oil and gas leasing and permitting. For further details, see "Risk Factors – General Risk Factors – Murphy's operations and earnings have been and will continue to be affected by domestic and worldwide political developments."

PART I

Item 1A. Risk Factors - Continued

We face various risks associated with increased activism against, or change in public sentiment for, oil and gas exploration, development, and production activities and sustainability considerations, including climate change and the transition to a lower carbon economy.

Opposition toward oil and gas drilling, development, and production activity has been growing globally. Companies in the oil and gas industry are often the target of activist efforts from both individuals and nongovernmental organizations and other stakeholders regarding safety, human rights, climate change, environmental matters, sustainability, and business practices. Anti-development activists are working to, among other things, delay or cancel certain operations such as offshore drilling and development.

Activism may continue to increase regardless of whether the current presidential administration in the U.S. is perceived to be following, or actually follows, through on the current president's campaign commitments to promote decreased fossil fuel exploration and production in the U.S, including as a result of the administration's environmental and climate change executive orders described earlier in this 10-K. Our need to incur costs associated with responding to these initiatives or complying with any resulting new legal or regulatory requirements resulting from these activities that are substantial and not adequately provided for, could have a material adverse effect on our business, financial condition and results of operations. In addition, a change in public sentiment regarding the oil and gas industry could result in a reduction in the demand for our products or otherwise affect our results of operations or financial condition.

While the Company has been named a co-defendant with other oil and gas companies in lawsuits related to climate change, these lawsuits have not resulted in, and are not currently expected to result in, material liability for the Company. Depending on the evolution of laws, regulations and litigation outcomes relating to climate change, there can be no guarantee that climate change litigation will not in the future materially adversely affect our results of operations, cash flows and financial condition. For further details on risks related to legal proceedings more generally, see "Risk Factors - General Risk Factors - Lawsuits against Murphy and its subsidiaries could adversely affect its operating results."

Financial Risk Factors

Capital financing may not always be available to fund Murphy's activities; and interest rates could impact cash flows.

Murphy usually must spend and risk a significant amount of capital to find and develop reserves before revenue is generated from production. Although most capital needs are funded from operating cash flow, the timing of cash flows from operations and capital funding requirements may not always coincide, and the levels of cash flow generated by operations may not fully cover capital funding requirements, especially in periods of low commodity prices. Therefore, the Company maintains financing arrangements with lending institutions to meet certain funding needs. The Company periodically renews these financing arrangements based on foreseeable financing needs or as they expire. In November 2022, the Company entered into an \$800 million revolving credit facility (RCF). The RCF is a senior unsecured guaranteed facility and will expire in November 2027. As of December 31, 2022, the Company had no outstanding borrowings under the RCF. See [Note G](#) for further details on the RCF.

The Company's ability to obtain additional financing is affected by a number of factors, including the market environment, our operating and financial performance, investor sentiment, our ability to incur additional debt in compliance with agreements governing our outstanding debt, and the Company's credit ratings. A ratings downgrade could materially and adversely impact the Company's ability to access debt markets, increase the borrowing cost under the Company's credit facility and the cost of any additional indebtedness we incur, and potentially require the Company to post additional letters of credit or other forms of collateral for certain obligations. Murphy partially manages this risk through borrowing at fixed rates wherever possible; however, rates when refinancing or raising new capital are determined by factors outside of the Company's control.

PART I

Item 1A. Risk Factors - Continued

Further, changes in investors' sentiment or view of risk of the exploration and production industry, including as a result of concerns over climate change, could adversely impact the availability of future financing. Specifically, certain financial institutions (including certain investment advisors and sovereign wealth, pension and endowment funds), in response to concerns related to climate change and the requests and other influence of environmental groups and similar stakeholders, have elected to shift some or all of their investments away from fossil fuel-related sectors, and additional financial institutions and other investors may elect to do likewise in the future. As a result, fewer financial institutions and other investors may be willing to invest in, and provide capital to, companies in the oil and gas sector, which, in turn, could adversely impact our cost of capital.

In 2022, the Company undertook several actions to reduce overall debt. Murphy plans to continue with the Company's deleveraging initiatives, but there can be no assurance that these efforts will be successful and, if not, the Company's financial conditions and prospects could be adversely affected. See [Note G](#) for information regarding the Company's outstanding debt as of December 31, 2022.

Murphy's operations could be adversely affected by changes in foreign exchange rates.

The Company's worldwide operational scope exposes it to risks associated with foreign currencies. Most of the Company's business is transacted in U.S. dollars, and therefore the Company and most of its subsidiaries are U.S. dollar functional entities for accounting purposes. However, the Canadian dollar is the functional currency for all Canadian operations. This exposure to currencies other than the U.S. dollar functional currency can lead to impacts on consolidated financial results from foreign currency translation. On occasions, the Canadian business may hold assets or incur liabilities denominated in a currency which is not Canadian dollars which could lead to exposure to foreign exchange rate fluctuations. See also [Note L](#) for additional information on derivative contracts.

The costs and funding requirements related to the Company's retirement plans are affected by several factors.

A number of actuarial assumptions impact funding requirements for the Company's retirement plans. The most significant of these assumptions include return on assets, long-term interest rates and mortality. If the actual results for the plans vary significantly from the actuarial assumptions used, or if laws regulating such retirement plans are changed, Murphy could be required to make more significant funding payments to one or more of its retirement plans in the future and/or it could be required to record a larger liability for future obligations in its Consolidated Balance Sheet.

Murphy has limited control over supply chain costs.

The Company often experiences pressure on its operating and capital expenditures in periods of strong crude oil and natural gas prices because an increase in exploration and production activities due to high oil and natural gas sales prices generally leads to higher demand for, and consequently higher costs for, goods and services in the oil and gas industry. In addition, periods of inflationary pressure in the wider economy, as seen during 2022, can also lead to a similar increase in the cost of goods and services for the Company. Murphy has a dedicated procurement department focused on managing supply chain and input costs. Murphy also has certain transportation, processing and production handling services costs fixed through long-term contracts and commitments and therefore is partly protected from increasing price of services. However, from time to time, Murphy will seek to enter new commitments, exercise options to extend contracts and re-tender contracts for rigs and other industry services which could expose Murphy to the impact of higher prices.

PART I

Item 1A. Risk Factors - Continued

The Company is exposed to credit risks associated with (i) sales of certain of its products to customers, (ii) joint venture partners and (iii) other counterparties.

Murphy is exposed to credit risk in three principle areas:

- Accounts receivable credit risk from selling its produced commodity to customers;
- Joint venture partners related to certain oil and natural gas properties operated by the Company. These joint venture partners may not be able to meet their financial obligation to pay for their share of capital and operating costs as they become due; and
- Counterparty credit risk related to forward price commodity hedge contracts to protect the Company's cash flows against lower oil and natural gas prices.

To mitigate these risks the Company:

- Actively monitors the credit worthiness of all its customers, joint venture partners and forward commodity hedge counterparties; and
- Given the inherent credit risks in a cyclical commodity price business, the Company has increased the focus on its review of joint venture partners, the magnitude of potential exposure and planning suitable actions should a joint venture partner fail to pay its share of capital and operating expenditures.

The inability of a purchaser of the Company's produced commodity, a joint venture partner of the Company, or counterparty in a forward price commodity hedge to meet their respective payment obligations to the Company could have an adverse effect on Murphy's future earnings and cash flows.

General Risk Factors

We face various risks related to health epidemics, pandemics and similar outbreaks, which may have material adverse effects on our business, financial position, results of operations and/or cash flows.

As the COVID-19 pandemic has evolved from its emergence in early 2020, so has its global impact. In 2020 the spread of COVID-19 led to disruption in the global economy and weakness in demand in crude oil, natural gas liquids and natural gas, which applied downward pressure on global commodity prices. The combination of vaccine availability and the relaxation of government-imposed lockdowns in 2021 led to a rebound in global economic activity in 2021, which continued throughout 2022.

However, the future impact of COVID-19, or that of any other pandemic, cannot be predicted and any resurgence of disease may cause additional volatility in commodity prices. See Risk Factors, "Price Risk Factors – Volatility in the global prices of crude oil, natural gas liquids and natural gas can significantly affect the Company's operating results."

If significant portions of our workforce are unable to work effectively, including because of illness, quarantines, government actions, facility closures or other restrictions in connection with the COVID-19 or other pandemic, our operations will likely be impacted and decrease our ability to produce oil, natural gas liquids and natural gas. We may be unable to perform fully on our commitments and our costs may increase as a result of the COVID-19 outbreak. These cost increases may not be fully recoverable or adequately covered by insurance.

The COVID-19 or other pandemic could also cause disruption in our supply chain; cause delay, or limit the ability of vendors and customers to perform, including in making timely payments to us; and cause other unpredictable events.

We continue to work with our stakeholders (including customers, employees, suppliers, financial and lending institutions and local communities) to address the COVID-19 pandemic responsibly. We continue to monitor the situation, to assess further possible implications to our business, supply chain and customers, and to take actions in an effort to mitigate adverse consequences. The Company continues to exercise financial discipline in managing costs and capital expenditures.

We cannot predict the ongoing impact of the COVID-19 or other pandemic. The extent to which the COVID-19 or other health pandemics or epidemics may impact our results will depend on future developments, including, among other factors, the duration and spread of the virus and its variants, availability, acceptance and effectiveness of vaccines along with related travel advisories, quarantines and restrictions, the recovery time of

PART I

Item 1A. Risk Factors - Continued

the disrupted supply chains and industries, the impact of labor market interruptions, and the impact of government interventions.

Changes in U.S. and international tax rules and regulations, or interpretations thereof, may materially and adversely affect our cash flows, results of operations and financial condition.

We are subject to income- and non-income-based taxes in the United States under federal, state and local jurisdictions and in the foreign jurisdictions in which we operate. Tax laws, regulations and administrative practices in various jurisdictions may be subject to significant change, with or without advance notice, due to economic, political and other conditions, and significant judgment is required in evaluating and estimating our provision and accruals for these taxes. Our tax liabilities could be affected by numerous factors, such as changes in tax, accounting and other laws, regulations, administrative practices, principles and interpretations, the mix and level of earnings in a given taxing jurisdiction or our ownership or capital structure. For example, on August 16, 2022, the United States enacted the Inflation Reduction Act of 2022, which is highly complex, subject to interpretation and contains significant changes to U.S. tax law, including, but not limited to, a 15% corporate book minimum tax for taxpayers with adjusted financial statement income in excess of \$1 billion and a 1% excise tax on certain stock repurchases made after December 31, 2022. The U.S. Department of the Treasury and the IRS are expected to release further regulations and interpretive guidance implementing the legislation contained in the Inflation Reduction Act of 2022, but the details and timing of such regulations are subject to uncertainty at this time. The tax provisions of the Inflation Reduction Act of 2022 that may apply to us are generally effective in 2023 or later and therefore tax impacts to us in 2022 were immaterial. We continue to analyze the potential impact of the Inflation Reduction Act of 2022 on our consolidated financial statements and to monitor guidance to be issued by the U.S. Department of the Treasury. However, it is possible that the enactment of changes in the U.S. corporate tax system, including in connection with the Inflation Reduction Act of 2022, could have a material effect on our consolidated cash taxes in the future.

Murphy's Information Technology environment may be exposed to cyber threats.

The oil and gas industry has become increasingly dependent on digital technologies to conduct exploration, development, and production activities. We are no exception to this trend. As a company, we depend on these technologies to estimate quantities of oil and natural gas reserves, process and record financial and operating data, analyze seismic and drilling information, communicate internally and externally, and conduct many other business activities.

Maintaining the security of our technology and preventing breaches is critical to our business operation. We rely on our information systems, and our cybersecurity training and policies, to protect and secure intellectual property, strategic plans, customer information, and personally identifiable information, such as employee information.

A failure of our cyber infrastructure or a successful or undetected cyberattack has the potential to halt business operations, impair our reputation, weaken our competitive advantage, and/or adversely impact our financial condition. Given the increasing global threats from cybercrime, the Company's approach to mitigate cybersecurity risk focuses on three key elements:

- People - Security awareness education and readiness-testing throughout the year for employees and contractors;
- Process - Incorporating "cyber awareness" in our day to day processes and maturing key controls such as recurring internal and external cyber risk assessments, physical and digital asset protection, and security vulnerability remediation via preventative and detective measures; and
- Technology - Investing in industry aligned security technology and threat intelligence capabilities.

As the sophistication of cyber threats continues to evolve, we may be required to dedicate additional resources to continue to modify or enhance our security measures, or to investigate and remediate any vulnerabilities to cyber-attacks.

PART I

Item 1A. Risk Factors - Continued

Murphy's operations and earnings have been and will continue to be affected by domestic and worldwide political developments.

From time to time, some governments intervene in the market for crude oil and natural gas produced in their countries through such actions as setting prices, determining rates of production, and controlling who may buy and sell the production.

Murphy is exposed to regulation, legislation and policies enacted by the federal government. As an example, following the election and inauguration of the current U.S. president in January 2021, the U.S. Secretary of the Interior issued Order No. 3395 on January 20, 2021. This order served to potentially impact the timing of issuance of oil and gas leases, lease amendments and extension, and drilling permits on federal lands and offshore waters. However, following this notice, the Department of Interior has continued to approve permits and Murphy has not experienced a delay in project approvals. An extension or permanency of this regime could impact the options available to Murphy for future development, reserves available for production and hence future cash flows and profitability. In the event leasing delays or cancellations alter Murphy's plans in the Gulf of Mexico, the Company believes it will be able to re-focus activities and allocate capital to other areas. The Company does not hold any onshore federal lands in the U.S.

In addition, the current presidential administration has pursued other initiatives related to environmental, health and safety standards applicable to the oil and gas industry. These include an executive order in January 2021 that directed the Secretary of the Interior to halt indefinitely new oil and gas leases on federal lands and offshore waters pending a since-completed review by the Secretary of the Interior of federal oil and gas permitting and leasing practices; however, a June 2021 preliminary injunction in the U.S. District Court for the Western District of Louisiana barred the current presidential administration from implementing the pause in new federal oil and gas leases. This executive order also set forth other initiatives and goals, including procurement of carbon pollution-free electricity, elimination of fossil fuel subsidies, a carbon pollution-free power sector by 2035 and a net-zero emissions U.S. economy by 2050. Another executive order from January 2021 called for a climate change-focused review of regulations and other executive actions promulgated, issued or adopted during the prior presidential administration. In August 2022, the Inflation Reduction Act was passed by the U.S. Congress and included provisions which required the Department of Interior to hold previously announced offshore lease sales in the Gulf of Mexico and Alaska within two years. These developments demonstrate the uncertainty regarding the current presidential administration's approach to oil and gas leasing and permitting.

In March 2022, the SEC proposed rules requiring disclosure of a range of climate change-related information, including, among other things, companies' climate change risk management; short- medium- and long-term climate-related financial risks; and disclosure of Scope 1, Scope 2 and (for certain companies) Scope 3 emissions. The SEC's proposed climate disclosure rules have not yet been finalized, but implementation of the rules as proposed could be costly and time consuming.

These actions and any future changes to applicable environmental, health and safety, regulatory and legal requirements promulgated by the current presidential administration and Congress may restrict our access to additional acreage and new leases in the U.S. Gulf of Mexico or lead to limitations or delays on our ability to secure additional permits to drill and develop our acreage and leases or otherwise lead to limitations on the scope of our operations, or may lead to increases to our compliance costs. The potential impacts of these changes on our future consolidated financial condition, results of operations or cash flows cannot be predicted.

Prices and availability of crude oil, natural gas and refined products could be influenced by political factors and by various governmental policies to restrict or increase petroleum usage and supply. Other governmental actions that could affect Murphy's operations and earnings include expropriation, tax law changes, royalty increases, redefinition of international boundaries, preferential and discriminatory awarding of oil and natural gas leases, restrictions on drilling and/or production, restraints and controls on imports and exports, safety, and relationships between employers and employees. Governments could also initiate regulations concerning matters such as currency fluctuations, currency conversion, protection and remediation of the environment, and concerns over the possibility of global warming caused by the production and use of hydrocarbon energy. As of December 31, 2022, 0.1% of the Company's proved reserves, as defined by the SEC, were located in countries other than the U.S. and Canada.

A number of non-governmental entities routinely attempt to influence industry members and government energy policy in an effort to limit industry activities, such as hydrocarbon production, drilling and hydraulic

PART I

Item 1A. Risk Factors - Continued

fracturing with the desire to minimize the emission of GHG such as carbon dioxide, which may harm air quality, and to restrict hydrocarbon spills, which may harm land and/or groundwater.

Additionally, because of the numerous countries in which the Company operates, certain other risks exist, including the application of the U.S. Foreign Corrupt Practices Act and other similar anti-corruption compliance statutes in the jurisdictions in which we operate.

It is not possible to predict the actions of governments and hence the impact on Murphy's future operations and earnings.

Murphy's insurance may not be adequate to offset costs associated with certain events, and there can be no assurance that insurance coverage will continue to be available in the future on terms that justify its purchase.

Murphy maintains insurance against certain, but not all, hazards that could arise from its operations. The Company maintains liability insurance sufficient to cover its share of gross insured claim costs up to approximately \$500 million per occurrence and in the annual aggregate. Generally, this insurance covers various types of third-party claims related to personal injury, death and property damage, including claims arising from "sudden and accidental" pollution events. The Company also maintains insurance coverage for property damage and well control with an additional limit of \$450 million per occurrence (\$850 million for U.S. Gulf of Mexico claims), all or part of which could apply to certain sudden and accidental pollution events. These policies have deductibles ranging from \$10 million to \$25 million. The occurrence of an event that is not insured or not fully insured could have a material adverse effect on the Company's financial condition and results of operations in the future.

Murphy could face long-term challenges to the fossil fuels business model reducing demand and price for hydrocarbon fuels.

Murphy's business model may come under more pressure from changing environmental and social trends and the related global demands for non-fossil fuel energy sources. This demand in alternative forms of energy may cause the price of our products to become more volatile and decline. Further, a reduction in demand for fossil fuels could adversely impact the availability of future financing. As part of Murphy's strategy review process, the Company reviews hydrocarbon demand forecasts and assesses the impact on its business model and, plans and future estimates of reserves. In addition, the Company evaluates other lower-carbon technologies that could complement our existing assets, strategy and competencies as part of its long-term capital allocation strategy. The Company also has significant natural gas reserves which emit lower carbon compared to oil and liquids.

The issue of climate change has caused considerable attention to be directed towards initiatives to reduce global GHG emissions. The Paris Agreement and subsequently yearly "conferences of the parties" to the Paris Agreement have resulted in commitments from many countries to reduce GHG emissions and have called for parties to eliminate certain fossil fuel subsidies and pursue further action on non-carbon dioxide GHGs. Most recently, in November 2022, the international community gathered in Egypt at the 27th Conference of the Parties on the UN Framework Convention on Climate Change (COP27), during which multiple announcements were made, including the EPA's announcement of more stringent revisions to previously proposed methane emissions rules for the oil and gas sector. The previously proposed rules and EPA's November 2022 revisions, establish requirements for methane emissions from existing and modified oil and gas sources and impose additional requirements for new sources. In addition, the federal government could issue various executive orders that may result in additional laws, rules and regulations in the area of climate change. It is possible that the Paris Agreement, COP27, government executive orders and other such initiatives, including foreign, federal and state laws, rules or regulations related to GHG emissions and climate change, may reduce the demand for crude oil and natural gas globally. In addition to regulatory risk, other market and social initiatives such as public and private initiatives that aim to subsidize the development of non-fossil fuel energy sources, may reduce the competitiveness of carbon-based fuels, such as oil and gas. While the magnitude of any reduction in hydrocarbon demand is difficult to predict, such a development could adversely impact the Company and other companies engaged in the exploration and production business. With or without renewable-energy subsidies, the unknown pace and strength of technological advancement of non-fossil-fuel energy sources creates uncertainty about the timing and pace of effects on our business model. The Company continually monitors the global climate change agenda initiatives and plans accordingly based on its assessment of such initiatives on its business.

PART I

Item 1A. Risk Factors - Continued

Lawsuits against Murphy and its subsidiaries could adversely affect its operating results.

The Company or certain of its consolidated subsidiaries are involved in numerous legal proceedings, including lawsuits for alleged personal injuries, environmental and/or property damages, climate change and other business-related matters. Certain of these claims may take many years to resolve through court and arbitration proceedings or negotiated settlements. In the opinion of management and based upon currently known facts and circumstances, the currently pending legal proceedings are not expected, individually or in the aggregate, to have a material adverse effect upon the Company's operations or financial condition.

PART I

Item 1B. UNRESOLVED STAFF COMMENTS

The Company had no unresolved comments from the staff of the U.S. Securities and Exchange Commission as of December 31, 2022.

Item 2. PROPERTIES

Descriptions of the Company's oil and natural gas properties are included in [Item 1](#) of this Form 10-K report beginning on page 1. Information required by the Securities Exchange Act Industry Guide No. 2 can be found in the [Supplemental Oil and Gas Information](#) section of this Annual Report on Form 10-K on pages 110 to 125 and in [Note D](#) beginning on page 80.

Item 3. LEGAL PROCEEDINGS

Discussion of the Company's legal proceedings are included in [Note R](#) beginning on page 103.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART I

Information about our Executive Officers

Present corporate office, length of service in office and age at February 1, 2023 of each of the Company's executive officers are reported in the following listing. Executive officers are elected annually, but may be removed from office at any time by the Board of Directors.

Roger W. Jenkins – Age 61; President and Chief Executive Officer since 2013. Mr. Jenkins served as Chief Operating Officer from 2012 to 2013.

Thomas J. Mireles – Age 50; Executive Vice President and Chief Financial Officer since 2022. Mr. Mireles was Senior Vice President, Technical Services from 2018 to 2022. Mr. Mireles also served as the Senior Vice President, Eastern Hemisphere of Murphy Exploration & Production Company from 2016 to 2018.

Eric M. Hambly – Age 48; Executive Vice President, Operations since 2020. Mr. Hambly served as Executive Vice President, Onshore from 2018 to 2020 and Senior Vice President, U.S. Onshore of Murphy Exploration & Production Company from 2016 to 2018.

E. Ted Botner – Age 58; Senior Vice President, General Counsel and Corporate Secretary since 2020. Mr. Botner was Vice President, Law and Corporate Secretary from 2015 to 2020 and Manager, Law and Corporate Secretary from 2013 to 2015.

Daniel R. Hanchera - Age 65; Senior Vice President, Business Development since December 2022. Mr. Hanchera served as Senior Vice President, Business Development of Murphy Exploration & Production Company from 2014 to 2022. He also served as Vice President, Business Development and Planning of Murphy Exploration & Production Company from 2009 to 2014.

John B. Gardner – Age 54; Vice President, Marketing and Supply Chain since 2022. Mr. Gardner was Vice President and Treasurer from 2015 to 2022 and served as Treasurer from 2013 to 2015.

Leyster L. Jumawan - Age 46; Vice President, Corporate Planning and Treasurer since July 2022. Mr. Jumawan was Assistant Treasurer from 2017 to 2022.

Maria A. Martinez – Age 48; Vice President, Human Resources and Administration since 2018. Ms. Martinez was Vice President, Human Resources of Murphy Exploration & Production Company from 2013 to 2018.

Meenambigai Palanivelu - Age 49; Vice President, Sustainability since February 2023. Ms. Palanivelu was Director, Sustainability from 2020 to 2023. Ms. Palanivelu also served as the General Manager, Planning and Performance from 2019 to 2020 and General Manager, Finance Operating Model Program Management Office from 2017 to 2019.

Louis W. Utsch – Age 57; Vice President, Tax since 2018.

Paul D. Vaughan – Age 56, Vice President and Controller since July 2022. Mr. Vaughan was Vice President and Controller, U.S., Central and South America of Murphy Exploration & Production Company from 2017 to 2022.

Kelly L. Whitley – Age 57; Vice President, Investor Relations and Communications since 2015.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's Common Stock is traded on the New York Stock Exchange using "MUR" as the trading symbol. There were 2,063 stockholders of record as of December 31, 2022. Information on dividends per share by quarter for 2022 and 2021 are reported on page 126 of this Form 10-K report.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities - Continued

SHAREHOLDER RETURN PERFORMANCE PRESENTATION

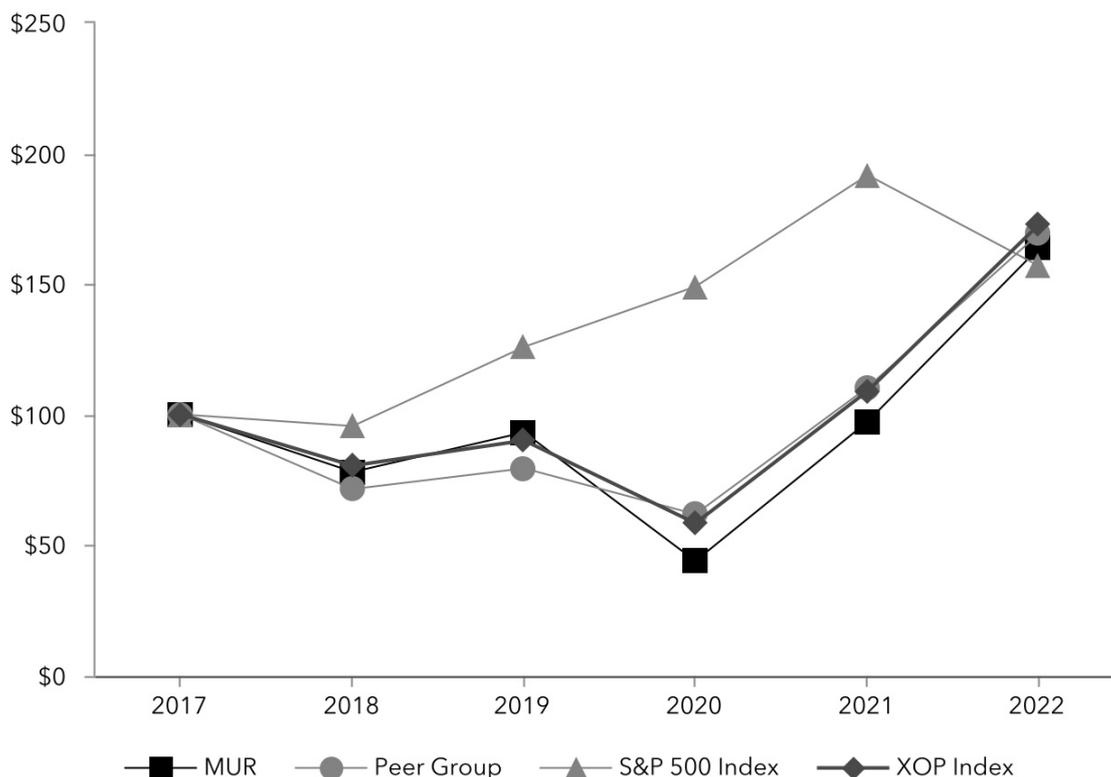
The following graph presents a comparison of cumulative five-year shareholder returns (including the reinvestment of dividends) as if a \$100 investment was made on December 31, 2017 in the Company, the Standard & Poor’s 500 Stock Index (S&P 500 Index), the S&P Oil & Gas Exploration & Production Select Industry Index (XOP Index) and the Company’s peer group. XOP Index reports a comprehensive view of the oil and gas exploration and production segment of the S&P Total Market Index which is more comparable for the Company than the S&P 500 Index. This performance information is “furnished” by the Company and is not considered as “filed” with this Form 10-K report and it is not incorporated into any document that incorporates this Form 10-K report by reference. The companies in the peer group included:

APA Corporation
Coterra Energy Inc.
CNX Resources Corporation
Devon Energy Corporation

Hess Corporation
Kosmos Energy Ltd.
Marathon Oil Corporation
Ovintiv Inc.

PDC Energy, Inc.
Range Resources Corporation
Southwestern Energy Company
Talos Energy Inc.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN



	2017	2018	2019	2020	2021	2022
Murphy Oil Corporation	100	78	93	44	97	164
Peer Group	100	72	79	62	110	169
S&P 500 Index	100	96	126	149	192	157
XOP Index	100	81	90	58	109	173

PART II

Item 6. RESERVED

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Murphy Oil Corporation is a worldwide oil and natural gas exploration and production company. A more detailed description of the Company's significant assets can be found in [Item 1](#) of this Form 10-K report.

In 2022, a combination of demand recovery from the COVID-19 pandemic, geopolitical uncertainty and market disruption from the Russia/Ukraine conflict and lack of investment in the exploration and production sector contributed to increased crude oil and natural gas benchmark prices compared to 2021. Prices declined in the second half of 2022, due to increased supply related to the Strategic Petroleum Reserve oil release and ongoing concerns related to a possible economic slowdown and demand from China.

Similar to the overall inflation in the wider economy, the oil and gas industry, and hence the Company, is observing higher costs for goods and services used in exploration and production operations. Murphy continues to manage input costs through its dedicated procurement department focused on managing supply chain and other costs.

Significant Company operating and financial highlights during and at the end of 2022 were as follows:

- Generated net income of \$965 million and \$2,180.2 million of net cash provided by operating activities and \$1,070.8 million of adjusted cash flow¹;
- Produced 175 thousand barrels of oil equivalent (BOE) per day (167 thousand excluding noncontrolling interest, NCI) and completed the Khaleesi, Mormont, Samurai field development project in the Gulf of Mexico with seven wells brought online;
- Acquired additional working interest in non-operated Lucius and Kodiak fields in the Gulf of Mexico for \$128.5 million;
- Announced capital allocation framework² and reduced total debt by approximately \$650 million, a 26% debt reduction in the year;
- Doubled the cash dividend since the fourth quarter of 2021 to \$1.00 per share annualized; and
- Achieved 98% total proved reserve replacement with year-end proved reserves of 715.4 million barrels of oil equivalent (697.2 million excluding NCI).

¹ Adjusted cash flow is a non-GAAP financial measure calculated as cash flow from operations less capital expenditures (\$1,109.4 million). Management believes adjusted cash flow is important to provide as it is used by management to evaluate the Company's ability to generate additional cash from business operations after providing for capital investments. Adjusted cash flow is a non-GAAP financial measure and should not be considered a substitute for other financial measures as determined in accordance with accounting principles generally accepted in the United States of America. Additionally, our definition of adjusted cash flow is limited and does not represent residual cash flows available for other discretionary expenditures as the measure does not deduct the payments required for debt service and other obligations. Therefore, we believe it is important to view adjusted cash flow as supplemental to our entire statement of cash flows.

² Details of the capital allocation framework can be found as part of the Company's Form 8-K filed on August 4, 2022.

Throughout this section, the term, 'excluding noncontrolling interest' or 'excluding NCI' refers to amounts attributable to Murphy. Unless noted, amounts include noncontrolling interest.

Murphy's continuing operations generate revenue by producing crude oil, natural gas liquids (NGL) and natural gas in the United States and Canada and then selling these products to customers. The Company's revenue is affected by the prices of crude oil, natural gas and NGL. In order to make a profit and generate cash in its exploration and production business, revenue generated from the sales of oil and natural gas produced must exceed the combined costs of producing these products and expenses related to exploration, administration and for capital borrowed from lending institutions and note holders.

PART II
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Changes in the price of crude oil and natural gas have a significant impact on the profitability of the Company. In 2022, liquids from continuing operations represented approximately 62% of total hydrocarbons produced on an energy equivalent basis. In 2023, the Company's ratio of hydrocarbon production represented by liquids is expected to be 63%. If the prices for crude oil and natural gas are lower in 2023 or beyond, this will have an unfavorable impact on the Company's operating profits; likewise, if prices are higher, this will have a favorable impact. The Company, from time to time, may choose to use a variety of commodity hedge instruments to reduce commodity price risk, including forward sale fixed financial swaps and long-term fixed-price physical commodity sales.

Oil prices were higher in 2022 compared to the 2021 and 2020 periods. The sales price of a barrel of West Texas Intermediate (WTI) crude oil averaged \$94.23 in 2022, \$67.91 in 2021 and \$39.40 in 2020. In 2023, the WTI price has thus far been below the comparable period in 2022, however, higher than the comparable period 2021.

WTI average price for 2022 increased 39% over the prior year principally as a result of demand recovery from the COVID-19 pandemic, geopolitical uncertainty and market disruption following the Russia/Ukraine conflict and market concerns over supply shortfalls as discussed above.

The most common crude oil indices used to price the Company's crude include Mars, WTI Houston (MEH), Heavy Louisiana Sweet (HLS) and Brent.

The New York Mercantile Exchange (NYMEX) natural gas price per million British Thermal Units (MMBTU) averaged \$6.38 in 2022, \$3.84 in 2021 and \$1.99 in 2020. The 2022 NYMEX natural gas price was higher compared to 2021 and NYMEX prices in 2023 have thus far been below the comparable period in 2022.

Results of Operations

Murphy Oil's results of operations, with associated diluted earnings per share (EPS), for the last three years are presented in the following table.

	Years Ended December 31,		
	2022	2021	2020
<i>(Millions of dollars, except EPS)</i>			
Income (loss) from continuing operations before income taxes	\$ 1,450.3	\$ 42.9	\$ (1,549.0)
Net income (loss) attributable to Murphy	965.0	(73.7)	(1,148.8)
Diluted EPS	6.13	(0.48)	(7.48)
Income (Loss) from continuing operations attributable to Murphy	967.1	(72.4)	(1,141.6)
Diluted EPS	6.14	(0.47)	(7.43)
(Loss) income from discontinued operations	(2.1)	(1.2)	(7.2)
Diluted EPS	(0.01)	(0.01)	(0.05)

For the year ended December 31, 2022, the Company produced 175 thousand barrels of oil equivalent per day (including noncontrolling interest) from continuing operations. The Company invested \$1,183.2 million in capital expenditures (on a value of work done basis) for the year ended December 31, 2022, which included \$25.9 million attributable to noncontrolling interest and \$128.5 million for capital acquisitions. The Company reported net income from continuing operations of \$1,140.8 million for the year ended December 31, 2022. This amount includes income attributable to noncontrolling interest of \$173.7 million, after-tax gains on unrealized mark to market revaluations on commodity price swap and collar positions of \$169.6 million and after-tax losses on contingent consideration (see [Note P](#)) of \$61.6 million.

In 2022, the Company achieved first production from the Khaleesi, Mormont, Samurai field development project in the Gulf of Mexico and acquired a 3.4% working interest in the Lucius field and an 11.0% working interest in the Kodiak field in the Gulf of Mexico, with both acquisitions having no noncontrolling interests.

For the year ended December 31, 2021, the Company produced 167 thousand barrels of oil equivalent per day (including noncontrolling interest) from continuing operations. The Company invested \$711.2 million in capital expenditures (on a value of work done basis) for the year ended December 31, 2021, which included \$23.0 million attributable to noncontrolling interest and \$17.3 million to fund the development of the King's Quay

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floating production system (FPS). The Company reported net income from continuing operations of \$48.8 million (which included post tax impairment charges of \$151.5 million and income attributable to noncontrolling interest of \$121.2 million) for the year ended December 31, 2021.

Other Key Performance Metrics

The Company uses other operational performance and income metrics to review operational performance. The table below presents Earnings before interest, taxes, depreciation and amortization (EBITDA) and adjusted EBITDA. Management uses EBITDA and adjusted EBITDA internally to evaluate the Company's operational performance and trends between periods and relative to its industry competitors. EBITDA and adjusted EBITDA are non-GAAP financial measures and should not be considered a substitute for Net income (loss) or Cash provided by operating activities as determined in accordance with accounting principles generally accepted in the United States of America. Also presented below is adjusted EBITDA per barrel of oil equivalent sold. Management uses Adjusted EBITDA per barrel of oil equivalent sold to evaluate the Company's profitability of one barrel of oil equivalent sold in the period. Adjusted EBITDA per barrel of oil equivalent sold is a non-GAAP financial metric.

<i>(Millions of dollars, except per barrel of oil equivalents sold)</i>	Year Ended December 31,		
	2022	2021	2020
Net (loss) income attributable to Murphy (GAAP)	\$ 965.0	\$ (73.7)	\$ (1,148.8)
Income tax expense (benefit)	309.5	(5.9)	(293.7)
Interest expense, net	150.8	221.8	169.4
Depreciation, depletion and amortization expense ¹	748.2	760.6	932.6
EBITDA attributable to Murphy (Non-GAAP)	2,173.5	902.8	(340.5)
Mark-to-market (gain) loss on derivative instruments	(214.7)	112.1	69.3
Mark-to-market loss (gain) on contingent consideration	78.3	63.2	(13.8)
Foreign exchange (gain) loss	(23.0)	(1.0)	0.7
Loss (gain) on sale of assets ¹	(14.5)	—	—
Accretion of asset retirement obligations ¹	40.9	41.1	42.1
Write-off of previously suspended exploration wells	22.7	—	—
Asset retirement obligation losses (gains)	30.8	(71.8)	(2.8)
Discontinued operations loss	2.1	1.2	7.2
Impairment of assets ¹	—	196.3	1,072.5
Unutilized rig charges	—	8.7	16.0
Restructuring expenses	—	—	50.0
Inventory loss	—	—	8.3
Insurance Proceeds	—	—	(1.7)
Adjusted EBITDA attributable to Murphy (Non-GAAP)	\$ 2,096.1	\$ 1,252.6	\$ 907.3
Total barrels of oil equivalents sold from continuing operations attributable to Murphy (thousands of barrels)	60,837	57,476	60,189
Adjusted EBITDA per barrel of oil equivalents sold	\$ 34.45	\$ 21.79	\$ 15.07

¹ Depreciation, depletion and amortization expense, impairment of assets, loss (gain) on sale of assets and accretion of asset retirement obligations used in the computation of adjusted EBITDA exclude the portion attributable to the non-controlling interest.

Segment Results – In the following table, the Company's results of operations for the three years ended December 31, 2022, are presented by segment. More detailed reviews of operating results for the Company's exploration and production and other activities follow the table.

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A summary of Net income (loss) is presented in the following table.

<i>(Millions of dollars)</i>	2022	2021	2020
Exploration and production – continuing operations			
United States	\$ 1,521.9	\$ 766.3	\$ (1,014.3)
Canada	134.2	(16.1)	(35.0)
Other International	(77.0)	(33.5)	(85.6)
Total exploration and production – continuing operations	1,579.1	716.7	(1,134.9)
Corporate and other	(438.3)	(668.0)	(120.3)
Income (loss) from continuing operations	1,140.8	48.7	(1,255.2)
(Loss) income from discontinued operations	(2.1)	(1.2)	(7.2)
Net income (loss) including noncontrolling interest	1,138.7	47.5	(1,262.4)
Net income (loss) attributable to noncontrolling interest	173.7	121.2	(113.7)
Net income (loss) attributable to Murphy	\$ 965.0	\$ (73.7)	\$ (1,148.7)

A summary of oil and natural gas revenues is presented in the following table.

<i>(Millions of dollars)</i>		2022	2021	2020
United States	Oil and natural gas liquids	\$ 3,210.3	\$ 2,199.7	\$ 1,335.8
	Natural gas	225.2	121.7	69.4
Canada	Oil and natural gas liquids	267.5	228.9	174.0
	Natural gas	312.6	245.9	170.6
Other	Oil	22.8	4.9	1.8
Total oil and natural gas revenues		\$ 4,038.4	\$ 2,801.1	\$ 1,751.6

Exploration and Production

Please refer to [Schedule 6 – Results of Operations for Oil and Natural Gas Producing Activities](#) in the Supplemental Oil and Natural Gas Information section for supporting tables.

2022 vs 2021

The results of operations in this section include amounts attributable to a noncontrolling interest in MP GOM (a subsidiary of Murphy Expro USA, operating and developing properties in the Gulf of Mexico) and exclude discontinued operations, unless otherwise noted.

Exploration and production (E&P) from continuing operations recorded earnings of \$1,579.1 million in 2022 compared to earnings of \$716.7 million in 2021. Results were favorable \$862.4 million in 2022 compared to 2021 primarily due to higher oil, natural gas liquid and natural gas prices and volumes, lower impairment charges and lower depreciation, depletion and amortization (DD&A) expense, partially offset by higher lease operating expenses (LOE), other operating expense, exploration expenses, transportation, gathering and processing, severance and ad valorem taxes and income tax charges. See below for further details.

E&P crude oil price realizations averaged \$94.89 per barrel in 2022 compared to \$66.80 per barrel in 2021, an increase of 42% year over year. U.S. natural gas realized price per thousand cubic feet (MCF) averaged \$6.68 in the current year compared to \$3.71 per MCF in 2021, an increase of 80% year over year. Canada natural gas realized price per MCF averaged U.S. \$2.76 in 2022 compared to U.S. \$2.43 per MCF in 2021, an increase of 14% year over year. E&P oil and natural gas LOE and severance and ad valorem taxes (production costs), on a per-unit basis, were \$11.55 in 2022 (2021: \$9.53). The increase in per-unit production costs in 2022 was primarily attributable to cost increases from inflationary pressures related to the onshore business and higher production from the Khaleesi and Mormont assets.

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United States E&P operations reported earnings of \$1,521.9 million in 2022 compared to earnings of \$766.3 million in 2021. Results were favorable \$755.6 million in 2022 compared to the 2021 period driven by higher total revenues (\$1,123.7 million), partially offset by higher LOE (\$116.3 million), income tax expense (\$186.9 million), other operating expense (\$26.9 million), severance and ad valorem taxes (\$16.1 million) and transportation, gathering and processing costs (\$15.7 million).

Higher revenues are primarily attributable to higher realized prices in 2022 compared to 2021 and higher sales volumes (4,026 barrels of oil equivalent per day higher) which includes additional sales volumes from the Khaleesi, Mormont, Samurai field development project in the Gulf of Mexico. Higher LOE relates to higher production volumes, cost increases from inflationary pressures related to the onshore business and higher production handling fees at the Khaleesi and Mormont assets. Higher income tax expense is a result of higher pre-tax income. Increases in other operating expenses is primarily due to a higher asset retirement adjustments related to non-producing fields, (\$37.2 million) and higher unfavorable mark to market revaluation on contingent consideration (\$15.1 million) from prior Gulf of Mexico acquisitions. Higher severance and ad valorem taxes are due to higher revenues at Eagle Ford Shale and higher transportation, gathering and processing costs are due to higher sales volumes at the Gulf of Mexico.

Canadian E&P operations reported earnings of \$134.2 million in 2022 compared to a loss of \$16.1 million in 2021. Results were favorable \$150.3 million compared to 2021 primarily due to higher revenue from production (\$105.1 million), no impairment charges in 2022 (2021:\$171.3 million) and lower DD&A (\$22.3 million), partially offset by higher other operating expense (\$78.6 million), higher income tax charges (\$45.3 million), higher LOE (\$18.8 million) and higher transportation, gathering and processing (\$10.0 million).

Higher revenue is primarily attributable to higher realized prices and higher gas volumes (new wells added in 2022). Lower impairment and higher other operating expense in 2022 was the result of the 2021 impairment charge for Terra Nova. The impairment charge was recorded in the first quarter of 2021 following notice from the operator of asset abandonment at Terra Nova at the time of the assessment, which was later partially offset with a credit of \$71.8 million in the third quarter of 2021 which was reported in 'other operating expense' as a result of the deferral of an asset retirement obligation at Terra Nova following the sanction of an asset life extension project and reversal of the asset abandonment decision. Higher income tax expense is a result of higher pre-tax income. Higher LOE is due to higher gas volumes and higher processing rates at Tupper Montney. Increased transportation, gathering and processing expense is due to higher sales volumes and an increase in transportation rates at Tupper Montney.

Other international E&P operations reported a loss from continuing operations of \$77.0 million in 2022 compared to a loss of \$33.5 million in 2021. Results were unfavorable \$43.5 million in 2022 compared to 2021 and were largely driven by higher exploration expenses (\$57.7 million) and higher income tax charges (\$12.4 million), partially offset by lower impairment charges (\$18.0 million) and higher revenues (\$17.9 million). Exploration expenses in 2022 primarily relate to the Cutthroat-1 exploration well in block SEAL-M-428 in the Sergipe-Alagoas Basin offshore Brazil and the Tulum-1EXP exploration well in Block 5 in the Salina Basin offshore Mexico that failed to encounter commercial hydrocarbons.

2021 vs 2020

The results of operations in this section include amounts attributable to a noncontrolling interest in MP GOM (a subsidiary of Murphy Expro USA, operating and developing properties in the Gulf of Mexico) and exclude discontinued operations, unless otherwise noted.

E&P from continuing operations recorded a earnings of \$716.7 million in 2021 compared to a loss of \$1,134.9 million in 2020. Results were favorable \$1,851.6 million in 2021 compared to 2020 primarily due to higher oil, natural gas liquid and natural gas prices, significantly lower impairment charges, lower DD&A, lower LOE, lower exploration expenses and lower general and administrative (G&A) expenses, partially offset by higher transportation, gathering and processing and income tax charges. See below for further details.

Crude oil price realizations averaged \$66.80 per barrel in 2021 compared to \$38.02 per barrel in 2020, a price increase of 76% year over year. U.S. natural gas realized price per MCF averaged \$3.71 in 2021 compared to \$2.02 per MCF in 2020, an increase of 84% year over year. Canada natural gas realized price per MCF averaged U.S. \$2.43 in 2021 compared to U.S. \$1.79 per MCF in 2020, an increase of 36% year over year. Oil and natural gas production costs, on a per-unit basis, were \$9.53 in 2021 (2020: \$9.81). The decrease in per-unit production

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costs in 2021 was primarily attributable to reduced costs associated with well workovers and concerted efficiency efforts.

United States E&P operations reported earnings of \$766.3 million in 2021 compared to a loss of \$1,014.3 million in 2020. Results were favorable \$1,780.6 million in 2021 compared to the 2020 period primarily due to no impairment charges in 2021 (2020: \$1,152.5 million), higher total revenues (\$925.7 million), lower DD&A (\$132.9 million) and lower LOE (\$70.5 million), partially offset by higher income tax expense (\$428.1 million) and higher other operating expense (\$77.9 million). The impairment charge in 2020 was primarily the result of lower forecast future prices as of March 31, 2020, as a result of lower oil demand (COVID-19 impact) and abundant oil supply at the time of the assessment.

Higher revenues were primarily due to higher realized prices (oil and condensate, natural gas and NGLs) year over year, partially offset by lower sales volume (7,514 barrels of oil equivalent per day lower) as a result of lower capital expenditures in 2020. Lower DD&A primarily resulted from the prior year impairment charge reducing the depreciable asset base. Lower LOE was primarily due to higher Gulf of Mexico workover costs in the prior year at Cascade (\$51.3 million) and Dalmatian (\$20.5 million). Higher income tax expense was a result of higher pre-tax income principally due to higher oil price and lower DD&A and LOE. Higher other operating expense was primarily due to an unfavorable mark-to-market revaluation on contingent consideration (\$63.2 million; as a result of higher commodity prices) from prior Gulf of Mexico acquisitions.

Canadian E&P operations reported a loss of \$16.1 million in 2021 compared to a loss of \$35.0 million in 2020. Results were favorable \$18.9 million compared to 2020 primarily due to higher revenue (\$130.5 million) and lower DD&A (\$49.4 million), partially offset by an impairment charge (\$171.3 million), higher LOE (\$14.7 million), transportation, gathering and processing (\$15.8 million) and income tax charges (\$19.7 million). 2021 results included an impairment charge (\$171.3 million) recorded in the first quarter following notice from the operator of asset abandonment at Terra Nova at the time of the assessment and a partially offsetting credit of \$71.8 million as of September 30, 2021 reported in 'other operating expense' as a result of the deferral of an asset retirement obligation at Terra Nova following the sanction of an asset life extension project and reversal of the asset abandonment decision.

Higher revenue was primarily attributable to higher natural gas prices and volumes at Tupper Montney and higher oil prices at Hibernia and Kaybob Duvernay. Lower DD&A was primarily due to lower production volumes at Kaybob Duvernay following reduced capital expenditures throughout 2020. Higher LOE and transportation, gathering and processing costs were due to the cost of higher gas processing and downstream transportation capacity, which are expected to be utilized by growth at Tupper Montney in the future.

Other international E&P operations reported a loss from continuing operations of \$33.5 million in 2021 compared to a loss of \$85.6 million in 2020. Results were favorable \$52.1 million in 2021 compared to 2020 primarily due to lower impairment charges (\$21.7 million), lower income tax charges (\$11.6 million), lower exploration expenses (\$5.9 million) primarily in Brazil and Mexico and lower LOE (\$4.8 million).

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Cost per equivalent barrel sold for these production-related expenses are shown by geographical area in the following table.

<i>(Dollars per equivalent barrel)</i>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Continuing operations			
United States – Eagle Ford Shale			
Lease operating expense	\$ 10.97	\$ 8.96	\$ 9.08
Severance and ad valorem taxes	4.27	2.91	2.06
DD&A expense	25.61	27.59	26.22
United States – Gulf of Mexico ¹			
Lease operating expense	\$ 13.19	\$ 10.63	\$ 11.95
Severance and ad valorem taxes	0.07	0.07	—
DD&A expense	10.12	9.51	13.48
Canada – Onshore			
Lease operating expense	\$ 6.75	\$ 6.20	\$ 4.63
Severance and ad valorem taxes	0.06	0.09	0.07
DD&A expense	6.20	7.64	9.93
Canada – Offshore			
Lease operating expense	\$ 14.20	\$ 13.04	\$ 17.86
DD&A expense	12.25	12.80	12.01
Total E&P continuing operations			
Lease operating expense	\$ 10.65	\$ 8.86	\$ 9.34
Severance and ad valorem taxes	0.89	0.68	0.44
DD&A expense	12.18	13.05	15.36
Total oil and natural gas continuing operations – excluding noncontrolling interest			
Lease operating expense	\$ 10.50	\$ 8.65	\$ 9.10
Severance and ad valorem taxes	0.93	0.71	0.47
DD&A expense	12.30	13.23	15.49

¹ Includes results attributable to a noncontrolling interest in MP GOM.

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Corporate activities, which include interest expense and income, foreign exchange effects, realized and unrealized gains and losses on derivative instruments (forward swaps and collars to hedge the price of oil sold) and corporate overhead not allocated to Exploration and Production, reported a loss of \$438.3 million in 2022 compared to a loss of \$668.0 million in 2021. The \$229.7 million favorable variance is principally due to lower net losses on derivative instruments in 2022 compared to 2021 (2022: \$320.4 million loss; 2021: \$525.9 million loss), lower interest expense (\$71.0 million) and higher foreign exchange gains (\$26.0 million), partially offset by a lower tax benefit (\$70.8 million). Realized and unrealized losses on derivative instruments are due to an increase in market pricing in future periods whereby the swap contracts provide the Company with a fixed price and the collar contracts provide for a minimum (floor) and a maximum (ceiling) price, with variability in between the floor and ceiling. As of December 31, 2022, the Company had no fixed price derivative swaps or collars contracts outstanding. Interest charges are lower in 2022 primarily due to lower overall debt and lower debt redemption costs (\$8.3 million in 2022; \$39.3 million in 2021) incurred by the Company. The Company reduced debt by \$649.7 million in 2022. Lower income tax benefit is a result of lower pre-tax losses.

2021 vs 2020

Corporate activities, which include interest expense and income, foreign exchange effects, realized and unrealized gains and losses on derivative instruments (forward swaps and collars to hedge the price of oil sold) and corporate overhead not allocated to Exploration and Production, reported a loss of \$668.0 million in 2021 compared to a loss of \$120.3 million in 2020. The \$547.7 million unfavorable variance was principally due to higher net losses on derivative instruments in 2021 compared to the 2020 period (2021: \$525.9 million loss; 2020: \$202.7 million gain) and higher interest expense (\$53.0 million), partially offset by a higher tax benefit (\$148.3 million), lower restructuring charges (\$48.8 million), lower G&A expenses (\$12.9 million) and lower impairment charges (\$7.1 million). Realized and unrealized losses on derivative instruments were due to an increase in market pricing in future periods whereby the swap contracts provided the Company with a fixed price and the collar contracts provided for a minimum (floor) and a maximum (ceiling) price, with variability in between the floor and ceiling. Higher interest costs were principally due to debt redemption costs on the 2022 notes and \$550.0 million issuance of new notes in March 2021 that bear interest at a rate of 6.375% and mature on July 15, 2028. Higher income tax benefit was the result of higher pre-tax loss driven by the higher realized and unrealized losses on derivative instruments. Lower restructuring charges and G&A were due to the 2020 cost reduction efforts which included closing the Company's previous headquarters office in El Dorado, Arkansas, its office in Calgary, Alberta and consolidating all worldwide staff activities to its existing office location in Houston, Texas.

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Production Volumes and Prices

2022 vs 2021

Total hydrocarbon production from all E&P continuing operations averaged 175,156 barrels of oil equivalent per day in 2022, and represents a 5% increase from the 167,356 barrels per day produced in 2021. The increase is principally due to the Khaleesi, Mormont, Samurai field development project that started production in the second quarter of 2022, new wells at Tupper Montney and lower weather related downtime in 2022.

Average crude oil and condensate production from continuing operations was 97,365 barrels per day in 2022 compared to 95,705 barrels per day in 2021. The increase of 1,660 barrels per day is principally due to increased production in the Gulf of Mexico (4,694 barrels per day) with new production from Khaleesi, Mormont, Samurai field development project, partially offset by normal declines at other fields in the Gulf of Mexico. Eagle Ford Shale production is lower (1,202 barrels per day) due to lower capital expenditures in 2020 and 2021, partially offset by new wells in 2022. Canada production is lower (2,260 barrels per day) due to normal field decline at Kaybob Duvernay and Hibernia, as well as a turnaround at Hibernia. On a worldwide basis, the Company's crude oil and condensate prices average \$94.89 per barrel in 2022 compared to \$66.80 per barrel in the 2021 period, an increase of 42% year over year.

Total production of natural gas liquids (NGL) from continuing operations was 10,681 barrels per day in 2022 compared to 10,385 barrels per day in 2021. The average sales price for U.S. NGL was \$34.87 per barrel in 2022 compared to \$27.97 per barrel in 2021. The average sales price for NGL in Canada was \$55.65 per barrel in 2022 compared to \$40.18 per barrel in 2021. NGL prices are higher in Canada due to the higher value of product produced at the Kaybob Duvernay and Placid Montney assets.

Natural gas sales volumes from continuing operations averaged 403 MMCFD in 2022 compared to 368 MMCFD in 2021. The increase of 35 MMCFD was primarily the result of higher volumes in Canada (32.4 MMCFD) and higher volumes in the Gulf of Mexico (2.1 MMCFD). The higher natural gas volumes in Canada was the result of new wells on production in 2022. Natural gas prices for the total Company averaged \$3.66 per MCF in 2022, versus \$2.74 per MCF average in the same period of 2021. Average realized natural gas prices in the U.S. and Canada in 2022 were \$6.68 and \$2.76 per MCF, respectively. Average realized natural gas prices in Canada are lower as a result of certain fixed price sales volume contracts.

2021 vs 2020

Total hydrocarbon production from all E&P continuing operations averaged 167,356 barrels of oil equivalent per day in 2021, which represented a 4% decrease from the 174,636 barrels per day produced in 2020.

Average crude oil and condensate production from continuing operations was 95,705 barrels per day in 2021 compared to 103,966 barrels per day in 2020. The decrease of 8,261 barrels per day was principally due to lower volumes in the Gulf of Mexico (2,703 barrels per day primarily due to reservoir decline), lower volumes at Kaybob Duvernay (2,272 barrels per day due to well decline) and lower Eagle Ford Shale production (765 barrels per day). On a worldwide basis, the Company's crude oil and condensate prices averaged \$66.80 per barrel in 2021 compared to \$38.02 per barrel in 2020, an increase of 76% year over year.

Total production of natural gas liquids (NGL) from continuing operations was 10,385 barrels per day in 2021 compared to 11,541 barrels per day in 2020. The average sales price for U.S. NGL was \$27.97 per barrel in 2021 compared to \$11.29 per barrel in 2020. The average sales price of NGL in Canada was \$40.18 per barrel in 2021 compared to \$18.54 per barrel in 2020. NGL prices were higher in Canada due to the higher value of product produced at the Kaybob Duvernay and Placid Montney assets.

Natural gas sales volumes from continuing operations averaged 368 MMCFD in 2021 compared to 355 MMCFD in 2020. The increase of 13 MMCFD was a primarily the result of higher volumes in Canada due to bringing online 14 new wells at Tupper Montney in 2021. Higher volumes at Tupper Montney were partially offset by lower natural gas volumes in the Gulf of Mexico.

Natural gas prices for the total Company averaged \$2.74 per MCF in 2021, versus \$1.85 per MCF average in 2020. Average realized natural gas prices in the U.S. and Canada in 2021 were \$3.71 and \$2.43 per MCF, respectively.

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The following table contains hydrocarbons produced during the three years ended December 31, 2022.

<i>(Barrels per day unless otherwise noted)</i>		<u>2022</u>	<u>2021</u>	<u>2020</u>
Continuing operations				
Net crude oil and condensate				
United States	Onshore	24,437	25,655	26,420
	Gulf of Mexico ¹	65,411	60,717	64,680
Canada	Onshore	4,005	5,312	7,888
	Offshore	2,812	3,765	4,893
Other		700	256	85
Total net crude oil and condensate - continuing operations		97,365	95,705	103,966
Net natural gas liquids				
United States	Onshore	5,181	5,092	5,248
	Gulf of Mexico ¹	4,597	4,176	4,978
Canada	Onshore	903	1,117	1,315
Total net natural gas liquids - continuing operations		10,681	10,385	11,541
Net natural gas – thousands of cubic feet per day				
United States	Onshore	29,050	28,565	27,985
	Gulf of Mexico ¹	63,380	61,240	66,105
Canada	Onshore	310,230	277,790	260,683
Total net natural gas - continuing operations		402,660	367,595	354,773
Total net hydrocarbons - continuing operations including NCI ^{2,3}		175,156	167,356	174,636
Noncontrolling interest				
Net crude oil and condensate – barrels per day		(7,452)	(8,623)	(9,962)
Net natural gas liquids – barrels per day		(280)	(303)	(416)
Net natural gas – thousands of cubic feet per day ²		(2,468)	(3,236)	(3,843)
Total noncontrolling interest		(8,143)	(9,465)	(11,019)
Total net hydrocarbons produced - continuing and discontinued operations, excluding NCI ^{2,3}		167,013	157,891	163,617
Estimated total proved net hydrocarbon reserves - million equivalent barrels ^{3,4}		715.4	716.9	714.9

¹ Includes net volumes attributable to a noncontrolling interest in MP GOM.

² Natural gas converted on an energy equivalent basis of 6:1.

³ NCI – noncontrolling interest in MP GOM.

⁴ December 31, 2022, 2021 and 2020, include 18.2 MMBOE, 18.4 MMBOE and 17.4 MMBOE, respectively, relating to noncontrolling interest.

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The following table contains hydrocarbons sold during the three years ended December 31, 2022.

<i>(Barrels per day unless otherwise noted)</i>		2022	2021	2020
Continuing operations				
Net crude oil and condensate				
United States	Onshore	24,437	25,655	26,420
	Gulf of Mexico ¹	64,840	60,544	65,621
Canada	Onshore	4,005	5,312	7,888
	Offshore	3,002	3,559	4,958
Other		663	195	78
Total net crude oil and condensate - continuing operations		96,947	95,265	104,965
Net natural gas liquids				
United States	Onshore	5,181	5,092	5,248
	Gulf of Mexico ¹	4,597	4,176	4,978
Canada	Onshore	903	1,117	1,315
Total net natural gas liquids - continuing operations		10,681	10,385	11,541
Net natural gas – thousands of cubic feet per day				
United States	Onshore	29,050	28,565	27,985
	Gulf of Mexico ¹	63,380	61,240	66,105
Canada	Onshore	310,230	277,790	260,683
Total net natural gas - continuing operations		402,660	367,595	354,773
Total net hydrocarbons - continuing operations including NCI ^{2,3}		174,738	166,916	175,635
Noncontrolling interest				
Net crude oil and condensate – barrels per day		(7,369)	(8,605)	(10,127)
Net natural gas liquids – barrels per day		(280)	(303)	(416)
Net natural gas – thousands of cubic feet per day ²		(2,468)	(3,236)	(3,843)
Total noncontrolling interest		(8,060)	(9,447)	(11,184)
Total net hydrocarbons sold - continuing and discontinued operations, excluding NCI ^{2,3}		166,678	157,469	164,451

¹ Includes net volumes attributable to a noncontrolling interest in MP GOM.

² Natural gas converted on an energy equivalent basis of 6:1.

³ NCI – noncontrolling interest in MP GOM.

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The following table contains the weighted average sales prices excluding transportation cost deduction for the three years ended December 31, 2022.

		<u>2022</u>	<u>2021</u>	<u>2020</u>
<i>(Weighted average Exploration and Production sales prices)</i>				
Continuing operations				
Crude oil and condensate – dollars per barrel				
United States	Onshore	\$ 96.00	\$ 66.90	\$ 36.54
	Gulf of Mexico ¹	94.21	66.93	39.15
Canada ²	Onshore	89.88	61.79	32.42
	Offshore	107.47	71.39	39.40
Other		94.37	69.21	63.51
Natural gas liquids – dollars per barrel				
United States	Onshore	\$ 33.85	\$ 26.97	\$ 11.67
	Gulf of Mexico ¹	36.01	29.14	10.84
Canada ²	Onshore	55.65	40.18	18.54
Natural gas – dollars per thousand cubic feet				
United States	Onshore	\$ 6.04	\$ 3.83	\$ 1.95
	Gulf of Mexico ¹	6.97	3.67	2.04
Canada ²	Onshore	2.76	2.43	1.79

¹ Prices include the effect of noncontrolling interest share for MP GOM.

² U.S. dollar equivalent.

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Financial Condition

The Company's primary sources of liquidity are cash on hand, net cash provided by continuing operations activities and available borrowing capacity under its senior unsecured revolving credit facility. The Company's liquidity requirements consist primarily of capital expenditures, debt maturity, retirement and interest payments, working capital requirements, dividend payments and, as applicable, share repurchases. See below for additional discussion and analysis of the Company's cash flows.

Cash Provided by Operating Activities

Net cash provided by continuing operating activities was \$2,180.2 million in 2022 compared to \$1,422.2 million in 2021. The increased cash provided by continuing operating activities of \$758.0 million is primarily attributable to higher revenue from sales from production (\$1,237.2 million), partially offset by higher LOE (\$139.8 million), higher realized losses on derivative instruments (\$121.5 million) and the change in receivable and payable working capital balances (\$65.7 million). Higher revenues were primarily due to higher commodity prices driven by demand recovery from COVID-19 and geopolitical uncertainty and market disruption resulting from the Russia/Ukraine conflict.

Net cash provided by continuing operating activities was \$619.5 million higher in 2021 than in 2020 due to higher revenue from sales from production (\$1,049.5 million), the positive effect of movements on payable and receivable working capital balances (\$118.5 million), lower lease operating expenses (\$60.5 million) and lower general and administrative and cash restructuring expenses (\$50.7 million), partially offset by higher cash payments made on forward swap commodity contracts (2021: realized loss of \$413.7 million; 2020: realized gain of \$272.0 million). Higher revenues were primarily due to higher commodity prices driven by OPEC+ supply constraints and the increase in demand.

The total reductions of operating cash flows for interest paid (which excludes debt redemption costs reported in Financing activities) during the three years ended December 31, 2022, 2021 and 2020 were \$150.0 million, \$165.7 million and \$191.6 million, respectively. Lower cash interest paid in 2022 was primarily due to the early redemption of \$649.7 million of the 2024 notes, 2025 notes, 2028 notes and the 2042 notes. Lower cash interest paid in 2021 was due to the repayment of the \$200 million outstanding on the revolving credit facility, the early redemption of the 2022 notes and the early redemption of \$300 million of the 2024 notes, partially offset by interest paid on the issuance of 2028 notes in the first quarter of 2021.

Cash Used for Investing Activities

Net cash required by investing activities were \$1,109.5 million and \$417.7 million in 2022 and 2021, respectively. In 2022, the Company acquired additional working interest in Kodiak (11.0%) and Lucius (3.4%) for \$50.0 million and \$78.5 million, respectively (also see [Note D](#)). Property additions and dry hole costs (excluding King's Quay FPS), which include amounts expensed, were \$985.5 million and \$650.2 million in 2022 and 2021, respectively. In 2021, the Company received sales proceeds for the King's Quay FPS of \$267.7 million and also acquired additional interests in the proved property Lucius for \$19.9 million. In 2020, cash used by investing activities included \$113 million used to fund the development of the King's Quay FPS.

The accrual (value of work done) basis capital expenditures were as follows:

<i>(Millions of dollars)</i>	Year Ended December 31,		
	2022	2021	2020
Capital Expenditures			
Exploration and production	\$ 1,161.5	\$ 690.1	\$ 813.3
Corporate	21.7	21.1	13.3
Total capital expenditures	1,183.2	711.2	826.6
Total capital expenditures excluding proved property acquisitions	1,054.7	711.2	826.6
Total capital expenditures excluding proved property acquisitions and NCI	\$ 1,028.8	\$ 688.2	\$ 804.9

A reconciliation of property additions and dry hole costs in the Consolidated Statements of Cash Flows to total capital expenditures for continuing operations follows.

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<i>(Millions of dollars)</i>	Year Ended December 31,		
	2022	2021	2020
Property additions and dry hole costs per cash flow statements ¹	\$ 985.5	\$ 650.2	\$ 759.8
Property additions King's Quay FPS per cash flow statements	—	17.7	113.0
Geophysical and other exploration expenses	30.6	26.9	32.3
Capital expenditure accrual changes and other	38.6	(3.9)	(78.5)
Acquisition of oil properties per the cash flow statements ¹	128.5	20.3	—
Total capital expenditures	\$ 1,183.2	\$ 711.2	\$ 826.6

¹ Certain prior-period amounts have been reclassified to conform to the current period presentation.

Capital expenditures in the exploration and production business in 2022 compared to 2021 have increased and is primarily attributable to expenditures related to the Kodiak and Lucius acquisitions in the Gulf of Mexico (\$128.5 million), Cutthroat-1 exploration well in Brazil (\$38.4 million), Tulum-1EXP exploration well in Mexico (\$21.6 million), higher capital invested at the Khaleesi, Mormont, Samurai field development project in the Gulf of Mexico, higher development drilling activities in Eagle Ford Shale and Tupper Montney assets and higher expenditures related to the asset life extension at Terra Nova.

Capital expenditures in the exploration and production business in 2021 compared to 2020 have decreased as result of capital expenditure reductions to support generating free cash flow.

Cash Used by and Provided by Financing Activities

Net cash required by financing activities was \$1,081.6 million in 2022 compared to \$794.5 million in 2021. In 2022, the cash required by financing activities was principally due to the early redemption of \$647.7 million (excluding non cash gain of \$2.0 million) of the 2024 notes, 2025 notes, 2028 notes and the 2042 notes, costs associated with early redemption (\$8.3 million), distributions to noncontrolling interest (\$183.0 million), dividends paid (\$128.2 million) and payment of contingent consideration related to prior Gulf of Mexico acquisitions (\$81.7 million). The Company anticipates the final payments for the contingent consideration liability, related to the Gulf of Mexico acquisitions, to be paid in the first half of 2023. See [Note P](#) for further details.

The primary sources of the Company's liquidity are internally generated funds, access to outside financing and working capital. The Company generally uses its internally generated funds to finance its capital and operating expenditures, but it also maintains lines of credit with banks and will borrow as necessary to meet spending requirements. As of December 31, 2022, the Company has a \$800 million senior unsecured guaranteed credit facility (RCF) with a major banking consortium, which expires in November 2027. At December 31, 2022, the Company had no outstanding borrowings under the RCF and \$57.6 million of outstanding letters of credit, which reduce the borrowing capacity of the RCF. If required, this provides the Company approximately \$742 million availability on its RCF to fund investing activities from borrowings.

In 2021, the cash required by financing activities was principally due to the repayment of the balance outstanding on the revolving credit facility (\$200.0 million), the early redemption of the remainder of the 2022 notes (\$576.4 million), the early redemption of a portion of the 2024 notes (\$300.0 million), costs associated with early redemption (\$39.3 million), dividends paid (\$77.2 million) and distributions to noncontrolling interest (\$137.5 million), partially offset by issuance of 2028 notes (\$541.9 million)

In 2020, net cash provided by financing activities of \$39.7 million was principally from borrowings on the Company's RCF (\$200.0 million), partially offset by dividends paid (\$96.0 million) and distributions to noncontrolling interest (\$43.7 million).

Working Capital

At the end of 2022, working capital (total current assets less total current liabilities, excluding assets and liabilities held for sale) amounted to a net working capital liability of \$285.5 million (2021: net working capital liability of \$298.9 million). The total working capital liability decrease of \$13.4 million in 2022 is primarily attributable to higher accounts receivable, net (\$133.0 million) and lower accounts payable (\$79.3 million), partially offset by higher other accrued liabilities (\$82.7 million), higher operating lease liabilities (\$81.0 million) and lower cash and cash equivalents (\$29.2 million). Higher accounts receivable are principally due to higher

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crude oil and natural gas pricing. Lower accounts payable is primarily due to the decrease in unrealized losses on derivative instruments (commodity price swaps and collars) which matured at the end of 2022, partially offset by higher revenue payables principally due to higher crude oil and natural gas pricing and higher trades payable related to timing of Gulf of Mexico activities. Higher other accrued liabilities are associated with higher short-term contingent consideration obligations (from prior Gulf of Mexico acquisitions) due to a reclassification from long-term liabilities. Higher operating lease liabilities are associated with a rig contract to support the Khaleesi, Mormont, Samurai field development project.

Cash and cash equivalents as of December 31, 2022 totaled \$492.0 million (2021: \$521.2 million). There were no borrowings from the RCF outstanding at the end of the 2022 or 2021.

Cash and invested cash are maintained in several operating locations outside the U.S. As of December 31, 2022, cash and cash equivalents held outside the U.S. included U.S dollar equivalents of approximately \$147.7 million (2021: \$242.9 million), the majority of which was held in Canada (\$83.3 million) and Mexico (\$27.7 million). In addition, approximately \$12.3 million and \$6.1 million of cash was held in the U.K. and Brazil, respectively. In certain cases, the Company could incur cash taxes or other costs should these cash balances be repatriated to the U.S. in future periods. Canada currently collects a 5% withholding tax on any earnings repatriated to the U.S. See [Note I](#) for further information regarding potential tax expense that could be incurred upon distribution of foreign earnings back to the United States.

Capital Employed

As of December 31, 2022, long-term debt of \$1,822.4 million had decreased by \$643.0 million compared to December 31, 2021, as a result the early redemption, in whole or in part, of the 2024 notes, 2025 notes, 2028 notes and the 2042 notes. The fixed-rate notes had a weighted average maturity of 7.7 years and a weighted average coupon of 6.2%.

A summary of capital employed as of December 31, 2022 and 2021 follows.

<i>(Millions of dollars)</i>	December 31, 2022		December 31, 2021	
	Amount	%	Amount	%
Capital employed				
Long-term debt	\$ 1,822.4	26.7 %	\$ 2,465.4	37.2 %
Murphy shareholders' equity	4,994.8	73.3 %	4,157.3	62.8 %
Total capital employed	\$ 6,817.2	100.0 %	\$ 6,622.7	100.0 %

Murphy shareholders' equity was \$4.99 billion at the end of 2022 (2021: \$4.16 billion). Shareholders' equity increased in 2022 primarily due to 2022 net income (\$965.0 million) and a favorable revaluation of pension assets and liabilities (\$99.4 million), partially offset by dividends paid (\$128.2 million) and foreign currency translation losses, net of income taxes (\$106.3 million). A summary of transactions in stockholders' equity accounts is presented in the [Consolidated Statements of Stockholders' Equity](#) on page 71 of this Form 10-K report.

Other Balance Sheet Activity - Long-Term Assets and Liabilities

Other significant changes in Murphy's balance sheet at the end of 2022, compared to 2021 are discussed below.

Property, plant and equipment, net of depreciation increased \$100.2 million principally due to capital expenditures in the year, partially offset by DD&A expense (\$776.8 million) and foreign exchange rates applicable for our Canadian assets. Capital expenditures are discussed above in the 'Cash Used for Investing Activities' section.

Murphy had commitments for capital expenditures of approximately \$282.4 million at December 31, 2022 (2021: \$520.1 million). This amount includes \$103.5 million for approved expenditure for capital projects relating to non-operated interests in deepwater U.S. Gulf of Mexico, principally at St. Malo (\$98.9 million), non-operated Canada interests, mainly offshore (\$33.3 million), non-operated Eagle Ford Shale (\$13.3 million) and Brunei (\$1.0 million).

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Operating lease assets increased \$65.0 million principally due to additions for drilling rig lease extensions, partially offset by depreciation and a decrease related to changes in foreign exchange rates applicable for our Canadian assets.

Deferred Income tax assets decreased by \$267.6 million as a result of the decrease in the U.S. net operating loss carryforward of \$2.10 billion at year-end 2022, down from \$2.75 billion at year-end 2021.

Deferred credits and other liabilities decreased \$265.6 million primarily as a result reclassification of amounts to current, a favorable pension fair value remeasurement and cash pension contributions to the plan in 2022.

At December 31, 2022, the Company had no outstanding borrowings under the RCF and \$57.6 million of outstanding letters of credit, which reduce the borrowing capacity of the RCF. Borrowings under the RCF are subject to certain interest rates, please refer to [Note G](#) for further details. At December 31, 2022, the interest rate in effect on borrowings under the facility would have been 6.96%. At December 31, 2022, the Company was in compliance with all covenants related to the RCF.

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Environmental, Health and Safety Matters

Murphy faces various environmental, health and safety risks that are inherent in exploring for, developing and producing hydrocarbons. To help manage these risks, the Company has established a robust health, safety and environmental governance program comprised of a worldwide policy, guiding principles, annual goals and a management system incorporating oversight at each business unit, senior leadership and board levels. The Company strives to minimize these risks by continually improving its processes through design, operation and implementation of a comprehensive asset integrity plan, and through emergency and oil spill response planning to address any credible risks. These plans are presented to, reviewed and approved by a Health, Safety, Environmental and Corporate Responsibility Committee consisting of certain members of Murphy's Board of Directors.

The oil and gas industry is subject to numerous international, foreign, national, state, provincial and local environmental, health and safety laws and regulations. Murphy allocates a portion of both its capital expenditures and its general and administrative budget toward compliance with existing and anticipated environmental, health and safety laws and regulations. These requirements affect virtually all operations of the Company and increase Murphy's overall cost of business, including its capital costs to construct, maintain and upgrade equipment and facilities as well as operating costs for ongoing compliance.

The principal environmental, health and safety laws and regulations to which Murphy is subject address such matters as the generation, storage, handling, use, disposal and remediation of petroleum products, wastewater and hazardous materials; the emission and discharge of such materials to the environment, including GHG emissions; wildlife, habitat and water protection; the placement, operation and decommissioning of production equipment; and the health and safety of our employees, contractors and communities where our operations are located. These laws and regulations also generally require permits for existing operations, as well as the construction or development of new operations and the decommissioning facilities once production has ceased. Violations can give rise to sanctions including significant civil and criminal penalties, injunctions, construction bans and delays.

Further information on environmental, health and safety laws and regulations applicable to Murphy are contained in the [Business](#) section beginning page 10.

Climate Change and Emissions

The world's population and standard of living is growing steadily along with the demand for energy. Murphy recognizes that this may generate increasing amounts of GHG, which could raise important climate change concerns. Murphy works to assess the Company's governance, strategy, risk identification, and management and measurement of climate risks and opportunities in order to remain in alignment with the Task Force on Climate-related Financial Disclosures (TCFD) core elements. The TCFD was created by the Financial Stability Board to focus on climate-related financial disclosures to improve and increase reporting of climate-related financial information. Murphy's disclosures related to its alignment with the TCFD are included in the Company's 2022 Sustainability Report issued on August 4, 2022, which is not incorporated by reference hereto.

Other Matters

Impact of inflation – In 2022, many countries worldwide continued to experience a rise in inflation, including countries where the Company operates (this follows a sustained period of relatively low inflation prior to 2021). In the U.S., inflation continued as a result of ongoing supply constraints and increasing demand of goods and services as countries continue their recovery from the COVID-19 pandemic. The Company's revenues, capital and operating costs are influenced to a larger extent by specific price changes in the oil and gas industry and allied industries rather than by changes in general inflation. Crude oil prices generally reflect the balance between supply and demand, with crude oil prices being particularly sensitive to OPEC+ production levels and/or attitudes of traders concerning supply and demand in the future. Costs for oil field goods and services are usually affected by the worldwide prices for crude oil.

As a result of increasing commodity prices for oil and natural gas, since the start of 2022, higher costs for goods and services in the oil and gas industry are being observed. Murphy has a dedicated procurement department focused on managing supply chain and input costs. Murphy also has certain transportation, processing and production handling services costs fixed through long-term contracts and commitments and therefore is partly

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protected from the increasing price of services. However, from time to time, Murphy will seek to enter new commitments, exercise options to extend contracts and retender contracts for rigs and other industry services which could expose Murphy to the impact of higher costs. Murphy continues to strive toward safely executing our work in an ever-increasing efficient manner to mitigate possible inflationary pressures in our business.

Natural gas prices are also affected by supply and demand, which are often affected by the weather and by the fact that delivery of natural gas can be restricted to specific geographic areas. Natural gas demand is also impacted by demand driven by lower carbon emission and a view that natural gas is one option to transition from higher carbon emitting fuels.

As a result of the overall volatility of oil and natural gas prices, it is not possible to predict the Company's future cost of oil field goods and services.

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Critical Accounting Estimates – In preparing the Company's consolidated financial statements in accordance with U.S. GAAP, management must make a number of estimates and assumptions related to the reporting of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Application of certain of the Company's accounting policies requires significant estimates. The most significant of these accounting policies and estimates are described below.

Oil and natural gas proved reserves – Oil and natural gas proved reserves are defined by the SEC as those quantities of oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations before the time at which contracts providing the right to operate expire (unless evidence indicates that renewal is reasonably certain). Proved developed reserves of oil and natural gas can be expected to be recovered through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared with the cost of a new well, or through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Although the Company's engineers are knowledgeable of and follow the guidelines for reserves as established by the SEC, the estimation of reserves requires the engineers to make a significant number of assumptions based on professional judgment. SEC rules require the Company to use an unweighted average of the oil and natural gas prices in effect at the beginning of each month of the year for determining quantities of proved reserves. These historical prices often do not approximate the average price that the Company expects to receive for its oil and natural gas production in the future. The Company often uses significantly different oil and natural gas price and reserve assumptions when making its own internal economic property evaluations. Changes in oil and natural gas prices can lead to a decision to start-up or shut-in production, which can lead to revisions to reserves quantities.

Estimated reserves are subject to future revision, certain of which could be substantial, based on the availability of additional information, including reservoir performance, new geological and geophysical data, additional drilling, technological advancements, price changes and other economic factors. Reserves revisions inherently lead to adjustments of the Company's depreciation rates and the timing of settlement of asset retirement obligations. Downward reserves revisions can also lead to significant impairment expense. The Company cannot predict the type of oil and natural gas reserves revisions that will be required in future periods.

The Company's proved reserves of crude oil, natural gas liquids and natural gas are presented on pages 110 to 119 of this Form 10-K report. Murphy's estimations for proved reserves were generated through the integration of available geoscience, engineering, and economic data (including hydrocarbon prices, operating costs, and development costs), and commercially available technologies, to establish 'reasonable certainty' of economic producibility. As defined by the SEC, reasonable certainty of proved reserves describes a high degree of confidence that the quantities will be recovered. In estimating proved reserves, Murphy uses familiar industry-accepted methods for subsurface evaluations, including performance, volumetric, and analog-based studies.

Where appropriate, Murphy includes reliable geologic and engineering technology to estimate proved reserves. Reliable geologic and engineering technology is a method or combination of methods that are field-tested and have demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation. This integrated approach increases the quality of and confidence in Murphy's proved reserves estimates. It was utilized in certain undrilled acreage at distances greater than the directly offsetting development spacing areas, and in certain reservoirs developed with the application of improved recovery techniques. Murphy utilized a combination of 3D seismic interpretation, core analysis, wellbore log measurements, well test data, historic production and pressure data, and commercially available seismic processing and numerical reservoir simulation programs. Reservoir parameters from analogous reservoirs were used to strengthen the reserves estimates when available.

See further discussion of proved reserves and changes in proved reserves during the three years ended December 31, 2022 beginning on pages 4 and 110 of this Form 10-K report.

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Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Property, Plant and Equipment - impairment of long-lived assets – The Company continually monitors its long-lived assets recorded in “Property, plant and equipment” in the Consolidated Balance Sheet to make sure that they are fairly presented. The Company must evaluate its property, plant and equipment for potential impairment when circumstances indicate that the carrying value of an asset may not be recoverable from future cash flows.

A significant amount of judgment is involved in performing these evaluations since the results are based on estimated future events. Such events include a projection of future oil and natural gas sales prices, an estimate of the amount of oil and natural gas that will be produced from a field, the timing of this future production, future costs to produce the oil and natural gas, future capital, operating and abandonment costs and future inflation levels.

The need to test a long-lived asset for impairment can be based on several factors, including, but not limited to, a significant reduction in sales prices for oil and/or natural gas, unfavorable revisions of oil or natural gas reserves, or other changes to contracts, environmental, health and safety laws and regulations, tax laws or other regulatory changes. All of these factors must be considered when evaluating a property's carrying value for possible impairment.

Due to the volatility of world oil and natural gas markets, the actual sales prices for oil and natural gas have often been different from the Company's projections.

Estimates of future oil and natural gas production and sales volumes are based on a combination of proved and risked probable and possible reserves. Although the estimation of reserves and future production is uncertain, the Company believes that its estimates are reasonable; however, there have been cases where actual production volumes were higher or lower than projected and the timing was different than the original projection. The Company adjusts reserves and production estimates as new information becomes available.

The Company generally projects future costs by using historical costs adjusted for both assumed long-term inflation rates and known or expected changes in future operations. Although the projected future costs are considered to be reasonable, at times, costs have been higher or lower than originally estimated.

There were no impairments recognized in 2022. In 2021, the Company recognized pretax noncash impairment charges of \$196.3 million to reduce the carrying values at select properties. In 2021, the Company recorded an impairment charge of \$171.3 million for Terra Nova due to the status, including agreements with the partners, of operating and production plans and \$25.0 million for assets reported as Assets held for sale in the Consolidated Balance Sheets.

See also [Note D](#) for further discussion of impairment charges.

Income taxes – The Company is subject to income and other similar taxes in all areas in which it operates. When recording income tax expense, certain estimates are required because: (a) income tax returns are generally filed months after the close of its annual accounting period; (b) tax returns are subject to audit by taxing authorities and audits can often take years to complete and settle; (c) future events often impact the timing of when income tax expenses and benefits are recognized by the Company; and (d) changes to regulations may be subject to different interpretations and require future clarification from issuing authorities or others.

The Company has deferred tax assets mostly relating to U.S net operating losses, liabilities for dismantlement, retirement benefit plan obligations and net deferred tax liabilities relating to tax and accounting basis differences for property, plant and equipment.

The Company routinely evaluates all deferred tax assets to determine the likelihood of their realization and reduce such assets to the expected realizable amount by a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized. In assessing the need for valuation allowances, we consider all available positive and negative evidence. Positive evidence includes projected future taxable income and assessment of future business assumptions, a history of utilizing tax assets before expiration, significant proven and probable reserves and reversals of taxable temporary differences. Negative evidence includes losses in recent years.

As of December 31, 2022 the Company had a U.S. deferred tax asset associated with net operating losses of \$442.7 million. In reviewing the likelihood of realizing this asset the Company considered the reversal of taxable temporary differences, carryforward periods and future taxable income estimates based on projected financial

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information which, based on currently available evidence, we believe to be reasonably likely to occur. Certain estimates and assumptions are used in the estimation of future taxable income, including (but not limited to) (a) future commodity prices for crude oil and condensate, NGLs and natural gas, (b) estimated reserves for crude oil and condensate, NGLs and natural gas, (c) expected timing of production, (d) estimated lease operating costs and (e) future capital requirements. In the future, the underlying actual assumptions utilized in estimating future taxable income could be different and result in different conclusions about the likelihood of the future utilization of our net operating loss carryforwards.

Accounting for retirement and postretirement benefit plans – Murphy and certain of its subsidiaries maintain defined benefit retirement plans covering certain full-time employees. The Company also sponsors health care and life insurance benefit plans covering most retired U.S. employees. The expense associated with these plans is estimated by management based on a number of assumptions and with consultation assistance from qualified third-party actuaries. The most important of these assumptions for the retirement plans involve the discount rate used to measure future plan obligations and the expected long-term rate of return on plan assets. For the retiree medical and insurance plans, the most important assumptions are the discount rate for future plan obligations and the health care cost trend rate. Discount rates are based on the universe of high-quality corporate bonds that are available within each country. Cash flow analyses are performed in which a spot yield curve is used to discount projected benefit payment streams for the most significant plans. The discounted cash flows are used to determine an equivalent single rate which is the basis for selecting the discount rate within each country. Expected plan asset returns are based on long-term expectations for asset portfolios with similar investment mix characteristics. Anticipated health care cost trend rates are determined based on prior experience of the Company and an assessment of near-term and long-term trends for medical and drug costs.

Based on bond yields as of December 31, 2022, the Company has used a weighted average discount rate of 5.42% at year-end 2022 for the primary U.S. plans. This weighted average discount rate is 2.6% higher than prior year, which decreased the Company's recorded liabilities for retirement plans compared to a year ago. The Company assumed a return on plan assets of 6.60% for the primary U.S. plan, it periodically reconsiders the appropriateness of this and other key assumptions. The Company's retirement and postretirement plan (health care and life insurance benefit plans) expenses in 2023 are expected to be \$6.4 million higher than 2022 primarily due to the increase in the discount rate assumption for U.S. pension plan, which increases the amount of interest cost recognized in net periodic benefit expense. Cash contributions to all plans are anticipated to be \$6.2 million lower in 2023.

In 2022, the Company paid \$41.1 million into various retirement plans and \$2.1 million into postretirement plans. In 2023, the Company is expecting to fund payments of approximately \$32.2 million into various retirement plans and \$4.8 million for postretirement plans. The Company could be required to make additional and more significant funding payments to retirement plans in future years. Future required payments and the amount of liabilities recorded on the balance sheet associated with the plans could be unfavorably affected if the discount rate declines, the actual return on plan assets falls below the assumed return, or the health care cost trend rate increase is higher than expected.

Recent Accounting Pronouncements

See [Note B](#) our Consolidated Financial Statements regarding the impact or potential impact of recent accounting pronouncements upon our financial position and results of operations.

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Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Contractual obligations and guarantees – The Company is obligated to make future cash payments under borrowing arrangements, operating leases, purchase obligations primarily associated with existing capital expenditure plans and other long-term liabilities. Total payments due after 2022 under such contractual obligations and arrangements are shown in the table below. Amounts are undiscounted and therefore may differ to those presented in the financial statements.

<i>(Millions of dollars)</i>	Amount of Obligations				
	Total	2023	2024 - 2025	2026 - 2027	After 2027
Debt, excluding interest	\$ 1,833.6	\$ —	\$ 248.7	\$ 543.2	\$ 1,041.7
Operating leases and other leases ¹	1,268.6	271.9	323.6	123.6	549.5
Capital expenditures, drilling rigs and other ²	1,230.5	552.3	245.9	151.2	281.1
Other long-term liabilities, including debt interest ³	2,508.4	124.4	362.6	430.2	1,591.2
Total	\$ 6,841.1	\$ 948.6	\$ 1,180.8	\$ 1,248.2	\$ 3,463.5

¹ Other leases refers to a finance lease in Brunei (see [Note U](#) to the financial statements).

² Capital expenditures, drilling rigs and other includes \$67.6 million, \$33.3 million, \$13.3 million and \$1.1 million, in 2023 for approved capital projects in non-operated interests in U.S. Gulf of Mexico, Canada Offshore, U.S. Onshore and Other Foreign Offshore, respectively. Capital expenditures, drilling rigs and other includes \$35.9 million in 2024 for approved capital projects in non-operated interests in U.S. Gulf of Mexico.

Also includes \$66.5 million (2023), \$105.5 million (2024 - 2025), \$87.5 million (2026 - 2027) and \$183.7 million (After 2027) for pipeline transportation commitments in Canada.

Also includes \$5.0 million (2023), \$9.8 million (2024 - 2025), \$9.2 million (2026 - 2027) and \$25.8 million (After 2027) for long term take or pay commitments relating to gas processing in Canada.

³ Other long-term liabilities, including debt interest includes future cash outflows for asset retirement obligations.

The Company has entered into agreements to lease production facilities for various producing oil fields as well as other arrangements that require future payments as described in the following section. The Company's share of the contractual obligations under these leases and other arrangements has been included in the table above.

In the normal course of its business, the Company is required under certain contracts with various governmental authorities and others to provide letters of credit that may be drawn upon if the Company fails to perform under those contracts. Total outstanding letters of credit were \$232.4 million as of December 31, 2022.

Material off-balance sheet arrangements – Certain U.S. transportation contracts require minimum monthly payments through 2045, while onshore Canada processing contracts call for minimum monthly payments through 2051. Future required minimum annual payments under these arrangements are included in the contractual obligation table above.

PART II
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued**Outlook**

Prices for the Company's primary products are often volatile. The price of crude oil is primarily affected by the levels of supply and demand for energy. Anticipated future variances between the predicted demand for crude oil and the projected available supply can lead to significant movement in the price of crude oil. As of close on February 23, 2023, the NYMEX WTI forward curve price for the remainder of 2023 and 2024 were \$75.05 and \$71.85 per barrel, respectively; however we cannot predict what impact economic factors (including inflation, the Russia/Ukraine conflict and the COVID-19 pandemic) may have on future commodity pricing. Lower prices, should they occur, will result in lower profits and operating cash-flows.

The Company's capital expenditure spend for 2023 is expected to be between \$875 million and \$1025 million, excluding the amount attributable to noncontrolling interest. Capital and other expenditures are routinely reviewed and planned capital expenditures may be adjusted to reflect differences between budgeted and forecast cash flow during the year. Capital expenditures may also be affected by asset purchases or sales, which often are not anticipated at the time a budget is prepared. The Company will primarily fund its capital program in 2023 using operating cash flow and available cash. If oil and/or natural gas prices weaken, actual cash flow generated from operations could be reduced such that capital spending reductions are required and/or borrowings under available credit facilities might be required during the year to maintain funding of the Company's ongoing development projects.

The Company currently expects average daily production in 2023 to be between 182,700 and 190,700 barrels of oil equivalent per day (including noncontrolling interest of 7,200 BOEPD). If significant price declines occur, the Company will review the option of production curtailments to avoid incurring losses on certain produced barrels.

The Company plans to utilize surplus cash (not planned to be used by operations, investing activities, dividends or payment to noncontrolling interests) in accordance with the Company's capital allocation framework. Details of the framework can be found in the "Capital Allocation Framework" section of the Company's [Form 8-K](#) filed on August 4, 2022.

The Company continues to monitor the impact of commodity prices on its financial position and is currently in compliance with the covenants related to the revolving credit facility (see [Note G](#)).

The Company has entered into derivative or forward fixed-price delivery contracts to manage risk associated with certain future oil and natural gas sales prices as follows:

Area	Commodity	Type	Volumes (MMcf/d)	Price/MCF	Remaining Period	
					Start Date	End Date
Canada	Natural Gas	Fixed price forward sales	269	C\$2.36	1/1/2023	3/31/2023
Canada	Natural Gas	Fixed price forward sales	250	C\$2.35	4/1/2023	12/31/2023
Canada	Natural Gas	Fixed price forward sales	162	C\$2.39	1/1/2024	12/31/2024
Canada	Natural Gas	Fixed price forward sales	25	US\$1.98	1/1/2023	10/31/2024
Canada	Natural Gas	Fixed price forward sales	15	US\$1.98	11/1/2024	12/31/2024

Forward-Looking Statements

This Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are generally identified through the inclusion of words such as "aim", "anticipate", "believe", "drive", "estimate", "expect", "expressed confidence", "forecast", "future", "goal", "guidance", "intend", "may", "objective", "outlook", "plan", "position", "potential", "project", "seek", "should", "strategy", "target", "will" or variations of such words and other similar expressions. These statements, which express management's current views concerning future events, results and plans, are subject to inherent risks, uncertainties and assumptions (many of which are beyond our control) and are not guarantees of performance. In particular, statements, express or implied, concerning the Company's future operating results or activities and returns or the Company's ability and decisions to replace or increase reserves, increase production, generate returns and rates of return, replace or increase drilling locations, reduce or otherwise control operating costs and expenditures, generate cash flows, pay down or refinance indebtedness, achieve, reach or otherwise meet initiatives, plans, goals, ambitions or targets with respect to emissions, safety matters or other ESG matters, or pay and/or increase dividends or make share repurchases and other capital allocation decisions, are all forward-

PART II
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

looking statements. Factors that could cause one or more of these future events, results or plans not to occur as implied by any forward-looking statement, which consequently could cause actual results or activities to differ materially from the expectations expressed or implied by such forward-looking statements, include, but are not limited to: macro conditions in the oil and gas industry, including supply/demand levels, actions taken by major oil exporters and the resulting impacts on commodity prices; increased volatility or deterioration in the success rate of our exploration programs or in our ability to maintain production rates and replace reserves; reduced customer demand for our products due to environmental, regulatory, technological or other reasons; adverse foreign exchange movements; political and regulatory instability in the markets where we do business; the impact on our operations or market of health pandemics such as COVID-19 and related government responses; other natural hazards impacting our operations or markets; any other deterioration in our business, markets or prospects; any failure to obtain necessary regulatory approvals; any inability to service or refinance our outstanding debt or to access debt markets at acceptable prices; or adverse developments in the U.S. or global capital markets, credit markets or economies in general. For further discussion of factors that could cause one or more of these future events or results not to occur as implied by any forward-looking statement, see [Item 1A. Risk Factors](#), which begins on page 15 of this Annual Report on Form 10-K. Murphy undertakes no duty to publicly update or revise any forward-looking statements, except as required by law.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is exposed to market risks associated with prices of crude oil, natural gas and petroleum products, foreign currency exchange rates and interest rates. As described in [Note L](#), Murphy makes use of derivative financial and commodity instruments to manage risks associated with existing or anticipated transactions.

There were no outstanding crude oil derivative contracts as of December 31, 2022.

There were no derivative foreign exchange contracts in place as of December 31, 2022.

At December 31, 2022, long-term debt was \$1,822.4 million. The fixed-rate notes have a weighted average coupon of 6.2%.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Information required by this item appears on pages 63 through 127 of this Form 10-K report.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

PART II

Item 9A. CONTROLS AND PROCEDURES

Under the direction of its principal executive officer and principal financial officer, controls and procedures have been established by Murphy to ensure that material information relating to the Company and its consolidated subsidiaries is made known to the officers who certify the Company's financial reports and to other members of senior management and the Board of Directors.

Based on their evaluation, with the participation of the Company's management, as of December 31, 2022, the principal executive officer and principal financial officer of Murphy Oil Corporation have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) were effective to ensure that the information required to be disclosed by Murphy Oil Corporation in reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms.

Murphy's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). Management has conducted an evaluation of the effectiveness of the Company's internal control over financial reporting based on the criteria set forth in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the results of this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022. KPMG LLP, an independent registered public accounting firm, has made an independent assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022 and their report is included on page 66 of this Form 10-K report.

There were no changes in the Company's internal controls over financial reporting that occurred during the fourth quarter of 2022 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. OTHER INFORMATION

None

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Certain information regarding executive officers of the Company is included on page 29 of this Form 10-K report. Other information required by this item is incorporated by reference to the Registrant's definitive Proxy Statement for the Annual Meeting of Stockholders on May 10, 2023 under the captions "Election of Directors" and "The Board and Committees."

Murphy Oil has adopted a Code of Ethical Conduct for Executive Management, which can be found under the Corporate Governance tab at www.murphyoilcorp.com. Stockholders may also obtain, free of charge, a copy of the Code of Ethical Conduct for Executive Management by writing to the Corporate Secretary at 9805 Katy Fwy, Suite G-200, Houston, TX 77024. Any future amendments to or waivers of the Company's Code of Ethical Conduct for Executive Management will be posted on the Company's Website.

Item 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated by reference to Murphy's definitive Proxy Statement for the Annual Meeting of Stockholders on May 10, 2023 under the captions "Compensation Discussion and Analysis" and "How Are We Compensated" and in various compensation schedules.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item is incorporated by reference to Murphy's definitive Proxy Statement for the Annual Meeting of Stockholders on May 10, 2023 under the caption "Our Stockholders" and in the "Equity Compensation Plan Information".

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is incorporated by reference to Murphy's definitive Proxy Statement for the Annual Meeting of Stockholders on May 10, 2023 under the caption "Election of Directors."

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP, Houston, TX, Auditor Firm ID: 185.

Information required by this item is incorporated by reference to Murphy's definitive Proxy Statement for the Annual Meeting of Stockholders on May 10, 2023 under the caption "Audit Committee Report."

PART IV**Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

- (a) **1. Financial Statements** – The consolidated financial statements of Murphy Oil Corporation and consolidated subsidiaries are located or begin on the pages of this Form 10-K report as indicated below.

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PART IV

All other financial statement schedules are omitted because either they are not applicable or the required information is included in the consolidated financial statements or notes thereto.

3. **Exhibits** – The following is an index of exhibits that are hereby filed as indicated by asterisk (*), that are considered furnished rather than filed, or that are incorporated by reference. Exhibits other than those listed have been omitted since they either are not required or are not applicable.

Exhibit No.		Incorporated by Reference to the Indicated Filing by Murphy Oil Corporation
2.1	Purchase and sale agreement dated as of April 19, 2019 between LLOG Bluewater Holdings, LLC and LLOG Exploration Offshore, LLC, as seller, and Murphy Exploration & Production Company – USA, as purchaser.	Exhibit 2.1 to Form 8-K filed June 5, 2019
2.2	First Amendment to Purchase and Sale Agreement dated as of May 31, 2019 among Murphy Exploration & Production Company - USA, LLOG Exploration Offshore, L.L.C. and LLOG Bluewater Holdings, L.L.C.	Exhibit 2.2 to Form 8-K filed June 5, 2019
2.3	Contribution Agreement dated as of October 10, 2018 among Murphy Exploration & Production Company – USA, Petrobras America Inc. and MP Gulf of Mexico, LLC	Exhibit 2.1 to Form 10-K for the year ended December 31, 2018
2.4	Share Sale and Purchase Agreement between Canam Offshore Limited and PTTEP HK Offshore Limited for the sale and purchase of the entire issued share capital of Murphy Sarawak Oil Co., Ltd. and Murphy Sabah Oil Co., Ltd., dated March 21, 2019	Exhibit 10.3 to Form 10-Q filed May 2, 2019
3.1	Certificate of Incorporation of Murphy Oil Corporation, as amended effective May 11, 2005	Exhibit 3.1 to Form 10-K for the year ended December 31, 2010
3.2	By-Laws of Murphy Oil Corporation, as amended effective August 5, 2020	Exhibit 3.2 to Form 10-Q filed August 6, 2020
4.1	Indenture dated as of May 4, 1999 between Murphy Oil Corporation and SunTrust Bank, Nashville, N.A., as trustee	Exhibit 4.2 to Form 10-K for the year ended December 31, 2004
4.2	Supplemental Indenture dated as of May 4, 1999 between Murphy Oil Corporation and SunTrust Bank, Nashville, N.A., as trustee, relating to 7.05% Notes due 2029	Exhibit 4.2 to Form 10-K for the year ended December 31, 2004
4.3	Indenture dated as of May 18, 2012 between Murphy Oil Corporation and U.S. Bank National Association, as trustee	Exhibit 4.1 to Form 8-K filed May 18, 2012
4.4	First Supplemental Indenture dated as of May 18, 2012, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, relating to 4.00% Notes due 2022	Exhibit 4.2 to Form 8-K filed May 18, 2012
4.5	Second Supplemental Indenture dated as of November 30, 2012, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, relating to 5.125% Notes due 2042	Exhibit 4.1 to Form 8-K filed November 30, 2012
4.6	Third Supplemental Indenture dated as of August 17, 2016, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, relating to 6.875% Notes due 2024	Exhibit 4.1 to Form 8-K filed August 17, 2016
4.7	Fourth Supplemental Indenture dated as of August 18, 2017, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, relating to 5.75% Notes due 2025	Exhibit 4.1 to Form 8-K filed August 18, 2017
4.8	Fifth Supplemental Indenture dated as of November 27, 2019, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association, as series trustee, relating to 5.875% Notes due 2027	Exhibit 4.2 to Form 8-K filed November 27, 2019
4.9	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	Exhibit 4.9 to Form 10-K filed on February 27, 2020

PART IV

4.10	Sixth Supplemental Indenture dated as of March 5, 2021, between Murphy Oil Corporation and U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association as series trustee, relating to 6.375% Notes due 2028	Exhibit 4.2 to Form 8-K files March 5, 2021
*10.1	New Credit Agreement dated as of November 17, 2022 among Murphy Oil Corporation, Murphy Exploration & Production Company – International, and Murphy Oil Company Ltd., as borrowers, JPMorgan Chase Bank, N.A., as administrative agent and the lenders party thereto	
10.2	Murphy Oil Corporation Annual Incentive Plan	Exhibit 10.3 to Form 10-K filed on February 25, 2022
10.3	Murphy Oil Corporation 2012 Long-Term Incentive Plan	Exhibit A to definitive proxy statement filed March 29, 2012
10.4	Amendment to the Murphy Oil Corporation 2012 Long-Term Incentive Plan	Exhibit 10.8 to Form 10-K filed on February 27, 2020
10.5	Form of employee stock option (2012 Long-Term Incentive Plan)	Exhibit 99.1 to Form 10-K for the year ended December 31, 2013
10.6	Form of stock appreciation right (2012 Long-Term Incentive Plan)	Exhibit 99.3 to Form 10-Q filed May 7, 2014
10.7	Murphy Oil Corporation 2018 Long-Term Incentive Plan	Exhibit B to definitive proxy statement filed March 23, 2018
10.8	Amendment to the Murphy Oil Corporation 2018 Long-Term Incentive Plan	Exhibit 10.15 to Form 10-K filed on February 27, 2020
10.9	Form of employee performance-based restricted stock unit – stock settled grant agreement (2018 Long-Term Incentive Plan)	Exhibit 10.14 to Form 10-K for the year ended December 31, 2018
10.10	Form of employee performance-based restricted stock unit – stock settled grant agreement (2018 Long-Term Incentive Plan)	Exhibit 10.17 to Form 10-K filed on February 27, 2020
10.11	Form of employee time-based restricted stock unit – stock settled 3-year grant agreement (2018 Long-Term Incentive Plan)	Exhibit 10.15 to Form 10-K for the year ended December 31, 2018
10.12	Form of employee time-based restricted stock unit – stock settled 5-year grant agreement (2018 Long-Term Incentive Plan)	Exhibit 10.16 to Form 10-K for the year ended December 31, 2018
10.13	Murphy Oil Corporation 2020 Long-Term Incentive Plan	Exhibit A to definitive proxy statement filed March 30, 2020
10.14	Form of employee performance-based restricted stock unit – stock settled grant agreement (2020 LTI Plan)	Exhibit 10.21 to Form 10-K filed on February 26, 2021
10.15	Form of employee time-based restricted stock unit – stock settled 3-year grant agreement (2020 LTI Plan)	Exhibit 10.22 to Form 10-K filed on February 26, 2021
10.16	Form of employee time-based restricted stock unit – stock settled 5-year grant agreement (2020 LTI Plan)	Exhibit 10.23 to Form 10-K filed on February 26, 2021
10.17	Form of employee time-based restricted stock unit – cash settled 3-year grant agreement (2020 LTI Plan)	Exhibit 10.24 to Form 10-K filed on February 26, 2021
10.18	Form of employee time-based restricted stock unit – cash settled 5-year grant agreement (2020 LTI Plan)	Exhibit 10.25 to Form 10-K filed on February 26, 2021
10.19	Murphy Oil Corporation 2018 Stock Plan for Non-Employee Directors	Exhibit A to definitive proxy statement filed March 23, 2018
10.20	First Amendment to the 2018 Stock Plan for Non-Employee Directors	Exhibit 10.1 to Form 8-K filed April 25, 2018
10.21	Second Amendment to the 2018 Stock Plan for Non-Employee Directors	Exhibit 10.24 to Form 10-K filed on February 27, 2020

PART IV

10.22	Form of non-employee director restricted stock unit award – stock settled grant agreement (2018 NED Plan)	Exhibit 10.20 to Form 10-K for the year ended December 31, 2018
10.23	Murphy Oil Corporation 2021 Stock Plan for Non-Employee Directors	Exhibit A to definitive proxy statement filed March 26, 2021
10.24	Form of non-employee director restricted stock unit award – stock settled grant agreement (2021 NED Plan)	Exhibit 10.27 to Form 10-Q filed on August 5, 2021
10.25	Murphy Oil Corporation Non-Qualified Deferred Compensation Plan for Non-Employee Directors	Exhibit 10.6 to Form 10-K for the year ended December 31, 2015
10.26	Trademark License Agreement dated as of August 30, 2013, between Murphy Oil Corporation and Murphy USA Inc.	Exhibit 10.4 to Form 8-K filed September 5, 2013
10.27	Form of non-employee director restricted stock unit award – stock settled grant agreement (2018 NED Plan)	Exhibit 10.26 to Form 10-K filed on February 27, 2020
*10.28	First Amendment to the New Credit Agreement dated as of December 16, 2022 among Murphy Oil Corporation, Murphy Exploration & Production Company – International and Murphy Oil Company Ltd., as borrowers, JPMorgan Chase Bank, N.A., as administrative agent and the lenders party thereto	
*21.1	Subsidiaries of Murphy Oil Corporation	
*23.1	Consent of Independent Registered Public Accounting Firm	
*23.2	Consent of Ryder Scott Company, L.P.	
*23.3	Consent of McDaniel & Associates Consultants Ltd.	
*31.1	Certification required by Rule 13a-14(a) pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	
*31.2	Certification required by Rule 13a-14(a) pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	
*32.1	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	
*99.1	Ryder Scott reserves audit report for Eagle Ford Shale and Gulf of Mexico	
*99.2	Ryder Scott reserves audit report for MP GOM JV	
*99.3	McDaniel independent audit report for Canada Onshore and Offshore proved crude oil and natural gas reserves	
101.INS	Inline XBRL Instance Document	
101.SCH	Inline XBRL Taxonomy Extension Schema Document	
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document	
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase	
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).	

PART IV

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MURPHY OIL CORPORATION

By /s/ ROGER W. JENKINS
Roger W. Jenkins, President

Date: February 27, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on February 27, 2023 by the following persons on behalf of the registrant and in the capacities indicated.

 /s/ CLAIBORNE P. DEMING
Claiborne P. Deming, Chairman and Director

 /s/ JAMES V. KELLEY
James V. Kelley, Director

 /s/ ROGER W. JENKINS
Roger W. Jenkins, President and
Chief Executive Officer and Director
(Principal Executive Officer)

 /s/ R. MADISON MURPHY
R. Madison Murphy, Director

 /s/ T. JAY COLLINS
T. Jay Collins, Director

 /s/ JEFFREY W. NOLAN
Jeffrey W. Nolan, Director

 /s/ STEVEN A. COSSE
Steven A. Cossé, Director

 /s/ ROBERT N. RYAN, JR.
Robert N. Ryan, Jr., Director

 /s/ LAWRENCE R. DICKERSON
Lawrence R. Dickerson, Director

 /s/ NEAL E. SCHMALE
Neal E. Schmale, Director

 /s/ MICHELLE A. EARLEY
Michelle A. Earley, Director

 /s/ LAURA A. SUGG
Laura A. Sugg, Director

 /s/ ELISABETH W. KELLER
Elisabeth W. Keller, Director

 /s/ THOMAS J. MIRELES
Thomas J. Mireles, Executive Vice President
and Chief Financial Officer
(Principal Financial Officer)

 /s/ PAUL D. VAUGHAN
Paul D. Vaughan
Vice President and Controller
(Principal Accounting Officer)

REPORT OF MANAGEMENT – CONSOLIDATED FINANCIAL STATEMENTS

The management of Murphy Oil Corporation is responsible for the preparation and integrity of the accompanying consolidated financial statements and other financial data. The financial statements were prepared in conformity with U.S. generally accepted accounting principles (GAAP) appropriate in the circumstances and include some amounts based on informed estimates and judgments, with consideration given to materiality.

An independent registered public accounting firm, KPMG LLP, has audited the Company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (PCAOB) and provides an objective, independent opinion about the Company's consolidated financial statements. The Audit Committee of the Board of Directors appoints the independent registered public accounting firm; ratification of the appointment is solicited annually from the shareholders. KPMG LLP's opinion covering the Company's consolidated financial statements can be found on page 64.

The Board of Directors appoints an Audit Committee annually to implement and to support the Board's oversight function of the Company's financial reporting, accounting policies, internal controls and independent registered public accounting firm. This Committee is composed solely of directors who are not employees of the Company. The Committee meets routinely with representatives of management, the Company's audit staff and the independent registered public accounting firm to review and discuss the adequacy and effectiveness of the Company's internal controls, the quality and clarity of its financial reporting, the scope and results of independent and internal audits, and to fulfill other responsibilities included in the Committee's Charter. The independent registered public accounting firm and the Company's audit staff have unrestricted access to the Committee, without management presence, to discuss audit findings and other financial matters.

REPORT OF MANAGEMENT – INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). The Company's internal controls have been designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with U.S. GAAP. All internal control systems have inherent limitations, and therefore, can provide only reasonable assurance with respect to the reliability of financial reporting and preparation of consolidated financial statements.

Management has conducted an evaluation of the effectiveness of the Company's internal control over financial reporting based on the criteria set forth in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based on the results of this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022.

KPMG LLP has performed an audit of the Company's internal control over financial reporting, and their opinion thereon can be found on page 66.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
Murphy Oil Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Murphy Oil Corporation and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity for each of the years in the three-year period ended December 31, 2022, and the related notes and financial statement schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements 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 years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), 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, and our report dated February 27, 2023 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated 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 consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Estimated oil and gas reserves used in the depletion of producing oil and gas properties

As discussed in Note A to the consolidated financial statements, the Company calculates depletion expense related to producing oil and gas properties using the units-of-production method. Under this method, costs to acquire interests in oil and gas properties and costs for the drilling and completion efforts for exploratory wells that find proved reserves and for development wells are capitalized. Capitalized costs of producing oil and gas properties, along with equipment and facilities that support production, are amortized to expense by the units-of-production method. The Company's internal petroleum reserve engineers estimate proved oil and gas reserves and the Company engages third-party petroleum reserve specialists to perform an independent assessment. For the year ended

December 31, 2022, the Company recorded depreciation, depletion, and amortization expense of \$776.8 million.

We identified the assessment of the estimated oil and gas reserves used in the depletion of producing oil and gas properties as a critical audit matter. Complex auditor judgment was required in evaluating the Company's estimate of total proved oil and gas reserves, which is an input to the depletion expense calculation. Estimating proved oil and gas reserves requires the expertise of professional petroleum reserve engineers based on their estimates of forecasted production, forecasted operating costs, future development costs, and oil and gas prices.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's depletion calculation process, including controls related to the estimation of proved oil and gas reserves. We evaluated (1) the professional qualifications of the internal petroleum reserve engineers, third-party petroleum reserve specialists, and external engineering firm, (2) the knowledge, skills, ability of the Company's internal petroleum reserve engineers and third-party petroleum reserve specialists, and (3) the relationship of the third-party petroleum reserve specialists and external engineering firm to the Company. We analyzed and assessed the calculation of depletion expense for compliance with industry and regulatory standards. We compared the forecasted production assumptions used by the Company to historical production rates. We compared the forecasted operating costs to historical results. We also evaluated the forecasted nature and timing of future development costs by obtaining an understanding of the development projects and comparing the development projects with the available development plans. We assessed the oil and gas prices utilized by the internal petroleum reserve engineers by comparing them to publicly available prices and recalculated the relevant market differentials. In addition, we read and considered the report of the Company's third-party petroleum reserve specialists in connection with our evaluation of the Company's proved oil and gas reserve estimates.

/s/ KPMG LLP

We have served as the Company's auditor since 1952.

Houston, Texas
February 27, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors
Murphy Oil Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Murphy Oil Corporation and subsidiaries' (the Company) 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. 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 the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity for each of the years in the three-year period ended December 31, 2022, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report dated February 27, 2023 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible 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 Report of Management - Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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.

/s/ KPMG LLP

Houston, Texas
February 27, 2023

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

December 31 (Thousands of dollars except share amounts)	2022	2021
ASSETS		
Current assets		
Cash and cash equivalents	\$ 491,963	\$ 521,184
Accounts receivable, net	391,152	258,150
Inventories	54,513	54,198
Prepaid expenses	34,697	31,925
Assets held for sale	—	15,453
Total current assets	972,325	880,910
Property, plant and equipment, at cost less accumulated depreciation, depletion and amortization of \$12,489,970 in 2022 and \$12,457,851 in 2021	8,228,016	8,127,852
Operating lease assets	946,406	881,389
Deferred income taxes	117,889	385,516
Deferred charges and other assets	44,316	29,273
Total assets	\$ 10,308,952	\$ 10,304,940
LIABILITIES AND EQUITY		
Current liabilities		
Current maturities of long-term debt, finance lease	\$ 687	\$ 654
Accounts payable	543,786	623,129
Income taxes payable	26,544	19,951
Other taxes payable	22,819	20,306
Operating lease liabilities	220,413	139,427
Other accrued liabilities	443,585	360,859
Total current liabilities	1,257,834	1,164,326
Long-term debt, including finance lease obligation	1,822,452	2,465,414
Asset retirement obligations	817,268	839,776
Deferred credits and other liabilities	304,948	570,574
Non-current operating lease liabilities	742,654	761,162
Deferred income taxes	214,903	182,892
Total liabilities	\$ 5,160,059	\$ 5,984,144
Equity		
Cumulative Preferred Stock, par \$100, authorized 400,000 shares, none issued	\$ —	\$ —
Common Stock, par \$1.00, authorized 450,000,000 shares, issued 195,100,628 shares in 2022 and 195,100,628 shares in 2021	195,101	195,101
Capital in excess of par value	893,578	926,698
Retained earnings	6,055,498	5,218,670
Accumulated other comprehensive loss	(534,686)	(527,711)
Treasury stock	(1,614,717)	(1,655,447)
Murphy Shareholders' Equity	4,994,774	4,157,311
Noncontrolling interest	154,119	163,485
Total equity	5,148,893	4,320,796
Total liabilities and equity	\$ 10,308,952	\$ 10,304,940

See Notes to Consolidated Financial Statements, page 72.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

Years Ended December 31 (Thousands of dollars except per share amounts)	2022	2021	2020
Revenues and other income			
Revenue from production	\$ 4,038,451	\$ 2,801,215	\$ 1,751,709
Sales of purchased natural gas	181,689	—	—
Total revenue from sales to customers	4,220,140	2,801,215	1,751,709
(Loss) Gain on derivative instruments	(320,410)	(525,850)	202,661
Gain on sale of assets and other income	32,932	23,916	12,971
Total revenues and other income	3,932,662	2,299,281	1,967,341
Costs and expenses			
Lease operating expenses	679,342	539,546	600,076
Severance and ad valorem taxes	57,012	41,212	28,526
Transportation, gathering and processing	212,711	187,028	172,399
Costs of purchased natural gas	171,991	—	—
Exploration expenses, including undeveloped lease amortization	133,197	69,044	86,479
Selling and general expenses	131,121	121,950	140,243
Restructuring expenses	—	—	49,994
Depreciation, depletion and amortization	776,817	795,105	987,239
Accretion of asset retirement obligations	46,243	46,613	42,136
Impairment of assets	—	196,296	1,206,284
Other operating expense	137,518	21,052	16,274
Total costs and expenses	2,345,952	2,017,846	3,329,650
Operating income (loss) from continuing operations	1,586,710	281,435	(1,362,309)
Other income (loss)			
Other income (expense)	14,310	(16,771)	(17,303)
Interest expense, net	(150,759)	(221,773)	(169,423)
Total other loss	(136,449)	(238,544)	(186,726)
Income (Loss) from continuing operations before income taxes	1,450,261	42,891	(1,549,035)
Income tax expense (benefit)	309,464	(5,862)	(293,741)
Income (Loss) from continuing operations	1,140,797	48,753	(1,255,294)
Loss from discontinued operations, net of income taxes	(2,078)	(1,225)	(7,151)
Net income (loss) including noncontrolling interest	1,138,719	47,528	(1,262,445)
Less: Net income (loss) attributable to noncontrolling interest	173,672	121,192	(113,668)
NET INCOME (LOSS) ATTRIBUTABLE TO MURPHY	\$ 965,047	\$ (73,664)	\$ (1,148,777)
INCOME (LOSS) PER COMMON SHARE – BASIC			
Continuing operations	\$ 6.23	\$ (0.47)	\$ (7.43)
Discontinued operations	(0.01)	(0.01)	(0.05)
Net income (loss)	\$ 6.22	\$ (0.48)	\$ (7.48)
INCOME (LOSS) PER COMMON SHARE – DILUTED			
Continuing operations	\$ 6.14	\$ (0.47)	\$ (7.43)
Discontinued operations	(0.01)	(0.01)	(0.05)
Net income (loss)	\$ 6.13	\$ (0.48)	\$ (7.48)
Cash dividends per Common share	\$ 0.825	\$ 0.50	\$ 0.625
Average Common shares outstanding (thousands)			
Basic	155,277	154,291	153,507
Diluted	157,475	154,291	153,507

See Notes to Consolidated Financial Statements, page 72.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

Years Ended December 31 (Thousands of dollars)	2022	2021	2020
Net income (loss) including noncontrolling interest	\$ 1,138,719	\$ 47,528	\$ (1,262,445)
Other comprehensive income (loss), net of tax			
Net (loss) gain from foreign currency translation	(106,335)	12,116	29,241
Retirement and postretirement benefit plans	99,360	59,816	(57,617)
Deferred loss on interest rate hedges reclassified to interest expense	—	1,690	1,204
Other comprehensive (loss) income	(6,975)	73,622	(27,172)
Comprehensive income (loss) including noncontrolling interest	1,131,744	121,150	(1,289,617)
Less: Comprehensive income (loss) attributable to noncontrolling interest	173,672	121,192	(113,668)
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO MURPHY	\$ 958,072	\$ (42)	\$ (1,175,949)

See Notes to Consolidated Financial Statements, page 72.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS**

Years Ended December 31 (Thousands of dollars)	2022	2021	2020
Operating Activities			
Net income (loss) including noncontrolling interest	\$ 1,138,719	\$ 47,528	\$ (1,262,445)
Adjustments to reconcile net income (loss) to net cash provided by continuing operations activities			
Depreciation, depletion and amortization	776,817	795,105	987,239
Deferred income tax expense (benefit)	286,079	(4,146)	(278,042)
Mark to market (gain) loss on derivative instruments	(214,788)	112,113	69,310
Mark to market loss (gain) on contingent consideration	78,285	63,147	(13,783)
Long-term non-cash compensation	89,246	63,382	46,558
Unsuccessful exploration well costs and previously suspended exploration costs	82,085	17,339	21,099
Accretion of asset retirement obligations	46,243	46,613	42,136
Amortization of undeveloped leases	13,300	18,925	26,743
Loss from discontinued operations	2,078	1,225	7,151
Gain from sale of assets	(17,899)	—	—
Impairment of assets	—	196,296	1,206,284
Noncash restructuring expense	—	—	17,565
Other operating activities, net	(34,193)	(53,821)	(35,080)
Net (increase) decrease in noncash working capital	(65,728)	118,457	(32,027)
Net cash provided by continuing operations activities	2,180,244	1,422,163	802,708
Investing Activities			
Property additions and dry hole costs ¹	(985,461)	(650,235)	(759,809)
Acquisition of oil and natural gas properties ¹	(128,538)	(20,244)	—
Property additions for King's Quay FPS	—	(17,734)	(112,961)
Proceeds from sales of property, plant and equipment	4,528	270,503	13,750
Net cash required by investing activities	(1,109,471)	(417,710)	(859,020)
Financing Activities			
Retirement of debt	(647,707)	(876,358)	(12,225)
Repayment of revolving credit facility	(400,000)	(365,000)	(250,000)
Borrowings on revolving credit facility	400,000	165,000	450,000
Distributions to noncontrolling interest	(183,038)	(137,517)	(43,673)
Cash dividends paid	(128,219)	(77,204)	(95,989)
Contingent consideration paid	(81,742)	—	—
Withholding tax on stock-based incentive awards	(17,631)	(5,209)	(7,094)
Issue costs of debt facility	(14,353)	—	—
Early redemption of debt cost	(8,295)	(39,335)	—
Capital lease obligation payments	(636)	(803)	(695)
Debt issuance, net of cost	—	541,913	(613)
Net cash (required) provided by financing activities	(1,081,621)	(794,513)	39,711
Cash Flows from Discontinued Operations			
Operating activities	(14,500)	—	—
Net cash (required) by discontinued operations	(14,500)	—	—
Cash from discontinued operations ²	—	—	18,438
Effect of exchange rate changes on cash and cash equivalents	(3,873)	638	2,009
Net (decrease) increase in cash and cash equivalents	(29,221)	210,578	3,846
Cash and cash equivalents at beginning of period	521,184	310,606	306,760
Cash and cash equivalents at end of period	\$ 491,963	\$ 521,184	\$ 310,606

¹ Certain prior-period amounts have been reclassified to conform to the current period presentation.

² Cash previously classified as held-for-sale

See Notes to Consolidated Financial Statements, page 72.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

Years Ended December 31 (Thousands of dollars except number of shares)	2022	2021	2020
Cumulative Preferred Stock – par \$100, authorized 400,000 shares, none issued	\$ —	\$ —	\$ —
Common Stock – par \$1.00, authorized 450,000,000 shares at December 31, 2022, 2021 and 2020, issued 195,100,628 at December 31, 2022, 2021 and 2020			
Balance at beginning of year	195,101	195,101	195,089
Exercise of stock options	—	—	12
Balance at end of year	195,101	195,101	195,101
Capital in Excess of Par Value			
Balance at beginning of year	926,698	941,692	949,445
Stock-based compensation	25,242	25,429	26,052
Restricted stock transactions and other	(45,169)	(38,749)	(33,649)
Exercise of stock options, including income tax benefits	(13,193)	(1,674)	(156)
Balance at end of year	893,578	926,698	941,692
Retained Earnings			
Balance at beginning of year	5,218,670	5,369,538	6,614,304
Net income (loss) for the year attributable to Murphy	965,047	(73,664)	(1,148,777)
Cash dividends	(128,219)	(77,204)	(95,989)
Balance at end of year	6,055,498	5,218,670	5,369,538
Accumulated Other Comprehensive Loss			
Balance at beginning of year	(527,711)	(601,333)	(574,161)
Foreign currency translation (losses) gains, net of income taxes	(106,335)	12,116	29,241
Retirement and postretirement benefit plans, net of income taxes	99,360	59,816	(57,617)
Deferred loss on interest rate hedge reclassified to interest expense, net of income taxes	—	1,690	1,204
Balance at end of year	(534,686)	(527,711)	(601,333)
Treasury Stock			
Balance at beginning of year	(1,655,447)	(1,690,661)	(1,717,217)
Awarded restricted stock, net of forfeitures	32,297	33,888	26,556
Exercise of stock options	8,433	1,326	—
Balance at end of year – 39,633,309 of Common Stock in 2022, 40,637,578 shares of Common Stock in 2021 and 41,502,003 shares of Common Stock in 2020	(1,614,717)	(1,655,447)	(1,690,661)
Murphy Shareholders' Equity	4,994,774	4,157,311	4,214,337
Noncontrolling Interest			
Balance at beginning of year	163,485	179,810	337,151
Net income (loss) attributable to noncontrolling interest	173,672	121,192	(113,668)
Distributions to noncontrolling interest owners	(183,038)	(137,517)	(43,673)
Balance at end of year	154,119	163,485	179,810
Total Equity	\$ 5,148,893	\$ 4,320,796	\$ 4,394,147

See Notes to Consolidated Financial Statements, page 72.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

These notes are an integral part of the consolidated financial statements of Murphy Oil Corporation and Consolidated Subsidiaries (Murphy/the Company) on pages 67-71 of the Form 10-K report.

Note A – Significant Accounting Policies

NATURE OF BUSINESS – Murphy Oil Corporation is an international oil and natural gas company that conducts its business through various operating subsidiaries. The Company primarily produces oil and natural gas in the United States and Canada and conducts oil and natural gas exploration activities worldwide. The Company sold its Malaysian assets in 2019 and they are reported as discontinued operations.

In connection with the LLOG Exploration Offshore L.L.C. and LLOG Bluewater Holdings, L.L.C., (LLOG) acquisition, we hold a 0.5% interest in two variable interest entities (VIEs), Delta House Oil and Gas Lateral LLC and Delta House Floating Production System (FPS) LLC (collectively Delta House). These VIEs have not been consolidated because we are not considered the primary beneficiary. These non-consolidated VIEs are not material to our financial position or results of operations. As of December 31, 2022, our maximum exposure to loss was \$3.2 million (excluding operational impacts), which represents our net investment in Delta House. We have not provided any financial support to Delta House other than amounts previously required by our membership interest.

PRINCIPLES OF CONSOLIDATION – The consolidated financial statements include the accounts of Murphy Oil Corporation and all majority-owned subsidiaries. Undivided interests in oil and natural gas joint ventures are consolidated on a proportionate basis. Investments in affiliates in which the Company owns from 20% to 50% are accounted for by the equity method. Beginning in the fourth quarter of 2018, Murphy reports 100% of the sales volume, revenues, costs, assets and liabilities including the 20% noncontrolling interest (NCI), of MP GOM in accordance with accounting for noncontrolling interest as prescribed by ASC 810-10-45. Other investments are generally carried at cost. Intercompany accounts and transactions are eliminated.

USE OF ESTIMATES – Preparing the financial statements of the Company in accordance with U.S. generally accepted accounting principles (GAAP) requires management to make a number of estimates and assumptions that affect the reporting of amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results may differ from the estimates.

REVENUE RECOGNITION – Revenues from sales of crude oil, natural gas liquids and natural gas are recorded when deliveries have occurred and legal ownership of the commodity transfers to the customer; the amount of revenue recognized reflects the consideration expected in exchange for those commodities. The Company measures revenue based on consideration specified in a contract and excludes taxes and other amounts collected on behalf of third parties. Revenues from the production of oil and natural gas properties in which Murphy shares in the undivided interest with other producers are recognized based on the actual volumes sold by the Company during the period. Natural gas imbalances occur when the Company's actual natural gas sales volumes differ from its proportional share of production from the well. The Company follows the sales method of accounting for these natural gas imbalances. The Company records a liability for natural gas imbalances when it has sold more than its working interest of natural gas production and the estimated remaining reserves make it doubtful that partners can recoup their share of production from the field. At December 31, 2022 and 2021, the liabilities for natural gas balancing were immaterial. Gains and losses on asset disposals or retirements are included in net income/(loss) as a component of revenues.

CASH EQUIVALENTS – Short-term investments, which include government securities and other instruments with government securities as collateral, that are highly liquid and have a maturity of three months or less from the date of purchase are classified as cash equivalents.

MARKETABLE SECURITIES – The Company classifies investments in marketable securities as available-for-sale or held-to-maturity. The Company does not have any investments classified as trading securities. Available-for-sale securities are carried at fair value with the unrealized gain or loss, net of tax, reported in other comprehensive loss. Held-to-maturity securities are recorded at amortized cost. Premiums and discounts are amortized or accreted into earnings over the life of the related available-for-sale or held-to-maturity security. Dividend and interest income is recognized when earned. Unrealized losses considered to be other than temporary are recognized in earnings. The cost of securities sold is based on the specific identification method. The fair value of investment securities is determined by available market prices.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note A – Significant Accounting Policies (Continued)

ACCOUNTS RECEIVABLE – At December 31, 2022 and 2021, the Company's accounts receivable primarily consisted of amounts owed to the Company by customers for sales of crude oil and natural gas and operating costs related to joint venture partners working interest share. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses on these receivables. The Company reviews this allowance for adequacy at least quarterly and bases its assessment on a combination of current information about its customers, joint venture partners and historical write-off experience. Any trade accounts receivable balances written off are charged against the allowance for doubtful accounts. The Company has not experienced any significant credit-related losses in the past three years.

INVENTORIES – Amounts included in the Consolidated Balance Sheets include unsold crude oil production and materials and supplies associated with oil and natural gas production operations. Unsold crude oil production is carried in inventory at the lower of cost (applied on a first-in, first-out basis and includes costs incurred to bring the inventory to its existing condition), or market. Materials and supplies inventories are valued at the lower of average cost or estimated market value and generally consist of tubulars and other drilling equipment. See [Note F](#).

PROPERTY, PLANT AND EQUIPMENT – The Company uses the successful efforts method to account for exploration and development expenditures. Leasehold acquisition costs are capitalized. If proved reserves are found on undeveloped property, the leasehold cost is transferred to proved properties. Costs of undeveloped leases associated with unproved properties are expensed over the life of the leases. Exploratory well costs are capitalized pending determination about whether proved reserves have been found. In certain cases, a determination of whether a drilled exploratory well has found proved reserves cannot be made immediately. This is generally due to the need for a major capital expenditure to produce and/or evacuate the hydrocarbon(s) found. The determination of whether to make such a capital expenditure is usually dependent on whether further exploratory or appraisal wells find a sufficient quantity of additional reserves. The Company continues to capitalize exploratory well costs in "Property, plant and equipment" when the well has found a sufficient quantity of reserves to justify its completion as a producing well and the Company is making sufficient progress assessing the reserves and the economic and operating viability of the project. The Company reevaluates its capitalized drilling costs at least annually to ascertain whether drilling costs continue to qualify for ongoing capitalization. Other exploratory costs, including geological and geophysical costs, are charged to expense as incurred. Development costs, including unsuccessful development wells, are capitalized. Interest is capitalized on significant development projects that are expected to take one year or more to complete.

Oil and natural gas properties are evaluated by field for potential impairment. Other properties are evaluated for impairment on a specific asset basis or in groups of similar assets as applicable. An impairment is recognized when there are indications that the estimated undiscounted future net cash flows of an asset are less than its carrying value. If an impairment occurs, the carrying value of the impaired asset is reduced to fair value. There were no impairments recognized in 2022. In 2021, the Company recognized pretax noncash impairment charges of \$196.3 million to reduce the carrying values at select properties. In 2021, the Company recorded an impairment charge of \$171.3 million for Terra Nova due to the status, including agreements with the partners, of operating and production plans and a \$25.0 million impairment charge for assets reported as Assets held for sale in the Consolidated Balance Sheets. See also [Note D](#) for further discussion of impairment charges.

The Company records a liability for asset retirement obligations (ARO) equal to the fair value of the estimated cost to retire an asset. The ARO liability is initially recorded in the period in which the obligation meets the definition of a liability, which is generally when a well is drilled or the asset is placed in service. The ARO liability is estimated by the Company's engineers using existing regulatory requirements and anticipated future inflation rates. When the liability is initially recorded, the Company increases the carrying amount of the related long-lived asset by an amount equal to the original liability. The liability is increased over time to reflect the change in its present value and the capitalized cost is depreciated over the useful life of the related long-lived asset. The Company reevaluates the adequacy of its recorded ARO liability at least annually. Actual costs of asset retirements such as dismantling oil and natural gas production facilities and site restoration are charged against the related liability. Any difference between costs incurred upon settlement of an ARO and the recorded liability is recognized as a gain or loss in the Company's earnings. See [Note H](#) for further discussion.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note A – Significant Accounting Policies (Continued)

Depreciation and depletion of producing oil and natural gas properties are recorded based on units of production. Unit rates are computed for unamortized development drilling and completion costs using proved developed reserves and acquisition costs are amortized over proved reserves. Proved reserves are estimated by the Company's engineers and are subject to future revisions based on the availability of additional information.

CAPITALIZED INTEREST– Interest associated with borrowings from third parties is capitalized on significant oil and natural gas development projects when the expected development period extends for one year or more. Interest capitalized is credited in the Consolidated Statements of Operations and is added to the cost of the underlying asset for the development project in "Property, plant and equipment" in the Consolidated Balance Sheets. Capitalized interest is amortized over the useful life of the asset in the same manner as other development costs.

LEASES - At inception, contracts are assessed for the presence of a lease according to criteria laid out by ASC 842. If a lease is present, further criteria is assessed to determine if the lease should be classified as an operating or finance lease. Operating leases are presented on the Consolidated Balance Sheet as "Operating lease assets" with the corresponding lease liabilities presented in "Operating lease liabilities" and "Non-current operating lease liabilities". Finance lease assets (related to Brunei) are presented on the Consolidated Balance Sheet within "Property, plant and equipment" with the corresponding liabilities presented in "Current maturities of long-term debt, finance lease" and "Long-term debt, including finance lease obligation".

Generally, lease liabilities are recognized at commencement and based on the present value of the future minimum lease payments to be made over the lease term. Lease assets are then recognized based on the value of the lease liabilities. Where implicit lease rates are not determinable, the minimum lease payments are discounted using the Company's collateralized incremental borrowing rates.

Operating leases are expensed according to their nature and recognized in LOE, Selling and general expenses or capitalized in the Consolidated Financial Statements. Finance leases are depreciated with the relevant expenses recognized in "Depreciation, depletion and amortization" and "Interest expense, net" on the Consolidated Statement of Operations.

ENVIRONMENTAL LIABILITIES – A liability for environmental matters is established when it is probable that an environmental obligation exists and the cost can be reasonably estimated. If there is a range of reasonably estimated costs, the most likely amount will be recorded, or if no amount is most likely, the minimum of the range is used. Related expenditures are charged against the liability. Environmental remediation liabilities have not been discounted for the time value of future expected payments. Environmental expenditures that have future economic benefit are capitalized.

INCOME TAXES – The Company accounts for income taxes using the asset and liability method. Under this method, income taxes are provided for amounts currently payable and for amounts deferred as tax assets and liabilities based on differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities. Deferred income taxes are measured using the enacted tax rates that are assumed will be in effect when the differences reverse. The Company routinely assesses the realizability of deferred tax assets based on available evidence including assumptions of future taxable income, tax planning strategies and other pertinent factors. A deferred tax asset valuation allowance is recorded when evidence indicates that it is more likely than not that all or a portion of these deferred tax assets will not be realized in a future period.

The accounting rules for income tax uncertainties permit recognition of income tax benefits only when they are more likely than not to be realized. The Company includes potential penalties and interest for uncertain income tax positions in income tax expense.

FOREIGN CURRENCY – Local currency is the functional currency used for recording operations in Canada and former refining and marketing activities in the United Kingdom. The U.S. dollar is the functional currency used to record all other operations. Exchange gains or losses from transactions in a currency other than the functional currency are included in earnings as part of Interest and other income (loss). Gains or losses from translating foreign functional currencies into U.S. dollars are included in Accumulated Other Comprehensive Loss in Consolidated Statements of Stockholders' Equity.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note A – Significant Accounting Policies (Continued)

DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES – The fair value of a derivative instrument is recognized as an asset or liability in the Company's Consolidated Balance Sheets. Upon entering into a derivative contract, the Company may designate the derivative as either a fair value hedge or a cash flow hedge or decide that the contract is not a hedge for accounting purposes, and thenceforth, recognize changes in the fair value of the contract in earnings. The Company documents the relationship between the derivative instrument designated as a hedge and the hedged items as well as its objective for risk management and strategy for the use of the hedging instrument to manage the risk. Derivative instruments designated as fair value or cash flow hedges are linked to specific assets and liabilities or to specific firm commitments or forecasted transactions. The Company assesses at inception and on an ongoing basis whether a derivative instrument accounted for as a hedge is highly effective in offsetting changes in the fair value or cash flows of the hedged item. A derivative that is not a highly effective hedge does not qualify for hedge accounting. The change in the fair value of a qualifying fair value hedge is recorded in earnings along with the gain or loss on the hedged item. The effective portion of the change in the fair value of a qualifying cash flow hedge is recorded in Accumulated other comprehensive loss in the Consolidated Balance Sheets until the hedged item is recognized currently in earnings. If a derivative instrument no longer qualifies as a cash flow hedge and the underlying forecasted transaction is no longer probable of occurring, hedge accounting is discontinued, and the gain or loss recorded in Accumulated other comprehensive loss is recognized immediately in earnings. All commodity price derivatives for the periods provided are not designated as cash flow or fair value hedges and therefore changes in fair value are recognized in earnings.

FAIR VALUE MEASUREMENTS– The Company carries certain assets and liabilities at fair value in its Consolidated Balance Sheets. Fair value is determined using various techniques depending on the availability of observable inputs. Level 1 inputs include quoted prices in active markets for identical assets or liabilities. Level 2 inputs include observable inputs other than quoted prices included within Level 1. Level 3 inputs are unobservable inputs which reflect assumptions about pricing by market participants. See [Note P](#).

STOCK-BASED COMPENSATION

Equity-Settled Awards – The fair value of awarded stock options, restricted stock units and other stock-based compensation that are settled with Company shares is determined based on a combination of management assumptions and the market value of the Company's common stock. The Company uses a Monte Carlo valuation model to determine the fair value of performance-based restricted stock units (PSUs) that are equity settled and expense is recognized over the three-year vesting period. The fair value of time-lapse restricted stock units is determined based on the price of Company stock on the date of grant and expense is recognized over the vesting period.

The Company uses the Black-Scholes option pricing model for computing the fair value of equity-settled stock options. The primary assumptions made by management include the expected life of the stock option award and the expected volatility of Murphy's common stock price. The Company uses both historical data and current information to support its assumptions. Stock option expense is recognized on a straight-line basis over the respective vesting period of two or three years. The Company estimates the number of stock options and PSUs that will not vest and adjusts its compensation expense accordingly. Differences between estimated and actual vested amounts are accounted for as an adjustment to expense when known.

Cash-Settled Awards – The Company accounts for stock appreciation rights (SARs), cash-settled restricted stock units (CRSU) and phantom stock units as liability awards. Expense associated with these awards is recognized over the vesting period based on the latest available estimate of the fair value of the awards, which is generally determined using a Black-Scholes method for SAR, a Monte Carlo method for performance-based CRSU, and the period-end price of the Company's common stock for time-based CRSU and phantom units. When SARs are exercised and when CRSU and phantom units settle, the Company adjusts previously recorded expense to the final amounts paid out in cash for these awards. See [Note J](#).

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note A – Significant Accounting Policies (Continued)

PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS – The Company recognizes the funded status (the difference between the fair value of plan assets and the projected benefit obligation) of its defined benefit and other postretirement benefit plans in the Consolidated Balance Sheets. Changes in the funded status which have not yet been recognized in the Consolidated Statement of Operations are recorded net of tax in Accumulated other comprehensive loss. The remaining amounts in Accumulated other comprehensive loss include net actuarial losses and prior service (cost) credit. See [Note K](#).

NET INCOME (LOSS) PER COMMON SHARE – Basic income (loss) per common share is computed by dividing net income (loss) for each reporting period by the weighted average number of common shares outstanding during the period. Diluted income (loss) per common share is computed by dividing net income (loss) for each reporting period by the weighted average number of common shares outstanding during the period plus the effects of all potentially dilutive common shares. Dilutive securities are not included in the computation of diluted income (loss) per share when a net loss occurs as the inclusion would have the effect of reducing the diluted loss per share.

Note B – New Accounting Principles and Recent Accounting Pronouncements

Accounting Principles Adopted

Compensation-Retirement Benefits-Defined Benefit Plans-General. In August 2018, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2018-14 which modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. For public companies, the amendments in this ASU are effective for fiscal years ending after December 15, 2020, with early adoption permitted and is to be applied on a retrospective basis to all periods presented. The Company adopted the standard in the fourth quarter of 2020 and it did not have a material impact on its consolidated financial statements.

Financial Instruments – Credit Losses. In June 2016, the FASB issued ASU 2016-13 which replaces the impairment model for most financial assets, including trade receivables, from the incurred loss methodology to a forward-looking expected loss model that will result in earlier recognition of credit losses. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, with early adoption permitted and is to be applied on a modified retrospective basis. The Company adopted this accounting standard in the first quarter of 2020 and it did not have a material impact on its consolidated financial statements.

Fair Value Measurement. In August 2018, the FASB issued ASU 2018-13 which modifies disclosure requirements related to fair value measurement. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Implementation on a prospective or retrospective basis varies by specific disclosure requirement. Early adoption is permitted. The standard also allows for early adoption of any removed or modified disclosures upon issuance of this ASU while delaying adoption of the additional disclosures until their effective date. The Company adopted this accounting standard in the first quarter of 2020 and it did not have a material impact on its consolidated financial statements.

Income Taxes. In December 2019, the FASB issued ASU 2019-12, which removes certain exceptions for investments, intraperiod allocations and interim calculations and adds guidance to reduce complexity in accounting for income taxes. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Implementation on a prospective or retrospective basis varies by specific topics within the ASU. The Company adopted this guidance in the first quarter of 2021 and it did not have a material impact on its consolidated financial statements.

Recent Accounting Pronouncements

None affecting the Company.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued**

Note C – Revenue from Contracts with Customers

Nature of Goods and Services

The Company explores for and produces crude oil, natural gas and natural gas liquids (collectively oil and natural gas) in select basins around the globe. The Company's revenue from sales of oil and natural gas production activities is primarily subdivided into two key geographic segments: the U.S. and Canada. Additionally, revenue from sales to customers is generated from three primary revenue streams: crude oil and condensate, natural gas liquids and natural gas.

For operated oil and natural gas production where the non-operated working interest owner does not take-in-kind its proportionate interest in the produced commodity, the Company acts as an agent for the working interest owner and recognizes revenue only for its own share of the commingled production. The exception to this is the reporting of the noncontrolling interest in MP GOM as prescribed by U.S. GAAP.

U.S. - In the United States, the Company primarily produces oil and natural gas from fields in the Eagle Ford Shale area of South Texas and in the Gulf of Mexico. Revenue is generally recognized when oil and natural gas is transferred to the customer at the delivery point. Revenue recognized is largely index based with price adjustments for floating market differentials.

Canada - In Canada, contracts include long-term floating commodity index priced and natural gas physical forward sales fixed-price contracts. For the Offshore business in Canada, contracts are based on index prices and revenue is recognized at the time of vessel load based on the volumes on the bill of lading and point of custody transfer.

Disaggregation of Revenue

The Company reviews performance based on two key geographical segments and between onshore and offshore sources of revenue within these geographies.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note C – Revenue from Contracts with Customers (Continued)

For the years ended December 31, 2022, 2021 and 2020 the Company recognized \$4,220.1 million, \$2,801.2 million and \$1,751.7 million, respectively, from contracts with customers for the sales of oil, natural gas liquids and natural gas.

<i>(Thousands of dollars)</i>		Years Ended December 31,		
		2022	2021	2020
Net crude oil and condensate revenue				
United States	Onshore	\$ 856,219	\$ 626,136	\$ 353,311
	Offshore ¹	2,229,658	1,478,993	940,265
Canada	Onshore	131,400	119,799	93,591
	Offshore	117,747	92,741	71,495
Other		22,824	4,924	1,806
Total crude oil and condensate revenue		3,357,848	2,322,593	1,460,468
Net natural gas liquids revenue				
United States	Onshore	64,015	50,189	22,504
	Offshore ¹	60,424	44,411	19,749
Canada	Onshore	18,338	16,375	8,921
Total natural gas liquids revenue		142,777	110,975	51,174
Net natural gas revenue				
United States	Onshore	64,037	39,803	20,132
	Offshore ¹	161,160	81,944	49,300
Canada	Onshore	312,629	245,900	170,635
Total natural gas revenue		537,826	367,647	240,067
Revenue from production		4,038,451	2,801,215	1,751,709
Sales of purchased natural gas				
United States	Offshore	204	—	—
Canada	Onshore	181,485	—	—
Total sales of purchased natural gas		181,689	—	—
Total revenue from sales to customers		4,220,140	2,801,215	1,751,709
(Loss) gain on crude contracts		(320,410)	(525,850)	202,661
Gain on sale of assets and other income		32,932	23,916	12,971
Total revenue and other income		\$ 3,932,662	\$ 2,299,281	\$ 1,967,341

¹ Includes revenue attributable to noncontrolling interest in MP GOM.

In 2022, the Company included additional line items on the face of the Consolidated Statements of Operations to report sales of purchased natural gas and costs of purchased natural gas. Purchases of natural gas are reported on a gross basis when Murphy takes control of the product and has risks and rewards of ownership. Sales of natural gas are reported when the contractual performance obligations are satisfied. This occurs at the time the product is delivered to a third party purchaser at the contractually determinable price.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note C – Revenue from Contracts with Customers (Continued)

Contract Balances and Asset Recognition

As of December 31, 2022 and 2021, receivables from contracts with customers, net of royalties and associated payables, on the balance sheet from continuing operations, were \$201.1 million and \$169.8 million, respectively. Payment terms for the Company's sales vary across contracts and geographical regions, with the majority of the cash receipts required within 30 days of billing. Based on a forward-looking expected loss model in accordance with ASU 2016-13, the Company did not recognize any impairment losses on receivables or contract assets arising from customer contracts during the reporting periods.

The Company has not entered into any revenue contracts that have financing components as of December 31, 2022, 2021 or 2020.

The Company does not employ sales incentive strategies such as commissions or bonuses for obtaining sales contracts. For the periods presented, the Company did not identify any assets to be recognized associated with the costs to obtain a contract with a customer.

Performance Obligations

The Company recognizes oil and natural gas revenue when it satisfies a performance obligation by transferring control over a commodity to a customer. Judgment is required to determine whether some customers simultaneously receive and consume the benefit of commodities. As a result of this assessment for the Company, each unit of measure of the specified commodity is considered to represent a distinct performance obligation that is satisfied at a point in time upon the transfer of control of the commodity.

For contracts with market or index-based pricing, which represent the majority of sales contracts, the Company has elected the allocation exception and allocates the variable consideration to each single performance obligation in the contract. As a result, there is no price allocation to unsatisfied remaining performance obligations for delivery of commodity product in subsequent periods.

The Company has entered into several long-term, fixed-price contracts in Canada. The underlying reason for entering a fixed price contract is generally unrelated to anticipated future prices or other observable data and serves a particular purpose in the Company's long-term strategy.

As of December 31, 2022, the Company had the following sales contracts in place which are expected to generate revenue from sales to customers for a period of 12 months or more starting at the inception of the contract:

Current Long-Term Contracts Outstanding at December 31, 2022

Location	Commodity	End Date	Description	Approximate Volumes
U.S.	Natural Gas and NGL	Q1 2023	Deliveries from dedicated acreage in Eagle Ford	As produced
U.S.	Natural Gas and NGL	Q2 2023	Deliveries from dedicated acreage in Eagle Ford	As produced
Canada	Natural Gas	Q4 2023	Contracts to sell natural gas at USD index pricing	25 MMCFD
Canada	Natural Gas	Q4 2023	Contracts to sell natural gas at CAD fixed prices	38 MMCFD
Canada	Natural Gas	Q4 2024	Contracts to sell natural gas at USD index pricing	31 MMCFD
Canada	Natural Gas	Q4 2024	Contracts to sell natural gas at CAD fixed prices	100 MMCFD
Canada	Natural Gas	Q4 2024	Contracts to sell natural gas at CAD fixed prices	34 MMCFD
Canada	Natural Gas	Q4 2024	Contracts to sell natural gas at USD fixed pricing	15 MMCFD
Canada	Natural Gas	Q4 2026	Contracts to sell natural gas at USD index pricing	49 MMCFD
Canada	NGL	Q3 2023	Contracts to sell natural gas liquids at CAD pricing	952 BOEPD

Fixed price contracts are accounted for as normal sales and purchases for accounting purposes.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note D – Property, Plant and Equipment

The Company's property, plant and equipment assets for the respective periods are presented as follows.

<i>(Thousands of dollars)</i>	December 31, 2022		December 31, 2021	
	Cost	Net	Cost	Net
Exploration and production ¹	\$ 20,567,489	\$ 8,204,463	\$ 20,440,568	\$ 8,098,396
Corporate and other	150,498	23,553	145,135	29,456
Property, plant and equipment	<u>\$ 20,717,987</u>	<u>\$ 8,228,016</u>	<u>\$ 20,585,703</u>	<u>\$ 8,127,852</u>
¹ Includes unproved mineral rights as follows:	\$ 476,981	\$ 344,507	\$ 615,724	\$ 131,107

² Includes \$18,319 in 2022 and \$22,543 in 2021 related to administrative assets and support equipment.

Divestments

During the third quarter of 2022, the Company completed the disposition of its 62.5% operated working interest of the Thunder Hawk field for a purchase price of \$20.0 million less closing adjustments of \$23.1 million, resulting in a total net payment to the buyer of \$3.1 million. Additionally, the buyer assumed the asset retirement obligations of approximately \$47.9 million. A \$17.9 million gain on sale was recorded in the period related to the sale. In September 2022, the Company completed the disposition of the Block CA-2 asset in Brunei for contingent consideration valued at approximately \$8.7 million. No gain or loss was recorded related to this sale.

In 2021, the Company sold its interest in the King's Quay FPS to ArcLight Capital Partners, LLC (ArcLight) for proceeds of \$267.7 million, which reimburses the Company for previously incurred capital expenditures.

Acquisitions

In August 2022, the Company acquired an additional working interest of 3.37% in the Lucius field for a purchase price of \$78.5 million, net of closing adjustments.

In June 2022, the Company acquired an additional working interest of 11.0% in the Kodiak field for a purchase price of \$50.0 million, net of closing adjustments.

Impairments

In 2021, the Company recorded an impairment charge of \$171.3 million for Terra Nova due to the status, including agreements with the partners, of operating and production plans. Subsequently, the Company acquired an additional 7.525% working interest at Terra Nova following a commercial agreement to sanction an asset life extension project. The Company also recorded an impairment charge of \$25.0 million for assets reported as Assets held for sale in the Consolidated Balance Sheet.

The following table reflects the recognized before tax impairments for the three years ended December 31, 2022.

<i>(Thousands of dollars)</i>	December 31,		
	2022	2021	2020
Canada	\$ —	\$ 171,296	\$ —
Other Foreign	—	18,000	39,709
Corporate	—	7,000	14,060
U.S.	—	—	1,152,515
	<u>\$ —</u>	<u>\$ 196,296</u>	<u>\$ 1,206,284</u>

Exploratory Wells

Under FASB guidance exploratory well costs should continue to be capitalized when the well has found a sufficient quantity of reserves to justify its completion as a producing well and the Company is making sufficient progress assessing the reserves and the economic and operating viability of the project.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note D - Property, Plant and Equipment (Continued)

At December 31, 2022, 2021 and 2020, the Company had total capitalized drilling costs pending the determination of proved reserves of \$171.9 million, \$179.5 million and \$181.6 million, respectively. The following table reflects the net changes in capitalized exploratory well costs during the three-year period ended December 31, 2022.

<i>(Thousands of dollars)</i>	2022	2021	2020
Beginning balance at January 1	\$ 179,481	\$ 181,616	\$ 217,326
Additions pending the determination of proved reserves	33,440	16,725	3,999
Divestment	(7,915)	—	—
Capitalized exploration well costs charged to expense	(33,146)	(18,860)	(39,709)
Ending balance at December 31	<u>\$ 171,860</u>	<u>\$ 179,481</u>	<u>\$ 181,616</u>

The capitalized well costs charged to expense during 2022 represent expenditures related to the Cutthroat-1 exploration well in block SEAL-M-428 in the Sergipe-Alagoas Basin offshore Brazil and Hoffe Park #1 (Mississippi Canyon 122) in the Gulf of Mexico.

The following table provides an aging of capitalized exploratory well costs based on the date the drilling was completed for each individual well and the number of projects for which exploratory well costs has been capitalized. The projects are aged based on the last well drilled in the project.

<i>(Thousands of dollars)</i>	2022			2021			2020		
	Amount	No. of Wells	No. of Projects	Amount	No. of Wells	No. of Projects	Amount	No. of Wells	No. of Projects
Aging of capitalized well costs:									
Zero to one year	\$ 15,527	2	2	\$ 13,273	3	3	\$ —	—	—
One to two years	13,307	2	2	—	—	—	54,220	5	5
Two to three years	—	—	—	53,070	5	5	—	—	—
Three years or more	143,026	5	4	113,138	6	—	127,396	6	—
	<u>\$ 171,860</u>	<u>9</u>	<u>8</u>	<u>\$ 179,481</u>	<u>14</u>	<u>8</u>	<u>\$ 181,616</u>	<u>11</u>	<u>5</u>

Of the \$156.3 million of exploratory well costs capitalized more than one year at December 31, 2022, \$96.3 million is in Vietnam, \$37.1 million is in the U.S., \$15.5 million is in Mexico, \$4.7 million is in Canada and \$2.7 million is in Brunei. In all geographical areas, either further appraisal or development drilling is planned and/or development studies/plans are in various stages of completion.

Note E – Assets Held for Sale and Discontinued Operations

In September 2022, the Company sold its share of Brunei Block CA-2 to Petronas Carigali Brunei Ltd (see [Note D](#) for additional information). Additionally, in December 2022, the Company's former headquarters office building in El Dorado, Arkansas was sold. There were no remaining assets held for sale on the Consolidated Balance Sheet as of December 31, 2022. As of December 31, 2021, assets held for sale included the carrying value of the net property, plant and equipment of Brunei Block CA-2 and the Company's former headquarters office building in El Dorado, Arkansas.

The following table presents the carrying value of the major categories of assets and liabilities that are reflected as held for sale on the Company's Consolidated Balance Sheets at December 31, 2022 and 2021.

<i>(Thousands of dollars)</i>	2022	2021
Current assets		
Property, plant and equipment, net	\$ —	\$ 15,453
Total current assets associated with assets held for sale	<u>\$ —</u>	<u>\$ 15,453</u>

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note E - Assets Held for Sale and Discontinued Operations (Continued)

The Company has accounted for its former Malaysian exploration and production operations and its former U.K. and U.S. refining and marketing operations as discontinued operations for all periods presented. The results of operations associated with discontinued operations are presented in the following table.

<i>(Thousands of dollars)</i>	2022	2021	2020
Revenues	\$ —	\$ 795	\$ 4,090
Costs and expenses			
Other costs and expenses	2,078	2,020	11,241
Loss from discontinued operations	<u>\$ (2,078)</u>	<u>\$ (1,225)</u>	<u>\$ (7,151)</u>

Note F – Inventories

Inventories consisted of the following at December 31, 2022 and 2021:

<i>(Thousands of dollars)</i>	December 31,	
	2022	2021
Unsold crude oil	\$ 6,546	\$ 15,497
Materials and supplies	47,967	38,701
Inventories	<u>\$ 54,513</u>	<u>\$ 54,198</u>

Note G – Financing Arrangements and Debt

Long-term debt consisted of the following as of December 31, 2022 and 2021:

<i>(Thousands of dollars)</i>	December 31,	
	2022	2021
Notes payable		
6.875% notes, due August 2024	\$ —	\$ 242,428
5.75% notes, due August 2025	248,675	548,675
5.875% notes, due December 2027	543,249	543,249
6.375% notes, due July 2028	451,934	550,000
7.05% notes, due May 2029	250,000	250,000
6.125% notes, due December 2042 ¹	339,761	349,000
Total notes payable	1,833,619	2,483,352
Unamortized debt issuance cost and discount on notes payable	(15,324)	(22,773)
Total notes payable, net of unamortized discount	1,818,295	2,460,579
Capitalized lease obligation, due through March 2029 ¹	4,844	5,489
Total debt including current maturities	1,823,139	2,466,068
Current maturities	(687)	(654)
Total long-term debt	<u>\$ 1,822,452</u>	<u>\$ 2,465,414</u>

¹ Coupon rate may fluctuate 25 basis points if rating is periodically downgraded or upgraded by S&P and Moody's.

The amount of long-term debt repayable over each of the next five years and thereafter are as follows: nil in 2023, nil in 2024, \$248.7 million in 2025, nil in 2026, \$543.2 million in 2027 and \$1.04 billion thereafter.

The Company also has a shelf registration statement on file with the U.S. Securities and Exchange Commission that permits the offer and sale of debt and/or equity securities through October 15, 2024.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note G - Financing Arrangements and Debt (Continued)

In November 2022, the Company entered into a \$800 million revolving credit facility (RCF) and the previous revolving credit facility has been terminated effective November 2022. The RCF is a senior unsecured guaranteed facility which expires on November 17, 2027, unless the outstanding principal amount of the Company's 5.75%, 2025 (2025 Notes) as at February 15, 2025 exceeds \$50.0 million, in which case, the RCF will expire on that date. On the date the Company achieves certain credit ratings (Investment Grade Ratings Date), certain covenants will be modified as set forth in the RCF. In addition, prior to Investment Grade Ratings Date, the Company will be required to comply with a maximum consolidated leverage ratio of 3.50x, and a minimum consolidated interest coverage ratio of 2.50x. From and after the Investment Grade Ratings Date, the Company will be required to comply with a maximum ratio of consolidated total debt to consolidated total capitalization of 60%. Borrowings under the RCF bear interest at rates based on either the "Alternate Base Rate", the "Adjusted Term Secured Overnight Financing Rate (SOFR) Rate", or the "Adjusted Daily Simple SOFR Rate", respectively, plus the "Applicable Rate". The "Alternate Base Rate" of interest is the highest of (a) the Prime Rate in effect on such day, (b) the NYFRB Rate in effect on such day plus ½ of 1% and (c) the Adjusted Term SOFR Rate for a one month Interest Period as published two U.S. Government Securities Business Days prior to such day (or if such day is not a U.S. Government Securities Business Day, the immediately preceding U.S. Government Securities Business Day) plus 1%. The "Adjusted Term SOFR Rate" of interest is equal to (a) the Term SOFR Rate for such Interest Period, plus (b) 0.10%. The "Adjusted Daily Simple SOFR Rate" of interest is equal to (a) the Daily Simple SOFR, plus (b) 0.10%. The "Applicable Rate" of interest means, for any day, the applicable rate per annum based upon the ratings of Moody's and S&P, respectively. The Company incurred \$14.4 million in transaction costs and recorded the amount to "Deferred charges and other assets" in the Consolidated Balance Sheets, which is being amortized to interest expense over the term of the RCF. At December 31, 2022, the Company had no outstanding borrowings under the RCF and \$57.6 million of outstanding letters of credit, which reduces the borrowing capacity of the RCF. At December 31, 2022, the interest rate in effect on borrowings under the facility would have been 6.96%. At December 31, 2022, the Company was in compliance with all covenants related to the RCF.

In November 2022, the Company redeemed \$200.0 million aggregate principal amount of its 5.750% senior notes due 2025 (2025 Notes). The cost of debt extinguishment of \$3.9 is included in "Interest expense, net" on the Consolidated Statement of Operations for the year ended December 31, 2022. The cash costs of \$2.9 million are shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2022.

In September and October 2022, the Company paid a total of \$7.2 million to complete the open market repurchases of \$9.2 million aggregate principal amount of its 6.125% senior notes due 2042 (2042 Notes). There were no additional cash costs related to the September and October 2022 debt extinguishment on the 2042 Notes for the year ended December 31, 2022.

In August 2022, the Company redeemed the remaining \$42.4 million of its 6.875% senior notes due in 2024 (2024 Notes) and tendered \$100.0 million and \$98.1 million aggregate principal amount of its 2025 Notes and 6.375% senior notes due 2028 (2028 Notes), respectively. The total cost of the debt extinguishment of \$4.0 million is included in "Interest expense, net" on the Consolidated Statement of Operations for the year ended December 31, 2022. The debt extinguishment on the 2025 and 2028 Notes had cash costs of \$2.0 million and is shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2022.

In June 2022, the Company redeemed \$200.0 million aggregate principal amount of its 6.875% 2024 Notes. The cost of the debt extinguishment of \$4.3 million is included in "Interest expense, net" on the Consolidated Statement of Operations for the year ended December 31, 2022. The cash costs of \$3.4 million are shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2022.

In March 2021, the Company issued \$550.0 million of new notes that bear interest at a rate of 6.375% and mature on July 15, 2028. The Company incurred transaction costs of \$8.1 million on the issuance of these new notes and the Company will pay interest semi-annually on January 15 and July 15 of each year. The proceeds of the \$550.0 million notes, along with cash on hand, were used to redeem and cancel \$259.3 million of the Company's 4.00% notes due June 2022 and \$317.1 million of the Company's 4.95% notes due December 2022 (originally issued as 3.70% notes due 2022; collectively the 2022 Notes). The cost of the debt extinguishment of \$36.9 million is included in "Interest expense, net" on the Consolidated Statement of Operations for the year

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note G - Financing Arrangements and Debt (Continued)

ended December 31, 2021. The cash costs of \$34.2 million are shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2021.

In August 2021, the Company redeemed \$150.0 million aggregate principal amount of its 2024 Notes. The cost of the debt extinguishment of \$3.5 million is included in "Interest expense, net" on the Consolidated Statement of Operations for the year ended December 31, 2021. The cash costs of \$2.6 million are shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2021.

In December 2021, the Company redeemed an additional \$150.0 million aggregate principal amount of the 2024 Notes. The cost of the debt extinguishment of \$3.4 million is included in "Interest expense, net" on the Consolidated Statement of Operations for the year ended December 31, 2021. The cash costs of \$2.6 million are shown as a financing activity on the Consolidated Statement of Cash Flows for the year ended December 31, 2021.

Note H – Asset Retirement Obligations

The asset retirement obligations liabilities (ARO) recognized by the Company at December 31, 2022 and 2021 are related to the estimated costs to dismantle and abandon its producing oil and natural gas properties and related equipment.

A reconciliation of the beginning and ending aggregate carrying amount of the ARO for 2022 and 2021 is shown in the following table.

<i>(Thousands of dollars)</i>	2022	2021
Balance at beginning of year	\$ 971,893	\$ 849,956
Accretion	46,243	46,613
Liabilities incurred	46,449	54,439
Revisions of previous estimates	(78,229)	48,737
Liabilities settled	(64,255)	(27,824)
Liabilities associated with assets held for sale	—	263
Changes due to translation of foreign currencies	(10,448)	(291)
Balance at end of year	911,653	971,893
Current portion of liability at end of year ¹	(94,385)	(132,117)
Noncurrent portion of liability at end of year	\$ 817,268	\$ 839,776

¹ Included in "Other accrued liabilities" on the Consolidated Balance Sheets.

The estimation of future ARO is based on a number of assumptions requiring professional judgment. The Company cannot predict the type of revisions to these assumptions that may be required in future periods due to the availability of additional information such as: prices for oil field services, technological changes, governmental requirements and other factors.

Note I – Income Taxes

The components of income (loss) from continuing operations before income taxes for each of the three years presented and income tax expense (benefit) attributable thereto were as follows.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note I – Income Taxes (Continued)

<i>(Thousands of dollars)</i>	2022	2021	2020
Income (loss) from continuing operations before income taxes			
United States	\$ 1,306,200	\$ 114,659	\$ (1,407,598)
Foreign	144,061	(71,768)	(141,437)
Total	<u>\$ 1,450,261</u>	<u>\$ 42,891</u>	<u>\$ (1,549,035)</u>
Income tax expense (benefit)			
U.S. Federal – Current	\$ —	\$ —	\$ (10,627)
– Deferred	234,749	(1,480)	(249,253)
Total U.S. Federal	<u>234,749</u>	<u>(1,480)</u>	<u>(259,880)</u>
State	9,010	3,303	(8,413)
Foreign – Current	18,134	(5,158)	(5,072)
– Deferred	47,571	(2,527)	(20,376)
Total Foreign	<u>65,705</u>	<u>(7,685)</u>	<u>(25,448)</u>
Total	<u>\$ 309,464</u>	<u>\$ (5,862)</u>	<u>\$ (293,741)</u>

The following table reconciles income taxes based on the U.S. statutory tax rate to the Company's income tax expense.

<i>(Thousands of dollars)</i>	2022	2021	2020
Income tax expense (benefit) based on the U.S. statutory tax rate	\$ 304,555	\$ 9,007	\$ (325,299)
Foreign income (loss) subject to foreign tax rates different than the U.S. statutory rate	10,823	13,270	(3,791)
State income taxes, net of federal benefit	7,118	2,500	(6,646)
U.S. tax benefit on certain foreign upstream investments	—	(8,916)	—
Change in deferred tax asset valuation allowance related to other foreign exploration expenditures	24,748	4,814	7,707
Tax effect on income attributable to noncontrolling interest	(36,471)	(25,450)	23,712
Other, net	(1,309)	(1,087)	10,576
Total	<u>\$ 309,464</u>	<u>\$ (5,862)</u>	<u>\$ (293,741)</u>

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note I – Income Taxes (Continued)

An analysis of the Company's deferred tax assets and deferred tax liabilities at December 31, 2022 and 2021 showing the tax effects of significant temporary differences follows.

<i>(Thousands of dollars)</i>	2022	2021
Deferred tax assets		
Property and leasehold costs	\$ 242,467	\$ 241,833
Liabilities for dismantlements	31,017	37,728
Postretirement and other employee benefits	86,798	114,790
U. S. net operating loss	442,699	577,531
Investment in partnership	11,595	39,396
Other deferred tax assets	111,212	135,838
Total gross deferred tax assets	925,788	1,147,116
Less valuation allowance	(136,008)	(111,259)
Net deferred tax assets	789,780	1,035,857
Deferred tax liabilities		
Deferred tax on undistributed foreign earnings	(5,000)	(5,000)
Accumulated depreciation, depletion and amortization	(796,510)	(786,846)
Other deferred tax liabilities	(85,284)	(41,387)
Total gross deferred tax liabilities	(886,794)	(833,233)
Net deferred tax (liabilities) assets	\$ (97,014)	\$ 202,624

In management's judgment, the net deferred tax assets in the preceding table are more likely than not to be realized based on the consideration of deferred tax liability reversals and future taxable income. The valuation allowance for deferred tax assets relates primarily to tax assets arising in foreign tax jurisdictions that in the judgment of management at the present time are more likely than not to be unrealized. The valuation allowance increased \$24.7 million in 2022, related all to non-U.S. items. Subsequent reductions of the valuation allowance are expected to be reported as reductions of tax expense assuming no offsetting change in the deferred tax asset.

The Company has an U.S. net operating loss of \$2.1 billion at year-end 2022 with a corresponding deferred tax asset of \$442.7 million. The Company believes the U.S. net operating loss being carried forward will more likely than not be utilized in future periods prior to expirations in 2036 and 2037.

Other Information

Currently the Company considers \$100 million of Canada's past foreign earnings not permanently reinvested, with an accompanying \$5 million liability. At December 31, 2021, \$1.4 billion of past foreign earnings are considered permanently reinvested. The Company closely and routinely monitors these reinvestment positions considering underlying facts and circumstances pertinent to our business and the future operation of the Company.

Uncertain Income Tax Positions

The financial statement recognition of the benefit for a tax position is dependent upon the benefit being more likely than not to be sustainable upon ultimate settlement. If this threshold is met, the tax benefit is then measured and recognized at the largest amount that is greater than 50% likely of being realized upon ultimate settlement. Liabilities associated with uncertain income tax positions are included in "Deferred credits and other liabilities" in the Consolidated Balance Sheets. A reconciliation of the beginning and ending amount of the consolidated liability for unrecognized income tax benefits during the three years presented is shown in the following table.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note I – Income Taxes (Continued)

<i>(Thousands of dollars)</i>	2022	2021	2020
Balance at January 1	\$ 2,903	\$ 2,832	\$ 2,538
Additions for tax positions related to current year	77	71	3,042
Additions for tax positions related to prior year	948	—	—
Settlements with taxing authorities	—	—	(2,748)
Balance at December 31	<u>\$ 3,928</u>	<u>\$ 2,903</u>	<u>\$ 2,832</u>

All additions or settlements to the above liability affect the Company's effective income tax rate in the respective period of change. The Company accounts for any applicable interest and penalties on uncertain tax positions as a component of income tax expense. The Company also had other recorded liabilities of \$0.3 million as of December 31, 2022, 2021 and 2020, respectively, for interest and penalties associated with uncertain tax positions. Income tax expense for the years ended December 31, 2022, 2021 and 2020 included net benefits for interest and penalties of nil, nil and \$0.1 million, respectively, associated with uncertain tax positions.

In 2023, the Company currently expects to add between \$0.1 million and \$1.0 million to the provision for uncertain tax positions. Although existing liabilities could be reduced by settlement with taxing authorities or lapse due to statute of limitations, the Company believes that the changes in its unrecognized tax benefits due to these events will not have a material impact on the Consolidated Statement of Operations during 2023.

The Company's tax returns in multiple jurisdictions are subject to audit by taxing authorities. These audits often take years to complete and settle. Although the Company believes that recorded liabilities for unsettled issues are adequate, additional gains or losses could occur in future years from resolution of outstanding unsettled matters. Additionally, the Company could be required to pay amounts into an escrow account as any matters are identified and appealed with the relevant taxing authorities. As of December 31, 2022, the earliest years remaining open for audit and/or settlement in the Company's major taxing jurisdictions are as follows: United States – 2016; Canada – 2016; and Malaysia – 2016. The Company has retained certain possible liabilities and rights to income tax receivables relating to Malaysia for the years prior to 2019. The Company believes current recorded liabilities are adequate.

Coronavirus Aid, Relief, and Economic Security Act

In the fourth quarter of 2020, under the provisions of the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Company received a refund of its remaining outstanding AMT credit balance of approximately \$18.5 million.

Note J – Incentive Plans

Murphy utilizes cash-based and/or share-based incentive awards to supplement normal salaries as compensation for executive management and certain employees. For share-based awards that qualify for equity accounting, costs are recognized as an expense in the Consolidated Statements of Operations using a grant date fair value-based measurement method over the periods that the awards vest. For share-based awards that settle in cash that are required to be accounted for under liability accounting rules, costs are recognized as expense using a fair value-based measurement method over the vesting period, but expense is adjusted as necessary through the date the award value is finally determined. Total expense for liability awards is ultimately adjusted to the final intrinsic value for the award.

The Company currently has outstanding incentive awards issued to certain employees under the Annual Incentive Plan (AIP), the 2012 Long-Term Incentive Plan (2012 Long-Term Plan), the 2018 Long-Term Incentive Plan (2018 Long-Term Plan) and the 2020 Long-Term Incentive Plan (2020 Long-Term Plan).

The AIP authorizes the Compensation Committee (the Committee) to establish specific performance goals associated with annual cash awards that may be earned by officers, executives and certain other employees. Cash awards under the AIP are determined based on the Company's actual financial and operating results as measured against the performance goals established by the Committee.

The 2020 Long-Term Plan authorizes the Committee to make grants of the Company's common stock to employees. These grants may be in the form of stock options (nonqualified or incentive), SARs, restricted stock, restricted stock units (RSUs), performance units, performance shares, dividend equivalents and other stock-based incentives. The 2020 Long-Term Plan expires in 2030. A total of 5 million shares are issuable during the

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note J – Incentive Plans (Continued)

life of the 2020 Long-Term Plan. Shares issued pursuant to awards granted under this Plan may be shares that are authorized and unissued or shares that were reacquired by the Company, including shares purchased in the open market. Share awards that have been canceled, expired, forfeited or otherwise not issued under an award shall not count as shares issued under this Plan. Based on awards made to date, 2.9 million shares are available for grant under the 2020 Long-Term Plan at December 31, 2022.

The Stock Plan for Non-Employee Directors (2021 NED Plan) permits the issuance of restricted stock, restricted stock units and stock options or a combination thereof to the Company's Non-Employee Directors. The Company currently has outstanding incentive awards issued to Directors under the 2021 NED Plan and the 2018 Stock Plan for Non-Employee Directors (2018 NED Plan).

The Company generally expects to issue treasury shares to satisfy future stock option exercises and vesting of restricted stock and restricted stock units.

Amounts recognized in the financial statements with respect to share-based plans are shown in the following table:

<i>(Thousands of dollars)</i>	2022	2021	2020
Compensation charged against income before income tax benefit	\$ 74,587	\$ 43,660	\$ 24,812
Related income tax benefit recognized in income	12,710	7,196	2,672

As of December 31, 2022, there were \$51.8 million in compensation costs to be expensed over approximately the next three years related to unvested share-based compensation arrangements granted by the Company. Employees receive net shares, after applicable withholding obligations, upon each stock option exercise and restricted stock award. Total income tax benefits realized from tax deductions related to stock option exercises under share-based payment arrangements were immaterial for the years ended December 31, 2022, 2021 and 2020.

Equity-Settled Awards

PERFORMANCE-BASED RESTRICTED STOCK UNITS – Performance-based restricted stock units (PSUs) to be settled in Common shares were granted in 2021 and 2022 under the 2020 Long-Term Plan and 2020 under the 2018 Long-Term Plan. Each grant will vest if the Company achieves specific performance objectives at the end of the designated performance period. Additional shares may be awarded if performance objectives are exceeded. If performance goals are not met, PSUs will not vest, but the recognized compensation cost associated with the stock award would not be reversed. For PSUs, the performance conditions are based on the Company's total shareholder return (80% weighting), compared to an industry peer group of companies, and the EBITDA divided by Average Capital Employed (ACE) metric (20% weighting) for PSU awards, over the performance period. During the performance period, PSUs are subject to transfer restrictions and are subject to forfeiture if a grantee terminates for reasons other than retirement, disability or death. Termination for these three reasons will lead to a pro rata award of amounts earned. No dividends are paid nor do voting rights exist on awards of PSUs prior to their settlement.

Changes in PSUs outstanding for each of the last three years are presented in the following table.

<i>(Number of stock units)</i>	2022	2021	2020
Outstanding at beginning of year	2,670,756	2,207,429	2,129,733
Granted	595,700	1,156,800	999,700
Vested and issued	(654,177)	(642,473)	(429,194)
Forfeited	(463,812)	(51,000)	(492,810)
Outstanding at end of year	2,148,467	2,670,756	2,207,429

The fair value of the equity-settled performance-based awards granted in each year was estimated on the date of grant using a Monte Carlo valuation model. Expected volatility was based on daily historical volatility of the Company's stock price compared to a peer group average over a three-year period. The risk-free interest rate is based on the yield curve of three-year U.S. Treasury bonds and the stock beta was calculated using three years of historical averages of daily stock data for Murphy and the peer group. The assumptions used in the valuation of the performance awards granted in 2022, 2021 and 2020 are presented in the following table.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note J – Incentive Plans (Continued)

	2022	2021	2020
Fair value per share at grant date	\$37.77 - \$47.37	\$16.03	\$21.51
Assumptions			
Expected volatility	79.00% - 81.00%	74.00%	39.00%
Risk-free interest rate	1.39% - 2.85%	0.18%	1.40%
Stock beta	1.195 - 1.200	1.169	0.864
Expected life	3.0 years	3.0 years	3.0 years

TIME-BASED RESTRICTED STOCK UNITS – Time-based RSUs have been granted to the Company’s Non-Employee Directors (NED) under the 2018 NED Plan and 2021 NED Plan and to certain employees under the 2012 Long-Term Plan, 2018 Long-Term Plan and 2020 Long-Term Plan.

The fair value of the time-based restricted stock units awarded in 2022, 2021 and 2020 are presented in the following table.

Type of Plan	Valuation Methodology	2022	2021	2020
Non-Employee Directors ¹	Closing Stock Price at Grant Date	\$32.84	\$13.14 - \$23.58	\$22.59
Long-Term Incentive Plan ²	Average Low/High Stock Price at Grant Date	\$29.80 - \$49.86	12.30	21.68

¹ Under the 2021 NED Plan, RSUs granted in 2021 are scheduled to vest in February 2022.

² The RSUs granted under the 2012 Plan will vest on the fifth anniversary of the date of grant. The RSUs granted under the 2018 and 2020 Long-Term Plan generally vest on the third anniversary of the date of grant.

Changes in RSUs outstanding for each of the last three years are presented in the following table.

<i>(Number of share units)</i>	2022	2021	2020
Outstanding at beginning of year	1,451,438	1,383,043	1,535,080
Granted	416,492	573,907	446,848
Vested and issued	(462,418)	(476,012)	(271,285)
Forfeited	(177,720)	(29,500)	(327,600)
Outstanding at end of year	1,227,792	1,451,438	1,383,043

STOCK OPTIONS – In 2017, the Company ceased the inclusion of stock options and SARs as a part of the long-term incentive compensation mix.

Prior to 2017, the Committee fixed the option price of each option granted at no less than fair market value (FMV) on the date of the grant and fixed the option term at no more than seven years from such date. Each option granted to date under the 2012 Long-Term Plan has been nonqualified, with a term of seven years and an option price equal to FMV at date of grant. Under these plans, one-half of each grant is generally exercisable after two years and the remainder after three years. For stock options, the number of shares issued upon exercise is reduced for settlement of applicable statutory income tax withholdings owed by the grantee.

The fair value of each option award was estimated on the date of grant using the Black-Scholes pricing model based on the assumptions noted in the following table. Expected volatility is based on historical volatility of the Company’s stock and implied volatility on publicly traded at-the-money options on the Company’s stock. The Company estimates the expected term of the options granted based on historical option exercise patterns and considers certain groups of employees exhibiting different behavior. The risk-free interest rate for periods within the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note J – Incentive Plans (Continued)

Changes in stock options outstanding during the last three years are presented in the following table.

	Number of Shares	Average Exercise Price
Outstanding at December 31, 2019	2,920,410	43.93
Outstanding at Exercised	(47,000)	17.57
Outstanding at Forfeited	(825,010)	54.85
Outstanding at December 31, 2020	2,048,400	40.14
Exercised	(170,000)	17.57
Forfeited	(558,900)	52.61
Outstanding at December 31, 2021	1,319,500	37.77
Exercised	(760,500)	23.29
Forfeited	(546,000)	49.65
Outstanding at December 31, 2022	13,000	28.51
Exercisable at December 31, 2019	3,182,345	49.10
Exercisable at December 31, 2020	2,048,400	37.88
Exercisable at December 31, 2021	1,319,500	34.25
Exercisable at December 31, 2022	13,000	28.51

Additional information about stock options outstanding at December 31, 2022 is shown below.

Exercisable Price	Options Outstanding			Options Exercisable		
	No. of Options	Avg. Life Remaining in Years	Aggregate Intrinsic Value	No. of Options	Avg. Life Remaining in Years	Aggregate Intrinsic Value
28.51	13,000	1.1	\$ 188,565	13,000	1.1	\$ 188,565

The total intrinsic value of options exercised during 2022 was \$10.9 million. Intrinsic value is the excess of the market price of stock at date of exercise over the exercise price received by the Company upon exercise. Aggregate intrinsic value is nil when the exercise price of the stock option exceeds the market price of the Company's common stock.

Cash-Settled Awards

The Company has granted phantom stock-based incentive awards to be settled in cash to certain employees in the form of SARs, Performance-based restricted stock units (CPSUs), CRSUs and Phantom units.

SAR awards have terms similar to stock options. CPSU terms are similar to other performance-based restricted stock awards. CRSUs generally settle on the third anniversary of the date of grant. Phantom units generally settle three to five years from date of grant. Each award granted is settled, net of applicable income tax withholdings, in cash rather than with common shares. Total pre-tax expense recorded in the Consolidated Statements of Operations for all cash-settled stock-based awards was \$49.3 million in 2022, \$18.2 million in 2021 and \$1.5 million in 2020.

The Committee also administers the Company's incentive compensation plans, which provide for annual or periodic cash awards to officers, directors and certain other employees. These cash awards are generally determinable based on the Company achieving specific financial and/or operational objectives. Compensation expense of \$42.9 million, \$29.0 million and \$9.8 million was recorded in 2022, 2021 and 2020, respectively, for these plans.

Note K – Employee and Retiree Benefit Plans

PENSION AND OTHER POSTRETIREMENT PLANS – The Company has defined benefit pension plans that are principally noncontributory and cover most full-time employees. All pension plans are funded except for the U.S. and Canadian nonqualified supplemental plans and the U.S. directors' plan. All U.S. tax qualified plans meet the funding requirements of federal laws and regulations. Contributions to foreign plans are based on local laws and

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

tax regulations. The Company also sponsors other postretirement benefits such as health care and life insurance benefit plans, which are not funded, that cover most retired U.S. employees. The health care benefits are contributory; the life insurance benefits are noncontributory.

Upon the disposal of Murphy's former U.K. downstream assets, the Company retained all vested defined benefit pension obligations associated with former employees of this business. No additional benefits will accrue to these former U.K. employees under the Company's retirement plan after the date of their separation from Murphy.

GAAP requires the Company to recognize the overfunded or underfunded status of its defined benefit plans as an asset or liability in its consolidated balance sheet and to recognize changes in that funded status between periods through "Accumulated other comprehensive loss."

In 2020, the Company announced that it was closing its headquarters office in El Dorado, Arkansas, its office in Calgary, Alberta, and consolidating all worldwide staff activities to its existing office location in Houston, Texas. As a result of this decision and the subsequent restructuring activities, a pension remeasurement was triggered and the Company incurred pension curtailment and special termination benefit charges as a result of the associated reduction in force in 2020.

The tables that follow provide a reconciliation of the changes in the plans' benefit obligations and fair value of assets for the years ended December 31, 2022 and 2021 and a statement of the funded status as of December 31, 2022 and 2021.

<i>(Thousands of dollars)</i>	Pension Benefits		Other Postretirement Benefits	
	2022	2021	2022	2021
Change in benefit obligation				
Obligation at January 1	\$ 939,380	\$ 981,467	\$ 96,133	\$ 108,378
Service cost	7,875	8,199	968	1,295
Interest cost	22,747	14,784	2,211	2,071
Participant contributions	—	—	2,283	2,648
Actuarial loss (gain)	(238,407)	(24,440)	(29,533)	(9,519)
Medicare Part D subsidy	—	—	331	300
Exchange rate changes	(21,018)	(1,764)	(20)	3
Benefits paid	(47,504)	(38,866)	(4,694)	(4,041)
Plan amendments	—	—	—	(5,002)
Obligation at December 31	<u>663,073</u>	<u>939,380</u>	<u>67,679</u>	<u>96,133</u>
Change in plan assets				
Fair value of plan assets at January 1	611,302	586,720	—	—
Actual return on plan assets	(133,395)	33,687	—	—
Employer contributions	41,145	31,607	2,080	1,093
Participant contributions	—	—	2,283	2,648
Medicare Part D subsidy	—	—	331	300
Exchange rate changes	(20,604)	(1,846)	—	—
Benefits paid	(47,504)	(38,866)	(4,694)	(4,041)
Fair value of plan assets at December 31	<u>450,944</u>	<u>611,302</u>	<u>—</u>	<u>—</u>
Funded status and amounts recognized in the Consolidated Balance Sheets at December 31				
Deferred charges and other assets	3,584	5,535	—	—
Other accrued liabilities	(9,693)	(10,144)	(4,830)	(4,867)
Deferred credits and other liabilities	(206,020)	(323,469)	(62,849)	(91,266)
Fund Status and net plan liability recognized at December 31	<u>\$ (212,129)</u>	<u>\$ (328,078)</u>	<u>\$ (67,679)</u>	<u>\$ (96,133)</u>

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

At December 31, 2022, amounts included in “Accumulated other comprehensive loss” (AOCL) in the Consolidated Balance Sheets, before reduction for associated deferred income taxes, which have not been recognized in net periodic benefit expense are shown in the following table.

<i>(Thousands of dollars)</i>	Pension Benefits	Other Postretirement Benefits
Net actuarial gain (loss)	\$ (194,735)	\$ 42,129
Prior service (credit) cost	(2,181)	4,470
	<u>\$ (196,916)</u>	<u>\$ 46,599</u>

The table that follows includes projected benefit obligations, accumulated benefit obligations and fair value of plan assets for plans where the accumulated benefit obligation exceeded the fair value of plan assets.

<i>(Thousands of dollars)</i>	Projected Benefit Obligations		Accumulated Benefit Obligations		Fair Value of Plan Assets	
	2022	2021	2022	2021	2022	2021
Funded qualified plans where accumulated benefit obligation exceeds fair value of plan assets	\$ 511,375	\$ 734,375	\$ 499,338	\$ 723,887	\$ 434,283	\$ 589,529
Unfunded nonqualified and directors’ plans where accumulated benefit obligation exceeds fair value of plan assets	141,917	188,713	139,634	188,530	—	—
Unfunded other postretirement plans	67,679	96,133	67,679	96,133	—	—

The table that follows provides the components of net periodic benefit expense for each of the three years ended December 31, 2022.

<i>(Thousands of dollars)</i>	Pension Benefits			Other Postretirement Benefits		
	2022	2021	2020	2022	2021	2020
Service cost	\$ 7,875	\$ 8,199	\$ 7,967	\$ 968	\$ 1,295	\$ 1,373
Interest cost	22,747	14,784	21,127	2,211	2,071	2,626
Expected return on plan assets	(36,458)	(19,222)	(24,316)	—	—	—
Amortization of prior service cost (credit)	(684)	591	640	(532)	—	—
Amortization of transitional (asset) liability	231	—	—	(587)	—	—
Recognized actuarial (gain) loss	15,867	20,565	22,828	(28)	(29)	(31)
Net periodic benefit expense	<u>9,578</u>	<u>24,917</u>	<u>28,246</u>	<u>2,032</u>	<u>3,337</u>	<u>3,968</u>
Termination benefits expense	—	—	8,434	—	—	—
Curtailment expense	—	—	586	—	—	(1,825)
Total net periodic benefit expense	<u>\$ 9,578</u>	<u>\$ 24,917</u>	<u>\$ 37,266</u>	<u>\$ 2,032</u>	<u>\$ 3,337</u>	<u>\$ 2,143</u>

The preceding tables in this note include the following amounts related to foreign benefit plans.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

	Pension Benefits		Other Postretirement Benefits	
	2022	2021	2022	2021
<i>(Thousands of dollars)</i>				
Benefit obligation at December 31	\$ 122,915	\$ 225,117	\$ 107	\$ 526
Fair value of plan assets at December 31	115,862	218,746	—	—
Net plan liabilities recognized	(7,053)	(6,371)	(107)	(526)
Net periodic benefit expense (benefit)	(5,322)	598	62	64

The following table provides the weighted-average assumptions used in the measurement of the Company's benefit obligations at December 31, 2022 and 2021 and net periodic benefit expense for 2022 and 2021.

	Benefit Obligations				Net Periodic Benefit Expense			
	Pension Benefits		Other Postretirement Benefits		Pension Benefits		Other Postretirement Benefits	
	December 31,		December 31,		Year		Year	
	2022	2021	2022	2021	2022	2021	2022	2021
Discount rate	5.30 %	2.54 %	5.41 %	2.86 %	3.13 %	2.24 %	2.86 %	2.51 %
Rate of compensation increase	3.50 %	3.04 %	—	—	3.00 %	3.04 %	—	—
Cash balance interest credit rate	3.20 %	1.89 %	—	—	—	—	—	—
Expected return on plan assets	—	—	—	—	6.24 %	4.25 %	—	—

The discount rates used for determining the plan obligations and expense are based on high-quality corporate bonds that are available within each country. Cash flow analyses are performed in which a spot yield curve is used to discount projected benefit payment streams for the most significant plans. The discounted cash flows are used to determine an equivalent single rate which is the basis for selecting the discount rate within each country. Expected plan asset returns are based on long-term expectations for asset portfolios with similar investment mix characteristics. Expected compensation increases are based on anticipated future averages for the Company. The plan's cash balance interest accumulation rate is the greater of the annual yield on 10-year treasury constant maturities or 1.89%.

Benefit payments, reflecting expected future service as appropriate, which are expected to be paid in future years from the assets of the plans or by the Company, are shown in the following table.

<i>(Thousands of dollars)</i>	Pension Benefits	Other Postretirement Benefits
2023	\$ 45,104	\$ 4,830
2024	46,418	4,858
2025	46,240	4,808
2026	47,003	4,820
2027	47,293	4,778
2028-2032	244,253	23,648

For purposes of measuring postretirement benefit obligations at December 31, 2022, the future annual rates of increase in the cost of health care were assumed to be 6.3% for 2023 decreasing each year to an ultimate rate of 4.0% in 2045 and thereafter.

During 2022, the Company made contributions of \$34.0 million to its domestic defined benefit pension plans and \$2.1 million to its domestic postretirement benefits plan. During 2023, the Company currently expects to make contributions of \$31.1 million to its domestic defined benefit pension plans, \$1.1 million to its foreign defined benefit pension plans and \$4.8 million to its domestic postretirement benefits plan.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

PLAN INVESTMENTS – Murphy Oil Corporation maintains an Investment Policy Statement (Statement) that establishes investment standards related to its funded domestic qualified retirement plan. Our investment strategy is to maximize long-term returns at an acceptable level of risk through broad diversification of plan assets in a variety of asset classes. Asset classes and target allocations are determined by our investment committee and include equities, fixed income and other investments, including hedge funds, real estate and cash equivalent securities. Investment managers are prohibited from investing in equity or fixed income securities issues by the Company. The majority of plan assets are highly liquid, providing flexibility for benefit payment requirements. The current target allocations for plan assets are 40-75% equity securities, 20-60% fixed income securities, 0-15% alternatives and 0-20% cash and equivalents. Asset allocations are rebalanced on a periodic basis throughout the year to bring assets to within an acceptable range of target levels.

The weighted average asset allocation for the Company's funded pension benefit plans at December 31, 2022 and 2021 are presented in the following table.

	December 31,	
	2022	2021
Equity securities	65.7 %	60.9 %
Fixed income securities	23.4 %	21.7 %
Alternatives	7.3 %	13.5 %
Cash equivalents	3.6 %	3.9 %
	100.0 %	100.0 %

The Company's weighted average expected return on plan assets was 6.2% in 2022 and the return was determined based on an assessment of actual long-term historical returns and expected future returns for a portfolio with investment characteristics similar to that maintained by the plans. The 6.2% expected return was comprised of the weighted average expected future equity securities return of 7.9% and a fixed income securities return of 4.6%. There is also an average expected investment expense of 0.6%. Over the last 10 years, the return on funded retirement plan assets has averaged 3.4%.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

At December 31, 2022, the fair value measurements of retirement plan assets within the fair value hierarchy are included in the table that follows.

	Fair Value at December 31, 2022	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>(Thousands of dollars)</i>				
Domestic Plans				
Equity securities:				
U.S. core equity	\$ 96,433	\$ 96,433	\$ —	\$ —
U.S. small/midcap	64,421	64,421	—	—
Other alternative strategies	12,106	—	—	12,106
International equity	44,672	44,672	—	—
Emerging market equity	13,541	13,541	—	—
Fixed income securities:				
U.S. fixed income	85,190	35,661	49,528	—
International commingled trust fund	—	—	—	—
Emerging market mutual fund	—	—	—	—
Cash and equivalents	18,719	18,719	—	—
Total Domestic Plans	335,082	273,447	49,528	12,106
Foreign Plans				
Equity securities funds	23,877	—	23,877	—
Fixed income securities funds	30,727	—	30,727	—
Diversified pooled fund	31,246	—	31,246	—
Other	20,628	—	—	20,628
Cash and equivalents	9,384	—	9,384	—
Total Foreign Plans	115,862	—	95,234	20,628
Total	\$ 450,944	\$ 273,447	\$ 144,763	\$ 32,734

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

At December 31, 2021, the fair value measurements of retirement plan assets within the fair value hierarchy are included in the table that follows.

	Fair Value at December 31, 2021	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>(Thousands of dollars)</i>				
Domestic Plans				
Equity securities:				
U.S. core equity	\$ 108,422	\$ 108,422	\$ —	\$ —
U.S. small/midcap	73,222	73,222	—	—
Other alternative strategies	47,248	—	—	47,248
International equity	47,546	47,546	—	—
Emerging market equity	14,937	14,937	—	—
Fixed income securities:				
U.S. fixed income	92,231	36,888	55,343	—
Cash and equivalents	8,951	8,951	—	—
Total Domestic Plans	392,557	289,966	55,343	47,248
Foreign Plans				
Equity securities funds	73,642	—	73,642	—
Fixed income securities funds	40,610	—	40,610	—
Diversified pooled fund	54,317	—	54,317	—
Other	35,606	—	—	35,606
Cash and equivalents	14,570	—	14,570	—
Total Foreign Plans	218,745	—	183,139	35,606
Total	\$ 611,302	\$ 289,966	\$ 238,482	\$ 82,854

The definition of levels within the fair value hierarchy in the tables above is included in [Note P](#).

For domestic plans, U.S. core, small/midcap, international, emerging market equity securities and U.S. treasury securities are quoted prices in active markets. For commercial paper securities, the prices received generally utilize observable inputs in the pricing methodologies. Other alternative strategies funds consist of two investments. One of these investments is valued annually based on net asset value and permits withdrawals annually after a 90-day notice and the other investment is also valued quarterly based on net asset values and has a three-year lock-up period and a 95-day notice following the lock-up period.

For foreign plans, the equity securities funds are comprised of U.K. and foreign equity funds valued daily based on fund net asset values. Fixed income securities funds are U.K. and Canadian securities valued daily at net asset values. The diversified pooled fund is valued daily at net asset value and contains a combination of U.K. and foreign equity securities.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note K – Employee and Retiree Benefit Plans (Continued)

The effects of fair value measurements using significant unobservable inputs on changes in Level 3 plan assets are outlined below:

<i>(Thousands of dollars)</i>	Hedged Funds and Other Alternative Strategies
Total at December 31, 2020	\$ 97,685
Actual return on plan assets:	
Relating to assets held at the reporting date	5,206
Purchases, sales and settlements	(20,037)
Total at December 31, 2021	82,854
Actual return on plan assets:	
Relating to assets held at the reporting date	(38,389)
Purchases, sales and settlements	(11,731)
Total at December 31, 2022	\$ 32,734

THRIFT PLANS – Most full-time U.S. employees of the Company may participate in thrift or similar savings plans by allotting up to a specified percentage of their base pay. The Company matches contributions at a stated percentage of each employee's allotment based on years of participation in the plans, with a maximum match of 6.0%. Amounts charged to expense for the Company's match to these plans were \$6.0 million in 2022, \$5.4 million in 2021 and \$6.6 million in 2020.

Note L – Financial Instruments and Risk Management

DERIVATIVE INSTRUMENTS – Murphy uses derivative instruments, such as swaps and zero-cost commodity price collar contracts, to manage certain risks related to commodity prices, foreign currency exchange rates and interest rates. The use of derivative instruments for risk management is covered by operating policies and is closely monitored by the Company's senior management. The Company does not hold any derivatives for speculative purposes, and it does not use derivatives with leveraged or complex features. Derivative instruments are traded with creditworthy major financial institutions or over national exchanges such as the New York Mercantile Exchange (NYMEX). The Company has a risk management control system to monitor commodity price risks and any derivatives obtained to manage a portion of such risks. For accounting purposes, the Company has not designated commodity and foreign currency derivative contracts as hedges, and therefore, it recognizes all gains and losses on these derivative contracts in its Consolidated Statements of Operations.

Certain interest rate derivative contracts were previously accounted for as hedges and the gain or loss associated with recording the fair value of these contracts was deferred in AOCL and amortized to "Interest expense, net" over time. In 2021, the Company redeemed all of the remaining notes due 2022, which were associated with the interest rate derivative contracts, and expensed the remainder of the previously deferred loss on the interest rate swap of \$2.1 million to "Interest expense, net" in the Consolidated Statement of Operations.

Commodity Price Risks

During 2022, the Company had crude oil swaps and collar contracts. Under the swaps contracts, which matured monthly, the Company paid the average monthly price in effect and received the fixed contract price on a notional amount of sales volume, thereby fixing the price for the commodity sold. Under the collar contracts, which also matured monthly, the Company purchased a put option and sold a call option with no net premiums paid to or received from counterparties. Upon maturity, collar contracts required payments by the Company if the NYMEX average closing price is above the ceiling price or payments to the Company if the NYMEX average closing price is below the floor price.

At December 31, 2022, the Company does not have any outstanding crude oil derivative contracts. At December 31, 2021, the Company had 20,000 barrels per day in NYMEX West Texas Intermediate (WTI) swap contracts at a price per barrel of \$44.88 and 25,000 barrels per day in NYMEX WTI collar contracts with an average ceiling price per barrel of \$75.20 and an average floor price per barrel of \$63.24, both maturing ratably during 2022.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note L – Financial Instruments and Risk Management (Continued)

Foreign Currency Exchange Risks

The Company is subject to foreign currency exchange risk associated with operations in countries outside the U.S. The Company had no foreign currency exchange short-term derivative instruments outstanding as of December 31, 2022 and 2021.

At December 31, 2022 and 2021, the fair value of derivative instruments not designated as hedging instruments are presented in the following table. See also [Note P](#).

<i>(Thousands of dollars)</i>		Asset (Liability) Derivatives Fair Value at December 31,		
Type of Derivative Contract	Balance Sheet Location	2022	2021	
Commodity swaps	Accounts payable	—	(239,882)	
Commodity collars	Accounts receivable	—	4,280	
	Accounts payable	—	(19,533)	

For the years ended December 31, 2022, 2021 and 2020, the gains and losses recognized in the Consolidated Statements of Operations for derivative instruments not designated as hedging instruments are presented in the following table.

<i>(Thousands of dollars)</i>		Gain (Loss)		
Type of Derivative Contract	Statement of Operations Locations	Year Ended December 31,		
		2022	2021	2020
Commodity swaps	(Loss) Gain on derivative instruments	\$ (160,690)	\$ (510,596)	\$ 202,661
Commodity collars	(Loss) Gain on derivative instruments	(159,721)	(15,254)	—

Credit Risks

The Company's primary credit risks are associated with trade accounts receivable, cash equivalents and derivative instruments. Trade receivables arise mainly from sales of oil and natural gas in the U.S. and Canada, and cost sharing amounts of operating and capital costs billed to partners for properties operated by Murphy. The credit history and financial condition of potential customers are reviewed before credit is extended, security is obtained when deemed appropriate based on a potential customer's financial condition, and routine follow-up evaluations are made. The combination of these evaluations and the large number of customers tends to limit the risk to any one customer. Cash balances and cash equivalents are held with several major financial institutions, which limit the Company's exposure to credit risk for its cash assets. The Company controls credit risk on derivatives through credit approvals and monitoring procedures and believes that such risks are minimal because counterparties to the majority of transactions are major financial institutions.

Note M – Earnings Per Share

Net income (loss) was used as the numerator in computing both basic and diluted income per Common share for each of the three years ended December 31, 2022. The following table reconciles the weighted-average shares outstanding used for these computations.

<i>(Weighted-average shares)</i>	2022	2021	2020
Basic method	155,276,533	154,290,741	153,507,109
Dilutive stock options and restricted stock units ¹	2,198,305	—	—
Diluted method	157,474,838	154,290,741	153,507,109

¹ Due to a net loss recognized by the Company for the year ended December 31, 2021 and 2020, no unvested stock awards were included in the computation of diluted earnings per share because the effect would have been antidilutive.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note M - Earnings Per Share (Continued)

The following table reflects certain options to purchase shares of common stock that were outstanding during the three years ended December 31, 2022 but were not included in the computation of dilutive earnings per share because the incremental shares from the assumed conversion were antidilutive.

	2022	2021	2020
Antidilutive stock options excluded from diluted shares	126,000	1,420,992	2,246,532
Weighted average price of these options	\$49.65	\$35.30	\$39.67

Note N – Other Financial Information

GAIN FROM FOREIGN CURRENCY TRANSACTIONS – Net gains (losses) from foreign currency transactions, including the effects of foreign currency contracts, included in the Consolidated Statements of Operations were \$23.0 million in 2022, \$1.0 million in 2021 and \$(0.9) million in 2020.

Noncash operating working capital (increased) decreased during each of the three years ended December 31, 2022 as shown in the following table.

(Thousands of dollars)

	2022	2021	2020
Net (increase) decrease in operating working capital, excluding cash and cash equivalents:			
(Increase) decrease in accounts receivable ¹	\$ (137,228)	\$ 8,056	\$ 164,613
(Increase) decrease in inventories	(1,534)	12,809	5,953
(Increase) decrease in prepaid expenses	(3,413)	2,003	7,178
Increase (decrease) in accounts payable and accrued liabilities ¹	69,854	95,166	(208,740)
Increase (decrease) in income taxes payable	6,593	423	(1,031)
Net (increase) decrease in noncash operating working capital	\$ (65,728)	\$ 118,457	\$ (32,027)
Supplementary disclosures:			
Cash income taxes paid, net of refunds	\$ 24,853	\$ 2,138	\$ (44,175)
Interest paid, net of amounts capitalized of \$16.3 million in 2022, \$16.1 million in 2021 and \$8.0 million in 2020	149,957	165,699	191,561
Non-cash investing activities:			
Asset retirement costs capitalized	\$ (21,147)	\$ 54,439	\$ 14,736
(Increase) decrease in capital expenditure accrual	(31,397)	9,788	84,645

¹ Excludes receivable/payable balances relating to mark-to-market of crude contracts.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued

Note O – Accumulated Other Comprehensive Loss

The components of AOCL on the Consolidated Balance Sheets at December 31, 2022 and December 31, 2021 and the changes during 2022 and 2021 are presented net of taxes in the following table.

<i>(Thousands of dollars)</i>	Foreign Currency Translation Gains (Losses)	Retirement and Postretirement Benefit Plan Adjustments	Deferred Loss on Interest Rate Derivative Hedges	Total
Balance at December 31, 2020	\$ (324,011)	\$ (275,632)	\$ (1,690)	\$ (601,333)
2021 components of other comprehensive income (loss):				
Before reclassifications to income	12,116	40,095	—	52,211
Reclassifications to income	—	19,721 ¹	1,690 ²	21,411
Net other comprehensive income	12,116	59,816	1,690	73,622
Balance at December 31, 2021	(311,895)	(215,816)	—	(527,711)
2022 components of other comprehensive income (loss):				
Before reclassifications to income	(106,335)	87,362	—	(18,973)
Reclassifications to income	—	11,998 ¹	— ²	11,998
Net other comprehensive income (loss)	(106,335)	99,360	—	(6,975)
Balance at December 31, 2022	\$ (418,230)	\$ (116,456)	\$ —	\$ (534,686)

¹ Reclassifications before taxes of \$15.3 million and \$23.5 million are included in the computation of net periodic benefit expense in 2022 and 2021, respectively. See [Note K](#) for additional information. Related income taxes of \$3.3 million and \$3.8 million are included in income tax expense in 2022 and 2021, respectively.

² Reclassifications before taxes of nil and \$2.1 million are included in Interest expense in 2022 and 2021, respectively. Related income taxes of nil and \$0.5 million are included in Income tax expense in 2022 and 2021, respectively. See [Note L](#) for additional information.

Note P – Assets and Liabilities Measured at Fair Value

Fair Values – Recurring

The Company carries certain assets and liabilities at fair value in its Consolidated Balance Sheets. The fair value hierarchy is based on the quality of inputs used to measure fair value, with Level 1 being the highest quality and Level 3 being the lowest quality. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are observable inputs other than quoted prices included within Level 1. Level 3 inputs are unobservable inputs which reflect assumptions about pricing by market participants.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note P – Assets and Liabilities Measured at Fair Value (Continued)

The fair value measurements for these assets and liabilities at December 31, 2022 and 2021 are presented in the following table.

<i>(Thousands of dollars)</i>	December 31, 2022				December 31, 2021			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Commodity collars	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,280	\$ —	\$ 4,280
Liabilities:								
Nonqualified employee savings plan	\$ 15,135	\$ —	\$ —	\$ 15,135	\$ 16,962	\$ —	\$ —	\$ 16,962
Commodity collars	—	—	—	—	—	19,533	—	19,533
Contingent consideration	—	—	—	—	—	—	196,151	196,151
Commodity swaps	—	—	—	—	—	239,882	—	239,882
	<u>\$ 15,135</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 15,135</u>	<u>\$ 16,962</u>	<u>\$ 259,415</u>	<u>\$ 196,151</u>	<u>\$ 472,528</u>

The nonqualified employee savings plan is an unfunded savings plan through which participants seek a return via phantom investments in equity securities and/or mutual funds. The fair value of this liability was based on quoted prices for these equity securities and mutual funds. The income effect of changes in the fair value of the nonqualified employee savings plan is recorded in “Selling and general expenses” in the Consolidated Statements of Operations.

As of December 31, 2022, there were no outstanding commodity (WTI crude oil) swaps and collars contracts subject to fair value measurement. The liabilities associated with these contracts have been finalized as of December 31, 2022 and were based on realized WTI pricing. The commodity swaps and collars liability as of December 31, 2022 was \$19.6 million and \$2.3 million, respectively, and recorded as “Accounts payable” in the Consolidated Balance Sheet. The fair value of the commodity (WTI crude oil) swaps in 2021 was based on active market quotes for WTI crude oil. The fair value of commodity (WTI crude oil) collars in 2021 was determined using an option pricing model based on inputs that include (i) the contracted notional volumes, (ii) independent active market price quotes, (iii) the applicable estimated risk-free rate yield curve and (iv) the implied rate of volatility inherent in the collar contract. The before tax income effect of changes in fair value of crude oil derivative contracts is recorded in “(Loss) Gain on derivative instruments” in the Consolidated Statements of Operations.

In 2019, the Company acquired strategic deepwater Gulf of Mexico assets from LLOG Exploration Offshore L.L.C. and LLOG Bluewater Holdings, L.L.C., (LLOG). Under the terms of the transaction, in addition to the consideration paid, Murphy has an obligation to pay additional contingent consideration of up to \$200 million in the event that certain revenue thresholds are exceeded between 2019 and 2022; and \$50 million following first oil from certain development projects. The revenue threshold was not exceeded for 2019 or 2020; however, the threshold was met in 2021 and 2022.

In 2018, the Company, through a subsidiary, acquired Gulf of Mexico producing assets from Petrobras America Inc. (PAI), a subsidiary of Petróleo Brasileiro S.A. Under the terms of the transaction, in addition to the consideration paid, Murphy has an obligation to pay additional contingent consideration of up to \$150 million if certain price and production thresholds are exceeded beginning in 2019 through 2025; and \$50 million carry for PAI development costs in the St. Malo Field if certain enhanced oil recovery projects are undertaken. The price and production thresholds were not exceeded for 2019 and 2020; however, the thresholds were met in 2021 and 2022. As of December 31, 2021, Murphy had completely funded the carried interest.

As at December 31, 2022, the Company’s liabilities with PAI and LLOG were based on realized inputs of volumes and pricing as a result of contractual thresholds and time durations being achieved. As a result, the related liability as at December 31, 2022, of \$192.7 million, is no longer subject to fair value measurement. The liability is included in “Other accrued liabilities” in the Consolidated Balance Sheets and the changes in fair value of the contingent consideration during 2022 were recorded in “Other income (expense)” in the Consolidated Statements of Operations. For 2021 the Company’s contingent consideration liabilities with PAI and LLOG were measured at fair value on a recurring basis and were categorized as Level 3 in the fair value hierarchy as at

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note P – Assets and Liabilities Measured at Fair Value (Continued)

December 31, 2021. The contingent consideration liabilities were valued using a Monte Carlo simulation model, which used the following assumptions as of December 31, 2021: (i) the remaining expected life of 1 year for LLOG and 4 years for PAI, (ii) West Texas Intermediate forward strip pricing with historical volatility of 9.9% and (iii) a risk-free interest rate of 1.49%.

The Company offsets certain assets and liabilities related to derivative contracts when the legal right of offset exists. There were no offsetting positions recorded at December 31, 2022 and 2021.

The following table presents the carrying amounts and estimated fair values of financial instruments held by the Company at December 31, 2022 and 2021. The fair value of a financial instrument is the amount at which the instrument could be exchanged in a current transaction between willing parties. The table excludes cash and cash equivalents, trade accounts receivable, trade accounts payable and accrued expenses, all of which had fair values approximating carrying amounts. The fair value of current and long-term debt was estimated based on rates offered to the Company at that time for debt of the same maturities. The Company has off-balance sheet exposures relating to certain letters of credit. The fair value of these, which represents fees associated with obtaining the instruments, was nominal.

	December 31,			
	2022		2021	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<i>(Thousands of dollars)</i>				
Financial assets (liabilities):				
Current and long-term debt	\$ (1,823,139)	\$ (1,668,216)	\$ (2,466,068)	\$ (2,666,773)

Fair Values – Nonrecurring

There was no impairment expense incurred in 2022. In 2021, an impairment charge of \$171.3 million was triggered when the operator at Terra Nova provided notice of abandonment in the first quarter of 2021, before a commercial resolution in the third quarter of 2021 led Murphy to acquire an additional 7.525% in a commercial settlement with the other partners. The commercial resolution would have meant the Terra Nova impairment charge was not required. In the fourth quarter of 2021, a further impairment charge of \$25 million was recorded on non-core assets.

The fair value information associated with the 2021 impaired properties is presented in the following table.

	Year Ended December 31,				
	Fair Value			Net Book Value Prior to Impairment	Total Pretax Impairment
	Level 1	Level 2	Level 3		
<i>(Thousands of dollars)</i>					
2021					
Assets:					
Impaired proved properties					
U.S. Offshore	\$ —	\$ —	\$ 156,185	\$ 327,481	\$ 171,296
Other Foreign	—	—	25,739	43,739	18,000
Corporate	—	—	36,994	43,994	7,000

Note Q – Commitments

The Company has operating, production handling and transportation service agreements for oil and/or natural gas operations in the U.S. and Canada Onshore. The U.S. Onshore and Gulf of Mexico transportation contracts require minimum monthly payments through 2045, while the Canada Onshore processing contracts call for minimum monthly payments through 2051. In the U.S. and Canada Onshore, future required minimum annual payments for the next five years are \$295.4 million in 2023, \$118.8 million in 2024, \$91.2 million in 2025, \$82.2 million in 2026 and \$69.0 million in 2027. Under certain circumstances, the Company is required to pay additional amounts depending on the actual hydrocarbon quantities processed under the agreement. Total

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note Q - Commitments (Continued)

costs incurred under these service arrangements were \$216.4 million in 2022, \$151.8 million in 2021 and \$107.6 million in 2020.

Commitments for capital expenditures were approximately \$282.4 million at December 31, 2022, including \$200.9 million for costs to develop deepwater U.S. Gulf of Mexico fields, \$46.6 million for Eagle Ford Shale, \$33.8 million for Canada and \$1.1 million for Other Foreign.

Note R – Environmental and Other Contingencies

The Company's operations and earnings have been and may be affected by various forms of governmental action both in the United States and throughout the world. Examples of such governmental action include, but are by no means limited to: tax legislation changes, including tax rate changes, and retroactive tax claims; royalty and revenue sharing increases; import and export controls; price controls; currency controls; allocation of supplies of crude oil and petroleum products and other goods; expropriation of property; restrictions and preferences affecting the issuance of oil and natural gas or mineral leases; restrictions on drilling and/or production; laws, regulations and government action intended for the promotion of safety and the protection and/or remediation of the environment including in connection with the purported causes or potential impacts of climate change; governmental support for other forms of energy; and laws and regulations affecting the Company's relationships with employees, suppliers, customers, stockholders and others. Given the factors involved in various government actions, including political considerations, it is difficult to predict their likelihood, the form they may take, or the effect they may have on the Company.

ENVIRONMENTAL MATTERS – Murphy and other companies in the oil and natural gas industry are subject to numerous federal, state, local and foreign laws and regulations dealing with the environment and protection of health and safety. The principal environmental, health and safety laws and regulations to which Murphy is subject address such matters as the generation, storage, handling, use, disposal and remediation of petroleum products, wastewater and hazardous materials; the emission and discharge of such materials to the environment, including GHG emissions; wildlife, habitat and water protection; the placement, operation and decommissioning of production equipment; and the health and safety of our employees, contractors and communities where our operations are located. These laws and regulations also generally require permits for existing operations, as well as the construction or development of new operations and the decommissioning facilities once production has ceased.

Violation of federal or state environmental, health and safety laws, regulations and permits can result in the imposition of significant civil and criminal penalties, injunctions and construction bans or delays. A discharge of hazardous substances into the environment could, to the extent such event is not adequately insured, subject the Company to substantial expense, including both the cost to comply with applicable regulations and claims by neighboring landowners and other third parties for any personal injury and property damage that might result. In addition, Item 103 of SEC Regulation S-K requires disclosure of certain environmental matters when a governmental authority is a party to the proceedings and such proceedings involve potential monetary sanctions that the Company reasonably believes will exceed a specified threshold. Pursuant to recent SEC amendments to this item, the Company will be using a threshold of \$1.0 million for such proceedings and the Company is not aware of environment legal proceedings likely to exceed this \$1.0 million threshold.

There continues to be an increase in regulatory oversight of the oil and gas industry at the federal level, with a focus on climate change and GHG emissions (including methane emissions). For example, the Inflation Reduction Act of 2022 contains provisions that impose fees for excess methane emissions from petroleum and natural gas facilities. In addition, there have been a number of executive orders issued that address climate change, including creation of climate-related task forces, directives to federal agencies to procure carbon-free electricity, and a goal of a carbon pollution-free power sector by 2035 and a net-zero emissions U.S. economy by 2050. Executive orders have also been issued related to oil and gas activities on federal lands, infrastructure and environmental justice. In addition, an international climate agreement (the Paris Agreement) was agreed to at the 2015 United Nations Framework Convention on Climate Change in Paris, France. The Paris Agreement entered into force in November 2016. Although the U.S. officially withdrew from the Paris Agreement on November 4, 2020, the U.S. has since rejoined the Paris Agreement, which became effective for the U.S. on February 19, 2021.

The Company currently owns or leases, and has in the past owned or leased, properties at which hazardous substances have been or are being handled. Hazardous substances may have been disposed of or released on

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note R - Environmental and Other Contingencies (Continued)

or under the properties owned or leased by the Company or on or under other locations where these wastes have been taken for disposal. In addition, many of these properties have been operated by third parties whose treatment and disposal or release of hydrocarbons or other wastes were not under Murphy's control. Under existing laws, the Company could be required to investigate, remove or remediate previously disposed wastes (including wastes disposed of or released by prior owners or operators), to investigate and clean up contaminated property (including contaminated groundwater) or to perform remedial plugging operations to prevent future contamination. Certain of these historical properties are in various stages of negotiation, investigation, and/or cleanup, and the Company is investigating the extent of any such liability and the availability of applicable defenses. The Company has retained certain liabilities related to environmental matters at formerly owned U.S. refineries that were sold in 2011. The Company also obtained insurance covering certain levels of environmental exposures related to past operations of these refineries. Murphy USA Inc. has retained any environmental exposure associated with Murphy's former U.S. marketing operations that were spun-off in August 2013. The Company believes costs related to these sites will not have a material adverse effect on Murphy's net income, financial condition or liquidity in a future period.

There is the possibility that environmental expenditures could be required at currently unidentified sites, and additional expenditures could be required at known sites. However, based on information currently available to the Company, the amount of future investigation and remediation costs incurred at known or currently unidentified sites is not expected to have a material adverse effect on the Company's future net income, cash flows or liquidity.

LEGAL MATTERS – Murphy and its subsidiaries are engaged in a number of other legal proceedings (including litigation related to climate change), all of which Murphy considers routine and incidental to its business. Based on information currently available to the Company, the ultimate resolution of environmental and legal matters referred to in this note is not expected to have a material adverse effect on the Company's net income, financial condition or liquidity in a future period.

Note S – Common Stock Issued and Outstanding

Activity in the number of shares of Common Stock issued and outstanding for the three years ended December 31, 2022 is shown below.

<i>(Number of shares outstanding)</i>	2022	2021	2020
Beginning of year	154,463,050	153,598,625	152,935,361
Stock options exercised ¹	181,655	32,554	11,359
Restricted stock awards ¹	822,614	831,871	651,905
End of year	155,467,319	154,463,050	153,598,625

¹ Shares issued upon exercise of stock options and award of restricted stock are less than the amount reflected in [Note J](#) due to withholdings for statutory income taxes owed upon issuance of shares.

Note T – Business Segments

Murphy's reportable segments are organized into geographic areas of operations. The Company's exploration and production activity is subdivided into segments for the United States, Canada and all other countries. Each of these segments derives revenues primarily from the sale of crude oil, condensate, natural gas liquids and/or natural gas. The Company's management evaluates segment performance based on income (loss) from operations, excluding interest income and interest expense.

Customers that accounted for 10% or more of the Company's sales revenue for each of the below three years ended December 31, are shown below.

	2022	2021	2020
Chevron Corporation	19 %	30 %	24 %
ExxonMobil Corporation	12 %	N/A	N/A
Phillips 66	N/A	N/A	18 %

Due to the quantity of active oil and natural gas purchasers in the markets where it produces hydrocarbons, the Company does not foresee any difficulty with selling its hydrocarbon production at fair market prices.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — Continued
Note T - Business Segments (Continued)

No assets were held for sale as of December 31, 2022. Assets held for sale as of December 31, 2021 include the net property, plant and equipment of the Brunei Block CA-2 and the Company's office building in El Dorado, Arkansas (see [Note E](#)). The U.K. and Malaysian operations have been reported as discontinued operations for all periods presented in these consolidated financial statements.

Information about business segments and geographic operations is reported in the following tables. For geographic purposes, revenues are attributed to the country in which the sale occurs. Corporate and other activities, including interest income, other gains and losses (including foreign exchange gains/losses and realized/unrealized gains/losses on crude oil contracts), interest expense and unallocated overhead, are shown in the tables to reconcile the business segments to consolidated totals.

<i>(Millions of dollars)</i>	Exploration and Production				Corporate and Other	Discontinued Operations	Consolidated Total
	United States ¹	Canada	Other	Total E&P			
Year ended December 31, 2022							
Segment income (loss) - including NCI ¹	\$ 1,521.9	\$ 134.2	\$ (77.0)	\$ 1,579.1	\$ (438.3)	\$ (2.1)	\$ 1,138.7
Revenues from external customers	3,461.2	762.9	23.0	4,247.1	(314.4)	—	3,932.7
Interest and other income (loss)	(6.6)	(1.9)	(0.5)	(9.0)	23.3	—	14.3
Interest expense, net of capitalization	(0.1)	—	(0.3)	(0.4)	(150.4)	—	(150.8)
Income tax expense (benefit)	370.8	43.6	2.9	417.3	(107.8)	—	309.5
Significant noncash charges (credits)							
Depreciation, depletion and amortization	617.0	141.5	5.4	763.9	12.9	—	776.8
Accretion of asset retirement obligations	36.5	9.6	0.1	46.2	—	—	46.2
Amortization of undeveloped leases	8.7	0.2	4.4	13.3	—	—	13.3
Deferred and noncurrent income taxes	362.7	34.8	0.6	398.1	(112.0)	—	286.1
Additions to property, plant, equipment	838.6	208.5	(5.7)	1,041.4	21.9	—	1,063.3
Total assets at year-end	6,930.6	2,125.6	217.4	9,273.6	1,034.6	0.8	10,309.0
Year ended December 31, 2021							
Segment income (loss) - including NCI ¹	\$ 766.3	(16.1)	(33.5)	716.7	\$ (668.0)	(1.2)	47.5
Revenues from external customers	2,337.5	476.3	4.9	2,818.7	(519.4)	—	2,299.3
Interest and other income (loss)	(11.6)	(1.9)	3.2	(10.3)	(6.5)	—	(16.8)
Interest expense, net of capitalization	—	—	(0.2)	(0.2)	(221.6)	—	(221.8)
Income tax expense (benefit)	183.9	(1.7)	(9.5)	172.7	(178.6)	—	(5.9)
Significant noncash charges (credits)							
Impairment of assets	—	171.3	18.0	189.3	7.0	—	196.3
Depreciation, depletion and amortization	616.5	163.8	1.8	782.1	13.0	—	795.1
Accretion of asset retirement obligations	36.9	9.7	—	46.6	—	—	46.6
Amortization of undeveloped leases	11.1	0.2	7.6	18.9	—	—	18.9
Deferred and noncurrent income taxes	176.3	(1.9)	(8.0)	166.4	(170.5)	—	(4.1)
Additions to property, plant, equipment	519.5	52.7	13.1	585.3	—	—	585.3
Total assets at year-end	6,591.6	2,231.9	259.8	9,083.3	1,220.8	0.8	10,304.9

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — Continued
Note T - Business Segments (Continued)

<i>(Millions of dollars)</i>	Exploration and Production				Corporate and Other	Discontinued Operations	Consolidated Total
	United States ¹	Canada	Other	Total E&P			
Year ended December 31, 2020							
Segment income (loss) - including NCI ¹	\$ (1,014.3)	\$ (35.0)	\$ (85.6)	\$ (1,134.9)	\$ (120.3)	\$ (7.2)	\$ (1,262.4)
Revenues from external customers	1,411.8	345.8	1.8	1,759.4	207.9	—	1,967.3
Interest and other income (loss)	(9.9)	0.8	0.8	(8.2)	(9.1)	—	(17.3)
Interest expense, net of capitalization	—	(0.5)	(0.4)	(0.9)	(168.5)	—	(169.4)
Income tax expense (benefit)	(244.2)	(21.4)	2.1	(263.5)	(30.2)	—	(293.7)
Significant noncash charges (credits)							
Impairment of assets	1,152.5	—	39.7	1,192.2	14.1	—	1,206.3
Depreciation, depletion and amortization	749.4	213.2	2.3	964.9	22.3	—	987.2
Accretion of asset retirement obligations	36.6	5.5	—	42.1	—	—	42.1
Amortization of undeveloped leases	17.2	0.4	9.1	26.7	—	—	26.7
Deferred and noncurrent income taxes	(244.2)	(10.6)	1.9	(252.9)	(25.1)	—	(278.0)
Additions to property, plant, equipment	623.1	118.3	15.2	756.6	—	—	756.6
Total assets at year-end	6,915.5	2,404.1	267.7	9,587.3	1,032.9	0.7	10,620.9

¹ Includes results attributable to a noncontrolling interest in MP GOM.

Geographic Information

<i>(Millions of dollars)</i>	Certain long-lived assets at December 31 ¹			
	United States	Canada	Other	Total
2022	\$ 6,562.8	\$ 1,499.1	\$ 166.1	\$ 8,228.0
2021	6,371.4	1,566.9	189.6	8,127.9
2020	6,395.7	1,702.5	170.8	8,269.0

¹ Certain long-lived assets at December 31 exclude investments, right-of-use operating lease assets, non-current receivables, deferred tax assets and other intangible assets.

Note U – Leases

Nature of Leases

The Company has entered into various operating leases such as a natural gas processing plant, floating production storage and off-take vessels, buildings, marine vessels, vehicles, drilling rigs, pipelines and other oil and natural gas field equipment. Remaining lease terms range from 1 year to 20 years, some of which may include options to extend leases for multi-year periods and others which include options to terminate the leases within 1 year. Options to extend lease terms are at the Company's discretion. Early lease terminations are a combination of both at Company discretion and mutual agreement between the Company and lessor. Purchase options also exist for certain leases.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note U – Leases (Continued)

Related Expenses

Expenses related to finance and operating leases included in the Consolidated Financial Statements are as follows:

<i>(Thousands of dollars)</i>	Financial Statement Category	Year Ended December 31,	
		2022	2021
Operating lease ^{1,2}	Lease operating expenses	\$ 217,038	\$ 198,189
Operating lease ²	Transportation, gathering and processing	39,669	39,396
Operating lease ²	Selling and general expense	8,003	9,019
Operating lease ²	Other operating expense	510	7,480
Operating lease ²	Exploration expenses	10,019	902
Operating lease ²	Property, plant and equipment	196,829	81,924
Operating lease ²	Asset retirement obligations	11,190	11,103
Finance lease			
Amortization of asset	Depreciation, depletion and amortization	5,481	1,173
Interest on lease liabilities	Interest expense, net	254	228
Sublease income	Other income	(1,296)	(2,482)
Net lease expense		\$ 487,697	\$ 346,932

¹ *Variable lease expenses.* For the years ended December 31, 2022 and 2021, includes variable lease expenses of \$32.2 million and \$25.8 million, respectively, primarily related to additional volumes processed at a natural gas processing plant.

² *Short-term leases due within 12 months.* For the year ended December 31, 2022, includes \$62.8 million in LOE, \$31.5 million for “Transportation, gathering and processing”, \$8.8 million for “Exploration expenses, including undeveloped lease amortization”, \$0.7 million in “Selling and general expenses”, \$0.1 million in “Other operating expense”, \$125.4 million in “Property, plant and equipment, net” and \$11.2 million in “Asset retirement obligations” relating to short-term leases due within 12 months. Expenses primarily relate to drilling rigs and other oil and natural gas field equipment. For the year ended December 31, 2021, includes \$56.9 million in LOE, \$30.2 million in “Transportation, gathering and processing”, \$2.1 million in “Selling and general expenses”, \$0.2 million in “Other operating expense”, \$28.9 million in “Property, plant and equipment, net” and \$11.1 million in “Asset retirement obligations” relating to short-term leases due within 12 months. Expenses primarily relate to drilling rigs and other oil and natural gas field equipment.

Maturity of Lease Liabilities

<i>(Thousands of dollars)</i>	Operating Leases	Finance Leases	Total
2023	\$ 270,868	\$ 1,068	\$ 271,936
2024	241,455	1,069	242,524
2025	79,974	1,068	81,042
2026	61,534	1,069	62,603
2027	59,964	1,069	61,033
Remaining	548,118	1,336	549,454
Total future minimum lease payments	1,261,913	6,679	1,268,592
Less imputed interest	(298,846)	(1,835)	(300,681)
Present value of lease liabilities ¹	\$ 963,067	\$ 4,844	\$ 967,911

¹ Includes both the current and long-term portion of the lease liabilities.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued
Note U – Leases (Continued)

Lease Term and Discount Rate

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Weighted average remaining lease term:		
Operating leases	9 years	12 years
Finance leases	6 years	7 years
Weighted average discount rate:		
Operating leases	5.9 %	5.7 %
Finance leases	4.7 %	4.7 %

Other Information

<i>(Thousands of dollars)</i>	<u>Year Ended December 31,</u>	
	<u>2022</u>	<u>2021</u>
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 212,061	\$ 194,412
Operating cash flows from finance leases	254	228
Financing cash flows from finance leases	636	803
Right-of-use assets obtained in exchange for lease liabilities:		
Operating leases ¹	\$ 262,669	\$ 95,500

¹ For the year ended December 31, 2022, ROU assets obtained in exchange for lease liabilities primarily includes \$254.0 million related to an extension of the lease of an existing offshore drilling rig by 24 months. December 31, 2021, includes \$90.3 million related to an offshore drilling rig with a lease term of 16 months.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – Continued****Note V – Restructuring Charges**

In 2020, the Company announced that it was closing its headquarters office in El Dorado, Arkansas, its office in Calgary, Alberta, and consolidated all worldwide staff activities to its existing office location in Houston, Texas. As a result of this decision, certain directly attributable costs and charges have been recognized and reported as Restructuring charges as part of net loss during the year ended December 31, 2020. These costs include severance, relocation, information technology costs, pension curtailment charges and a write-off of the right of use asset lease associated with the Calgary office. Restructuring charges are primarily reported in the Corporate segment.

The following table presents a summary of the restructuring charges included in Operating (loss) income from continuing operations for the year ended December 31, 2020.

<i>(Thousands of dollars)</i>	Year Ended December 31, 2020
Severance	\$ 25,088
Contract exit costs and other	13,993
Pension and termination benefit charges	10,913
Restructuring charges	\$ 49,994

The liability associated with the Company's restructuring activities at December 31, 2022 and 2021 is nil and \$2.2 million, respectively, which is reflected in "Other accrued liabilities" on the Consolidated Balance Sheets.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED)**

The following unaudited schedules are presented in accordance with required disclosures about Oil and Natural Gas Producing Activities to provide users with a common base for preparing estimates of future cash flows and comparing reserves among companies. Additional background information concerning some of the schedules follows:

SCHEDULE 1 – SUMMARY OF TOTAL PROVED EQUIVALENT RESERVES

SCHEDULE 2 – SUMMARY OF PROVED CRUDE OIL RESERVES

SCHEDULE 3 – SUMMARY OF PROVED NATURAL GAS LIQUIDS RESERVES

SCHEDULE 4 – SUMMARY OF PROVED NATURAL GAS RESERVES

Reserves of crude oil, condensate, natural gas liquids and natural gas are estimated by the Company's or independent engineers and are adjusted to reflect contractual arrangements and royalty rates in effect at the end of each year. Many assumptions and judgmental decisions are required to estimate reserves. Reserve estimates and future cash flows are based on the average market prices for sales of oil and natural gas on the first calendar day of each month during the year. The average prices used for 2022 were \$93.67 per barrel for NYMEX crude oil (WTI) and \$6.36 per MCF for natural gas (Henry Hub). The average prices used for 2021 were \$66.56 per barrel for NYMEX crude oil (WTI) and \$3.60 per MCF for natural gas (Henry Hub). The average prices used for 2020 were \$39.57 per barrel for NYMEX crude oil (WTI) and \$1.98 per MCF for natural gas (Henry Hub). Reported quantities are subject to future revisions, some of which may be substantial, as additional information becomes available from reservoir performance, new geological and geophysical data, additional drilling, technological advancements, price changes and other economic factors.

Murphy's estimations for proved reserves were generated through the integration of available geoscience, engineering, and economic data (including hydrocarbon prices, operating costs, and development costs) and commercially available technologies to establish "reasonable certainty" of economic producibility. Estimates are presented in millions of barrels of oil equivalents and dollars and billions of cubic feet with one decimal; totals within the tables may not add as a result of rounding. As defined by the SEC, reasonable certainty of proved reserves describes a high degree of confidence that the quantities will be recovered. In estimating proved reserves, Murphy uses common industry-accepted methods for subsurface evaluations, including performance, volumetric and analog-based studies. Where appropriate, Murphy includes reliable geologic and engineering technology to estimate proved reserves. Reliable geologic and engineering technology is a method or combination of methods that are field tested and have been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation. This integrated approach increases the quality of and confidence in Murphy's proved reserves estimates. The approach was utilized in certain undrilled acreage at distances greater than the directly offsetting development spacing areas and in certain reservoirs developed with the application of improved recovery techniques. Murphy utilized a combination of 3D seismic interpretation, core analysis, wellbore log measurements, well test data, historic production and pressure data and commercially available seismic processing and numerical reservoir simulation programs. Reservoir parameters from analogous reservoirs were used to strengthen the reserves estimates when available.

Production quantities shown are net volumes withdrawn from reservoirs. These may differ from sales quantities due to inventory changes, volumes consumed for fuel and/or shrinkage from the extraction of natural gas liquids.

All crude oil, natural gas liquid reserves and natural gas reserves are from consolidated subsidiaries (including noncontrolling interest) and proportionately consolidated joint ventures. The Company has no proved reserves attributable to investees accounted for by the equity method.

SCHEDULE 7 – STANDARDIZED MEASURE OF DISCOUNTED FUTURE NET CASH FLOWS RELATING TO PROVED OIL AND NATURAL GAS RESERVES

GAAP requires calculation of future net cash flows using a 10% annual discount factor, an unweighted average of oil and natural gas prices in effect at the beginning of each month of the year, and year-end costs and statutory tax rates, except for known future changes such as contracted prices and legislated tax rates.

The reported value of proved reserves is not necessarily indicative of either fair market value or present value of future cash flows because prices, costs and governmental policies do not remain static; appropriate discount rates may vary; and extensive judgment is required to estimate the timing of production. Other logical assumptions would likely have resulted in significantly different amounts.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**

Schedule 7 also presents the principal reasons for change in the standardized measure of discounted future net cash flows for each of the three years ended December 31, 2022.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 1 – Summary of Total Proved Equivalent Reserves Based on Average Prices for 2019 – 2022

<i>(Millions of barrels of oil equivalent)</i>	Equivalents			
	Total	United States	Canada	Other
Proved developed and undeveloped reserves:				
December 31, 2019	825.0	500.1	324.1	0.8
Revisions of previous estimates	(194.7)	(146.6)	(47.3)	(0.8)
Extensions and discoveries	150.3	19.5	130.7	—
Sales of properties	(1.7)	(1.7)	—	—
Production	(63.9)	(42.8)	(21.1)	—
December 31, 2020	714.9	328.5	386.4	—
Revisions of previous estimates	(52.9)	35.6	(89.3)	0.8
Extensions and discoveries	109.4	18.2	91.3	—
Purchases of properties	7.4	1.6	5.8	—
Sales of properties	(0.7)	—	(0.7)	—
Production	(61.1)	(40.4)	(20.6)	(0.1)
December 31, 2021	716.9	343.4	372.8	0.7
Revisions of previous estimates	(23.6)	29.0	(52.8)	0.2
Improved recovery	5.3	5.3	—	—
Extensions and discoveries	80.1	20.6	59.5	—
Purchases of properties	5.0	5.0	—	—
Sales of properties	(4.4)	(4.4)	—	—
Production	(63.9)	(41.9)	(21.7)	(0.3)
December 31, 2022 ¹	715.4	357.0	357.8	0.6
Proved developed reserves:				
December 31, 2019	472.3	273.4	198.1	0.8
December 31, 2020	410.8	230.3	180.5	—
December 31, 2021	419.2	241.9	176.8	0.6
December 31, 2022 ²	436.0	264.2	171.3	0.5
Proved undeveloped reserves:				
December 31, 2019	352.7	226.7	126.0	—
December 31, 2020	304.1	98.2	205.9	—
December 31, 2021	297.7	101.6	196.0	0.1
December 31, 2022 ³	279.4	92.8	186.5	0.1

¹ Includes proved reserves of 18.2 MMBOE, consisting of 16.5 MMBBL oil, 0.6 MMBBL NGLs and 5.6 BCF natural gas attributable to the noncontrolling interest in MP GOM.

² Includes proved developed reserves of 15.0 MMBOE, consisting of 13.7 MMBBL oil, 0.5 MMBBL NGLs and 4.2 BCF natural gas attributable to the noncontrolling interest in MP GOM.

³ Includes proved undeveloped reserves of 3.2 MMBOE, consisting of 2.8 MMBBL oil, 0.1 MMBBL NGLs and 1.4 BCF natural gas attributable to the noncontrolling interest in MP GOM.

⁴ Totals within the tables may not add as a result of rounding.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**

Schedule 1 – Summary of Total Proved Equivalent Reserves Based on Average Prices for 2019 – 2022 (Continued)

2022 Comments for Proved Equivalent Reserves Changes

Revisions of previous estimates - The equivalent reserves revisions in 2022 resulted predominantly from increased royalty rates and accelerated royalty incentive payouts due to higher commodity prices in Tupper Montney. These negative revisions were partially offset by positive well performance in the U.S. Gulf of Mexico.

Extensions and discoveries - In 2022, proved equivalent reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney and Kaybob Duvernay as well as in the U.S. at the Gulf of Mexico and the Eagle Ford Shale.

Purchases and sales of properties - In 2022, the Company acquired incremental working interest in two producing fields in the U.S. Gulf of Mexico and divested working interest in one field in the U.S. Gulf of Mexico and a portion Eagle Ford Shale.

2021 Comments for Proved Equivalent Reserves Changes

Revisions of previous estimates - The equivalent reserves revisions in 2021 resulted predominantly from accelerated royalty incentive payouts due to higher commodity prices in Tupper Montney. These negative revisions were partially offset by positive revisions in the U.S. from higher commodity prices, which partially reversed the 2020 capital expenditure reduction and improved well performance in the U.S. Gulf of Mexico.

Extensions and discoveries - In 2021, proved equivalent reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney as well as in the U.S. at the Eagle Ford Shale and the Gulf of Mexico.

Purchases and sales of properties - In 2021, the Company acquired incremental working interest in Terra Nova offshore Canada and in the U.S. Gulf of Mexico.

2020 Comments for Proved Equivalent Reserves Changes

Revisions of previous estimates - The negative reserves revisions in 2020 resulted predominantly from lower crude oil prices and lower capital expenditures for onshore shale properties over the next 5 years causing the removal of numerous proved undeveloped locations, partially offset by improved well performance in the Gulf of Mexico. The 2020 negative equivalents revision in the U.S. was primarily attributable to lower capital expenditures in the Eagle Ford Shale and the negative revision in Canada was primarily attributable to the Kaybob Duvernay. Lower commodity prices also resulted in negative equivalents revisions in the U.S offshore and Canada offshore.

Extensions and discoveries - In 2020, proved equivalent reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney as well as in the U.S. at the Eagle Ford Shale. Proved equivalent reserves were also added for drilling activities in both the U.S. offshore and Canada offshore.

Purchases and sales of properties - In 2020, the Company divested partial working interest in an undeveloped well in the Gulf of Mexico.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 2 – Summary of Proved Crude Oil Reserves Based on Average Prices for 2019 – 2022

<i>(Millions of barrels)</i>	Total	United States	Canada	Other
Proved developed and undeveloped crude oil reserves:				
December 31, 2019	423.9	377.8	45.3	0.8
Revisions of previous estimates	(137.4)	(116.8)	(19.8)	(0.8)
Extensions and discoveries	19.6	14.5	5.1	—
Sales of properties	(1.5)	(1.5)	—	—
Production	(38.1)	(33.4)	(4.7)	—
December 31, 2020	266.5	240.6	25.9	—
Revisions of previous estimates	39.3	31.1	7.5	0.7
Extensions and discoveries	14.1	13.5	0.6	—
Purchases of properties	6.4	1.3	5.2	—
Production	(34.9)	(31.5)	(3.3)	(0.1)
December 31, 2021	291.5	255.0	35.9	0.6
Revisions of previous estimates	23.4	19.9	3.3	0.2
Improved recovery	4.7	4.7	—	—
Extensions and discoveries	18.9	16.1	2.8	—
Purchases of properties	4.2	4.2	—	—
Sales of properties	(3.6)	(3.6)	—	—
Production	(35.5)	(32.7)	(2.5)	(0.3)
December 31, 2022 ¹	303.6	263.6	39.5	0.5
Proved developed crude oil reserves:				
December 31, 2019	230.9	205.0	25.1	0.8
December 31, 2020	179.8	161.4	18.4	—
December 31, 2021	191.5	174.9	16.0	0.5
December 31, 2022 ²	209.0	194.4	14.2	0.4
Proved undeveloped crude oil reserves:				
December 31, 2019	193.0	172.8	20.2	—
December 31, 2020	86.7	79.2	7.5	—
December 31, 2021	99.9	80.0	19.8	0.1
December 31, 2022 ³	94.6	69.2	25.3	0.1

¹ Includes total proved reserves of 16.5 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

² Includes proved developed reserves of 13.7 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

³ Includes proved undeveloped reserves of 2.8 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

⁴ Totals within the tables may not add as a result of rounding.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**

Schedule 2 – Summary of Proved Crude Oil Reserves Based on Average Prices for 2019 – 2022 (Continued)

2022 Comments for Proved Crude Oil Reserves Changes

Revisions of previous estimates - The positive crude oil reserves revisions in 2022 resulted predominantly from improved well performance in the U.S. Gulf of Mexico and impacts of higher commodity prices in the U.S.

Extensions and discoveries - In 2022, proved oil reserves were added for drilling and expansion activities predominantly in the U.S. in the Gulf of Mexico and the Eagle Ford Shale.

Purchases and sales of properties - In 2022, the Company acquired incremental working interest in two producing fields in the U.S. Gulf of Mexico and divested working interest in one field in the U.S. Gulf of Mexico and a portion of the Eagle Ford Shale.

2021 Comments for Proved Crude Oil Reserves Changes

Revisions of previous estimates - The positive crude oil reserves revisions in 2021 resulted predominantly from impacts of higher commodity prices in the U.S., which partially reversed the 2020 capital expenditure reductions and improved well performance in the U.S. Gulf of Mexico.

Extensions and discoveries - In 2021, proved oil reserves were added for drilling and expansion activities predominantly in the U.S. at the Eagle Ford Shale and the Gulf of Mexico.

Purchases and sales of properties - In 2021, the Company acquired incremental working interest in Terra Nova offshore Canada and one field in the U.S. Gulf of Mexico.

2020 Comments for Proved Crude Oil Reserves Changes

Revisions of previous estimates - The negative crude oil reserves revisions in 2020 resulted predominantly from lower crude oil prices and lower capital expenditures for onshore shale properties over the next 5 years causing the removal of numerous proved undeveloped locations, partially offset by improved well performance in the Gulf of Mexico. The 2020 negative oil revision in the U.S. was primarily attributable to lower capital expenditures in the Eagle Ford Shale and the negative revision in Canada was primarily attributable to the Kaybob Duvernay. Lower commodity prices also resulted in negative oil reserves revisions in the U.S offshore and Canada offshore.

Extensions and discoveries - In 2020, proved oil reserves were added for drilling activities predominantly in the U.S. offshore and the Eagle Ford Shale. Proved oil reserves were also added for drilling activities in Canada offshore.

Purchases and sales of properties - In 2020, the Company divested partial working interest in an undeveloped well in the Gulf of Mexico.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 3 – Summary of Proved Natural Gas Liquids (NGL) Reserves Based on Average Prices for 2019 – 2022

<i>(Millions of barrels)</i>	Total	United States	Canada	Other
Proved developed and undeveloped NGL reserves:				
December 31, 2019	56.1	52.8	3.3	—
Revisions of previous estimates	(16.4)	(17.1)	0.7	—
Extensions and discoveries	2.8	2.7	0.1	—
Sales of properties	(0.1)	(0.1)	—	—
Production	(4.2)	(3.7)	(0.5)	—
December 31, 2020	38.2	34.6	3.6	—
Revisions of previous estimates	1.4	1.4	—	—
Extensions and discoveries	2.5	2.4	0.1	—
Purchases of properties	0.1	0.1	—	—
Production	(3.8)	(3.4)	(0.4)	—
December 31, 2021	38.4	35.1	3.3	—
Revisions of previous estimates	4.4	3.9	0.5	—
Improved recovery	0.2	0.2	—	—
Extensions and discoveries	2.5	1.9	0.6	—
Purchases of properties	0.3	0.3	—	—
Sales of properties	(0.2)	(0.2)	—	—
Production	(3.9)	(3.6)	(0.3)	—
December 31, 2022 ¹	41.7	37.6	4.1	—
Proved developed NGL reserves:				
December 31, 2019	28.1	26.2	1.9	—
December 31, 2020	28.7	25.5	3.2	—
December 31, 2021	28.4	25.6	2.8	—
December 31, 2022 ²	29.7	27.4	2.3	—
Proved undeveloped NGL reserves:				
December 31, 2019	28.0	26.6	1.4	—
December 31, 2020	9.5	9.1	0.4	—
December 31, 2021	10.0	9.5	0.5	—
December 31, 2022 ³	12.0	10.2	1.8	—

¹ Includes total proved reserves of 0.6 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

² Includes proved developed reserves of 0.5 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

³ Includes proved undeveloped reserves of 0.1 MMBBL for Total and United States attributable to the noncontrolling interest in MP GOM.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**

Schedule 3 – Summary of Proved Natural Gas Liquids (NGL) Reserves Based on Average Prices for 2019 – 2022 (Continued)

2022 Comments for Proved Natural Gas Liquids Reserves Changes

Revisions of previous estimates - The positive NGL reserves revisions in 2022 resulted predominantly from improved well performance in the U.S. Gulf of Mexico and the Eagle Ford Shale as well as in Canada at Kaybob Duvernay.

Extensions and discoveries - In 2022, proved NGL reserves were added for drilling and expansion activities predominantly in the U.S. at the Gulf of Mexico and the Eagle Ford Shale as well as in Canada at Tupper Montney and Kaybob Duvernay.

Purchases and sales of properties - In 2022, the Company acquired incremental working interest in two producing fields in the U.S. Gulf of Mexico and divested working interest in one field in the U.S. Gulf of Mexico and a portion of the Eagle Ford Shale.

2021 Comments for Proved Natural Gas Liquids Reserves Changes

Revisions of previous estimates - The positive NGL reserves revisions in 2021 resulted predominantly from impacts of higher commodity prices, which partially reversed the 2020 capital expenditure reductions and improved well performance in the U.S. Gulf of Mexico.

Extensions and discoveries - In 2021, proved NGL reserves were added for drilling and expansion activities predominantly in the U.S. Eagle Ford Shale.

Purchases and sales of properties - In 2021, the Company acquired incremental working interest in the U.S. Gulf of Mexico.

2020 Comments for Proved Natural Gas Liquids Reserves Changes

Revisions of previous estimates - The negative NGL reserves revisions in 2020 resulted predominantly from lower crude oil prices and lower capital expenditures for onshore shale properties over the next 5 years causing the removal of numerous proved undeveloped locations, partially offset by improved well performance in the Gulf of Mexico. The 2020 negative NGL revision in the U.S. was primarily attributable to lower capital allowance in the Eagle Ford Shale. The positive revision in Canada was primarily attributable to higher yields at the Kaybob Duvernay due to improved plant recoveries.

Extensions and discoveries - In 2020, proved NGL reserves were added for drilling activities predominantly in the U.S. at the Eagle Ford Shale.

Purchases and sales of properties - In 2020, the Company divested partial working interest in an undeveloped well in the Gulf of Mexico.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 4 – Summary of Proved Natural Gas Reserves Based on Average Prices for 2019 – 2022

<i>(Billions of cubic feet)</i>	Total	United States	Canada	Other
Proved developed and undeveloped natural gas reserves:				
December 31, 2019	2,069.7	416.8	1,652.9	—
Revisions of previous estimates	(245.4)	(76.2)	(169.2)	—
Extensions and discoveries	767.2	14.0	753.2	—
Sales of properties	(0.7)	(0.7)	—	—
Production	(129.8)	(34.4)	(95.4)	—
December 31, 2020	2,461.0	319.5	2,141.5	—
Revisions of previous estimates	(562.2)	18.7	(581.0)	0.2
Extensions and discoveries	556.7	13.5	543.2	—
Purchases of properties	5.4	1.5	3.9	—
Sale of properties	(4.4)	—	(4.4)	—
Production	(134.2)	(32.8)	(101.4)	—
December 31, 2021	2,322.3	320.3	2,001.8	0.2
Revisions of previous estimates	(309.8)	30.7	(340.5)	—
Improved recovery	2.6	2.6	—	—
Extensions and discoveries	352.4	15.7	336.7	—
Purchases of properties	2.9	2.9	—	—
Sales of properties	(3.6)	(3.6)	—	—
Production	(146.9)	(33.7)	(113.2)	—
December 31, 2022 ^{1,4}	2,219.9	334.9	1,884.8	0.2
Proved developed natural gas reserves:				
December 31, 2019	1,279.8	253.1	1,026.7	—
December 31, 2020	1,213.8	260.2	953.6	—
December 31, 2021	1,196.0	248.1	947.7	0.2
December 31, 2022 ^{2,4}	1,183.1	254.1	928.8	0.2
Proved undeveloped natural gas reserves:				
December 31, 2019	789.9	163.7	626.2	—
December 31, 2020	1,247.2	59.3	1,187.9	—
December 31, 2021	1,126.4	72.2	1,054.1	—
December 31, 2022 ³	1,036.8	80.8	956.0	—

¹ Includes total proved reserves of 5.6 BCF for Total and United States attributable to the noncontrolling interest in MP GOM.

² Includes proved developed reserves of 4.2 BCF for Total and United States attributable to the noncontrolling interest in MP GOM.

³ Includes proved undeveloped reserves of 1.4 BCF for Total and United States attributable to the noncontrolling interest in MP GOM.

⁴ Includes proved natural gas reserves to be consumed in operations as fuel of 74.9 BCF and 43.5 BCF for the U.S. and Canada, respectively, with 0.8 BCF attributable to the noncontrolling interest in MP GOM.

⁵ Totals within the tables may not add as a result of rounding.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**

Schedule 4 – Summary of Proved Natural Gas Reserves Based on Average Prices for 2019 – 2022 (Continued)

2022 Comments for Proved Natural Gas Reserves Changes

Revisions of previous estimates - The negative natural gas reserves revisions in 2022 resulted predominantly from increased royalty rates and accelerated royalty incentive payouts due to higher commodity prices in Canada at Tupper Montney.

Extensions and discoveries - In 2022, proved natural gas reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney as well as in the U.S. at the Gulf of Mexico and the Eagle Ford Shale.

Purchases and sales of properties - In 2022, the Company acquired incremental working interest in two producing fields in the U.S. Gulf of Mexico and divested working interest in one field in the U.S. Gulf of Mexico and a portion of the Eagle Ford Shale.

2021 Comments for Proved Natural Gas Reserves Changes

Revisions of previous estimates - The negative natural gas reserves revisions in 2021 resulted predominantly from accelerated royalty incentive payouts due to higher commodity prices at Tupper Montney.

Extensions and discoveries - In 2021, proved equivalent reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney as well as in the U.S. at the Eagle Ford Shale and the Gulf of Mexico.

Purchases and sales of properties - In 2021, the Company acquired incremental working interest at Terra Nova offshore Canada and in the U.S. Gulf of Mexico.

2020 Comments for Proved Natural Gas Reserves Changes

Revisions of previous estimates - The negative natural gas reserves revisions in 2020 resulted predominantly from lower crude oil prices and lower capital expenditures for onshore shale properties over the next 5 years causing the removal of numerous proved undeveloped locations, partially offset by improved well performance in the Gulf of Mexico. The 2020 negative natural gas revision in the U.S. was primarily attributable to lower capital expenditures in the Eagle Ford Shale which offset positive natural gas revisions in the Gulf of Mexico. The negative revision in Canada was primarily attributable to the Kaybob Duvernay.

Extensions and discoveries - In 2020, proved natural gas reserves were added for drilling and expansion activities predominantly in Canada at Tupper Montney as well as in the U.S. at the Eagle Ford Shale.

Purchases and sales of properties - In 2020, the Company divested partial working interest in an undeveloped well in the Gulf of Mexico.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
 SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 5 – Costs Incurred in Oil and Natural Gas Property Acquisition, Exploration and Development Activities

<i>(Millions of dollars)</i>	United States	Canada ¹	Other	Total
Year ended December 31, 2022				
Property acquisition costs				
Unproved	\$ 1.8	\$ —	\$ —	\$ 1.8
Proved	128.5	—	—	128.5
Total acquisition costs	130.3	—	—	130.3
Exploration costs	42.2	0.8	70.3	113.3
Development costs	704.9	208.5	4.3	917.7
Total costs incurred	877.4	209.3	74.6	1,161.3
Charged to expense				
Dry hole expense	23.0	—	59.1	82.1
Geophysical and other costs	15.8	0.8	21.1	37.7
Total charged to expense	38.8	0.8	80.2	119.8
Property additions	<u>\$ 838.6</u>	<u>\$ 208.5</u>	<u>\$ (5.7)</u>	<u>\$ 1,041.4</u>
Year ended December 31, 2021				
Property acquisition costs				
Unproved	\$ 8.8	\$ —	\$ —	\$ 8.8
Proved	19.9	(20.4)	—	(0.5)
Total acquisition costs	28.7	(20.4)	—	8.3
Exploration costs	31.7	0.4	30.1	62.2
Development costs	513.2	102.4	3.7	619.3
Total costs incurred	573.6	82.4	33.8	689.8
Charged to expense				
Dry hole expense	17.3	—	—	17.3
Geophysical and other costs	13.1	0.4	19.3	32.8
Total charged to expense	30.4	0.4	19.3	50.1
Property additions	<u>\$ 543.2</u>	<u>\$ 82.0</u>	<u>\$ 14.5</u>	<u>\$ 639.7</u>
Year ended December 31, 2020				
Property acquisition costs				
Unproved	\$ 6.5	\$ 0.5	\$ 7.3	\$ 14.3
Proved	0.2	—	—	0.2
Total acquisition costs	6.7	0.5	7.3	14.5
Exploration costs	34.3	(0.4)	24.7	58.6
Development costs	609.2	120.8	6.8	736.8
Total costs incurred	650.2	120.9	38.8	809.9
Charged to expense				
Geophysical and other costs	14.3	0.7	23.6	38.6
Total charged to expense	14.3	0.7	23.6	38.6
Property additions	<u>\$ 635.9</u>	<u>\$ 120.2</u>	<u>\$ 15.2</u>	<u>\$ 771.3</u>

¹ 2021 Canada proved property acquisitions represents cash received from divesting partners on acquisition of an additional 7.525% working interest at Terra Nova as part of the sanction of an asset life extension project.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
 SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
Schedule 6 – Results of Operations for Oil and Natural Gas Producing Activities ¹

<i>(Millions of dollars)</i>	United States	Canada	Other	Total
Year ended December 31, 2022				
Revenues				
Crude oil and natural gas liquids sales	\$ 3,210.3	\$ 267.5	\$ 22.8	\$ 3,500.6
Natural gas sales	225.3	312.6	—	537.9
Sales of purchased natural gas	0.2	181.5	—	181.7
Total oil and natural gas revenues	3,435.8	761.6	22.8	4,220.2
Other operating revenues	25.4	1.3	—	26.7
Total revenues	3,461.2	762.9	22.8	4,246.9
Costs and expenses				
Lease operating expenses	522.7	155.1	1.5	679.3
Severance and ad valorem taxes	55.7	1.3	—	57.0
Transportation, gathering and processing	142.2	70.5	—	212.7
Costs of purchased natural gas	0.2	171.8	—	172.0
Exploration costs charged to expense	38.8	0.8	80.2	119.8
Undeveloped lease amortization	8.7	0.2	4.4	13.3
Depreciation, depletion and amortization	617.0	141.5	5.4	763.9
Accretion of asset retirement obligations	36.5	9.6	0.1	46.2
Selling and general expenses	20.4	21.9	2.2	44.5
Other expenses (benefits)	126.3	12.4	3.1	141.8
Total costs and expenses	1,568.5	585.1	96.9	2,250.5
Results of operations before taxes	1,892.7	177.8	(74.1)	1,996.4
Income tax expense (benefit)	370.8	43.6	2.9	417.3
Results of operations	\$ 1,521.9	\$ 134.2	\$ (77.0)	\$ 1,579.1
Year ended December 31, 2021				
Revenues				
Crude oil and natural gas liquids sales	\$ 2,199.7	\$ 228.9	\$ 4.9	\$ 2,433.5
Natural gas sales	121.8	245.9	—	367.7
Total oil and natural gas revenues	2,321.5	474.8	4.9	2,801.2
Other operating revenues	16.0	1.5	—	17.5
Total revenues	2,337.5	476.3	4.9	2,818.7
Costs and expenses				
Lease operating expenses	406.4	136.3	(3.2)	539.5
Severance and ad valorem taxes	39.6	1.6	—	41.2
Transportation, gathering and processing	126.5	60.5	—	187.0
Exploration costs charged to expense	30.4	0.4	19.3	50.1
Undeveloped lease amortization	11.1	0.2	7.6	18.9
Depreciation, depletion and amortization	616.5	163.8	1.8	782.1
Accretion of asset retirement obligations	36.9	9.7	—	46.6
Impairment of assets	—	171.3	18.0	189.3
Selling and general expenses	20.5	16.5	6.6	43.6
Other expenses	99.4	(66.2)	(2.2)	31.0
Total costs and expenses	1,387.3	494.1	47.9	1,929.3
Results of operations before taxes	950.2	(17.8)	(43.0)	889.4
Income tax expense (benefit)	183.9	(1.7)	(9.5)	172.7
Results of operations	\$ 766.3	\$ (16.1)	\$ (33.5)	\$ 716.7

¹ Results exclude corporate overhead, interest and discontinued operations. Results include noncontrolling interest in MP GOM.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued

Schedule 6 – Results of Operations for Oil and Natural Gas Producing Activities ¹ (Continued)

<i>(Millions of dollars)</i>	United States	Canada	Other	Total
Year ended December 31, 2020				
Revenues				
Crude oil and natural gas liquids sales	\$ 1,335.8	\$ 174.0	\$ 1.8	\$ 1,511.6
Natural gas sales	69.4	170.6	—	240.1
Total oil and natural gas revenues	1,405.3	344.6	1.8	1,751.7
Other operating revenues	6.5	1.2	—	7.7
Total revenues	1,411.8	345.8	1.8	1,759.4
Costs and expenses				
Lease operating expenses	476.9	121.6	1.6	600.1
Severance and ad valorem taxes	27.2	1.3	—	28.5
Transportation, gathering and processing	127.7	44.7	—	172.4
Restructuring expenses	1.2	—	—	1.2
Exploration costs charged to expense	35.5	0.6	23.6	59.7
Undeveloped lease amortization	17.2	0.4	9.2	26.8
Depreciation, depletion and amortization	749.4	213.2	2.3	964.9
Accretion of asset retirement obligations	36.6	5.6	—	42.2
Impairment of assets	1,152.5	—	39.7	1,192.2
Selling and general expenses	24.6	17.1	7.1	48.8
Other expenses	21.5	(2.3)	1.8	21.0
Total costs and expenses	2,670.3	402.2	85.3	3,157.8
Results of operations before taxes	(1,258.5)	(56.4)	(83.5)	(1,398.4)
Income tax expense (benefit)	(244.2)	(21.4)	2.1	(263.5)
Results of operations	<u>\$ (1,014.3)</u>	<u>\$ (35.0)</u>	<u>\$ (85.6)</u>	<u>\$ (1,134.9)</u>

¹ Results exclude corporate overhead, interest and discontinued operations. Results include noncontrolling interest in MP GOM.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued**
**Schedule 7 – Standardized Measure of Discounted Future Net Cash Flows Relating to
Proved Oil and Natural Gas Reserves ¹**

<i>(Millions of dollars)</i>	United States	Canada	Other	Total
December 31, 2022				
Future cash inflows	\$ 27,277.9	\$ 12,360.2	\$ 59.2	\$ 39,697.3
Future development costs	(1,594.5)	(642.4)	(1.4)	(2,238.3)
Future production costs	(8,297.4)	(4,199.0)	(12.1)	(12,508.5)
Future income taxes	(2,606.8)	(1,788.7)	(5.4)	(4,400.9)
Future net cash flows	14,779.2	5,730.1	40.3	20,549.6
10% annual discount for estimated timing of cash flows	(5,709.8)	(3,015.6)	(11.0)	(8,736.4)
Standardized measure of discounted future net cash flows	<u>\$ 9,069.4</u>	<u>\$ 2,714.5</u>	<u>\$ 29.3</u>	<u>\$ 11,813.2</u>
December 31, 2021				
Future cash inflows	\$ 18,449.1	\$ 7,203.5	\$ 44.0	\$ 25,696.7
Future development costs	(1,164.3)	(521.1)	(1.5)	(1,686.8)
Future production costs	(7,140.6)	(3,525.8)	(9.1)	(10,675.4)
Future income taxes	(1,024.4)	(565.4)	(3.0)	(1,592.8)
Future net cash flows	9,119.9	2,591.3	30.4	11,741.6
10% annual discount for estimated timing of cash flows	(3,264.9)	(1,169.3)	(8.5)	(4,442.7)
Standardized measure of discounted future net cash flows	<u>\$ 5,855.1</u>	<u>\$ 1,422.0</u>	<u>\$ 21.9</u>	<u>\$ 7,299.0</u>
December 31, 2020				
Future cash inflows	\$ 9,976.7	\$ 4,617.5	\$ —	\$ 14,594.2
Future development costs	(1,289.8)	(404.3)	—	(1,694.1)
Future production costs	(5,777.5)	(2,634.6)	—	(8,412.1)
Future income taxes	—	(166.8)	—	(166.8)
Future net cash flows	2,909.4	1,411.8	—	4,321.2
10% annual discount for estimated timing of cash flows	(1,079.2)	(623.4)	—	(1,702.6)
Standardized measure of discounted future net cash flows	<u>\$ 1,830.2</u>	<u>\$ 788.4</u>	<u>\$ —</u>	<u>\$ 2,618.6</u>

¹ Includes noncontrolling interest in MP GOM.

² Totals within the table may not add as a result of rounding.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued****Schedule 7 – Standardized Measure of Discounted Future Net Cash Flows Relating to
Proved Oil and Natural Gas Reserves¹ (Continued)**

Following are the principal sources of change in the standardized measure of discounted future net cash flows for the years shown.

<i>(Millions of dollars)</i>	2022	2021	2020
Net changes in prices and production costs ²	\$ 4,812.2	\$ 5,962.1	\$ (5,942.1)
Net changes in development costs	(531.1)	(503.6)	2,215.1
Sales and transfers of oil and natural gas produced, net of production costs	(2,917.4)	(2,220.5)	(1,123.1)
Net change due to extensions and discoveries	1,223.5	908.5	568.5
Net change due to purchases and sales of proved reserves	102.1	63.1	(14.6)
Development costs incurred	769.3	619.3	736.8
Accretion of discount	802.6	267.2	699.3
Revisions of previous quantity estimates	1,652.9	277.1	(1,461.3)
Net change in income taxes	(1,399.9)	(692.8)	1,112.4
Net increase (decrease)	4,514.2	4,680.4	(3,209.0)
Standardized measure at January 1	7,299.0	2,618.6	5,827.6
Standardized measure at December 31	\$ 11,813.2	\$ 7,299.0	\$ 2,618.6

¹ Includes noncontrolling interest in MP GOM.

² The average prices used for 2022 were \$93.67 per barrel for NYMEX crude oil (WTI) and \$6.36 per MCF for natural gas (Henry Hub). The average prices used for 2021 were \$66.56 per barrel for NYMEX crude oil (WTI) and \$3.60 per MCF for natural gas (Henry Hub). The average prices used for 2020 were \$39.57 per barrel for NYMEX crude oil (WTI) and \$1.98 per MCF for natural gas (Henry Hub).

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED) – Continued
Schedule 8 – Capitalized Costs Relating to Oil and Natural Gas Producing Activities

<i>(Millions of dollars)</i>	United States	Canada	Other	Total
December 31, 2022				
Unproved oil and natural gas properties	\$ 494.6	\$ 19.2	\$ 135.1	\$ 648.9
Proved oil and natural gas properties	15,051.9	4,684.8	55.9	19,792.6
Gross capitalized costs	15,546.5	4,704.0	191.0	20,441.5
Accumulated depreciation, depletion and amortization				
Unproved oil and natural gas properties	(117.8)	—	(14.7)	(132.5)
Proved oil and natural gas properties	(8,873.6)	(3,208.0)	(41.3)	(12,122.9)
Net capitalized costs	<u>\$ 6,555.1</u>	<u>\$ 1,496.0</u>	<u>\$ 135.0</u>	<u>\$ 8,186.1</u>
December 31, 2021				
Unproved oil and natural gas properties	\$ 602.8	\$ 17.7	\$ 141.7	\$ 762.2
Proved oil and natural gas properties	14,690.7	4,865.1	100.0	19,655.8
Gross capitalized costs	15,293.5	4,882.8	241.7	20,418.0
Accumulated depreciation, depletion and amortization				
Unproved oil and natural gas properties	(109.1)	—	(22.0)	(131.1)
Proved oil and natural gas properties	(8,821.5)	(3,320.5)	(69.0)	(12,211.0)
Net capitalized costs	<u>\$ 6,362.9</u>	<u>\$ 1,562.3</u>	<u>\$ 150.7</u>	<u>\$ 8,075.9</u>

Note: Unproved oil and natural gas properties above include costs and associated accumulated amortization of properties that do not have proved reserves; these costs include mineral interests, uncompleted exploratory wells and exploratory wells capitalized pending further evaluation.

**MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SUPPLEMENTAL QUARTERLY INFORMATION (UNAUDITED)**

<i>(Millions of dollars except per share amounts)</i>	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year ¹
Year ended December 31, 2022					
Revenue from contracts with customers	\$ 871.4	\$ 1,196.2	\$ 1,166.4	\$ 986.1	\$ 4,220.1
Income (loss) from continuing operations before income taxes	(81.9)	515.5	734.0	282.7	1,450.3
Income (loss) from continuing operations	(64.9)	410.4	574.5	220.8	1,140.8
Net income (loss) including noncontrolling interest	(65.5)	409.5	574.1	220.6	1,138.7
Net income (loss) attributable to Murphy	(113.3)	350.6	528.3	199.4	965.0
Income (loss) from continuing operations per Common share ²					
Basic	(0.73)	2.27	3.40	1.28	6.23
Diluted	(0.73)	2.24	3.36	1.26	6.14
Net income (loss) per Common share ²					
Basic	(0.73)	2.26	3.40	1.28	6.22
Diluted	(0.73)	2.23	3.36	1.26	6.13
Cash dividend per Common share	0.150	0.175	0.250	0.250	0.825
Year ended December 31, 2021					
Revenue from contracts with customers	\$ 592.5	\$ 758.8	\$ 687.6	\$ 762.3	\$ 2,801.2
Income (loss) from continuing operations before income taxes	(355.2)	(38.1)	174.9	261.3	42.9
Income (loss) from continuing operations	(267.0)	(26.9)	138.0	204.7	48.8
Net income (loss) including noncontrolling interest	(266.8)	(27.0)	137.3	204.0	47.5
Net income (loss) attributable to Murphy	(287.4)	(63.1)	108.4	168.4	(73.7)
Income (loss) from continuing operations per Common share ²					
Basic	(1.87)	(0.41)	0.70	1.09	(0.47)
Diluted	(1.87)	(0.41)	0.70	1.08	(0.47)
Net income (loss) per Common share ²					
Basic	(1.87)	(0.41)	0.70	1.09	(0.48)
Diluted	(1.87)	(0.41)	0.70	1.09	(0.48)
Cash dividend per Common share	0.125	0.125	0.125	0.125	0.500

¹ Revenue from contracts with customers, "Income (Loss) from continuing operations before income taxes", "Income (Loss) from continuing operations" and "Net income (loss) including noncontrolling interest" include results attributable to the noncontrolling interest in MP GOM.

² The sum of quarterly income (loss) from continuing operations per share and net income (loss) per share may not agree with total year net income (loss) per share as each quarterly computation is based on the weighted average of common shares outstanding.

MURPHY OIL CORPORATION AND CONSOLIDATED SUBSIDIARIES
SCHEDULE II - VALUATION ACCOUNTS AND RESERVES

<i>(Millions of dollars)</i>	Balance at January 1	Charged to Expense	Deductions	Other	Balance at December 31
2022					
Deducted from asset accounts:					
Allowance for doubtful accounts	\$ 1.6	\$ —	\$ —	\$ —	\$ 1.6
Deferred tax asset valuation allowance	111.2	24.8	—	—	136.0
2021					
Deducted from asset accounts:					
Allowance for doubtful accounts	\$ 1.6	\$ —	\$ —	\$ —	\$ 1.6
Deferred tax asset valuation allowance	106.4	4.8	—	—	111.2
2020					
Deducted from asset accounts:					
Allowance for doubtful accounts	\$ 1.6	\$ —	\$ —	\$ —	\$ 1.6
Deferred tax asset valuation allowance	103.1	3.3	—	—	106.4

GLOSSARY

2D seismic

two-dimensional images created by bouncing sound waves off underground rock formations that are used to determine the best places to drill for hydrocarbons

3D seismic

three-dimensional images created by bouncing sound waves off underground rock formations that are used to determine the best places to drill for hydrocarbons

deepwater

offshore location in greater than 1,000 feet of water

downstream

refining and marketing operations

dry hole

an unsuccessful exploration well that is plugged and abandoned, with associated costs written off to expense

exploratory

wildcat and delineation, e.g., exploratory wells

hydrocarbons

organic chemical compounds of hydrogen and carbon atoms that form the basis of all petroleum products

operator

the company serving as the manager and often the decision-maker of a drilling or production project

production sharing contract

agreement between extracting company(ies) and a host country regarding each party's share of production after stipulated exploratory and development costs are recovered

unitization

combining of multiple mineral or leasehold interests to be able to produce from a common reservoir

upstream

oil and natural gas exploration and production operations, including synthetic oil operation

working interest

right to drill and produce oil and natural gas on the leased acreage, as well as the obligation to pay costs

ABBREVIATIONS

ARO - Asset Retirement Obligation

ASU - Accounting Standards Update

BCF - Billion cubic feet

BOEPD - Barrel of oil equivalent per day

DE&I - Diversity, Equity and Inclusion

ESG - Environmental, Social and Governance

FASB - Financial Accounting Standards Board

GAAP - U.S. Generally Accepted Accounting Principles

GHG - Greenhouse gas

GK - Gumusut/Kakap

LOE - Lease operating expense

MCF - Thousand cubic feet

MMBBL - Million barrels of oil

MMBOE - Million barrels of oil equivalent

MMCF - Million cubic feet

MMCFD – Million cubic feet per day

MOCL - Murphy Oil Company Ltd.

NCI - Noncontrolling interest

NGL - Natural gas liquids

NYMEX - New York Mercantile Exchange

OSHA - Occupational Safety and Health Act

PAI – Petrobras Americas Inc., a subsidiary of Petróleo Brasileiro S.A.

QRE - Qualified Reserve Estimators

RCF - Revolving Credit Facility

SEC - U.S. Securities and Exchange Commission

SOFR - Secured Overnight Financing Rate

TGP - Transmission, gathering and processing

WTI - West Texas Intermediate

CREDIT AGREEMENT

dated as of November 17, 2022

among
MURPHY OIL CORPORATION,
MURPHY EXPLORATION & PRODUCTION COMPANY – INTERNATIONAL,
and
MURPHY OIL COMPANY LTD.,
as Borrowers

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

and

THE LENDERS PARTY HERETO

BANK OF AMERICA, N.A., CAPITAL ONE, NATIONAL ASSOCIATION,
MUFG BANK, LTD. AND THE BANK OF NOVA SCOTIA, HOUSTON BRANCH
as Co-Syndication Agents

and

SUMITOMO MITSUI BANKING CORPORATION,
as Documentation Agent

JPMORGAN CHASE BANK, N.A., BOFA SECURITIES, INC.,
CAPITAL ONE, NATIONAL ASSOCIATION, MUFG BANK, LTD. AND
THE BANK OF NOVA SCOTIA, HOUSTON BRANCH
as Co-Lead Arrangers and Joint Bookrunners

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Exhibit B-1	Form of Opinion of the Loan Parties' Counsel
Exhibit B-2	Form of Opinion of MOCL's Counsel
Exhibit C-1	U.S. Tax Certificate (For Non-U.S. Lenders that are not Partnerships for U.S. Federal Income Tax Purposes)
Exhibit C-2	U.S. Tax Certificate (For Non-U.S. Participants that are not Partnerships for U.S. Federal Income Tax Purposes)
Exhibit C-3	U.S. Tax Certificate (For Non-U.S. Participants that are Partnerships for U.S. Federal Income Tax Purposes)
Exhibit C-4	U.S. Tax Certificate (For Non-U.S. Lenders that are Partnerships for U.S. Federal Income Tax Purposes)
Exhibit D	Compliance Certificate
Exhibit E	Form of Guaranty Agreement
Exhibit F	Form of Subordinated Intercompany Note

CREDIT AGREEMENT dated as of November 17, 2022, among **MURPHY OIL CORPORATION**, a Delaware corporation (the “Company”), **MURPHY EXPLORATION & PRODUCTION COMPANY – INTERNATIONAL**, a Delaware corporation (“Expro-Intl.”), **MURPHY OIL COMPANY LTD.**, a Canadian corporation (“MOCL”), the **LENDERS** party hereto, **JPMORGAN CHASE BANK, N.A.**, as Administrative Agent, **BANK OF AMERICA, N.A.**, **CAPITAL ONE, NATIONAL ASSOCIATION**, **MUFG BANK, LTD.** AND **THE BANK OF NOVA SCOTIA, HOUSTON BRANCH** (“Scotiabank”), as Co-Syndication Agents, and Sumitomo Mitsui Banking Corporation, as Documentation Agent.

RECITALS

A. The Company, Expro-Intl. and MOCL, as borrowers, have requested that the Lenders provide certain loans to and extensions of credit on behalf of the Borrowers.

B. The Lenders have agreed to make such loans and extensions of credit subject to the terms and conditions of this Agreement.

C. In consideration of the mutual covenants and agreements herein contained and of the loans, extensions of credit and commitments hereinafter referred to, the parties hereto agree as follows:

ARTICLE I DEFINITIONS

Section 1.01 Defined Terms. As used in this Agreement, the following terms have the meanings specified below:

“1999 Indenture” means the Indenture dated as of May 4, 1999, between the Company, as issuer and SunTrust Bank, Nashville, N.A., as trustee, as amended and supplemented from time to time.

“2012 Indenture” means the Indenture dated as of May 18, 2012, between the Company, as issuer and U.S. Bank National Association, as trustee, as amended and supplemented from time to time.

“ABR”, when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, bear interest at a rate determined by reference to the Alternate Base Rate.

“Additional Financial Covenant” means any affirmative or negative “maintenance” financial covenant contained in any Other Debt Agreement applicable to the Company or any Subsidiary (regardless of whether such provision is labeled or otherwise characterized as a “financial covenant”), including any defined terms as used therein.

“Adjusted Daily Simple SOFR” means an interest rate per annum equal to (a) the Daily Simple SOFR, *plus* (b) 0.10%; *provided that* if the Adjusted Daily Simple SOFR as so determined would be less than the Floor, such rate shall be deemed to be equal to the Floor for the purposes of this Agreement.

“Adjusted Term SOFR Rate” means for any Interest Period, an interest rate per annum equal to (a) the Term SOFR Rate for such Interest Period, *plus* (b) 0.10%; *provided that* if the Adjusted Term SOFR Rate as so determined would be less than the Floor, such rate shall be deemed to be equal to the Floor for the purposes of this Agreement.

“Administrative Agent” means JPMorgan Chase Bank, N.A. (or any of its designated branch offices or affiliates), in its capacity as administrative agent for the Lenders hereunder.

“Administrative Questionnaire” means an Administrative Questionnaire in a form supplied by the Administrative Agent.

“Affected Financial Institution” means (a) any EEA Financial Institution or (b) any UK Financial Institution.

“Affiliate” means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

“Agent Parties” has the meaning assigned to it in Section 10.01(d).

“Agent-Related Person” has the meaning assigned to it in Section 10.03(c).

“Agreement” means this Credit Agreement, as the same may from time to time be amended, modified, supplemented or restated.

“Alternate Base Rate” means , for any day, a rate per annum equal to the greatest of (a) the Prime Rate in effect on such day, (b) the NYFRB Rate in effect on such day plus ½ of 1% and (c) the Adjusted Term SOFR Rate for a one month Interest Period as published two U.S. Government Securities Business Days prior to such day (or if such day is not a U.S. Government Securities Business Day, the immediately preceding U.S. Government Securities Business Day) plus 1%; provided that for the purpose of this definition, the Adjusted Term SOFR Rate for any day shall be based on the Term SOFR Reference Rate at approximately 5:00 a.m. Chicago time on such day (or any amended publication time for the Term SOFR Reference Rate, as specified by the CME Term SOFR Administrator in the Term SOFR Reference Rate methodology). Any change in the Alternate Base Rate due to a change in the Prime Rate, the NYFRB Rate or the Adjusted Term SOFR Rate shall be effective from and including the effective date of such change in the Prime Rate, the NYFRB Rate or the Adjusted Term SOFR Rate, respectively. If the Alternate Base Rate is being used as an alternate rate of interest pursuant to Section 2.13 (for the avoidance of doubt, only until the Benchmark Replacement has been determined pursuant to Section 2.13(b)), then the Alternate Base Rate shall be the greater of clauses (a) and (b) above and shall be determined without reference to clause (c) above. For the avoidance of doubt, if the Alternate Base Rate as determined pursuant to the foregoing would be less than 1.00%, such rate shall be deemed to be 1.00% for purposes of this Agreement.

“Ancillary Document” has the meaning assigned to it in Section 10.06(b).

“Anti-Corruption Laws” means all laws, rules, and regulations of any jurisdiction applicable to the Company, any other Borrower or any of their respective Subsidiaries from time to time concerning or relating to bribery or corruption.

“Applicable Percentage” means, with respect to any Revolving Lender, the percentage of the total Commitments represented by such Revolving Lender’s Commitment; *provided* that, in the case of Section 2.19 when a Defaulting Lender shall exist, “Applicable Percentage” shall mean the percentage of the total Commitments (disregarding any Defaulting Lender’s Commitment) represented by such Revolving Lender’s Commitment. If the Commitments have terminated or expired, the Applicable Percentages shall be determined based upon the Commitments most recently in effect, giving effect to any assignments and to any Revolving Lender’s status as a Defaulting Lender at the time of determination.

“Applicable Rate” means, for any day, with respect to any ABR Loan or Term Benchmark Loan, RFR Loan or with respect to the commitment fees payable hereunder, as the case may be, the applicable rate per annum set forth in the following grid under the caption “ABR Spread”, “Term Benchmark Spread”, “RFR Spread” or “Commitment Fee Rate”, as the case may be, based upon the ratings by Moody’s and S&P, respectively, applicable on such date to the Index Debt:

Level	Index Debt Ratings	Commitment Fee Rate	Term Benchmark and RFR Spread	ABR Spread
I	BBB / Baa2 or higher	0.175%	1.250%	0.250%
II	BBB- / Baa3	0.200%	1.500%	0.500%
III	BB+ / Ba1	0.400%	2.250%	1.250%
IV	BB / Ba2	0.500%	2.500%	1.500%
V	BB- / Ba3 or lower	0.500%	3.000%	2.000%

For purposes of the foregoing, (i) if either Moody’s or S&P shall not have in effect a rating for the Index Debt (other than by reason of the circumstances referred to in the last sentence of this paragraph), then such rating agency shall be deemed to have established a rating in Level V; (ii) if the ratings established or deemed to have been established by Moody’s and S&P for the Index Debt shall fall within different categories, the rate shall be based on the higher of the two ratings unless one of the ratings is two or more Levels lower than the other, in which case the rate shall be determined by reference to the Level one Level lower than the higher of the two ratings; and (iii) if the ratings established or deemed to have been established by Moody’s and S&P for the Index Debt shall be changed (other than as a result of a change in the rating system of Moody’s or

S&P), such change shall be effective as of the date on which it is first announced by the applicable rating agency. Each change in the rate shall apply during the period commencing on the effective date of such change and ending on the date immediately preceding the effective date of the next such change. If the rating system of Moody's or S&P shall change, or if either such rating agency shall cease to be in the business of rating corporate debt obligations, the Company and the Lenders shall negotiate in good faith to amend this definition to reflect such changed rating system or the unavailability of ratings from such rating agency and, pending the effectiveness of any such amendment, the rate shall be determined by reference to the rating most recently in effect prior to such change or cessation.

“Approved Fund” has the meaning assigned to it in Section 10.04(b).

“Approved Petroleum Engineer” means (a) Netherland, Sewell & Associates, Inc., (b) Cawley, Gillespie & Associates, Inc., (c) Ryder Scott Co. LP, (d) W.D. Von Gonten & Co. Petroleum Engineering, (e) De Golyer and MacNaughton, (f) McDaniel & Associates Consultants, or (g) any other independent petroleum engineers reasonably acceptable to the Administrative Agent.

“Assignment and Assumption” means an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 10.04), and accepted by the Administrative Agent, in the form of Exhibit A or any other form (including electronic records generated by the use of an electronic platform) approved by the Administrative Agent.

“Attributable Debt” means, in respect of a Sale and Leaseback Transaction, as at the time of determination, the present value of the total obligations of the lessee for rental payments during the remaining term of the lease included in such Sale and Leaseback Transaction (including any period for which such lease has been extended); provided, however, that if such Sale and Leaseback Transaction results in a Capital Lease Obligation, the amount of Indebtedness represented thereby will be determined in accordance with the definition of and will constitute “Capital Lease Obligations.” Such present value shall be calculated using a discount rate equal to the rate of interest implicit in such transaction, determined in accordance with GAAP.

“Availability Period” means the period from and including the Effective Date to but excluding the earlier of the Maturity Date and the date of termination of the Commitments; *provided* that when used in reference to any Mexico Loan or Mexico Letter of Credit, “Availability Period” means the period from and including the Effective Date to but excluding the earlier of the Maturity Date and the date of termination of the Mexico Commitment.

“Available Tenor” means, as of any date of determination and with respect to the then-current Benchmark, as applicable, any tenor for such Benchmark (or component thereof) or payment period for interest calculated with reference to such Benchmark (or component thereof), as applicable, that is or may be used for determining the length of an Interest Period for any term rate or otherwise, for determining any frequency of making payments of interest calculated pursuant to this Agreement as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of “Interest Period” pursuant to clause (e) of Section 2.13.

“Bail-In Action” means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

“Bail-In Legislation” means (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

“BAMSA” means Bank of America Mexico, S.A., Institución de Banca Múltiple.

“Bankruptcy Event” means, with respect to any Person, such Person becomes the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment; *provided* that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, unless such ownership interest results in or provides such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permits such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

“Benchmark” means, initially, the Term SOFR Rate; *provided* that if a Benchmark Transition Event, and the related Benchmark Replacement Date have occurred with respect to the Daily Simple SOFR or Term SOFR Rate, as applicable, or the then-current Benchmark, then “Benchmark” means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to clause (b) of Section 2.13.

“Benchmark Replacement” means, for any Available Tenor, the first alternative set forth in the order below that can be determined by the Administrative Agent for the applicable Benchmark Replacement Date:

- (1) the Adjusted Daily Simple SOFR;
- (2) the sum of: (a) the alternate benchmark rate that has been selected by the Administrative Agent and the Company as the replacement for the then-current Benchmark for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement for the then-current Benchmark for dollar-denominated syndicated credit facilities at such time in the United States and (b) the related Benchmark Replacement Adjustment;

If the Benchmark Replacement as determined pursuant to clause (1) or (2) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents.

“Benchmark Replacement Adjustment” means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Interest Period and Available Tenor for any setting of such Unadjusted Benchmark Replacement, the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Company for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body on the applicable Benchmark Replacement Date and/or (ii) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for dollar-denominated syndicated credit facilities at such time.

“Benchmark Replacement Conforming Changes” means, with respect to any Benchmark Replacement and/or any Term Benchmark Loan, any technical, administrative or operational changes (including changes to the definition of “Alternate Base Rate,” the definition of “Business Day,” the definition of “U.S. Government Securities Business Day,” the definition of “Interest Period,” timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides (in consultation with the Company) may be appropriate to reflect the adoption and implementation of such Benchmark and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of such Benchmark exists, in such other manner of administration as the Administrative Agent decides (in consultation with the Company) is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

“Benchmark Replacement Date” means, with respect to any Benchmark, the earliest to occur of the following events with respect to such then-current Benchmark:

- (1) in the case of clause (1) or (2) of the definition of “Benchmark Transition Event,” the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof); or
- (2) in the case of clause (3) of the definition of “Benchmark Transition Event,” the first date on which such Benchmark (or the published component used in the calculation thereof) has been determined and announced by the regulatory supervisor for the administrator of such Benchmark (or such component thereof) to be no longer

representative; provided, that such non-representativeness will be determined by reference to the most recent statement or publication referenced in such clause (c) and even if any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date.

For the avoidance of doubt, (i) if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination and (ii) the “Benchmark Replacement Date” will be deemed to have occurred in the case of clause (1) or (2) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

“Benchmark Transition Event” means, with respect to any Benchmark, the occurrence of one or more of the following events with respect to such then-current Benchmark:

(1) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(2) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the NYFRB, the CME Term SOFR Administrator, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), in each case, which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely; *provided* that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or

(3) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer, or as of a specified future date will no longer be, representative.

For the avoidance of doubt, a “Benchmark Transition Event” will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

“Benchmark Unavailability Period” means, with respect to any Benchmark, the period (if any) (x) beginning at the time that a Benchmark Replacement Date pursuant to clauses (1) or (2) of that definition has occurred if, at such time, no Benchmark Replacement has replaced such then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.13 and (y) ending at the time that a Benchmark Replacement has replaced such then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.13.

“Beneficial Ownership Certification” means a certification regarding beneficial ownership or control as required by the Beneficial Ownership Regulation.

“Beneficial Ownership Regulation” means 31 C.F.R. § 1010.230.

“Board” means the Board of Governors of the Federal Reserve System of the United States of America.

“Borrower” means each of the Company, Expro-Intl., and MOCL, and “Borrowers” means the Company, Expro-Intl. and MOCL, collectively.

“Borrowing” means Loans of the same Type, made, converted or continued on the same date and, in the case of Term Benchmark Loans, as to which a single Interest Period is in effect.

“Borrowing Request” means (a) in the case of a request for a Revolving Borrowing, a request by the Company on behalf of itself, Expro-Intl. or MOCL for such Borrowing in accordance with Section 2.03; and (b) in the case of a request for a Mexico Borrowing, a request by the Company, on behalf of Expro-Intl., for such Borrowing in accordance with Section 2.04.

“Business Day” means, any day (other than a Saturday or a Sunday) on which banks are open for business in New York City; provided that, in addition to the foregoing, a Business Day shall be (a) in relation to RFR Loans and any interest rate settings, fundings, disbursements, settlements or payments of any such RFR Loan, or any other dealings of such RFR Loan; (b) in relation to Loans referencing the Adjusted Term SOFR Rate and any interest rate settings, fundings, disbursements, settlements or payments of any such Loans referencing the Adjusted Term SOFR Rate or any other dealings of such Loans referencing the Adjusted Term SOFR Rate, any such day that is only a U.S. Government Securities Business Day; and (c) in relation to Mexico Loans, any day (other than a Saturday or a Sunday) on which banks are open for business in Mexico City.

“Canadian Dollars” means the lawful currency of Canada.

“Canadian Subsidiary” means any Subsidiary of the Company organized or incorporated under the laws of Canada or any province thereof (including, without limitation, MOCL).

“Canam” means Canam Offshore Limited, a corporation organized under the laws of the Bahamas.

“Canam Cash Amount” means, on the last day of any fiscal quarter of the Company, an amount equal to the aggregate amount of all cash, cash equivalents, marketable securities, treasury

bonds and bills, certificates of deposit, investments in money market funds and commercial paper and Permitted Investments, in each case, held or owned by (whether directly or indirectly), credited to the account of, or otherwise reflected as an asset on the balance sheet of, the Excluded Canam Entities on such day.

“Capital Lease Obligations” of any Person means the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) real or personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases or financing leases on a balance sheet of such Person under GAAP, and the amount of such obligations shall be the capitalized amount thereof determined in accordance with GAAP.

“Cash Management Agreement” means any agreement to provide cash management services, including treasury, depository, overdraft, credit or debit card, electronic funds transfer and other cash management services.

“Cash Receipts” means all cash received by or on behalf of the Company or any Subsidiary, including without limitation: (a) amounts payable under or in connection with any Oil and Gas Properties; (b) cash representing operating revenue earned or to be earned by the Company or any Subsidiary; (c) proceeds from Loans; and (d) any other cash received by or on behalf of the Company or any Subsidiary from whatever source (including amounts received in respect of the Liquidation of any Hedging Agreement and amounts received in respect of any Disposition or Casualty Event).

“Casualty Event” means any loss, casualty or other damage to, or any nationalization, taking under power of eminent domain or by condemnation or similar proceeding of, any Property of the Company or any of its Subsidiaries.

“Certifying Officer” has the meaning set forth in Section 5.01(c).

“Change in Control” means either: (a) any Person or group of related Persons (other than members of the Murphy Family) shall have acquired beneficial ownership of more than 35% of the outstanding voting shares of the Company (within the meaning of Section 13(d) or 14(d) of the Securities Exchange Act of 1934, as amended, and the applicable rules and regulations thereunder); or (b) during any period of 12 consecutive calendar months, individuals who were members of the Board of Directors of the Company on the first day of such period shall cease to constitute at least 66-2/3% of the members of the Board of Directors of the Company.

“Change in Law” means the occurrence after the Effective Date, or with respect to any Lender, any later date on which such Lender becomes a party to this Agreement, of (a) the adoption of or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) compliance by any Lender or any Issuing Bank (or, for purposes of Section 2.14(b), by any lending office of such Lender or by such Lender’s or such Issuing Bank’s holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the date of this Agreement; *provided* that, notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street

Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith or in the implementation thereof and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall be deemed to be a “Change in Law,” regardless of the date enacted, adopted, issued or implemented.

“Charges” has the meaning set forth in Section 10.14.

“Class” when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are Revolving Loans or Mexico Loans.

“CME Term SOFR Administrator” means CME Group Benchmark Administration Limited as administrator of the forward-looking term Secured Overnight Financing Rate (SOFR) (or a successor administrator).

“Co-Syndication Agents” means each of Bank of America, N.A., Capital One, National Association, MUFG Bank, Ltd. and Scotiabank, in its capacity as syndication agent for the Lenders hereunder.

“Code” means the Internal Revenue Code of 1986, as amended from time to time.

“Commitment” means, with respect to each Revolving Lender, the commitment of such Revolving Lender to make Revolving Loans and to acquire participations in Letters of Credit hereunder, expressed as an amount representing the maximum aggregate amount of such Revolving Lender’s Credit Exposure hereunder, as such commitment may be (a) reduced from time to time pursuant to Section 2.08 and Section 2.18(b), and (c) reduced or increased from time to time pursuant to assignments by or to such Lender pursuant to Section 10.04. The amount of each Revolving Lender’s Commitment on the Effective Date is set forth on Schedule 2.01, or in the Assignment and Assumption pursuant to which such Revolving Lender shall have assumed its Commitment, as applicable. The aggregate amount of the Revolving Lenders’ Commitments on the Effective Date is \$740,000,000. For the avoidance of doubt, (a) the Mexico Lender is not a Revolving Lender and has no Commitment; and (b) the Commitment of a Revolving Lender does not include a commitment of such Revolving Lender to (i) make any Mexico Loans or (ii) acquire participations in any Mexico Letter of Credit.

“Commitment Fee” shall have the meaning provided in Section 2.11(a).

“Commitment Fee Rate” shall mean, for any day, the applicable rate per annum set forth next to the row heading “Commitment Fee Rate” in the definition of “Applicable Rate”.

“Commitment Increase” has the meaning assigned to such term in Section 2.20(a).

“Commitment Increase Date” has the meaning assigned to such term in Section 2.20(a).

“Commodity Account” has the meaning assigned to such term in the UCC.

“Commodity Exchange Act” means the Commodity Exchange Act (7 U.S.C. § 1 et seq.), as amended from time to time, and any successor statute, and any regulations promulgated thereunder.

“Communications” has the meaning assigned to it in Section 10.01(d).

“Company” has the meaning assigned to such term in the preliminary paragraph of this Agreement.

“Compliance Certificate” has the meaning assigned to it in Section 5.01(d).

“Computation Date” has the meaning set forth in Section 1.05.

“Connection Income Taxes” means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

“Consolidated EBITDA” means, for any period, Consolidated Net Income for such period plus, (a) the following expenses or charges (without duplication) to the extent deducted from revenues in determining Consolidated Net Income for such period: (i) income tax expense, (ii) Consolidated Interest Expense, (iii) depletion, depreciation and amortization expense, (iv) exploration expense for such period (including all drilling, completion, geological and geophysical costs), (v) extraordinary or non-recurring cash costs, expenses and charges, including those related to severance, cost savings, operating expense reductions, facilities closings, percentage of completion contracts, consolidations, and integration costs and other restructuring charges or reserves (*provided* that the aggregate amount of all amounts added back pursuant to this clause (v) shall not, in the aggregate, exceed (A) \$75,000,000 during any period of four consecutive fiscal quarters of the Company or (B) \$200,000,000 during the term of this Agreement), (vi) any non-cash losses or charges under Hedging Agreements resulting from the application of FASB ASC 815, (vii) noncash compensation expenses or costs related to any management equity plan or stock option plan or any other management or employee benefit plan or agreement and (viii) all other non-cash charges, expenses or losses including, without limitation, accretion expenses associated with asset retirement obligations and minus, (b) to the extent included in the statement of such Consolidated Net Income for such period, the sum of (i) interest income, (ii) any extraordinary, unusual or non-recurring income or gains (including, whether or not otherwise includable as a separate item in the statement of such Consolidated Net Income for such period, gains on the sales of assets outside of the ordinary course of business), (iii) income tax credits (to the extent not netted from income tax expense), (iv) any other non-cash income and (v) any cash payments made during such period in respect of items described in clause (a)(v) above subsequent to the fiscal quarter in which the relevant non-cash expenses or losses were reflected as a charge in the statement of Consolidated Net Income, all as determined on a consolidated basis. For the purposes of calculating Consolidated EBITDA for any period of four consecutive fiscal quarters (each, a “Reference Period”) pursuant to any determination of the Consolidated Leverage Ratio or the Consolidated Interest Coverage Ratio, (i) if at any time during such Reference Period the Company or any Subsidiary shall have made any Material Disposition, the Consolidated EBITDA for such Reference Period shall be reduced by an amount equal to the Consolidated EBITDA (if positive) attributable to the property that is the subject of such Material Disposition

for such Reference Period or increased by an amount equal to the Consolidated EBITDA (if negative) attributable thereto for such Reference Period and (ii) if during such Reference Period the Company or any Subsidiary shall have made a Material Acquisition, Consolidated EBITDA for such Reference Period shall be calculated after giving *pro forma* effect thereto as if such Material Acquisition occurred on the first day of such Reference Period. As used in this definition, “Material Acquisition” means any acquisition of property or series of related acquisitions of property that (x) is permitted pursuant to Section 6.09, (y) constitutes assets comprising all or substantially all of an operating unit of a business or constitutes all or substantially all of the common stock of a Person and (z) would result in an increase in Consolidated EBITDA equal to or in excess of \$30,000,000; and “Material Disposition” means any Disposition of property or series of related Dispositions of property that (x) is permitted pursuant to Section 6.11 and (y) would result in a decrease in Consolidated EBITDA equal to or in excess of \$30,000,000.

“Consolidated EBITDA Ex-Canam” means, for any period, (a) Consolidated EBITDA minus (b) Excluded Canam EBITDA.

“Consolidated EBITDA Ex-MOCL” means, for any period, (a) Consolidated EBITDA minus (b) Excluded MOCL EBITDA.

“Consolidated Interest Coverage Ratio” means, for any period, the ratio of (a) Consolidated EBITDA for such period to (b) Consolidated Interest Expense for such period.

“Consolidated Interest Expense” means, for any period, the sum (determined without duplication) of the aggregate gross interest expense of the Company and the Consolidated Subsidiaries for such period, whether paid or accrued, including (a) to the extent included in interest expense under GAAP: (i) amortization of debt discount, (ii) capitalized interest, (iii) all commissions, discounts and other fees and charges owed with respect to letters of credit and bankers’ acceptance financing and net costs under Hedging Agreements in respect of interest rates to the extent such net costs are allocable to such period in accordance with GAAP, (iv) the portion of any payments or accruals under capital leases (and imputed interest with respect to Sale and Leaseback Transactions) allocable to interest expense, plus the portion of any payments or accruals under Synthetic Leases allocable to interest expense whether or not the same constitutes interest expense under GAAP, and (v) financing fees (including arrangement, amendment and contract fees), debt issuance costs, commissions and expenses and, in each case, the amortization thereof; and (b) all cash dividend payments or other cash distributions in respect of any Disqualified Capital Stock or on any series of preferred equity of the Company or the Consolidated Subsidiaries.

“Consolidated Leverage Ratio” means, as at the last day of any period, the ratio of (a) Consolidated Total Debt on such day to (b) Consolidated EBITDA for such period.

“Consolidated Net Income” means, for any period, with respect to the Company and the Consolidated Subsidiaries, for any period, the aggregate of the net income (or loss) of the Company and the Consolidated Subsidiaries after allowances for taxes for such period determined on a consolidated basis in accordance with GAAP; *provided* that there shall be excluded from such net income (to the extent otherwise included therein) the following: (a) the net income of (i) any Person in which the Company or any Consolidated Subsidiary has an ownership interest (which interest does not cause the net income of such other Person to be consolidated with the net income of the

Company and the Consolidated Subsidiaries in accordance with GAAP) and (ii) commencing with the fiscal quarter ending March 31, 2019, the Permitted JV, in the case of clauses (i) and (ii) above, except to the extent of the amount of dividends or distributions actually paid in cash (and including, in the case of the Permitted JV, the amount of cash distributions declared by the Permitted JV during such period but retained by the Permitted JV as an offset against capital contributions made by Expro-USA in such period in accordance with the terms of the Permitted JV LLC Agreement) during such period by such other Person or the Permitted JV, as the case may be, to the Company or to a Consolidated Subsidiary (other than the Permitted JV), as the case may be; (b) the net income (but not loss) during such period of any Consolidated Subsidiary to the extent that the declaration or payment of dividends or similar distributions or transfers or loans by that Consolidated Subsidiary is not at the time permitted by operation of the terms of its charter or any agreement, instrument or Governmental Requirement applicable to such Consolidated Subsidiary or is otherwise restricted or prohibited, in each case determined in accordance with GAAP (provided that, so long as the Permitted JV constitutes a Consolidated Subsidiary, the net income of the Permitted JV shall not be excluded pursuant to this clause (b) solely as a result of the conditions and requirements in respect of the payment of distributions pursuant to the Permitted JV LLC Agreement); (c) the net income (or deficit) of any Person accrued prior to the date it becomes a Consolidated Subsidiary or is merged into or consolidated with the Company or any of its Consolidated Subsidiaries; (d) any gains or losses attributable to writeups or writedowns of assets, including ceiling test writedowns; (e) any non-cash gains or losses or positive or negative adjustments under FASB ASC 815 as a result of changes in the fair market value of derivatives; and (f) any cancellation of debt income.

“Consolidated Net Tangible Assets” means, at any date, (a) total assets of the Company and the Consolidated Subsidiaries determined on a consolidated basis in accordance with GAAP minus (b) the sum of (i) current liabilities (excluding short-term Indebtedness and the current portion of long-term Indebtedness) of the Company and the Consolidated Subsidiaries and (ii) goodwill and other intangible assets of the Company and the Consolidated Subsidiaries, in each case determined on a consolidated basis in accordance with GAAP, all as reflected in the consolidated financial statements of the Company most recently delivered to the Administrative Agent and the Lenders pursuant to Section 5.01(a) or 5.01(b), as applicable. For purposes of this definition, the amount of any such assets and current liabilities of any Subsidiary that is not Wholly-Owned by the Company shall be included or deducted, as the case may be, only to the extent of the proportional Equity Interests directly or indirectly owned by the Company in such Subsidiary, provided that, in the case of any such liabilities, to the extent such liabilities are recourse to the Company or any other Subsidiary (or any of their Property), the full amount of such liabilities that are so recourse shall be deducted for purposes of this definition.

“Consolidated Subsidiaries” means each Subsidiary of the Company (whether now existing or hereafter created or acquired) the financial statements of which shall be (or should have been) consolidated with the financial statements of the Company in accordance with GAAP.

“Consolidated Total Assets” means, as of any date of determination, the amount that would in conformity with GAAP, be set forth opposite the caption “total assets” (or any like caption) on a consolidated balance sheet of the Company and the Consolidated Subsidiaries as of such date.

“Consolidated Total Assets Ex-Canam” means, for any period, (a) Consolidated Total Assets minus (b) Excluded Canam Assets.

“Consolidated Total Capitalization” means, at any date, the sum of (a) the consolidated shareholders’ equity of the Company and its Consolidated Subsidiaries at such date, determined on a consolidated basis in accordance with GAAP, plus (b) Consolidated Total Debt at such date.

“Consolidated Total Debt” means, at any date, the aggregate principal amount of all Indebtedness of the Company and its Subsidiaries at such date (excluding undrawn letters of credit), determined on a consolidated basis in accordance with GAAP.

“Control” means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. “Controlling” and “Controlled” have meanings correlative thereto.

“Corresponding Tenor” with respect to any Available Tenor means, as applicable, either a tenor (including overnight) or an interest payment period having approximately the same length (disregarding business day adjustment) as such Available Tenor.

“Covered Entity” means any of the following:

- (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);
- (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or
- (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“Covered Party” has the meaning assigned to it in Section 10.21.

“Credit Exposure” means, with respect to: (a) any Revolving Lender at any time, the sum of the outstanding principal amount of such Revolving Lender’s Revolving Loans and its LC Exposure at such time; and (b) the Mexico Lender at any time, the sum of the outstanding principal amount of the Mexico Lender’s Mexico Loans and the Mexico LC Exposure at such time.

“Credit Party” means the Administrative Agent, each Issuing Bank or any Lender.

“Daily Simple SOFR” means, for any day (a “SOFR Rate Day”), a rate per annum equal SOFR for the day (such day “SOFR Determination Date”) that is five (5) U.S. Government Securities Business Day prior to (i) if such SOFR Rate Day is a U.S. Government Securities Business Day, such SOFR Rate Day or (ii) if such SOFR Rate Day is not a U.S. Government Securities Business Day, the U.S. Government Securities Business Day immediately preceding such SOFR Rate Day, in each case, as such SOFR is published by the SOFR Administrator on the SOFR Administrator’s Website. Any change in Daily Simple SOFR due to a change in SOFR

shall be effective from and including the effective date of such change in SOFR without notice to the Company.

“Default” means any event or condition which constitutes an Event of Default or which upon notice, lapse of time or both would, unless cured or waived, become an Event of Default.

“Default Right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“Defaulting Lender” means any Lender that (a) has failed, within two Business Days of the date required to be funded or paid, to (i) fund any portion of its Loans, (ii) fund any portion of its participations in Letters of Credit or (iii) pay over to any Credit Party any other amount required to be paid by it hereunder, unless, in the case of clause (i) above, such Lender notifies the Administrative Agent in writing that such failure is the result of such Lender’s good faith determination that a condition precedent to funding (specifically identified and including the particular default, if any) has not been satisfied, (b) has notified the Company or any Credit Party in writing, or has made a public statement to the effect, that it does not intend or expect to comply with any of its funding obligations under this Agreement (unless such writing or public statement indicates that such position is based on such Lender’s good faith determination that a condition precedent (specifically identified and including the particular default, if any) to funding a loan under this Agreement cannot be satisfied) or generally under other agreements in which it commits to extend credit, (c) has failed, within three Business Days after request by a Credit Party, acting in good faith, to provide a certification in writing from an authorized officer of such Lender that it will comply with its obligations (and is financially able to meet such obligations as of the date of certification) to fund prospective Loans and participations in then outstanding Letters of Credit under this Agreement; *provided* that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon such Credit Party’s receipt of such certification in form and substance satisfactory to it and the Administrative Agent, or (d) has become the subject of (A) a Bankruptcy Event or (B) a Bail-In Action.

“Deposit Account” has the meaning assigned to such term in the UCC.

“Designated Currency” means Canadian Dollars, Pounds Sterling or any other currency agreed to by the Administrative Agent, the applicable Issuing Bank and the applicable Borrower.

“Disposition” means with respect to any Property, any sale, lease, Sale and Leaseback Transaction, Casualty Event, assignment, conveyance, transfer or other disposition thereof (including by way of merger or consolidation). The terms “Dispose” and “Disposed of” shall have correlative meanings.

“Disqualified Capital Stock” means any Equity Interest that, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable) or upon the happening of any event, matures or is mandatorily redeemable for any consideration other than other Equity Interests (which would not constitute Disqualified Capital Stock), pursuant to a sinking fund obligation or otherwise, or is convertible or exchangeable for Indebtedness or redeemable for any consideration other than other Equity Interests (which would not constitute Disqualified Capital Stock) at the option of the holder thereof, in whole or in part, on or prior to the date that is 91 days

after the earlier of (a) the Maturity Date and (b) the date on which there are no Loans, LC Exposure, Mexico LC Exposure or other obligations hereunder outstanding and all of the Commitments are terminated and the Mexico Commitment is terminated.

“Dividing Person” has the meaning assigned to it in the definition of “Division”.

“Division” means the division of the assets, liabilities and/or obligations of a Person (the “Dividing Person”) among two or more Persons (whether pursuant to a “plan of division” or similar arrangement), which may or may not include the Dividing Person and pursuant to which the Dividing Person may or may not survive.

“Division Successor” means any Person that, upon the consummation of a Division of a Dividing Person, holds all or any portion of the assets, liabilities and/or obligations previously held by such Dividing Person immediately prior to the consummation of such Division. A Dividing Person which retains any of its assets, liabilities and/or obligations after a Division shall be deemed a Division Successor upon the occurrence of such Division.

“Documentation Agent” means, Sumitomo Mitsui Banking Corporation, in its capacity as documentation agent for the Lenders hereunder.

“Dollar Equivalent” means, as of any date of determination, with respect to any amount denominated in any Designated Currency, the equivalent amount thereof in dollars as determined by the Administrative Agent or the applicable Issuing Bank, as the case may be, on the basis of the Exchange Rate on such date for the purchase of dollars with such other Designated Currency.

“Dollars”, “dollars” or “\$” refers to lawful money of the United States of America.

“Domestic Liquidity” means, as of any date of determination, the sum of (a) the unused total Commitments on such date plus (b) the aggregate amount of Unrestricted Cash.

“Domestic Subsidiary” means any Subsidiary that is organized under the laws of the United States of America or any state thereof or the District of Columbia.

“EEA Financial Institution” means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country” means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority” means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Effective Date” means the date on which the conditions specified in Section 4.01 are satisfied (or waived in accordance with Section 10.02).

“Electronic Signature” means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or record.

“Electronic System” means any electronic system, including e-mail, e-fax, Intralinks®, ClearPar®, Debt Domain, Syndtrak and any other Internet or extranet-based site, whether such electronic system is owned, operated or hosted by the Administrative Agent and/or any Issuing Bank and any of its respective Related Persons or any other Person, providing for access to data protected by passcodes or other security system.

“Environmental Laws” means all laws, rules, regulations, codes, ordinances, orders, decrees, judgments, injunctions, notices or binding agreements issued, promulgated or entered into by any Governmental Authority, relating in any way to the environment, preservation or reclamation of natural resources, the management, release or threatened release of any hazardous material, or to health and safety matters (solely as it relates to exposure to hazardous materials).

“Environmental Liability” means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the Company or any Subsidiary directly or indirectly resulting from (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Material, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Material into the environment or (e) any contract, agreement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“Equity Interests” means shares of capital stock, partnership interests, membership interests in a limited liability company, beneficial interests in a trust or other equity ownership interests in a Person, and any warrants, options or other rights entitling the holder thereof to purchase or acquire any such Equity Interest.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended from time to time.

“ERISA Affiliate” means any trade or business (whether or not incorporated) that, together with the Company, is treated as a single employer under Section 414(b) or (c) of the Code or, solely for purposes of Section 302 of ERISA and Section 412 of the Code, is treated as a single employer under Section 414 of the Code.

“ERISA Event” means (a) any “reportable event”, as defined in Section 4043 of ERISA or the regulations issued thereunder with respect to a Plan (other than an event for which the 30-day notice period is waived); (b) the failure of a Plan to meet the minimum funding standards under Section 412 of the Code or Section 302 of ERISA, whether or not waived; (c) the filing pursuant to Section 412 of the Code or Section 303 of ERISA of an application for a waiver of the minimum funding standard with respect to any Plan; (d) the incurrence by the Company or any of its ERISA Affiliates of any liability under Title IV of ERISA with respect to any Plan (other than the payment

of PBGC premiums that are not past due); (e) the receipt by the Company or any ERISA Affiliate from the PBGC or a plan administrator of any notice relating to an intention to terminate any Plan or Plans or to appoint a trustee to administer any Plan; (f) the incurrence by the Company or any of its ERISA Affiliates of any liability with respect to the withdrawal or partial withdrawal from any Plan or Multiemployer Plan; or (g) the receipt by the Company or any ERISA Affiliate of any notice, or the receipt by any Multiemployer Plan from the Company or any ERISA Affiliate of any notice, concerning the imposition of Withdrawal Liability or a determination that a Multiemployer Plan is, or is expected to be, insolvent, within the meaning of Title IV of ERISA.

“EU Bail-In Legislation Schedule” means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

“Event of Default” has the meaning set forth in Section 7.01.

“Exchange Rate” means on any day, for purposes of determining the Dollar Equivalent of any currency other than dollars, the rate at which such other currency may be exchanged into dollars at the time of determination on such day as set forth on the Reuters WRLD Page for such currency. In the event that such rate does not appear on any Reuters WRLD Page, the Exchange Rate shall be determined by reference to such other publicly available service for displaying exchange rates as may be agreed upon by the Administrative Agent and the Company or, in the absence of such an agreement, such Exchange Rate shall instead be the arithmetic average of the spot rates of exchange of the Administrative Agent in the market where its foreign currency exchange operations in respect of such currency are then being conducted, at or about such time as the Administrative Agent shall elect after determining that such rates shall be the basis for determining the Exchange Rate, on such day for the purchase of dollars for delivery two Business Days later; provided that if at the time of any such determination, for any reason, no such spot rate is being quoted, the Administrative Agent may use any reasonable method it deems appropriate to determine such rate, and such determination shall be conclusive absent manifest error.

“Excluded Canam Assets” means, for any period, the portion of the Consolidated Total Assets attributable to the Excluded Canam Entities.

“Excluded Canam EBITDA” means, for any period, the portion of Consolidated EBITDA attributable to the Excluded Canam Entities.

“Excluded Canam Entities” means the collective reference to (a) Canam, (b) Canam Brunei Oil Ltd., Murphy Peninsular Malaysia Oil Co., Ltd., Murphy Sabah Oil Co., Ltd., Murphy Sarawak Oil Co., Ltd. and each other direct and indirect subsidiary of Canam that is directly engaged in exploration and production and other related operations in Malaysia and (c) Murphy Cuu Long Tay Oil Co., Ltd. (formerly known as Murphy Semai Oil Co., Ltd.).

“Excluded DDA” means (a) zero balance disbursement accounts and (b) segregated Deposit Accounts, the balance of which consists exclusively of (i) funds due and owing in the ordinary course of business to unaffiliated third parties in connection with Company’s and its Subsidiaries’ royalty payment obligations to such third parties, (ii) payroll, healthcare and other employee wage and benefit accounts, (iii) tax accounts, including, without limitation, sales tax accounts and (iv) escrow, defeasance and redemption accounts.

“Excluded Guaranteed Hedging Obligation” means, shall mean, with respect to any Subsidiary Guarantor, any Guaranteed Hedging Obligation if, and to the extent that, all or a portion of the liability of such Subsidiary Guarantor with respect to, or the grant by such Subsidiary Guarantor of a security interest to secure, such Guaranteed Hedging Obligation (or any Guarantee thereof or other agreement or undertaking agreeing to guarantee, repay, indemnify or otherwise be liable therefor) is or becomes illegal under the Commodity Exchange Act or any rule, regulation or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) (a) by virtue of such Subsidiary Guarantor’s failure for any reason to constitute an “eligible contract participant” as defined in the Commodity Exchange Act and the regulations thereunder at the time the guarantee obligation or other liability of such Subsidiary Guarantor or the grant of such security interest becomes or would become effective with respect to such Guaranteed Hedging Obligation or (b) in the case of a Guaranteed Hedging Obligation subject to a clearing requirement pursuant to section 2(h) of the Commodity Exchange Act (or any successor provision thereto), because such Subsidiary Guarantor is a “financial entity,” as defined in section 2(h)(7)(C)(i) of the Commodity Exchange Act (or any successor provision thereto), at the time the guarantee obligation or other liability of such Subsidiary Guarantor becomes or would become effective with respect to such related Guaranteed Hedging Obligation. If a Guaranteed Hedging Obligation arises under a master agreement governing more than one swap, such exclusion shall apply only to the portion of such Guaranteed Hedging Obligation that is attributable to swaps for which such guarantee obligation or other liability or security interest is or becomes illegal.

“Excluded MOCL EBITDA” means, for any period, the portion of Consolidated EBITDA attributable to the Excluded MOCL Entities.

“Excluded MOCL Entities” means the collective reference to MOCL and each of its direct and indirect subsidiaries.

“Excluded Taxes” means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan, Letter of Credit or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan, Letter of Credit or Commitment (other than pursuant to an assignment request by the Company under Section 2.18(b)) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 2.16, amounts with respect to such Taxes were payable either to such Lender’s assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its lending office, (c) Taxes attributable to such Recipient’s failure to comply with Section 2.16(f), and (d) any withholding Taxes imposed under FATCA.

“Existing Credit Agreement” means that certain 5-Year Revolving Credit Agreement dated as of November 28, 2018 among the Company, Expro-Intl. and MOCL, as borrowers, JPMorgan

Chase Bank, N.A., as administrative agent, and the lenders and agents party thereto, as amended, amended and restated, supplemented or otherwise modified prior to the Effective Date.

“Existing Letter of Credit” means each letter of credit issued prior to the Effective Date by a Person that is an Issuing Bank and listed on Schedule 2.05.

“Existing Notes” means, collectively, (a) the 4.000% Notes due 2022, issued by the Company pursuant to the first supplement to the 2012 Indenture, (b) the 3.700% Notes due 2022, issued by the Company pursuant to the second supplement to the 2012 Indenture, (c) the 6.875% Notes due 2024, issued by the Company pursuant to the third supplement to the 2012 Indenture, (d) the 5.750% Notes due 2025, issued by the Company pursuant to the fourth supplement to the 2012 Indenture, (e) the 7.050% Notes due 2029, issued by the Company pursuant to the first supplement to the 1999 Indenture and (f) the 5.125% Notes due 2042, issued by the Company pursuant to the second supplement to the 2012 Indenture, in each case outstanding as of the Effective Date.

“Expro-Intl.” has the meaning assigned to such term in the preliminary paragraph of this Agreement.

“Expro-USA” means Murphy Exploration & Production Company – USA, a Delaware corporation.

“Farm-In Agreement” shall mean an agreement whereby a Person agrees, among other things, to pay all or a share of the drilling, completion or other expenses of one or more wells or perform the drilling, completion or other operation on such well or wells as all or a part of the consideration provided in exchange for an ownership interest in an Oil and Gas Property.

“Farm-Out Agreement” shall mean a Farm-In Agreement, viewed from the standpoint of the party that grants to another party the right to earn an ownership interest in an Oil and Gas Property.

“FATCA” means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b)(1) of the Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities and implementing such Sections of the Code.

“Federal Funds Effective Rate” means, for any day, the rate calculated by the NYFRB based on such day’s federal funds transactions by depository institutions, as determined in such manner as shall set forth on the NYFRB’s Website from time to time, and published on the next succeeding Business Day by the NYFRB as the effective federal funds rate; provided that if the Federal Funds Effective Rate as so determined would be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

“Federal Reserve Board” means the Board of Governors of the Federal Reserve System of the United States of America.

“Fee Letter” means each of (a) that certain Fee Letter dated as of October 11, 2022, by and among the Company and JPMorgan Chase Bank, N.A., (b) that certain Fee Letter dated as of October 11, 2022 by and among the Company and BofA Securities, Inc., Capital One, National Association, MUFG Bank, Ltd. and Scotiabank and (c) any other fee letter between the Company and any Lender.

“Financial Covenant” means (a) prior to the Investment Grade Rating Date, each of the Consolidated Leverage Ratio covenant set forth in Section 6.14(a)(i) and the Consolidated Interest Coverage Ratio covenant set forth in Section 6.14(a)(ii) and (b) from and after the Investment Grade Rating Date, the ratio of Consolidated Total Debt to Consolidated Total Capitalization covenant set forth in Section 6.14(b).

“Financial Officer” means, with respect to any Person, the chief financial officer, principal accounting officer, treasurer or controller of such Person. The term “Financial Officer” without reference to a Person shall mean a Financial Officer of the Company.

“Fitch” means Fitch Ratings Inc.

“Floor” means the benchmark rate floor, if any, provided in this Agreement initially (as of the execution of this Agreement, the modification, amendment or renewal of this Agreement or otherwise) with respect to the Adjusted Term SOFR Rate. For the avoidance of doubt the initial Floor for the Adjusted Term SOFR Rate shall be 0.00%.

“Foreign Lender” means (a) if any Borrower is a U.S. Person, a Lender that is not a U.S. Person, and (b) if any Borrower is not a U.S. Person, a Lender that is resident or organized under the laws of a jurisdiction other than that in which such Borrower is resident for tax purposes.

“Foreign Subsidiary” means any Subsidiary of the Company other than a Domestic Subsidiary.

“GAAP” means generally accepted accounting principles in the United States of America.

“Global Commitments” means, at any time, the sum of the total Commitments at such time plus the Mexico Commitment at such time. The aggregate amount of the Global Commitments on the Effective Date is \$800,000,000.

“Global LC Exposure” means, at any time, the sum of the LC Exposure at such time plus the Mexico LC Exposure at such time.

“Global Exposure” means, at any time, the sum of the Total Credit Exposure at such time plus the Mexico Lender’s Credit Exposure at such time.

“Governmental Authority” means the government of the United States of America, any other nation or any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

“Governmental Requirement” means any law, statute, code, ordinance, order, determination, rule, regulation, judgment, decree, injunction, franchise, permit, certificate, license, rules of common law, authorization or other directive or requirement, whether now or hereinafter in effect, of any Governmental Authority.

“Guarantee” of or by any Person (the “guarantor”) means any obligation, contingent or otherwise, of the guarantor guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation of any other Person (the “primary obligor”) in any manner, whether directly or indirectly, and including any obligation of the guarantor, direct or indirect, (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation or to purchase (or to advance or supply funds for the purchase of) any security for the payment thereof, (b) to purchase or lease property, securities or services for the purpose of assuring the owner of such Indebtedness or other obligation of the payment thereof, (c) to maintain working capital, equity capital or any other financial statement condition or liquidity of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation or (d) as an account party in respect of any letter of credit or letter of guaranty issued to support such Indebtedness or obligation; *provided* that the term Guarantee shall not include endorsements for collection or deposit in the ordinary course of business. The term “Guarantee” when used as a verb to refer to the act of guaranteeing any Indebtedness or other obligations of a Person (for example, as such term is used in the phrase “no Subsidiary shall Guarantee any Indebtedness”) has a correlative meaning thereto.

“Guaranteed Cash Management Agreement” means any Cash Management Agreement between any Borrower or any Subsidiary and any Person that entered into such Cash Management Agreement prior to the time, or during the time, that such Person was, a Lender or an Affiliate of a Lender (including any such Cash Management Agreement in existence prior to the Effective Date), even if such Person subsequently ceases to be a Lender (or an Affiliate of a Lender) for any reason (any such Person, a “Guaranteed Cash Management Provider”); *provided* that, for the avoidance of doubt, the term “Guaranteed Cash Management Agreement” shall not include any Cash Management Agreement or transactions under any Cash Management Agreement entered into after the time that such Guaranteed Cash Management Provider ceases to be a Lender or an Affiliate of a Lender.

“Guaranteed Cash Management Obligations” means any and all amounts and other obligations owing by any Borrower or any Subsidiary to any Guaranteed Cash Management Provider under any Guaranteed Cash Management Agreement (whether absolute or contingent and howsoever and whensoever created, arising, evidenced or acquired (including all renewals, extensions and modifications thereof and substitutions therefor)).

“Guaranteed Cash Management Provider” has the meaning assigned to such term in the definition of Guaranteed Cash Management Agreement.

“Guaranteed Exiting Lender Hedging Party” means any Person that (a) constitutes a “Guaranteed Hedging Party” as such term is defined in the Existing Credit Agreement as in effect immediately prior to the Effective Date and (b) is not a Lender (or an Affiliate of a Lender) under this Agreement on the Effective Date.

“Guaranteed Exiting Lender Hedging Agreement” means any Hedging Agreement between any Borrower or any Subsidiary and any Guaranteed Exiting Lender Hedging Party that (a) was entered into prior to the Effective Date and (b) is outstanding on the Effective Date (without giving effect to any amendments, modifications or supplements thereto entered into after the Effective Date); *provided* that, for the avoidance of doubt, the term “Guaranteed Exiting Lender Hedging Agreement” shall not include any Hedging Agreement or transactions under any Hedging Agreement entered into on or after the Effective Date.

“Guaranteed Hedging Agreement” means (a) any Hedging Agreement between any Borrower or any Subsidiary and any Person that entered into such Hedging Agreement prior to the time, or during the time, that such Person was, a Lender or an Affiliate of a Lender (including any such Hedging Agreement in existence prior to the Effective Date), even if such Person subsequently ceases to be a Lender (or an Affiliate of a Lender) for any reason (any such Person, a “Guaranteed Lender Hedging Party”); *provided* that, for the avoidance of doubt, the term “Guaranteed Hedging Agreement” shall not include any Hedging Agreement or transactions under any Hedging Agreement entered into after the time that such Guaranteed Hedging Party ceases to be a Lender or an Affiliate of a Lender; and (b) any Guaranteed Exiting Lender Hedging Agreement.

“Guaranteed Hedging Obligations” means any and all amounts and other obligations owing to any Guaranteed Hedging Party under any and all Guaranteed Hedging Agreements (whether absolute or contingent and howsoever and whensoever created, arising, evidenced or acquired (including all renewals, extensions and modifications thereof and substitutions therefor)); *provided* that the Guaranteed Hedging Obligations shall not, in any event, include any Excluded Guaranteed Hedging Obligation.

“Guaranteed Hedging Party” means any Guaranteed Lender Hedging Party or, solely with respect any Guaranteed Exiting Lender Hedging Agreement to which it is party, any Guaranteed Exiting Lender Hedging Party.

“Guaranteed Lender Hedging Party” has the meaning assigned to such term in the definition of Guaranteed Hedging Agreement.

“Guaranteed Parties” means, collectively, the Administrative Agent, the Lenders, the Issuing Banks, the Guaranteed Cash Management Providers and the Guaranteed Hedging Parties, and “Guaranteed Party” means any of them individually.

“Guarantors” means (a) the Company and (b) each Subsidiary that is a party to a Guaranty Agreement as a “Guarantor” (as such term is defined in such Guaranty) and guarantees the Obligations (including pursuant to Section 4.01 and Section 5.12).

“Guaranty Agreement” means (a) in the case of the Company, each Domestic Subsidiary and each Canadian Subsidiary, the Guaranty Agreement executed by the Guarantors in substantially the form of Exhibit E, and (b) in the case of any Foreign Subsidiary other than a Canadian Subsidiary, a guaranty agreement, in form and substance satisfactory to the Administrative Agent (in each case, with such changes thereto as determined by the Administrative Agent as shall be advisable under the laws of the jurisdiction in which such Person is organized or

in which its assets are located), unconditionally guarantying, on a joint and several basis, payment of the Obligations, as the same may be amended, modified or supplemented from time to time.

“Hazardous Materials” means all explosive or radioactive substances or wastes and all hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated as “hazardous” or “toxic” or words of similar import pursuant to any Environmental Law.

“Hedging Agreement” means any agreement with respect to any swap, forward, future or derivative transaction or option or similar agreement involving, or settled by reference to, one or more rates, currencies, commodities, equity or debt instruments or securities, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value or any similar transaction or any combination of these transactions (including any agreement, contract or transaction that constitutes a “swap” within the meaning of section 1a(47) of the Commodity Exchange Act); *provided* that (i) no phantom stock or similar plan providing for payments only on account of services provided by current or former directors, officers, employees or consultants of the Company or any of its Subsidiaries or (ii) no agreement for the physical purchase and sale of any commodity shall be a “Hedging Agreement”.

“Hydrocarbon Interests” means all rights, titles, interests and estates now or hereafter acquired in and to oil and gas leases, oil, gas and mineral leases, or other liquid or gaseous hydrocarbon leases, mineral fee interests, overriding royalty and royalty interests, net profit interests and production payment interests, including any reserved or residual interests of whatever nature. Unless otherwise indicated herein, each reference to the term “Hydrocarbon Interests” shall mean Hydrocarbon Interests of the Company and/or its Subsidiaries, as the context requires.

“Hydrocarbons” means oil, gas, casinghead gas, drip gasoline, natural gasoline, condensate, distillate, liquid hydrocarbons, gaseous hydrocarbons and all products refined or separated therefrom.

“Indebtedness” of any Person means, without duplication, (a) all obligations of such Person for borrowed money or with respect to deposits or advances of any kind, (b) all obligations of such Person evidenced by or pursuant to bonds, debentures, notes, bankers’ acceptances, or other similar instruments, (c) all obligations of such Person under conditional sale or other title retention agreements relating to property acquired by such Person, (d) all obligations of such Person to pay the deferred purchase price of property or services (excluding those from time to time incurred in the ordinary course of business which are not greater than 60 days past the date of invoice or delinquent or which are being contested in good faith by appropriate action and for which adequate reserves have been maintained in accordance with GAAP), (e) all Capital Lease Obligations of such Person, (f) all obligations of such Person under Synthetic Leases, (g) all obligations, contingent or otherwise, of such Person as account party under all letters of credit and letters of guaranty, and including, for the avoidance of doubt, all reimbursement obligations of such Person in respect of surety bonds and similar instruments issued for the account of such Person, (h) all Indebtedness of others secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any Lien on property owned or acquired by such Person, whether or not the Indebtedness secured thereby has been assumed, but limited to the fair

market value of the property securing such obligations, (i) all Guarantees by such Person of Indebtedness (as defined in other clauses of this definition) of others, (j) all obligations of such Person to deliver commodities, goods or services, including, without limitation, Hydrocarbons, in consideration of one or more advance payments, other than gas balancing arrangements in the ordinary course of business, (k) the undischarged balance of any production payment created by such Person or for the creation of which such Person directly or indirectly received payment, and (l) all obligations of such Person in respect of Disqualified Capital Stock; *provided* that notwithstanding the foregoing, Indebtedness shall exclude (i) the contractual carry of a portion of the development costs of Athabasca Oil Corporation's interest in the Kaybob Duvernay lands in an aggregate amount not to exceed \$171,000,000, (ii) the obligations of Expro-USA to make capital contributions to the Permitted JV under Section 4.4(e) of the Permitted JV LLC Agreement and (iii) unsecured contingent obligations under surety bonds and similar instruments issued for the account of the Company or any Subsidiary so long as (A) no Subsidiary is liable for any reimbursement or other payment obligations in respect thereof and (B) such obligations are not subject to any Guarantee or other form of credit support by any Subsidiary.

“Incorporated Provision” has the meaning assigned to such term in Section 5.16(b).

“Indemnified Taxes” means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under this Agreement or any other Loan Document and (b) to the extent not otherwise described in (a) hereof, Other Taxes.

“Indemnitee” has the meaning set forth in Section 10.03(b).

“Index Debt” means senior, unsecured, long-term indebtedness for borrowed money of the Company that is not guaranteed by any other Person or subject to any other credit enhancement.

“Ineligible Institution” has the meaning assigned to it in Section 10.04(b).

“Interest Election Request” means a request by the Company on behalf of itself, Expro-Intl. or MOCL to convert or continue a Borrowing in accordance with Section 2.07.

“Interest Payment Date” means (a) with respect to any ABR Loan, the last day of each March, June, September and December and the Maturity Date, (b) with respect to any RFR Loan, (1) each date that is on the numerically corresponding day in each calendar month that is one month after the Borrowing of such Loan (or, if there is no such numerically corresponding day in such month, then the last day of such month) and (2) the Maturity Date, and (c) with respect to any Term Benchmark Loan, the last day of each Interest Period applicable to the Borrowing of which such Loan is a part and, in the case of a Term Benchmark Borrowing with an Interest Period of more than three months' duration, each day prior to the last day of such Interest Period that occurs at intervals of three months' duration after the first day of such Interest Period, and the Maturity Date.

“Interest Period” means with respect to any Term Benchmark Borrowing, the period commencing on the date of such Borrowing and ending on the numerically corresponding day in the calendar month that is one, three or six months thereafter (in each case, subject to the

availability for the Benchmark applicable to the relevant Loan or Commitment), as the Company may elect; *provided*, that (i) if any Interest Period would end on a day other than a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless such next succeeding Business Day would fall in the next calendar month, in which case such Interest Period shall end on the next preceding Business Day, (ii) any Interest Period that commences on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the last calendar month of such Interest Period) shall end on the last Business Day of the last calendar month of such Interest Period and (iii) no tenor that has been removed from this definition pursuant to Section 2.13(e) shall be available for specification in such Borrowing Request or Interest Election Request. For purposes hereof, the date of a Borrowing initially shall be the date on which such Borrowing is made and thereafter shall be the effective date of the most recent conversion or continuation of such Borrowing.

“Investment” means, as applied to any Person, any direct or indirect (a) acquisition (whether for cash, Property, services or securities or otherwise, and including pursuant to any merger or consolidation with any Person) by such Person of Equity Interests in any other Person, (b) capital contribution or other investment by such Person to or in any other Person, (c) loan or advance made by such Person to any other Person, (d) assumption, purchase or other acquisition by such Person of any Indebtedness of any other Person, (e) Guarantee by such Person of Indebtedness of any other Person, or (f) purchase or other acquisition (in one transaction or a series of transactions) by such Person of any assets of any other Person constituting a business unit.

“Investment Grade Rating” means (a) a rating established by S&P for the Index Debt of BBB- or higher; (b) a rating established by Moody’s for the Index Debt of Baa3 or higher; or (c) a rating established by Fitch for the Index Debt of BBB- or higher.

“Investment Grade Rating Date” means the first date on which the Company obtains either (a) an Investment Grade Rating from two or more Rating Agencies; or (b) an Investment Grade Rating from one of Moody’s or S&P and a rating of One Notch Below Investment Grade from the other two Rating Agencies.

“IRS” means the United States Internal Revenue Service.

“Issuing Bank” means (a) each of (i) JPMorgan Chase Bank, N.A., (ii) Bank of America, N.A, (iii) the Mexico Issuing Bank, (iv) Capital One, National Association, (v) MUFG Bank, Ltd. and (vi) Scotiabank, and (b) any other Lender acceptable to the Administrative Agent and the Company that has agreed in its sole discretion to become an Issuing Bank hereunder pursuant to documentation in form and substance reasonably satisfactory to the Administrative Agent, in each case, in its capacity as an issuer of Letters of Credit hereunder, and its successors in such capacity as provided in Section 2.05(i) (in the case of each of clauses (a) and (b), through itself or through one of its designated affiliates or branch offices). Any Issuing Bank may, in its discretion, arrange for one or more Letters of Credit to be issued by Affiliates of such Issuing Bank, in which case the term “Issuing Bank” shall include any such Affiliate with respect to Letters of Credit issued by such Affiliate. Each reference herein to the “Issuing Bank” shall be deemed to be a reference to the relevant Issuing Bank.

“Junior Indebtedness” means, collectively, (a) each of the Existing Notes, (b) any Indebtedness that is incurred in exchange for, or the proceeds of which are used to extend, refinance, replace, defease, discharge, refund or otherwise retire for value any Existing Notes and (c) any Indebtedness that is subordinated in right of payment to the Obligations.

“LC Disbursement” means a payment made by an Issuing Bank pursuant to a Letter of Credit issued by such Issuing Bank.

“LC Exposure” means, at any time, the sum of (a) the aggregate undrawn amount of all outstanding Letters of Credit (other than Mexico Letters of Credit) at such time plus (b) the aggregate amount of all LC Disbursements (other than LC Disbursements made by the Mexico Issuing Bank) that have not yet been reimbursed by or on behalf of the Borrowers at such time. The LC Exposure of any Revolving Lender at any time shall be its Applicable Percentage of the total LC Exposure at such time. The LC Exposure of any Issuing Bank (other than the Mexico Issuing Bank) at any time shall be the sum of (a) the aggregate undrawn amount of all outstanding Letters of Credit issued by such Issuing Bank at such time plus (b) the aggregate amount of all LC Disbursements made by such Issuing Bank that have not yet been reimbursed by or on behalf of the Borrowers at such time. For the avoidance of doubt, the Mexico Issuing Bank shall have no LC Exposure.

“Lead Arrangers” means JPMorgan Chase Bank, N.A., BofA Securities, Inc., Capital One, National Association, MUFG Bank, Ltd. and Scotiabank, in their respective capacities as co-lead arrangers and joint bookrunners hereunder.

“Lender Parent” means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

“Lender-Related Person” has the meaning assigned to it in Section 10.03(d).

“Lenders” means (a) the Persons listed on Schedule 2.01, (b) the Mexico Lender and (c) any other Person that shall have become a party hereto pursuant to an Assignment and Assumption or otherwise, other than any such Person that ceases to be a party hereto pursuant to an Assignment and Assumption or pursuant to Section 2.08(d) or otherwise. Unless the context otherwise requires, the term “Lenders” includes the Issuing Banks.

“Letter of Credit” means any letter of credit issued pursuant to this Agreement and shall include each Existing Letter of Credit and each Mexico Letter of Credit. The term “Letter of Credit” shall also include any bank guarantee issued pursuant to this Agreement that is denominated in a Designated Currency, to the extent the applicable Issuing Bank agrees, in its sole discretion, to issue such bank guarantee.

“Letter of Credit Commitment” means, with respect to each Issuing Bank, the commitment of such Issuing Bank to issue Letters of Credit hereunder. The initial amount of the Letter of Credit Commitment (a) for each of (i) JPMorgan Chase Bank, N.A., (ii) Bank of America, N.A., (iii) Capital One, National Association, (iv) MUFG Bank, Ltd. and (v) Scotiabank, is \$30,000,000, (b) for the Mexico Lender, is \$60,000,000, and (c) for any other Lender that is an Issuing Bank, is the amount agreed to in writing by such Issuing Bank as its Letter of Credit Commitment hereunder;

or if an Issuing Bank has entered into an Assignment and Assumption or has otherwise assumed a Letter of Credit Commitment after the Effective Date, the amount set forth for such Issuing Bank as its Letter of Credit Commitment in the Register maintained by the Administrative Agent; *provided* that the Letter of Credit Commitment of an Issuing Bank may be modified from time to time by agreement between such Issuing Bank and the Company, and notified to the Administrative Agent; *provided further* that the total Letter of Credit Commitments shall not exceed \$250,000,000.

“Leverage Ratio Ex-MOCL” means, as of the last day of any fiscal quarter, the ratio of (a) Consolidated Total Debt on such day to (b) Consolidated EBITDA Ex-MOCL for the period of four consecutive fiscal quarters ending on such day.

“Liabilities” means any losses, claims (including intraparty claims), demands, damages or liabilities of any kind.

“Lien” means, with respect to any asset, (a) any mortgage, deed of trust, lien, pledge, hypothecation, encumbrance, charge or security interest in, on or of such asset, (b) the interest of a vendor or a lessor under any conditional sale agreement, capital lease or title retention agreement (or any financing lease having substantially the same economic effect as any of the foregoing) relating to such asset and (c) in the case of securities, any purchase option, call or similar right of a third party with respect to such securities.

“Liquidate” means, with respect to any Hedging Agreement, (a) the sale, assignment, novation, unwind or termination of all or any part of such Hedging Agreement or (b) the creation of an offsetting position against all or any part of such Hedging Agreement. The terms “Liquidated” and “Liquidation” have correlative meanings thereto.

“Loan Documents” means this Agreement, including schedules and exhibits hereto, each Letter of Credit and any applications or agreements relating thereto, any promissory notes issued by the Borrowers under this Agreement, each Guaranty Agreement, each Fee Letter, any certificate required to be delivered under this Agreement or any other Loan Document by or on behalf of the Company or any of the Subsidiaries, and any agreements entered into in connection herewith by any Borrower or any other Loan Party with or in favor of the Administrative Agent and/or the Lenders, including any amendments, modifications or supplements thereto or waivers thereof, and any other documents prepared in connection with the other Loan Documents, if any.

“Loan Parties” means each Borrower and each Guarantor.

“Loans” means the loans made by the Lenders to the Borrowers pursuant to this Agreement (including Revolving Loans and Mexico Loans).

“Material Adverse Effect” means a material adverse effect on (a) the business, assets, operations or condition, financial or otherwise, of the Company and its Subsidiaries taken as a whole, (b) the ability of the Loan Parties to perform any of their obligations under this Agreement or any other Loan Document or (c) the rights of or benefits available to the Lenders under this Agreement or any other Loan Document.

“Material Indebtedness” means Indebtedness (other than the Loans, Letters of Credit and any Project Financing), or obligations in respect of one or more Hedging Agreements, of any one or more of the Company and its Subsidiaries in an aggregate principal amount exceeding \$75,000,000. For purposes of determining Material Indebtedness, the “principal amount” of the obligations of the Company or any Subsidiary in respect of any Hedging Agreement at any time shall be the maximum aggregate amount (giving effect to any netting agreements) that the Company or such Subsidiary would be required to pay if such Hedging Agreement were terminated at such time.

“Material Subsidiary” means, (a) Expro-USA, (b) Expro-Intl., (c) MOCL, (d) Murphy Exploration & Production Company, (e) Canam and (f) as of any date of determination, any other Subsidiary which, as of the most recent fiscal quarter of the Company, for the period of four consecutive fiscal quarters then ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b), contributed greater than (i) five percent of Consolidated EBITDA for such period or (ii) five percent of Consolidated Total Assets as of the last day of such period; *provided* that, if at any time the aggregate amount of Consolidated EBITDA or Consolidated Total Assets attributable to all Subsidiaries that are not Material Subsidiaries exceeds ten percent of Consolidated EBITDA for any such period or ten percent of Consolidated Total Assets as of the last day of any such fiscal quarter, then the Company shall, pursuant to Section 5.01(d), designate in the Compliance Certificate required to be delivered for such fiscal quarter or fiscal year, as applicable, sufficient Subsidiaries as “Material Subsidiaries” to eliminate such excess, and upon the delivery of such Compliance Certificate to the Administrative Agent, such designated Subsidiaries shall for all purposes of this Agreement constitute Material Subsidiaries. In the event the Company fails to so designate sufficient additional Subsidiaries as “Material Subsidiaries” in the Compliance Certificate as aforesaid, the Administrative Agent may, by written notice to the Company, designate sufficient additional Subsidiaries as “Material Subsidiaries” on the Company’s behalf, whereupon such Subsidiaries shall constitute “Material Subsidiaries” for all purposes of this Agreement.

“Maturity Date” means November 17, 2027; *provided* that if such date is not a Business Day, then the “Maturity Date” shall be the Business Day immediately preceding such date; *provided further* that if on February 15, 2025 (the “Springing Maturity Date”), the outstanding principal amount of the Company’s 5.750% Notes due 2025 exceeds \$50,000,000 in the aggregate, then the Maturity Date shall be the Springing Maturity Date.

“Maximum Rate” has the meaning set forth in Section 10.14.

“Mexico Commitment” means the commitment of the Mexico Lender to make Mexico Loans and to issue Mexico Letters of Credit hereunder, expressed as an amount representing the maximum aggregate amount of the Mexico Lender’s Credit Exposure hereunder, as such commitment may be (a) reduced from time to time pursuant to Section 2.08, and (b) reduced from time to time pursuant to assignments by or to such Lender pursuant to Section 10.04. The amount of the Mexico Lender’s Mexico Commitment on the Effective Date is set forth on Schedule 2.01. The amount of the Mexico Commitment on the Effective Date is \$60,000,000. For the avoidance of doubt, the Mexico Commitment does not include a commitment of the Mexico Lender to (i) make any Revolving Loan or (ii) acquire participations in any Letter of Credit.

“Mexico Issuing Bank” means BAMSAs, in its capacity as an Issuing Bank.

“Mexico LC Exposure” means, at any time, the sum of (a) the aggregate undrawn amount of all outstanding Mexico Letters of Credit at such time plus (b) the aggregate amount of all LC Disbursements made by the Mexico Issuing Bank that have not yet been reimbursed by or on behalf of Expro.-Intl. at such time.

“Mexico Lender” means BAMSAs, in its capacity as a lender of Mexico Loans hereunder.

“Mexico Letter of Credit” means any Letter of Credit issued by the Mexico Issuing Bank pursuant to this Agreement.

“Mexico Letter of Credit Fee” has the meaning assigned to such term in Section 2.11(b).

“Mexico Loan” means a Loan made by the Mexico Lender pursuant to Section 2.01(b).

“MOCL” has the meaning assigned to such term in the preliminary paragraph of this Agreement.

“MOCL Guarantee Trigger Event” means, at any time after the Effective Date, the occurrence of any of the following events: (i) the Global Exposure (excluding any Global LC Exposure) exceeds \$650,000,000 at any time (provided that no such MOCL Guarantee Trigger Event shall occur pursuant to this clause (i) to the extent that all outstanding Global Exposure (excluding any Global LC Exposure) is attributable to Borrowings made to MOCL) or (ii) the Leverage Ratio Ex-MOCL as of the last day of any fiscal quarter exceeds 3.50 to 1.00.

“Moody’s” means Moody’s Investors Service, Inc.

“Multiemployer Plan” means a multiemployer plan as defined in Section 4001(a)(3) of ERISA.

“Murphy Exploration & Production Company” means Murphy Exploration & Production Company, a Delaware corporation

“Murphy Family” means (a) the C.H. Murphy Family Investments Limited Partnership, (b) the Estate of C.H. Murphy, Jr., and (c) siblings of the late C.H. Murphy, Jr. and his and their respective Immediate Family. For purposes of this definition, “Immediate Family” of a person means such person’s spouse, children, siblings, mother-in-law and father-in-law, sons-in-law, daughters-in-law, brothers-in-law and sisters-in-law.

“New Lender” has the meaning assigned to such term in Section 2.20(a).

“Notice of Commitment Increase” has the meaning assigned to such term in Section 2.20(b).

“NYFRB” means the Federal Reserve Bank of New York.

“NYFRB’s Website” means the website of the NYFRB at <http://www.newyorkfed.org>, or any successor source.

“NYFRB Rate” means, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day (or for any day that is not a Business Day, for the immediately preceding Business Day); *provided* that if none of such rates are published for any day that is a Business Day, the term “NYFRB Rate” means the rate for a federal funds transaction quoted at 11:00 a.m. on such day received by the Administrative Agent from a federal funds broker of recognized standing selected by it; *provided, further*, that if any of the aforesaid rates as so determined shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Obligations” means (a) any and all amounts owing or to be owing by any Borrower, any Subsidiary or any Guarantor (whether direct or indirect (including those acquired by assumption), absolute or contingent, due or to become due, now existing or hereafter arising) to the Administrative Agent, the Issuing Banks, any Lender or any Related Party of any of the foregoing under any Loan Document; (b) all Guaranteed Hedging Obligations; (c) all Guaranteed Cash Management Obligations; and (d) all renewals, extensions and/or rearrangements of any of the above. Without limitation of the foregoing, the term “Obligations” shall include the unpaid principal of and interest on the Loans, the LC Exposure and the Mexico LC Exposure (including, without limitation, interest accruing at the then applicable rate provided in this Agreement after the maturity of the Loans, the LC Exposure, the Mexico LC Exposure and interest accruing at the then applicable rate provided in this Agreement after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or like proceeding, relating to any Borrower or any of its Subsidiaries or any Guarantor, whether or not a claim for post-filing or post-petition interest is allowed in such proceeding), reimbursement obligations (including, without limitation, to reimburse LC Disbursements), obligations to post cash collateral in respect of Letters of Credit, payments in respect of an early termination of Guaranteed Hedging Obligations and unpaid amounts, fees, expenses, indemnities, costs, and all other obligations and liabilities of every nature of any Borrower, any Subsidiary or any Guarantor, whether absolute or contingent, due or to become due, now existing or hereafter arising under this Agreement, the other Loan Documents, any Guaranteed Hedging Agreement or any Guaranteed Cash Management Agreement; *provided* that the definition of Obligation shall exclude any Excluded Guaranteed Hedging Obligation.

“Oil and Gas Properties” means (a) Hydrocarbon Interests; (b) the Properties now or hereafter pooled or unitized with Hydrocarbon Interests; (c) all presently existing or future unitization, pooling agreements and declarations of pooled units and the units created thereby (including without limitation all units created under orders, regulations and rules of any Governmental Authority) which may affect all or any portion of the Hydrocarbon Interests; (d) all operating agreements, contracts and other agreements, including production sharing contracts and agreements, which relate to any of the Hydrocarbon Interests or the production, sale, purchase, exchange or processing of Hydrocarbons from or attributable to such Hydrocarbon Interests; (e) all Hydrocarbons in and under and which may be produced and saved or attributable to the Hydrocarbon Interests, including all oil in tanks, and all rents, issues, profits, proceeds, products, revenues and other incomes from or attributable to the Hydrocarbon Interests; (f) all tenements, hereditaments, appurtenances and Properties in any manner appertaining, belonging, affixed or incidental to the Hydrocarbon Interests; and (g) all Properties, rights, titles, interests and estates

described or referred to above, including any and all Property, real or personal, now owned or hereinafter acquired and situated upon, used, held for use or useful in connection with the operating, working or development of any of such Hydrocarbon Interests or Property (excluding drilling rigs, automotive equipment, rental equipment or other personal Property which may be on such premises for the purpose of drilling a well or for other similar temporary uses) and including any and all oil wells, gas wells, injection wells or other wells, buildings, structures, fuel separators, liquid extraction plants, plant compressors, pumps, pumping units, field gathering systems, tanks and tank batteries, fixtures, valves, fittings, machinery and parts, engines, boilers, meters, apparatus, equipment, appliances, tools, implements, cables, wires, towers, casing, tubing and rods, surface leases, rights-of-way, easements and servitudes together with all additions, substitutions, replacements, accessions and attachments to any and all of the foregoing. Unless otherwise indicated herein, each reference to the term “Oil and Gas Properties” shall mean Oil and Gas Properties of the Company and/or its Subsidiaries, as the context requires.

“One Notch Below Investment Grade” means (a) a rating established by S&P for the Index Debt of BB+; (b) a rating established by Moody’s for the Index Debt of Ba1; or (c) a rating established by Fitch for the Index Debt of BB+.

“Other Connection Taxes” means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to, enforced this Agreement or any other Loan Document, or sold or assigned an interest in any Loan, Letter of Credit or this Agreement or any other Loan Document).

“Other Debt Agreement” means any agreement, instrument or other document governing any Indebtedness for borrowed money of the Company or any Subsidiary (other than intercompany Indebtedness) in an aggregate principal amount exceeding \$20,000,000 (with committed but unutilized amounts under such Other Debt Agreement being deemed fully drawn for purposes of measuring such threshold).

“Other Taxes” means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, this Agreement or any other Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 2.18).

“Overnight Bank Funding Rate” means, for any day, the rate comprised of both overnight federal funds and overnight eurodollar transactions denominated in Dollars by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on the NYFRB Website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate.

“Participant” has the meaning set forth in Section 10.04(c).

“Participant Register” has the meaning assigned to such term in Section 10.04(c).

“Patriot Act” means the USA PATRIOT Act of 2001, Title III of Pub. L. 107-56 (signed into law October 26, 2001).

“Payment” has the meaning assigned to it in Section 9.02(a).

“Payment Notice” has the meaning assigned to it in Section 9.02(b).

“PBGC” means the Pension Benefit Guaranty Corporation referred to and defined in ERISA and any successor entity performing similar functions.

“Permitted Encumbrances” means:

(a) Liens for taxes, assessments or governmental charges or claims not yet overdue for a period of more than 30 days or that are being contested in good faith and by appropriate proceedings for which appropriate reserves have been established to the extent required by and in accordance with GAAP (or in the case of any Foreign Subsidiary, the comparable accounting principles in the relevant jurisdiction), or for property taxes on property that the Company or any Subsidiary has determined to abandon if the sole recourse for such tax, assessment, charge or claim is to such property;

(b) Liens in respect of property or assets of the Company or any of the Subsidiaries imposed by law, such as landlords’, sublandlords’, vendors’, suppliers’, carriers’, warehousemen’s, repairmen’s, construction contractors’, workers’ and mechanics’ Liens and other similar Liens arising in the ordinary course of business or incident to the exploration, development, operation or maintenance of Oil and Gas Properties, in each case so long as such Liens arise in the ordinary course of business and secure obligations that are not overdue by more than 60 days or which are being contested in good faith by appropriate proceedings;

(c) pledges and deposits made in the ordinary course of business in compliance with workers’ compensation, unemployment insurance and other social security laws or regulations;

(d) deposits to secure the performance of bids, trade contracts, leases, statutory obligations, surety and appeal bonds, performance bonds and other obligations of a like nature, in each case in the ordinary course of business;

(e) easements, rights-of-way, restrictive covenants, licenses, restrictions (including zoning restrictions), minor title defects, exceptions, deficiencies or irregularities in title, encroachments, protrusions, servitudes, permits, conditions and covenants and other similar charges or encumbrances (including in any rights-of-way or other property of the Company or its Subsidiaries for the purpose of roads, pipelines, transmission lines, transportation lines, distribution lines for the removal of gas, oil or other minerals or timber, and other like purposes, or for joint or common use of real estate, rights of way, facilities and equipment) not interfering in any material respect with the business of the Company and its Subsidiaries, taken as a whole;

(f) Liens in favor of a banking or other financial institution arising as a matter of law or in the ordinary course of business under customary general terms and conditions encumbering

deposits or other funds maintained with a financial institution (including the right of set-off) and that are within the general parameters customary in the banking industry or arising pursuant to such banking institution's general terms and conditions;

(g) Liens on specific items of inventory or other goods (other than fixed or capital assets) and proceeds thereof of any Person securing such Person's obligations in respect of bankers' acceptances or letters of credit issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods in the ordinary course of business;

(h) Liens encumbering reasonable customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts incurred in the ordinary course of business and not for speculative purposes;

(i) judgment liens in respect of judgments that do not constitute an Event of Default under Section 7.01(k);

(j) (i) any interest or title of a lessor, sublessor, licensor or sublicensor under any lease, liens reserved in oil, gas or other Hydrocarbons, minerals, leases for bonus, royalty or rental payments and for compliance with the terms of such lease and (ii) any interest or title of a lessor, sublessor, licensor or sublicensor or secured by a lessor's, sublessor's, licensor's or sublicensor's interest under any lease, sublease, license or sublicense entered into by the Company or any Subsidiary in the ordinary course of business or otherwise permitted by this Agreement and not securing Indebtedness;

(k) Liens which arise in the ordinary course of business under operating agreements, joint venture agreements, oil and gas partnership agreements, oil and gas leases, Farm-Out Agreements, Farm-In Agreements, division orders, contracts for the sale, gathering, transportation or exchange of oil and natural gas, unitization and pooling declarations and agreements, area of mutual interest agreements, overriding royalty agreements, marketing agreements, processing agreements, net profits agreements, development agreements, gas balancing or deferred production agreements, injection, repressuring and recycling agreements, salt water or other disposal agreements, seismic or other geophysical permits or agreements, and other agreements that are usual or customary in the Oil and Gas Business and are for claims which are not delinquent or that are being contested in good faith and by appropriate proceedings for which appropriate reserves have been established to the extent required by and in accordance with GAAP; *provided* that any such Lien referred to in this clause does not materially impair the use of the property covered by such Lien for the purposes for which such property is held by any Borrower or any Subsidiary;

(l) Liens on pipelines, pipeline facilities and other midstream assets or facilities that arise by operation of law or other like Liens arising by operation of law in the ordinary course of business and incidental to the exploration, development, operation and maintenance of Oil and Gas Properties;

(m) Liens on equipment of the Company or any Subsidiary granted in the ordinary course of business to the Company's or such Subsidiary's client at which such equipment is located;

(n) security given to a public utility or any municipality or governmental authority when required by such utility or authority in connection with the operations of that Person in the ordinary course of business;

(o) Liens solely on any cash earnest money deposits made by a Borrower or any Subsidiary in connection with any letter of intent or purchase agreement permitted hereunder;

(p) Liens created in the ordinary course of business on deposits to secure liability for premiums to insurance carriers or securing insurance premium financing arrangements;

(q) Liens arising in connection with conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into by the Company and the Subsidiaries in the ordinary course of business permitted by this Agreement, purchase orders and other agreements entered into with customers of the Company or any Subsidiary in the ordinary course of business;

(r) purported Liens evidenced by the filing of precautionary financing statements relating solely to operating leases of personal property entered into in the ordinary course of business;

(s) trustees' Liens granted pursuant to any indenture governing any Indebtedness not otherwise prohibited by this Agreement in favor of the trustee under such indenture and securing only obligations to pay compensation to such trustee, to reimburse such trustee of its expenses and to indemnify such trustee under the terms of such indenture; and

(t) Liens on property or assets of the Company or any Subsidiary consisting of marine Liens provided for in Title XI of the Merchant Marine Act of 1936 or foreign equivalents;

(u) operating leases, licenses, subleases or sublicenses granted to others not (i) interfering in any material respect with the business of the Company and its Subsidiaries, taken as a whole, or (ii) securing any indebtedness;

(v) (i) zoning, building, entitlement and other land use regulations by Governmental Authorities with which the normal operation of the business complies and (ii) any zoning or similar law or right reserved to or vested in any Governmental Authority to control or regulate the use of any real property that does not materially interfere with the ordinary conduct of the business of the Company and its Subsidiaries, taken as a whole; and

(w) any encumbrance or restriction, including any options, put and call arrangements, rights of first refusal and similar rights, set forth in the Permitted JV LLC Agreement;

provided that the term "Permitted Encumbrances" shall not, in any event, include any Lien securing Indebtedness.

"Permitted Investments" means: (a) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America (or by any agency thereof to the extent such obligations are backed by the full faith and credit of the United States of America), in each case maturing within one year from the date of acquisition thereof; (b) investments in commercial paper maturing within 270 days from the date of acquisition thereof

and having, at such date of acquisition, the highest credit rating obtainable from S&P or from Moody's; (c) investments in certificates of deposit, bankers' acceptances and time deposits maturing within 270 days from the date of acquisition thereof issued or guaranteed by or placed with, and money market deposit accounts issued or offered by, any domestic office of any commercial bank organized under the laws of the United States of America or any State thereof which has a combined capital and surplus and undivided profits of not less than \$500,000,000; (d) any evidence of Indebtedness issued, guaranteed or insured by the government of Canada or any province or territory thereof, and having terms to maturity of not more than three hundred sixty (360) days from the date of acquisition; (e) fully collateralized repurchase agreements with a term of not more than 30 days for securities described in clause (a) above and entered into with a financial institution satisfying the criteria described in clause (c) above; and (f) money market funds that (i) comply with the criteria set forth in SEC Rule 2a-7 under the Investment Company Act of 1940, (ii) are rated AAA by S&P and Aaa by Moody's and (iii) have portfolio assets of at least \$5,000,000,000.

"Permitted JV" means MP Gulf of Mexico, LLC, a Delaware limited liability company.

"Permitted JV Agreements" means (i) the Permitted JV Contribution Agreement, (ii) the Permitted JV MEPU Conveyance, (iii) the Permitted JV Units Conveyance, (iv) the Permitted JV LLC Agreement, (v) the Permitted JV LLC Formation Document and (vi) the Permitted JV MSA.

"Permitted JV Closing Date" means the date on which the Closing (as defined in the Permitted JV Contribution Agreement) shall have occurred in accordance with the terms of the Permitted JV Contribution Agreement.

"Permitted JV Contribution Agreement" means that certain Contribution and Acquisition Agreement, dated as of October 10, 2018, by and among Expro-USA, Petrobras America Inc. and the Permitted JV.

"Permitted JV LLC Agreement" means that certain Amended and Restated Limited Liability Company Agreement of the Permitted JV, to be dated as of the Permitted JV Closing Date, in the form attached as Exhibit F to the Permitted JV Contribution Agreement.

"Permitted JV LLC Formation Document" means the "LLC Formation Document" as defined in the Permitted JV Contribution Agreement.

"Permitted JV MEPU Conveyance" means the "MEPU Conveyance" as defined in the Contribution Agreement.

"Permitted JV MSA" means the "Master Services Agreement" as defined in the Permitted JV Contribution Agreement.

"Permitted JV Units Conveyance" means the "Units Conveyance" as defined in the Contribution Agreement.

"Permitted Liens" means any Lien permitted to remain outstanding pursuant to Section 6.03.

“Person” means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

“Plan” means any employee pension benefit plan (other than a Multiemployer Plan) subject to the provisions of Title IV of ERISA or Section 412 of the Code or Section 302 of ERISA, and in respect of which the Company or any ERISA Affiliate is (or, if such plan were terminated, would under Section 4069 of ERISA be deemed to be) an “employer” as defined in Section 3(5) of ERISA.

“Platform” means Debt Domain, Intralinks, Syndtrak or a substantially similar electronic transmission system.

“Pounds Sterling” means the lawful currency of the United Kingdom.

“Prime Rate” means the rate of interest last quoted by The Wall Street Journal as the “Prime Rate” in the U.S. or, if The Wall Street Journal ceases to quote such rate, the highest per annum interest rate published by the Federal Reserve Board in Federal Reserve Statistical Release H.15 (519) (Selected Interest Rates) as the “bank prime loan” rate or, if such rate is no longer quoted therein, any similar rate quoted therein (as determined by the Administrative Agent) or any similar release by the Federal Reserve Board (as determined by the Administrative Agent). Each change in the Prime Rate shall be effective from and including the date such change is publicly announced or quoted as being effective.

“Pro Rata Percentage” means, with respect to: (a) any Revolving Lender, the percentage of the Global Commitments represented by such Revolving Lender’s Commitment; and (b) the Mexico Lender, the percentage of the Global Commitments represented by the Mexico Commitment; *provided* that, in the case of Section 2.19 when a Defaulting Lender shall exist, “Pro Rata Percentage” shall mean the percentage of the Global Commitments (disregarding any Defaulting Lender’s Commitment (or the Mexico Commitment if the Mexico Lender is a Defaulting Lender)) represented by such Lender’s Commitment (or the Mexico Commitment if the Mexico Lender is a Defaulting Lender). If the Global Commitments have terminated or expired, the Pro Rata Percentages shall be determined based upon the Global Commitments most recently in effect, giving effect to any assignments and to any Lender’s status as a Defaulting Lender at the time of determination.

“Proceeding” means any claim, litigation, investigation, action, suit, arbitration or administrative, judicial or regulatory action or proceeding in any jurisdiction.

“Project Financing” means any Indebtedness that is incurred to finance or refinance the acquisition, improvement, installation, design, engineering, construction, development, completion, maintenance, operation, securitization or monetization, in respect of all or any portion of any project, any group of projects, or any asset related thereto, and any guaranty with respect thereto, other than such portion of such Indebtedness or guaranty that expressly provides for direct recourse to the Company or any of its Subsidiaries (other than a Project Financing Subsidiary) or any of their respective property other than recourse to the equity in, Indebtedness or other obligations of, or properties of, one or more Project Financing Subsidiaries; *provided* however, that support such as limited guaranties or obligations to provide or guaranty equity contributions

or to make subordinated loans shall not be considered direct recourse for the purpose of this definition.

“Project Financing Subsidiary” means any Subsidiary of the Company whose principal purpose is to incur Project Financing or to become a direct or indirect partner, member or other equity participant or owner in a Person so created, and substantially all the assets of such Subsidiary are limited to (i) those assets for which the acquisition, improvement, installation, design, engineering, construction, development, completion, maintenance, operation, securitization or monetization is being financed in whole or in part by one or more Project Financings, or (ii) the equity in, Indebtedness or other obligations of, one or more other such Subsidiaries or Persons.

“Property” means any interest in any kind of property or asset, whether real, personal or mixed, or tangible or intangible, including, without limitation, cash, securities, accounts and contract rights.

“Proved Non-Producing Oil and Gas Properties” means all Oil and Gas Properties which constitute proved developed non-producing reserves as defined in the Definitions for Oil and Gas Reserves promulgated by the Society of Petroleum Engineers (or any generally recognized successor) as in effect at the time in question.

“Proved Oil and Gas Properties” means, collectively, Proved Producing Oil and Gas Properties, Proved Non-Producing Oil and Gas Properties and Proved Undeveloped Oil and Gas Properties.

“Proved Producing Oil and Gas Properties” means all Oil and Gas Properties which constitute proved developed producing reserves as defined in the Definitions for Oil and Gas Reserves promulgated by the Society of Petroleum Engineers (or any generally recognized successor) as in effect at the time in question.

“Proved Undeveloped Oil and Gas Properties” means all Oil and Gas Properties which constitute proved undeveloped reserves as defined in the Definitions for Oil and Gas Reserves promulgated by the Society of Petroleum Engineers (or any generally recognized successor) as in effect at the time in question.

“QFC” has the meaning assigned to the term “qualified financial contract” in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

“QFC Credit Support” has the meaning assigned to it in Section 10.21.

“Rating Agency” means each of Moody’s, S&P and Fitch.

“Recipient” means (a) the Administrative Agent, (b) any Lender and (c) any Issuing Bank, as applicable.

“Redemption” means, with respect to any Indebtedness, the redemption, purchase, defeasance, prepayment or other acquisition or retirement for value of such Indebtedness. The term “Redeem” has a meaning correlative thereto.

“Reference Time” with respect to any setting of the then-current Benchmark means (1) if such Benchmark is the Term SOFR Rate, 5:00 a.m. (Chicago time) on the day that is two U.S. Government Securities Business Days preceding the date of such setting, (2) if such Benchmark is Daily Simple SOFR, then four Business Days prior to such setting or (3) if such Benchmark is none of the Term SOFR Rate or Daily Simple SOFR, the time determined by the Administrative Agent in its reasonable discretion.

“Register” has the meaning set forth in Section 10.04(b)(iv).

“Related Parties” means, with respect to any specified Person, such Person’s Affiliates and the respective directors, officers, employees, agents and advisors of such Person and such Person’s Affiliates.

“Relevant Governmental Body” means, the Federal Reserve Board and/or the NYFRB, or a committee officially endorsed or convened by the Federal Reserve Board and/or the NYFRB or, in each case, any successor thereto.

“Relevant Rate” means (i) with respect to any Term Benchmark Borrowing, the Adjusted Term SOFR Rate or (ii) with respect to any RFR Borrowing, the Adjusted Daily Simple SOFR, as applicable.

“Required Lenders” means, subject to Section 2.19, at any time, Lenders having Credit Exposures and unused Commitments representing more than 50% of the sum of the total Credit Exposures and unused Commitments at such time; provided that at any time when the Mexico Commitment has not terminated, “Required Lenders” means, subject to Section 2.19, at any time, Lenders having Credit Exposures and unused Commitments and an unused Mexico Commitment representing more than 50% of the sum of the Global Exposure and unused Global Commitments at such time.

“Required Subsidiary Guarantor” means, as of any date of determination, each Domestic Subsidiary which, as of the most recent fiscal quarter of the Company, for the period of four consecutive fiscal quarters then ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b), contributed greater than (a) ten percent of Consolidated EBITDA Ex-Canam for such period or (b) ten percent of Consolidated Total Assets Ex-Canam as of the last day of such period; *provided* that, if at any time the aggregate amount of Consolidated EBITDA Ex-Canam or Consolidated Total Assets Ex-Canam attributable to all Subsidiaries that are not Guarantors exceeds fifteen percent of Consolidated EBITDA Ex-Canam for any such period or fifteen percent of Consolidated Total Assets Ex-Canam as of the last day of any such fiscal quarter, then the Company shall, pursuant to Section 5.01(d), designate in the Compliance Certificate required to be delivered for such fiscal quarter or fiscal year, as applicable, sufficient Subsidiaries, whether Domestic Subsidiaries, Foreign Subsidiaries or a combination thereof, as “Required Subsidiary Guarantors” to eliminate such excess, and upon the delivery of such Compliance Certificate to the Administrative Agent, such designated Subsidiaries shall for all purposes of this Agreement constitute Required Subsidiary Guarantors and each shall be required to become a Guarantor pursuant to Section 5.12. In the event that the Company fails to designate sufficient additional Subsidiaries as “Required Subsidiary Guarantors” in the Compliance Certificate as aforesaid, the Administrative Agent may, by written notice to the Company,

designate sufficient Subsidiaries, whether Domestic Subsidiaries, Foreign Subsidiaries or a combination thereof, as “Required Subsidiary Guarantors” on the Company’s behalf, to eliminate such excess, and upon delivery of such written notice to the Company, such designated Subsidiaries shall for all purposes of this Agreement constitute Required Subsidiary Guarantors and each shall be required to become a Guarantor pursuant to Section 5.12. Notwithstanding the foregoing, the Permitted JV shall not constitute a “Required Subsidiary Guarantor” for any purposes hereunder or any other Loan Documents.

“Reserve Report” means each report, in form and substance reasonably satisfactory to the Administrative Agent, setting forth, as of each January 1st or, to the extent required by Section 5.10, July 1st, the Proved Oil and Gas Properties of the Company and the Subsidiaries, together with a projection of the rate of production and future net income, Taxes, operating expenses and capital expenditures with respect thereto as of such date, based upon the pricing assumptions and discount rate consistent with the Administrative Agent’s lending requirements at the time.

“Resolution Authority” means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

“Responsible Officer” means, as to any Person, the Chief Executive Officer, the President, any Financial Officer or any Vice President of such Person. Unless otherwise specified, all references to a Responsible Officer herein shall mean a Responsible Officer of the Company.

“Restricted Payment” means any dividend or other distribution (whether in cash, securities or other property) with respect to any Equity Interests in the Company or any Subsidiary, or any payment (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, acquisition, cancellation or termination of any such Equity Interests in the Company or any Subsidiary or any option, warrant or other right to acquire any such Equity Interests in the Company or any Subsidiary.

“Revolving Lender” means each Lender other than the Mexico Lender.

“Revolving Loan” means a Loan made pursuant to Section 2.01(a).

“RFR Borrowing” means, as to any Borrowing, the RFR Loans comprising such Borrowing.

“RFR Loan” means a Loan that bears interest at a rate based on the Adjusted Daily Simple SOFR.

“S&P” means Standard & Poor’s Rating Services, a Standard & Poor’s Financial Services LLC business.

“Sale and Leaseback Transaction” means any sale or other transfer of any Property or asset by any Person with the intent to lease such property or asset as lessee.

“Sanctioned Country” means, at any time, a country, region or territory which is itself the subject or target of any Sanctions (at the time of this Agreement, the so-called Donetsk People’s

Republic, the so-called Luhansk People's Republic, the Crimea Region of Ukraine, Cuba, Iran, North Korea and Syria).

“Sanctioned Person” means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, the Government of Canada, the United Nations Security Council, the European Union, any European Union member state or, His Majesty's Treasury of the United Kingdom, or any other jurisdiction applicable to the Company, any other Borrower or any of their respective Subsidiaries from time to time, (b) any Person located, organized or resident in a Sanctioned Country, (c) any Person 50% or more owned or controlled by any such Person or Persons described in the foregoing clauses (a) or (b), or (d) any Person otherwise the subject of any Sanctions.

“Sanctions” means all economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State or (b) the Government of Canada, the United Nations Security Council, the European Union, any European Union member state, His Majesty's Treasury of the United Kingdom or any other jurisdiction applicable to the Company, any other Borrower or any of their respective Subsidiaries from time to time.

“Securities Account” has the meaning assigned to such term in the UCC.

“SEC” means the Securities and Exchange Commission of the United States of America or any successor Governmental Authority.

“SLL Principles” has the meaning specified in Section 2.21(b).

“SOFR” means a rate equal to the secured overnight financing rate as administered by the SOFR Administrator.

“SOFR Administrator” means the NYFRB (or a successor administrator of the secured overnight financing rate).

“SOFR Administrator's Website” means the NYFRB's website, currently at <http://www.newyorkfed.org>, or any successor source for the secured overnight financing rate identified as such by the SOFR Administrator from time to time.

“SOFR Determination Date” has the meaning specified in the definition of “Daily Simple SOFR”.

“SOFR Rate Day” has the meaning specified in the definition of “Daily Simple SOFR”.

“Solvent” means, in reference to any Person, (a) the fair value of the assets of such Person, at a fair valuation, will exceed its debts and liabilities (subordinated, contingent or otherwise); (b) the present fair saleable value of the property of such Person will be greater than the amount that will be required to pay the probable liability of its debts and other liabilities (subordinated, contingent or otherwise), as such debts and other liabilities become absolute and matured; (c) such

Person will be able to pay its debts and liabilities (subordinated, contingent or otherwise), as such debts and liabilities become absolute and matured; and (d) such Person will not have unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted after the Effective Date.

“Subordinated Intercompany Note” means a Subordinated Intercompany Note substantially in the form of Exhibit F pursuant to which intercompany obligations and advances owed by any Loan Party are subordinated to the Obligations.

“subsidiary” means, with respect to any Person (the “parent”) at any date, any corporation, limited liability company, partnership, association or other entity the accounts of which would be consolidated with those of the parent in the parent’s consolidated financial statements if such financial statements were prepared in accordance with GAAP as of such date, as well as any other corporation, limited liability company, partnership, association or other entity (a) of which securities or other ownership interests representing more than 50% of the equity or more than 50% of the ordinary voting power or, in the case of a partnership, more than 50% of the general partnership interests are, as of such date, owned, controlled or held, or (b) that is, as of such date, otherwise Controlled, by the parent or one or more subsidiaries of the parent or by the parent and one or more subsidiaries of the parent.

“Subsidiary” means any subsidiary of the Company.

“Subsidiary Guarantor” means any Subsidiary that is a Guarantor.

“Supported QFC” has the meaning assigned to it in Section 10.21.

“Surplus Inventory” means equipment of the Company or any Subsidiary, which the Company has determined in good faith (a) represents surplus equipment that is not necessary in the conduct of the exploration and production business of the Company and its Subsidiaries or (b) is obsolete or worn-out and no longer used or usable in its business.

“Sustainability Assurance Provider” has the meaning assigned to such term in Section 2.21(c).

“Sustainability Structuring Agent” means a Lender or an Affiliate of a Lender, as selected by the Company to act as a sustainability structuring agent in respect of this Agreement; provided that such Person agrees to act in such capacity.

“Sustainability Targets” means specified key performance indicators with respect to certain environmental, social and governance targets of the Company and its Subsidiaries, which shall be confirmed by the Company and its counsel as being consistent with the SLL Principles.

“Synthetic Leases” means, in respect of any Person, all leases which shall have been, or should have been, in accordance with GAAP, treated as operating leases on the financial statements of the Person liable (whether contingently or otherwise) for the payment of rent thereunder and which were properly treated as indebtedness for borrowed money for purposes of U.S. federal income Taxes, if the lessee in respect thereof is obligated to either purchase for an amount in excess

of, or pay upon early termination, an amount in excess of, 80% of the residual value of the Property subject to such operating lease upon expiration or early termination of such lease.

“Taxes” means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Term Benchmark” when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are bearing interest at a rate determined by reference to the Adjusted Term SOFR Rate.

“Term SOFR Determination Day” has the meaning assigned to it under the definition of Term SOFR Reference Rate.

“Term SOFR Rate” means, with respect to any Term Benchmark Borrowing and for any tenor comparable to the applicable Interest Period, the Term SOFR Reference Rate at approximately 5:00 a.m., Chicago time, two U.S. Government Securities Business Days prior to the commencement of such tenor comparable to the applicable Interest Period, as such rate is published by the CME Term SOFR Administrator.

“Term SOFR Reference Rate” means, for any day and time (such day, the “Term SOFR Determination Day”), with respect to any Term Benchmark Borrowing denominated in Dollars and for any tenor comparable to the applicable Interest Period, the rate per annum published by the CME Term SOFR Administrator and identified by the Administrative Agent as the forward-looking term rate based on SOFR. If by 5:00 pm (New York City time) on such Term SOFR Determination Day, the “Term SOFR Reference Rate” for the applicable tenor has not been published by the CME Term SOFR Administrator and a Benchmark Replacement Date with respect to the Term SOFR Rate has not occurred, then, so long as such day is otherwise a U.S. Government Securities Business Day, the Term SOFR Reference Rate for such Term SOFR Determination Day will be the Term SOFR Reference Rate as published in respect of the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate was published by the CME Term SOFR Administrator, so long as such first preceding U.S. Government Securities Business Day is not more than five (5) U.S. Government Securities Business Days prior to such Term SOFR Determination Day.

“Total Credit Exposure” means, at any time, the sum of the outstanding principal amount of all Revolving Lenders’ Revolving Loans and their LC Exposure at such time.

“Transactions” means (a) the execution, delivery and performance by each Borrower of this Agreement and each other Loan Document to which it is a party, the borrowing of Loans, the use of the proceeds thereof, and the issuance of Letters of Credit hereunder and (b) with respect to each Guarantor, the execution, delivery and performance by such Guarantor of the Guaranty Agreement to which it is a party and each other Loan Document to which it is a party, and its Guarantee of the Obligations.

“Type”, when used in reference to any Loan or Borrowing, refers to whether the rate of interest on such Loan, or on the Loans comprising such Borrowing, is determined by reference to the Adjusted Term SOFR Rate or the Alternate Base Rate.

“UCC” means the Uniform Commercial Code as in effect in the State of New York.

“UK Financial Institutions” means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

“UK Resolution Authority” means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

“Unadjusted Benchmark Replacement” means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

“Unrestricted Cash” means, as of any date of determination, cash or Permitted Investments of the Company or any of the Guarantors that are (i) Domestic Subsidiaries or (ii) Canadian Subsidiaries that would not appear as “restricted” on a consolidated balance sheet of the Company or any of such Guarantors on such date (it being understood that cash or Permitted Investments subject to a control agreement in favor of any Person other than the Administrative Agent or any Lender shall be deemed “restricted”, and cash or Permitted Investments restricted in favor of the Administrative Agent or any Lender shall be deemed not “restricted”), but only to the extent that such cash and Permitted Investments are held in accounts with financial institutions in any jurisdiction located within the United States of America or Canada.

“U.S. Government Securities Business Day” means any day except for (i) a Saturday, (ii) a Sunday or (iii) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

“U.S. Person” means a “United States person” within the meaning of Section 7701(a)(30) of the Code.

“U.S. Special Resolution Regime” has the meaning assigned to it in Section 10.21.

“U.S. Tax Compliance Certificate” has the meaning assigned to such term in Section 2.16(f)(ii)(B)(iii).

“Voting Stock” shall mean, with respect to any Person, any class or classes of Equity Interests pursuant to which the holders thereof have the general voting power under ordinary circumstances to elect at least a majority of the Board of Directors (or similar relevant governing body) of such Person.

“Wholly-Owned” means, with respect to a subsidiary of any Person, that all of the Equity Interests of such subsidiary are, directly or indirectly, owned or controlled by such Person and/or one or more of its Wholly-Owned subsidiaries (except for directors’ qualifying shares or other shares required by applicable law to be owned by a Person other than such Person and/or one or more of its Wholly-Owned subsidiaries).

“Withdrawal Liability” means liability to a Multiemployer Plan as a result of a complete or partial withdrawal from such Multiemployer Plan, as such terms are defined in Part I of Subtitle E of Title IV of ERISA.

“Write-Down and Conversion Powers” means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

Section 1.02 Classification of Loans and Borrowings. For purposes of this Agreement, Loans may be classified and referred to by Class (e.g., a “Revolving Loan” or a “Mexico Loan”) or by Type (e.g., a “Term Benchmark Loan”, an “ABR Loan” or an “RFR Loan”) or by Class and Type (e.g., a “Term Benchmark Revolving Loan”, a “Term Benchmark Mexico Loan” or an “RFR Revolving Loan”). Borrowings also may be classified and referred to by Class (e.g., a “Revolving Borrowing” or a “Mexico Borrowing”) or by Type (e.g., a “Term Benchmark Borrowing”, an “ABR Borrowing” or an “RFR Borrowing”) or by Class and Type (e.g., a “Term Benchmark Revolving Borrowing”, a “Term Benchmark Mexico Borrowing” or an “RFR Revolving Borrowing”).

Section 1.03 Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”. The word “will” shall be construed to have the same meaning and effect as the word “shall”. Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (b) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (c) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (d) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement, (e) any reference to any law, rule or regulation herein shall, unless otherwise specified, refer to such law, rule or regulation as amended, modified or supplemented from time to time and (f) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

Section 1.04 Accounting Terms; GAAP. Except as otherwise expressly provided herein, all terms of an accounting or financial nature shall be construed in accordance with GAAP,

as in effect from time to time; provided that, if the Company notifies the Administrative Agent that the Company, on behalf of the Borrowers, requests an amendment to any provision hereof to eliminate the effect of any change occurring after the Effective Date in GAAP or in the application thereof on the operation of such provision (or if the Administrative Agent notifies the Company that the Required Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof, then such provision shall be interpreted on the basis of GAAP as in effect and applied immediately before such change shall have become effective until such notice shall have been withdrawn or such provision amended in accordance herewith. Notwithstanding any other provision contained herein, (i) any lease that would have been characterized as an operating lease in accordance with GAAP prior to the date of the Company's adoption of ASC 842 (whether or not such lease was in effect on such date) shall not be a Capital Lease, and any such lease shall be, for all purposes of this Agreement, treated as though it were reflected on the Company's consolidated financial statements in the same manner as an operating lease would have been reflected prior to the Company's adoption of ASC 842 and (ii) all terms of an accounting or financial nature used herein shall be construed, and all computations of amounts and ratios referred to herein shall be made, without giving effect to any election under Financial Accounting Standards Board Accounting Standards Codification 825 (or any other Financial Accounting Standard having a similar result or effect) to value any Indebtedness or other liabilities of the Company or any Subsidiary at "fair value", as defined therein.

Section 1.05 Exchange Rates; Currency Equivalents.

(a) The Administrative Agent shall determine the Dollar Equivalent of the Global LC Exposure (and including any proposed Letter of Credit to be issued, amended, extended or renewed as of such date, as applicable, in the case of the following clauses (i) and (ii)): (i) as of the date of the commencement of the initial Interest Period of any Borrowing and as of the date of the commencement of each subsequent Interest Period therefor (including on the date of conversion or continuation of any Borrowing); (ii) as of the date any Borrowing Request is submitted hereunder; (iii) as of the date of any Borrowing or the date that any Letter of Credit is issued, amended, extended or renewed; (iv) as of the date of any termination or reduction of the Commitments, the Mexico Commitment or any Letter of Credit Commitment; (v) as of the first Business Day of each calendar month; and (vi) during the continuation of an Event of Default, on any Business Day elected by the Administrative Agent in its discretion or upon instruction by the Required Lenders. Except as expressly provided in the last sentence of Section 2.11(d), each such amount shall be the Dollar Equivalent of the Global LC Exposure until the next required calculation thereof pursuant to this Section 1.05(a). Each day upon or as of which the Administrative Agent determines the Dollar Equivalent of any amount as described in this Section 1.05(a) is herein referred to as a "Computation Date".

(b) Each provision of this Agreement shall be subject to such reasonable changes of construction as the Administrative Agent may from time to time specify with the Company's consent to appropriately reflect a change in currency of any country and any relevant market convention or practice relating to such change in currency.

Section 1.06 Interest Rates; Benchmark Notification. The interest rate on a Loan denominated in dollars may be derived from an interest rate benchmark that may be discontinued

or is, or may in the future become, the subject of regulatory reform. Upon the occurrence of a Benchmark Transition Event, Section 2.13(b) provides a mechanism for determining an alternative rate of interest. The Administrative Agent does not warrant or accept any responsibility for, and shall not have any liability with respect to, the administration, submission, performance or any other matter related to any interest rate used in this Agreement, or with respect to any alternative or successor rate thereto, or replacement rate thereof, including without limitation, whether the composition or characteristics of any such alternative, successor or replacement reference rate will be similar to, or produce the same value or economic equivalence of, the existing interest rate being replaced or have the same volume or liquidity as did any existing interest rate prior to its discontinuance or unavailability. The Administrative Agent and its affiliates and/or other related entities may engage in transactions that affect the calculation of any interest rate used in this Agreement or any alternative, successor or alternative rate (including any Benchmark Replacement) and/or any relevant adjustments thereto, in each case, in a manner adverse to any Borrower. The Administrative Agent may select information sources or services in its reasonable discretion to ascertain any interest rate used in this Agreement, any component thereof, or rates referenced in the definition thereof, in each case pursuant to the terms of this Agreement, and shall have no liability to the Borrowers, any Lender or any other person or entity for damages of any kind, including direct or indirect, special, punitive, incidental or consequential damages, costs, losses or expenses (whether in tort, contract or otherwise and whether at law or in equity), for any error or calculation of any such rate (or component thereof) provided by any such information source or service.

Section 1.07 Letters of Credit. With respect to any Letter of Credit that by its terms provides for one or more automatic increases in the stated amount thereof, the amount of such Letter of Credit shall be deemed to be the maximum stated amount of such Letter of Credit after giving effect to all such increases, whether or not such maximum stated amount is in effect at such time. Except as expressly provided in the last sentence of Section 2.11(d), for the purpose of determining LC Exposure and the Mexico LC Exposure hereunder, the undrawn amount of any Letter of Credit denominated in a Designated Currency or the amount of any unreimbursed LC Disbursement in respect of any Letter of Credit denominated in a Designated Currency shall, as of any date, be determined by reference to the Dollar Equivalent of such amount as of the most recent Computation Date pursuant to Section 1.05. For all purposes of this Agreement, unless otherwise agreed to in a letter of credit application between a Borrower and an Issuing Bank with respect to a Letter of Credit issued by such Issuing Bank, if on any date of determination a Letter of Credit has expired by its terms but any amount may still be drawn thereunder by reason of the operation of Article 29(a) of the Uniform Customs and Practice for Documentary Credits, International Chamber of Commerce Publication No. 600 (or such later version thereof as may be in effect at the applicable time) or Rule 3.13 or Rule 3.14 of the International Standby Practices, International Chamber of Commerce Publication No. 590 (or such later version thereof as may be in effect at the applicable time) or similar terms in the governing rules or laws or of the Letter of Credit itself, or if compliant documents have been presented but not yet honored, such Letter of Credit shall be deemed to be “outstanding” and “undrawn” in the amount so remaining available to be paid, and the obligations of each Borrower and each Lender shall remain in full force and effect until the Issuing Bank and the Lenders shall have no further obligations to make any payments or disbursements under any circumstances with respect to any Letter of Credit.

Section 1.08 Divisions. For all purposes under the Loan Documents, in connection with any division or plan of division under Delaware law (or any comparable event under a different jurisdiction's laws): (a) if any asset, right, obligation or liability of any Person becomes the asset, right, obligation or liability of a different Person, then it shall be deemed to have been transferred from the original Person to the subsequent Person, and (b) if any new Person comes into existence, such new Person shall be deemed to have been organized and acquired on the first date of its existence by the holders of its Equity Interests at such time.

ARTICLE II THE CREDITS

Section 2.01 Commitments.

(a) Subject to the terms and conditions set forth herein, each Revolving Lender agrees to make Revolving Loans to the Borrowers from time to time during the Availability Period in an aggregate principal amount that will not result in (i) such Lender's Credit Exposure exceeding such Lender's Commitment, (ii) the Total Credit Exposure exceeding the total Commitments or (iii) the Global Exposure exceeding the Global Commitments. Within the foregoing limits and subject to the terms and conditions set forth herein, any Borrower may borrow, prepay and re-borrow Revolving Loans.

(b) Subject to the terms and conditions set forth herein, from time to time during the Availability Period, the Mexico Lender agrees to make Loans to Expro-Intl. in an aggregate principal amount at any time outstanding that will not result in (i) the Mexico Lender's Credit Exposure exceeding the Mexico Commitment, or (ii) the Global Exposure exceeding the Global Commitments. Within the foregoing limits and subject to the terms and conditions set forth herein, Expro-Intl. may borrow, prepay and re-borrow Mexico Loans.

Section 2.02 Loans and Borrowings. (a) Each Revolving Loan shall be made as part of a Borrowing consisting of Revolving Loans made by the Lenders ratably in accordance with their respective Commitments. The failure of any Lender to make any Loan required to be made by it shall not relieve any other Lender of its obligations hereunder; *provided* that the Commitments of the Revolving Lenders are several and no Lender shall be responsible for any other Lender's failure to make Loans as required.

(b) Subject to Section 2.13, each Borrowing shall be comprised entirely of ABR Loans or Term Benchmark Loans as the Company, on behalf of itself, Expro-Intl. or MOCL, may request in accordance herewith, and each Lender at its option may make any Loan by causing any domestic or foreign branch or Affiliate of such Lender to make such Loan; *provided* that any exercise of such option shall not affect the obligation of the Borrowers to repay such Loan in accordance with the terms of this Agreement.

(c) At the commencement of each Interest Period for any Term Benchmark Borrowing, such Borrowing shall be in an aggregate amount that is an integral multiple of \$1,000,000 and not less than \$5,000,000. At the time that each ABR Borrowing is made, such Borrowing shall be in an aggregate amount that is an integral multiple of \$1,000,000 and not less than \$5,000,000; *provided* that an ABR Revolving Borrowing may be in an aggregate amount that

is equal to the entire unused balance of the total Commitments (or in the case of an ABR Mexico Borrowing, the entire unused balance of the Mexico Commitment) or that is required to finance the reimbursement of an LC Disbursement as contemplated by Section 2.05(e). Borrowings of more than one Type and Class may be outstanding at the same time; *provided* that there shall not at any time be more than a total of six Term Benchmark Borrowings or RFR Borrowings outstanding.

(d) Notwithstanding any other provision of this Agreement, the Company, on behalf of itself, Expro-Intl. or MOCL, shall not be entitled to request, or to elect to convert or continue, any Borrowing if the Interest Period requested with respect thereto would end after the Maturity Date.

Section 2.03 Requests for Revolving Borrowings. To request a Revolving Borrowing, the Company shall notify the Administrative Agent of such request by telephone (a) in the case of a Term Benchmark Borrowing, not later than 11:00 a.m., New York City time, three U.S. Government Securities Business Days before the date of the proposed Borrowing and (b) in the case of an ABR Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of the proposed Borrowing; *provided* that any such notice of an ABR Revolving Borrowing to finance the reimbursement of an LC Disbursement as contemplated by Section 2.05(e) may be given not later than 10:00 a.m., New York City time, on the date of the proposed Borrowing. Each such telephonic Borrowing Request shall be irrevocable and shall be confirmed promptly by hand delivery or telecopy to the Administrative Agent of a written Borrowing Request in a form approved by the Administrative Agent and signed by a Responsible Officer of the Company. Each such telephonic and written Borrowing Request shall specify the following information in compliance with Section 2.02:

- (i) the applicable Borrower and the aggregate amount of the requested Borrowing;
- (ii) the date of such Borrowing, which shall be a Business Day;
- (iii) whether such Borrowing is to be an ABR Borrowing or a Term Benchmark Borrowing;

(iv) in the case of a Term Benchmark Borrowing, the initial Interest Period to be applicable thereto, which shall be a period contemplated by the definition of the term “Interest Period”; and

(v) the location and number of the applicable Borrower’s account to which funds are to be disbursed, which shall comply with the requirements of Section 2.06.

If no election as to the Type of Revolving Borrowing is specified, then the requested Revolving Borrowing shall be an ABR Borrowing. If no Interest Period is specified with respect to any requested Term Benchmark Revolving Borrowing, then the applicable Borrower shall be deemed to have selected an Interest Period of one month’s duration. If no Borrower is specified, the Company shall be the applicable Borrower. Promptly following receipt of a Borrowing Request in accordance with this Section, the Administrative Agent shall advise each Revolving Lender of

the details thereof and of the amount of such Revolving Lender's Loan to be made as part of the requested Borrowing.

Section 2.04 Requests for Mexico Borrowings. To request a Mexico Borrowing, the Company, on behalf of Expro-Intl., shall notify the Administrative Agent of such request by telephone (i) in the case of a Term Benchmark Borrowing, not later than 11:00 a.m., New York City time, three U.S. Government Securities Business Days before the date of the proposed Borrowing and (ii) in the case of an ABR Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of the proposed Mexico Borrowing. Each such telephonic Borrowing Request shall be irrevocable and shall be confirmed promptly by hand delivery or telecopy to the Administrative Agent of a written Borrowing Request in a form approved by the Administrative Agent and signed by a Responsible Officer of the Company, on behalf of Expro-Intl. Each such telephonic and written Borrowing Request shall specify the following information in compliance with Section 2.02:

(a) the date of such Borrowing, which shall be a Business Day;

(b) whether such Borrowing is to be an ABR Borrowing or a Term Benchmark Borrowing;

(c) in the case of a Term Benchmark Borrowing, the initial Interest Period to be applicable thereto, which shall be a period contemplated by the definition of the term "Interest Period"; and

(d) the location and number of Expro-Intl.'s account to which funds are to be disbursed, which shall comply with the requirements of Section 2.06.

If no election as to the Type of Mexico Borrowing is specified, then the requested Mexico Borrowing shall be an ABR Borrowing. If no Interest Period is specified with respect to any requested Term Benchmark Mexico Borrowing, then the Company, on behalf of Expro-Intl., shall be deemed to have selected an Interest Period of one month's duration.

Section 2.05 Letters of Credit.

(a) General. Subject to the terms and conditions set forth herein, the Company may request the issuance of Letters of Credit denominated in dollars or in any Designated Currency from any Issuing Bank, with any Borrower as the applicant thereof for the support of its or its Subsidiaries' obligations, in a form reasonably acceptable to the Administrative Agent and such Issuing Bank, at any time and from time to time during the Availability Period; provided that, notwithstanding the foregoing or anything to the contrary contained herein, (a) only the Company, on behalf of Expro-Intl., may request the issuance of Letters of Credit from the Mexico Issuing Bank and (b) Letters of Credit requested to be issued by the Mexico Issuing Bank shall be denominated in dollars. In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of any form of letter of credit application or other agreement submitted by the Company (on behalf of itself, Expro-Intl. or MOCL) to, or entered into by a Borrower with, an Issuing Bank relating to any Letter of Credit, the terms and conditions of this Agreement shall control. Notwithstanding anything herein to the contrary, no Issuing Bank

shall have any obligation hereunder to issue, and shall not issue, any Letter of Credit the proceeds of which would be made available to any Person (i) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (ii) to fund any activity or business of or with any Sanctioned Person, or in any country or territory that, at the time of such funding, is the subject of any Sanctions or (iii) in any manner that would result in a violation of any Sanctions by any party to this Agreement.

(b) Notice of Issuance, Amendment, Renewal, Extension; Certain Conditions. To request the issuance of a Letter of Credit by any Issuing Bank (or the amendment, renewal or extension of an outstanding Letter of Credit), the Company shall hand deliver or telecopy (or transmit by electronic communication, if arrangements for doing so have been approved by such Issuing Bank) to such Issuing Bank and the Administrative Agent (reasonably in advance of the requested date of issuance, amendment, renewal or extension, but in any event no less than three Business Days) a notice requesting the issuance of a Letter of Credit, or identifying the Letter of Credit to be amended, renewed or extended, and specifying the date of issuance, amendment, renewal or extension (which shall be a Business Day), the date on which such Letter of Credit is to expire (which shall comply with paragraph (c) of this Section 2.05), the amount of such Letter of Credit, whether such Letter of Credit is to be dollar-denominated or denominated in a Designated Currency (it being understood that if no denomination is specified, the Letter of Credit shall be dollar-denominated) the name and address of the beneficiary thereof and such other information as shall be necessary to prepare, amend, renew or extend such Letter of Credit. If requested by the applicable Issuing Bank, the Company, Expro-Intl. or MOCL, as applicable, also shall submit a letter of credit application on such Issuing Bank's standard form in connection with any request for a Letter of Credit. A Letter of Credit shall be issued, amended, renewed or extended only if (and upon issuance, amendment, renewal or extension of each Letter of Credit the Company shall be deemed to represent and warrant that), after giving effect to such issuance, amendment, renewal or extension (determined by reference to the Dollar Equivalent of Letters of Credit denominated in a Designated Currency on the date of such issuance, amendment, renewal or extension of such Letter of Credit): (i) the Global LC Exposure shall not exceed \$250,000,000, (ii) no Revolving Lender's Credit Exposure shall exceed its Commitment, (iii) the Total Credit Exposure shall not exceed the total Commitments, (iv) the LC Exposure of any Issuing Bank shall not exceed its Letter of Credit Commitment, (v) the Mexico LC Exposure shall not exceed the Mexico Issuing Bank's Letter of Credit Commitment, (vi) the Mexico Lender's Credit Exposure shall not exceed the Mexico Commitment, and (vii) the Global Exposure shall not exceed the Global Commitments. The Company may, at any time and from time to time, reduce the Letter of Credit Commitment of any Issuing Bank with the consent of such Issuing Bank; provided that the Company shall not reduce the Letter of Credit Commitment of any Issuing Bank if, after giving effect of such reduction, the conditions set forth in clauses (i) through (vii) above shall not be satisfied.

Notwithstanding anything herein to the contrary, no Issuing Bank shall be under any obligation to issue any Letter of Credit in any Designated Currency if (x) any order, judgment or decree of any Governmental Authority or arbitrator shall by its terms purport to enjoin or restrain the Issuing Bank from issuing such Letter of Credit, or any law applicable to the Issuing Bank or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over the Issuing Bank shall prohibit, or request that the Issuing Bank refrain from

the issuance of letters of credit generally or such Letter of Credit in particular, or shall impose upon the Issuing Bank with respect to such Letter of Credit any restriction, reserve or capital requirement (for which the Issuing Bank is not otherwise compensated hereunder) not in effect on the Effective Date, or shall impose upon the Issuing Bank any unreimbursed loss, cost or expense which was not applicable on the Effective Date and which the Issuing Bank in good faith deems material to it; (y) the issuance of such Letter of Credit would violate one or more policies of the Issuing Bank generally applicable to the issuance of letters of credit or (z) such Issuing Bank does not generally issue, or is otherwise incapable of issuing, Letters of Credit in the Designated Currency requested by the applicable Borrower.

(c) Expiration Date. Each Letter of Credit shall expire (or be subject to termination by notice from the applicable Issuing Bank to the beneficiary thereof) at or prior to the close of business on the earlier of (i) the date one year after the date of the issuance of such Letter of Credit (or, in the case of any renewal or extension thereof, one year after such renewal or extension; provided that, to the extent such date would extend beyond the date referred to in the immediately succeeding clause (c)(ii), such Letter of Credit shall, concurrently with, or prior to, the effectiveness of such renewal or extension (as applicable), be cash collateralized in a manner (and in such amount) acceptable to the applicable Issuing Bank in its sole discretion) and (ii) subject to the parenthetical in the immediately preceding clause (i), the date that is five Business Days prior to the Maturity Date.

(d) Participations. By the issuance of a Letter of Credit (other than a Mexico Letter of Credit), and by an amendment to a Letter of Credit (other than a Mexico Letter of Credit) increasing the amount or extending the term thereof, and without any further action on the part of the Issuing Bank that issues such Letter of Credit or the Lenders, such Issuing Bank hereby grants to each Revolving Lender, and each Revolving Lender hereby acquires from such Issuing Bank, a participation in such Letter of Credit equal to such Revolving Lender's Applicable Percentage of the aggregate amount available to be drawn under such Letter of Credit. In consideration and in furtherance of the foregoing, each Revolving Lender hereby absolutely and unconditionally agrees to pay to the Administrative Agent, for the account of each Issuing Bank that issues a Letter of Credit hereunder (other than the Mexico Issuing Bank), such Revolving Lender's Applicable Percentage of each LC Disbursement made by such Issuing Bank and not reimbursed by the applicable Borrower on the date due as provided in paragraph (e) of this Section 2.05, or of any reimbursement payment required to be refunded to the Company for any reason. Each Revolving Lender acknowledges and agrees that its obligation to acquire participations pursuant to this paragraph in respect of Letters of Credit (other than Mexico Letters of Credit) is absolute and unconditional and shall not be affected by any circumstance whatsoever, including any amendment, renewal or extension of any Letter of Credit in accordance with this Agreement or the occurrence and continuance of a Default or reduction or termination of the Commitments, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever. For the avoidance of doubt, notwithstanding the foregoing or anything to the contrary contained herein, no Lender shall acquire from the Mexico Issuing Bank a participation in any Mexico Letter of Credit.

(e) Reimbursement. If any Issuing Bank shall make any LC Disbursement in respect of a Letter of Credit issued by such Issuing Bank, the applicable Borrower shall reimburse such LC Disbursement by paying to the Administrative Agent, in the currency in which such Letter

of Credit is denominated (except as specified below), an amount equal to such LC Disbursement not later than 12:00 noon, New York City time, on the date that such LC Disbursement is made, if the Company shall have received notice of such LC Disbursement prior to 10:00 a.m., New York City time, on such date, or, if such notice has not been received by the Company prior to such time on such date, then not later than 12:00 noon, New York City time, on the Business Day immediately following the day that the Company receives such notice, if such notice is not received prior to such time on the day of receipt; provided that, in the case of an LC Disbursement in respect of a Letter of Credit (other than a Mexico Letter of Credit), the Company may, subject to the conditions to borrowing set forth herein, request in accordance with Section 2.03 that such payment be financed with an ABR Revolving Borrowing in an equivalent amount (with respect to Letters of Credit denominated in dollars) or in the Dollar Equivalent on such date (as determined by the applicable Issuing Bank) of the amount of the LC Disbursement (with respect to Letters of Credit denominated in any Designated Currency), as applicable, and to the extent so financed, the applicable Borrower's obligation to make such payment shall be discharged and replaced by the resulting ABR Revolving Borrowing. Notwithstanding the foregoing, any Issuing Bank may, at its option, specify in the applicable notice of LC Disbursement that such Issuing Bank will require reimbursements in dollars, in which case the applicable Borrower agrees to reimburse such Issuing Bank in dollars; provided that the applicable Issuing Bank shall notify the Company of the Dollar Equivalent of the amount of the drawing promptly following the determination thereof. If the applicable Borrower fails to make such payment when due (for the avoidance of doubt, other than a payment to reimburse an LC Disbursement in respect of a Mexico Letter of Credit issued by the Mexico Issuing Bank), the Administrative Agent shall notify each Revolving Lender of the applicable LC Disbursement (and the Dollar Equivalent thereof), the payment then due from the applicable Borrower (and the Dollar Equivalent thereof) in respect thereof and such Revolving Lender's Applicable Percentage thereof. Promptly following receipt of such notice, each Revolving Lender shall pay to the Administrative Agent in dollars its Applicable Percentage of the Dollar Equivalent of the payment then due from the applicable Borrower, in the same manner as provided in Section 2.06 with respect to Loans made by such Revolving Lender (and Section 2.06 shall apply, mutatis mutandis, to the payment obligations of the Lenders), and the Administrative Agent shall promptly pay to the Issuing Bank that issued such Letter of Credit the amounts so received by it from the Revolving Lenders. Promptly following receipt by the Administrative Agent of any payment from the applicable Borrower pursuant to this paragraph, the Administrative Agent shall distribute such payment to the Issuing Bank that issued such Letter of Credit or, to the extent that Lenders have made payments pursuant to this paragraph to reimburse such Issuing Bank, then to such Lenders and such Issuing Bank as their interests may appear. Any payment made by a Lender pursuant to this paragraph to reimburse an Issuing Bank for any LC Disbursement (other than the funding of ABR Revolving Loans as contemplated above) shall not constitute a Loan and shall not relieve the applicable Borrower of its obligation to reimburse such LC Disbursement.

(f) Obligations Absolute. The applicable Borrower's obligation to reimburse LC Disbursements as provided in paragraph (e) of this Section 2.05 shall be absolute, unconditional and irrevocable, and shall be performed strictly in accordance with the terms of this Agreement under any and all circumstances whatsoever and irrespective of (i) any lack of validity or enforceability of any Letter of Credit or this Agreement, or any term or provision therein, (ii) any draft or other document presented under a Letter of Credit proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect, (iii)

payment by the applicable Issuing Bank under a Letter of Credit against presentation of a draft or other document that does not comply with the terms of such Letter of Credit, (iv) any adverse change in the relevant exchange rates or in the availability of the relevant Designated Currency to the applicable Borrower or the other Loan Parties or in the relevant currency markets generally; or (v) any other event or circumstance whatsoever, whether or not similar to any of the foregoing, that might, but for the provisions of this Section 2.05, constitute a legal or equitable discharge of, or provide a right of setoff against, the applicable Borrower's obligations hereunder. Neither the Administrative Agent, the Lenders nor any Issuing Bank, nor any of their Related Parties, shall have any liability or responsibility by reason of or in connection with the issuance or transfer of any Letter of Credit or any payment or failure to make any payment thereunder (irrespective of any of the circumstances referred to in the preceding sentence), or any error, omission, interruption, loss or delay in transmission or delivery of any draft, notice or other communication under or relating to any Letter of Credit (including any document required to make a drawing thereunder), any error in interpretation of technical terms or any consequence arising from causes beyond the control of any Issuing Bank; provided that the foregoing shall not be construed to excuse any Issuing Bank from liability to the applicable Borrower to the extent of any direct damages (as opposed to special, indirect, consequential or punitive damages, claims in respect of which are hereby waived by the Borrowers to the extent permitted by applicable law) suffered by a Borrower that are caused by such Issuing Bank's failure to exercise care when determining whether drafts and other documents presented under a Letter of Credit comply with the terms thereof. The parties hereto expressly agree that, in the absence of gross negligence or willful misconduct on the part of an Issuing Bank (as finally determined by a court of competent jurisdiction), such Issuing Bank shall be deemed to have exercised care in each such determination. In furtherance of the foregoing and without limiting the generality thereof, the parties agree that, with respect to documents presented which appear on their face to be in substantial compliance with the terms of a Letter of Credit, the applicable Issuing Bank may, in its sole discretion, either accept and make payment upon such documents without responsibility for further investigation, regardless of any notice or information to the contrary, or refuse to accept and make payment upon such documents if such documents are not in strict compliance with the terms of such Letter of Credit.

(g) Disbursement Procedures. An Issuing Bank shall, promptly following its receipt thereof, examine all documents purporting to represent a demand for payment under a Letter of Credit issued by such Issuing Bank. Such Issuing Bank shall promptly notify the Administrative Agent and the Company by telephone (confirmed by telecopy) of such demand for payment and whether such Issuing Bank has made or will make an LC Disbursement thereunder; provided that any failure to give or delay in giving such notice shall not relieve the applicable Borrower of its obligation to reimburse such Issuing Bank and the Lenders with respect to any such LC Disbursement.

(h) Interim Interest. If an Issuing Bank shall make any LC Disbursement, then, unless the applicable Borrower shall reimburse such LC Disbursement in full on the date such LC Disbursement is made, the unpaid amount thereof shall bear interest, for each day from and including the date such LC Disbursement is made to but excluding the date that the reimbursement is due and payable at the rate per annum then applicable to ABR Loans (or in the case such LC Disbursement is denominated in any Designated Currency, a rate per annum determined by such Issuing Bank (which determination will be conclusive absent manifest error) to represent its cost of funds plus the Applicable Rate at such time used to determine interest applicable to Term

Benchmark Loans) and such interest shall be due and payable on the date when such reimbursement is payable; provided that, if the applicable Borrower fails to reimburse such LC Disbursement when due pursuant to paragraph (e) of this Section 2.05, then Section 2.12(c) shall apply. Interest accrued pursuant to this paragraph shall be for the account of the applicable Issuing Bank, except that interest accrued on and after the date of payment by any Lender pursuant paragraph (e) of this Section 2.05 to reimburse such Issuing Bank shall be for the account of such Lender to the extent of such payment.

(i) Replacement and Resignation of an Issuing Bank.

(i) Any Issuing Bank may be replaced at any time by written agreement among the Company, the Administrative Agent, the replaced Issuing Bank and the successor Issuing Bank. The Administrative Agent shall notify the Lenders of any such replacement of an Issuing Bank. At the time any such replacement shall become effective, the Company shall pay all unpaid fees accrued for the account of the replaced Issuing Bank pursuant to Section 2.11(b). From and after the effective date of any such replacement, (A) the successor Issuing Bank shall have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit to be issued thereafter and (B) references herein to the term “Issuing Bank” shall be deemed to refer to such successor or to any previous Issuing Bank, or to such successor and all previous Issuing Banks, as the context shall require. After the replacement of an Issuing Bank hereunder, the replaced Issuing Bank shall remain a party hereto and shall continue to have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such replacement, but shall not be required to issue additional Letters of Credit or extend or otherwise amend any existing Letter of Credit.

(ii) Subject to the appointment and acceptance of a successor Issuing Bank, any Issuing Bank may resign as an Issuing Bank at any time upon 30 days’ prior written notice to the Administrative Agent, the Company and the Lenders, in which case, such resigning Issuing Bank shall be replaced in accordance with Section 2.05(i)(i).

(j) Cash Collateralization. If (i) any Event of Default shall occur and be continuing, on the Business Day that the Company receives notice from the Administrative Agent or the Required Lenders (or, if the maturity of the Loans has been accelerated, Lenders with LC Exposure and Mexico LC Exposure representing greater than 50% of the Global LC Exposure) demanding that the Borrowers cash collateralize the outstanding Global LC Exposure pursuant to this paragraph, (ii) any Borrower is required to cash collateralize the excess attributable to an LC Exposure or the Mexico LC Exposure in connection with any prepayment pursuant to Section 2.10(c) or cash collateralize outstanding Letters of Credit pursuant to Section 2.10(d), or (iii) any Borrower is required to cash collateralize a Defaulting Lender’s LC Exposure pursuant to Section 2.19, then the applicable Borrower shall deposit in an account with the Administrative Agent, in the name of the Administrative Agent and for the benefit of the Lenders, an amount in cash (in the applicable currency) equal to such LC Exposure or the Mexico Exposure or the excess attributable to such LC Exposure, as the case may be, as of such date, in each case, plus any accrued and unpaid interest thereon; provided that the obligation to deposit such cash collateral shall become effective immediately, and such deposit shall become immediately due and payable, without demand or other notice of any kind, upon the occurrence of any Event of Default with respect to any Borrower described in clause (h) or (i) of Section 7.01. Such deposit shall be held by the Administrative

Agent as collateral for the payment and performance of the obligations of the Borrowers under this Agreement. The Administrative Agent shall have exclusive dominion and control, including the exclusive right of withdrawal, over such account. Other than any interest earned on the investment of such deposits, which investments shall be made at the option and sole discretion of the Administrative Agent and at the applicable Borrower's risk and expense, such deposits shall not bear interest. Interest or profits, if any, on such investments shall accumulate in such account. Moneys in such account shall be applied by the Administrative Agent to reimburse each Issuing Bank for LC Disbursements for which it has not been reimbursed and, to the extent not so applied, shall be held for the satisfaction of the reimbursement obligations of the applicable Borrower for the Global LC Exposure at such time or, if the maturity of the Loans has been accelerated (but subject to the consent of Lenders with LC Exposure and Mexico LC Exposure representing greater than 50% of the Global LC Exposure), be applied to satisfy other obligations of the applicable Borrower under this Agreement. If the applicable Borrower is required to provide an amount of cash collateral hereunder as a result of the occurrence of an Event of Default or pursuant to Section 2.19 as the result of a Defaulting Lender, and the Borrowers are not otherwise required to pay to the Administrative Agent the excess attributable to an LC Exposure or the Mexico LC Exposure in connection with any prepayment pursuant to Section 2.10(c), then such amount (to the extent not applied as aforesaid) shall be returned to the applicable Borrower within three Business Days after all Events of Default have been cured or waived or the events giving rise to such cash collateralization pursuant to Section 2.19 have been satisfied or resolved.

(k) Letters of Credit Issued for Account of Subsidiaries. Notwithstanding that a Letter of Credit issued or outstanding hereunder supports any obligations of, or is for the account of, a Subsidiary, or states that a Subsidiary is the "account party," "applicant," "customer," "instructing party," or the like of or for such Letter of Credit, and without derogating from any rights of the applicable Issuing Bank (whether arising by contract, at law, in equity or otherwise) against such Subsidiary in respect of such Letter of Credit, the applicable Borrower (i) shall reimburse, indemnify and compensate the applicable Issuing Bank hereunder for such Letter of Credit (including to reimburse any and all drawings thereunder) as if such Letter of Credit had been issued solely for the account of the applicable Borrower and (ii) irrevocably waives any and all defenses that might otherwise be available to it as a guarantor or surety of any or all of the obligations of such Subsidiary in respect of such Letter of Credit. Each Borrower hereby acknowledges that the issuance of such Letters of Credit for its Subsidiaries inures to the benefit of such Borrower, and that such Borrower's business derives substantial benefits from the businesses of such Subsidiaries.

(l) Existing Letters of Credit. On the Effective Date, each of the letters of credit listed on Schedule 2.05 shall be deemed to have been issued as Letters of Credit under this Agreement by the Issuing Bank specified for such Letter of Credit on Schedule 2.05, without payment of any fees otherwise due upon the issuance of a Letter of Credit, and such Issuing Bank shall be deemed, without further action by any party hereto, to have sold to each Revolving Lender, and each Revolving Lender shall be deemed, without further action by any party hereto, to have purchased from such Issuing Bank, a participation, to the extent of such Revolving Lender's Applicable Percentage, in such Letter of Credit.

Section 2.06 Funding of Borrowings. (a) Each Lender shall make each Loan to be made by it hereunder on the proposed date thereof solely by wire transfer of immediately available funds

by 12:00 noon, New York City time, to the account of the Administrative Agent most recently designated by it for such purpose by notice to the Lenders. The Administrative Agent will make such Loans available to the applicable Borrower by promptly crediting the funds so received, in like funds, to an account of the applicable Borrower maintained with the Administrative Agent in New York City and designated by the Company in the applicable Borrowing Request; provided that ABR Revolving Loans made to finance the reimbursement of an LC Disbursement as provided in Section 2.05(e) shall be remitted by the Administrative Agent to the Issuing Bank.

(b) Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with clause (a) of this Section 2.06 and may, in reliance upon such assumption, make available to the applicable Borrower a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the applicable Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the applicable Borrower to but excluding the date of payment to the Administrative Agent, at (i) in the case of such Lender, the greater of the NYFRB Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation or (ii) in the case of the applicable Borrower, the interest rate applicable to ABR Loans. If such Lender pays such amount to the Administrative Agent, then such amount shall constitute such Lender's Loan included in such Borrowing.

Section 2.07 Interest Elections. (a) Each Borrowing initially shall be of the Type specified in the applicable Borrowing Request and, in the case of a Term Benchmark Borrowing, shall have an initial Interest Period as specified in such Borrowing Request. Thereafter, the Company may elect to convert such Borrowing to a different Type or to continue such Borrowing and, in the case of a Term Benchmark Borrowing, may elect Interest Periods therefor, all as provided in this Section 2.07. The Company may elect different options with respect to different portions of the affected Borrowing, in which case each such portion shall be allocated ratably among the Lenders holding the Loans comprising such Borrowing, and the Loans comprising each such portion shall be considered a separate Borrowing.

(b) To make an election pursuant to this Section 2.07, the Company shall notify the Administrative Agent of such election by telephone by the time that a Borrowing Request would be required under Section 2.03 or Section 2.04, as applicable, if the Company were requesting a Borrowing of the Type resulting from such election to be made on the effective date of such election. Each such telephonic Interest Election Request shall be irrevocable and shall be confirmed promptly by hand delivery or telecopy to the Administrative Agent of a written Interest Election Request in a form approved by the Administrative Agent and signed by the Company.

(c) Each telephonic and written Interest Election Request shall specify the following information in compliance with Section 2.02:

(i) the Borrowing to which such Interest Election Request applies and, if different options are being elected with respect to different portions thereof, the portions thereof

to be allocated to each resulting Borrowing (in which case the information to be specified pursuant to clauses (iii) and (iv) below shall be specified for each resulting Borrowing);

(ii) the effective date of the election made pursuant to such Interest Election Request, which shall be a Business Day;

(iii) whether the resulting Borrowing is to be an ABR Borrowing or a Term Benchmark Borrowing; and

(iv) if the resulting Borrowing is a Term Benchmark Borrowing, the Interest Period to be applicable thereto after giving effect to such election, which shall be a period contemplated by the definition of the term "Interest Period".

(v) If any such Interest Election Request requests a Term Benchmark Borrowing but does not specify an Interest Period, then the Company shall be deemed to have selected an Interest Period of one month's duration.

(d) Promptly following receipt of an Interest Election Request, the Administrative Agent shall advise each Lender of the details thereof and of such Lender's portion of each resulting Borrowing.

(e) If the Company fails to deliver a timely Interest Election Request with respect to a Term Benchmark Borrowing prior to the end of the Interest Period applicable thereto, then, unless such Borrowing is repaid as provided herein, at the end of such Interest Period such Borrowing shall be converted to an ABR Borrowing. Notwithstanding any contrary provision hereof, if an Event of Default has occurred and is continuing and the Administrative Agent, at the request of the Required Lenders, so notifies the Company, then, so long as an Event of Default is continuing (i) no outstanding Borrowing may be converted to or continued as a Term Benchmark Borrowing and (ii) unless repaid, (A) each Term Benchmark Borrowing and (B) each RFR Borrowing shall be converted to an ABR Borrowing at the end of the Interest Period applicable thereto.

Section 2.08 Termination and Reduction of Commitments. (a) Unless previously terminated, the Commitments shall terminate on the Maturity Date.

(b) The Company may at any time terminate, or from time to time reduce, the Commitments; *provided* that (i) each reduction of the Commitments shall be in an amount that is an integral multiple of \$1,000,000 and not less than \$5,000,000 and (ii) the Company shall not terminate or reduce the Commitments if, after giving effect to any concurrent prepayment of the Loans in accordance with Section 2.10, (A) the Total Credit Exposure would exceed the total Commitments or (B) the Global Exposure would exceed the Global Commitments; *provided further* that the Company shall not terminate the Commitments if, after giving effect thereto, the Mexico Commitment has not been terminated.

(c) The Company shall notify the Administrative Agent of any election to terminate or reduce the Commitments under paragraph (b) of this Section 2.08 at least three Business Days prior to the effective date of such termination or reduction, specifying such election and the effective date thereof. Promptly following receipt of any notice, the Administrative Agent

shall advise the Lenders of the contents thereof. Each notice delivered by the Company pursuant to this Section 2.08 shall be irrevocable; *provided* that a notice of termination of the Commitments delivered by the Company may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice may be revoked by the Company (by notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. Any termination or reduction of the Commitments shall be permanent. Each reduction of the Commitments shall be made ratably among the Lenders in accordance with their respective Commitments.

(d) The Company may, at any time when the Mexico Lender has no Credit Exposure hereunder, terminate the Mexico Commitment upon written notice to the Mexico Lender and the Administrative Agent. Effective upon the termination of the Mexico Commitment, without any further action: (i) the Mexico Lender shall immediately cease to be a party hereto and (ii) the Mexico Issuing Bank shall immediately cease to be an Issuing Bank and a party hereto, and each of the Mexico Lender and the Mexico Issuing Bank shall be released from its obligations under this Agreement, but shall continue to be entitled to the benefits of Section 2.14, Section 2.15, Section 2.16, Section 10.03 and Article IX.

Section 2.09 Repayment of Loans; Evidence of Debt. (a) Each Borrower hereby unconditionally promises to pay to the Administrative Agent for the account of each Lender the then unpaid principal amount of each Loan on the Maturity Date.

(b) Each Lender shall maintain in accordance with its usual practice an account or accounts evidencing the indebtedness of each Borrower to such Lender resulting from each Loan made by such Lender to such Borrower, including the amounts of principal and interest payable and paid to such Lender from time to time hereunder.

(c) The Administrative Agent shall maintain accounts in which it shall record (i) the amount of each Loan made hereunder, the Class and Type thereof and the Interest Period applicable thereto, (ii) the amount of any principal or interest due and payable or to become due and payable from each Borrower to each Lender hereunder and (iii) the amount of any sum received by the Administrative Agent hereunder from a Borrower for the account of the Lenders and each Lender's share thereof.

(d) The entries made in the accounts maintained pursuant to paragraph (b) or (c) of this Section 2.09 shall be prima facie evidence of the existence and amounts of the obligations recorded therein; *provided* that the failure of any Lender or the Administrative Agent to maintain such accounts or any error therein shall not in any manner affect the obligation of each Borrower to repay the Loans in accordance with the terms of this Agreement.

(e) Any Lender may request that Loans made by it be evidenced by a promissory note. In such event, the applicable Borrower shall prepare, execute and deliver to such Lender a promissory note payable to such Lender (or, if requested by such Lender, to such Lender and its registered assigns) and in a form approved by the Administrative Agent. Thereafter, the Loans evidenced by such promissory note and interest thereon shall at all times (including after assignment pursuant to Section 10.04) be represented by one or more promissory notes in such

form payable to the order of the payee named therein (or, if such promissory note is a registered note, to such payee and its registered assigns).

Section 2.10 Prepayment of Loans. (a) Subject to any breakage costs payable pursuant to Section 2.15, each Borrower shall have the right at any time and from time to time to prepay any Borrowing made to it in whole or in part, subject to prior notice in accordance with paragraph (b) of this Section 2.10.

(b) The Company, on behalf of itself, Expro-Intl. or MOCL, shall notify the Administrative Agent by telephone (confirmed by teletype) of any prepayment pursuant to Section 2.10(a), (i) in the case of prepayment of a Term Benchmark Borrowing, not later than 11:00 a.m., New York City time, three Business Days before the date of prepayment, or (ii) in the case of prepayment of an ABR Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of prepayment. Each such notice shall be irrevocable and shall specify the prepayment date and the principal amount of each Borrowing or portion thereof to be prepaid and, in the case of a mandatory prepayment, a reasonably detailed calculation of the amount of such prepayment. Promptly following receipt of any such notice, the Administrative Agent shall advise the Lenders of the contents thereof; *provided that*, if a notice of prepayment is given in connection with a conditional notice of termination of the Commitments as contemplated by Section 2.08, then such notice of prepayment may be revoked if such notice of termination is revoked in accordance with Section 2.08. Promptly following receipt of any such notice relating to a Borrowing, the Administrative Agent shall advise the Lenders of the contents thereof. Each partial prepayment of any Borrowing shall be in an amount that would be permitted in the case of an advance of a Borrowing of the same Type as provided in Section 2.02. Each prepayment of a Borrowing shall be applied ratably to the Loans included in the prepaid Borrowing. Prepayments shall be accompanied by accrued interest to the extent required by Section 2.12 and breakage costs to the extent required by Section 2.15.

(c) If at any time (including, without limitation, on any Computation Date) the Global Exposure exceeds the Global Commitments, then, the Borrowers shall, without notice or demand, immediately (i) prepay the Borrowings in an aggregate principal amount equal to such excess, and (ii) if any excess remains (or would remain) after prepaying all of the Borrowings as a result of an LC Exposure or the Mexico LC Exposure, cash collateralize such excess as provided in Section 2.05(j). Each prepayment of Borrowings pursuant to this Section 2.10(c) shall be applied ratably to the Loans included in the prepaid Borrowings; provided that if both Revolving Borrowings and Mexico Borrowings are then outstanding, the Borrowers shall prepay both Revolving Borrowings and Mexico Borrowings on a pro rata basis in proportion to the principal of Revolving Borrowings then outstanding and the principal of Mexico Borrowings then outstanding. Prepayments made pursuant to this Section 2.10(c) shall be accompanied by accrued interest to the extent required by Section 2.12 and breakage costs to the extent required by Section 2.15.

(d) If at any time (including, without limitation, on any Computation Date) the aggregate Global LC Exposure exceeds the sum of all Letter of Credit Commitments then in effect, the Borrowers shall, without notice or demand, immediately replace outstanding Letters of Credit or cash collateralize outstanding Letters of Credit in accordance with the procedures set forth in Section 2.05(j), in an aggregate amount sufficient to eliminate such excess; provided that if, at

such time, both LC Exposure and Mexico LC Exposure are outstanding, the replacement of Letters of Credit or cash collateralization of Letters of Credit shall be effected on a pro rata basis in proportion to the LC Exposure then outstanding and the Mexico LC Exposure then outstanding.

(e) Prior to the Investment Grade Rating Date, if upon the consummation of any Disposition pursuant to Section 6.11(c) (to the extent the fair market value of the Property subject to the Casualty Event exceeds \$25,000,000) or Section 6.11(e), the Consolidated Leverage Ratio exceeds 2.75 to 1.00 (calculated on *pro forma* basis using (i) Consolidated Total Debt as of such day and (ii) Consolidated EBITDA for the period of four consecutive fiscal quarters most recently ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b)), then, the Borrowers shall, without notice or demand, prepay the Borrowings in an aggregate amount necessary so that after giving effect to such prepayment, the Consolidated Leverage Ratio is less than or equal to 2.75 to 1.00 (calculated on *pro forma* basis as set forth above). Such prepayment shall be due on the date that is three Business Days after the date of the realization or receipt of the cash proceeds of such Disposition. Each prepayment of Borrowings pursuant to this Section 2.10(e) shall be applied ratably to the Loans included in the prepaid Borrowings; provided that if both Revolving Borrowings and Mexico Borrowings are then outstanding, the Borrowers shall prepay both Revolving Borrowings and Mexico Borrowings on a pro rata basis in proportion to the principal of Revolving Borrowings then outstanding and the principal of Mexico Borrowings then outstanding. Prepayments made pursuant to this Section 2.10(e) shall be accompanied by accrued interest to the extent required by Section 2.12 and breakage costs to the extent required by Section 2.15. Notwithstanding the foregoing, if any prepayment of Term Benchmark Borrowings is required to be made under this Section 2.05(e), prior to the last day of the Interest Period therefor, the Borrowers may, in their sole discretion, deposit the amount of any such prepayment otherwise required to be made thereunder with the Administrative Agent until the last day of such Interest Period, at which time the Administrative Agent shall be authorized (without any further action by or notice to or from the Borrowers or any other Loan Party) to apply such amount to the prepayment of such Loans in accordance with this Section 2.05(e).

Section 2.11 Fees. (a) The Company agrees to pay to the Administrative Agent, for the account of each Revolving Lender, a commitment fee, which shall accrue at the applicable Commitment Fee Rate on the daily amount of the unused amount of the Commitment of such Lender during the period from and including the date of this Agreement to but excluding the date on which the Commitments terminate (it being understood that LC Exposure shall constitute usage of the Commitments for purposes of this Section 2.11(a)). The Company agrees to pay to the Administrative Agent, for the account of the Mexico Lender, a commitment fee, which shall accrue at the applicable Commitment Fee Rate on the daily amount of the unused amount of the Mexico Commitment during the period from and including the date of this Agreement to but excluding the date on which the Mexico Commitment terminates (it being understood that Mexico LC Exposure shall constitute usage of the Mexico Commitment for purposes of this Section 2.11(a)).

(b) The Company agrees to pay (i) to the Administrative Agent for the account of each Revolving Lender a participation fee with respect to its participations in Letters of Credit, which shall accrue at the same Applicable Rate used to determine the interest rate applicable to Term Benchmark Loans on the average daily amount of such Lender's LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and

including the Effective Date to but excluding the later of the date on which such Lender's Commitment terminates and the date on which such Lender ceases to have any LC Exposure, and (ii) to each Issuing Bank (other than the Mexico Issuing Bank) a fronting fee, which shall accrue at the rate of 0.20% per annum on the average daily amount of the LC Exposure of such Issuing Bank (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date of termination of the Commitments and the date on which there ceases to be any LC Exposure of such Issuing Bank, as well as such Issuing Bank's standard fees with respect to the issuance, amendment, renewal or extension of any Letter of Credit and other processing fees, and other standard costs and charges of such Issuing Bank relating to the Letters of Credit as from time to time in effect. The Company agrees to pay to the Mexico Issuing Bank a fee (the "Mexico Letter of Credit Fee") with respect to the Mexico Letters of Credit, which shall accrue at the same Applicable Rate used to determine the interest rate applicable to Term Benchmark Loans on the average daily amount of the Mexico LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date on which the Mexico Commitment terminates and the date on which the Mexico Issuing Bank ceases to have any Mexico LC Exposure, as well as the Mexico Issuing Bank's standard fees with respect to the issuance, amendment, renewal or extension of any Mexico Letter of Credit and other processing fees, and other standard costs and charges of the Mexico Issuing Bank relating to the Mexico Letters of Credit as from time to time in effect.

(c) The Company agrees to pay to the Administrative Agent, for its own account, fees payable in the amounts and at the times separately agreed upon between the Company and the Administrative Agent.

(d) Participation fees, the Mexico Letter of Credit Fee and fronting fees accrued through and including the last day of March, June, September and December of each year shall be payable on the third Business Day following such last day, commencing on the first such date to occur after the Effective Date; *provided* that all such fees shall be payable on the date on which the Commitments (or the Mexico Commitment, in the case of the Mexico Letter of Credit Fee) terminate and any such fees accruing after the date on which the Commitments terminate shall be payable on demand. Any other fees payable to an Issuing Bank pursuant to paragraph (b) above shall be payable within ten days after demand. Accrued commitment fees shall be payable in arrears on the last day of March, June, September and December of each year and on the date on which the Commitments terminate, commencing on the first such date to occur after the Effective Date; *provided* that any fees accruing after the date on which the Commitments terminate shall be payable on demand. All fees payable hereunder shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day). All fees payable hereunder shall be paid on the dates due, in immediately available funds, to the Administrative Agent (or to the applicable Issuing Bank, in the case of fees payable to it) for distribution, in the case of commitment fees and participation fees, to the Lenders. Fees paid hereunder shall not be refundable under any circumstances. For purposes of calculating participation fees and fronting fees pursuant to Section 2.11(b), the amount of LC Exposure or the Mexico LC Exposure on any day shall be the Dollar Equivalent thereof on such day, determined using the Exchange Rate on the first Business Day of the calendar month in which such day falls.

Section 2.12 Interest. (a) The Loans comprising each ABR Borrowing shall bear interest at the Alternate Base Rate plus the Applicable Rate.

(b) The Loans comprising each Term Benchmark Borrowing shall bear interest at the Adjusted Term SOFR Rate for the Interest Period in effect for such Borrowing plus the Applicable Rate.

(c) Each RFR Loan shall bear interest at a rate per annum equal to the Adjusted Daily Simple SOFR plus the Applicable Rate.

(d) Notwithstanding the foregoing, if any principal of or interest on any Loan or any fee or other amount payable by the applicable Borrower hereunder is not paid when due, whether at stated maturity, upon acceleration or otherwise, such overdue amount shall bear interest, after as well as before judgment, at a rate per annum equal to (i) in the case of overdue principal of any Loan, 2% plus the rate otherwise applicable to such Loan as provided in the preceding paragraphs of this Section 2.12 or (ii) in the case of any other amount, 2% plus the rate applicable to ABR Loans as provided in paragraph (a) of this Section 2.12.

(e) Accrued interest on each Loan shall be payable in arrears on each Interest Payment Date for such Loan and, in the case of Revolving Loans, upon termination of the Commitments, and in the case of Mexico Loans, upon termination of the Mexico Commitment; *provided* that (i) interest accrued pursuant to paragraph (d) of this Section 2.12 shall be payable on demand, (ii) in the event of any repayment or prepayment of any Loan (other than a prepayment of an ABR Loan prior to the end of the Availability Period), accrued interest on the principal amount repaid or prepaid shall be payable on the date of such repayment or prepayment and (iii) in the event of any conversion of any Term Benchmark Loan prior to the end of the current Interest Period therefor, accrued interest on such Loan shall be payable on the effective date of such conversion.

(f) All interest hereunder shall be computed on the basis of a year of 360 days, except that interest computed by reference to the Alternate Base Rate only at times when the Alternate Base Rate is based on the Prime Rate shall be computed on the basis of a year of 365 days (or 366 days in a leap year). In each case interest shall be payable for the actual number of days elapsed (including the first day but excluding the last day). All interest hereunder on any Loan shall be computed on a daily basis based upon the outstanding principal amount of such Loan as of the applicable date of determination. The applicable Alternate Base Rate, Adjusted Term SOFR Rate, Term SOFR Rate, Adjusted Daily Simple SOFR or Daily Simple SOFR shall be determined by the Administrative Agent, and such determination shall be conclusive absent manifest error.

Section 2.13 Alternate Rate of Interest; Illegality. (a) Subject to clauses (b), (c), (d), (e), (f) and (g) of this Section 2.13, if:

(i) the Administrative Agent determines (which determination shall be conclusive absent manifest error) (A) prior to the commencement of any Interest Period for a Term Benchmark Borrowing, that adequate and reasonable means do not exist for ascertaining the Adjusted Term SOFR Rate (including because the Term SOFR Reference Rate is not available or

published on a current basis) for such Interest Period or (B) at any time, that adequate and reasonable means do not exist for ascertaining the applicable Adjusted Daily Simple SOFR; or

(ii) the Administrative Agent is advised by the Required Lenders that (A) prior to the commencement of any Interest Period for a Term Benchmark Borrowing, the Adjusted Term SOFR Rate for such Interest Period will not adequately and fairly reflect the cost to such Lenders (or Lender) of making or maintaining their Loans (or its Loan) included in such Borrowing for such Interest Period or (B) at any time, Adjusted Daily Simple SOFR will not adequately and fairly reflect the cost to such Lenders (or Lender) of making or maintaining their Loans (or its Loan) included in such Borrowing;

then the Administrative Agent shall give notice thereof to the Company and the Lenders by telephone, telecopy or electronic mail as promptly as practicable thereafter and, until (x) the Administrative Agent notifies the Company and the Lenders that the circumstances giving rise to such notice no longer exist with respect to the relevant Benchmark and (y) the Company delivers a new Interest Election Request in accordance with the terms of Section 2.07 or a new Borrowing Request in accordance with the terms of Section 2.03 or Section 2.04, (1) any Interest Election Request that requests the conversion of any Borrowing to, or continuation of any Borrowing as, a Term Benchmark Borrowing and any Borrowing Request that requests a Term Benchmark Borrowing shall instead be deemed to be an Interest Election Request or a Borrowing Request, as applicable, for (x) an RFR Borrowing so long as the Adjusted Daily Simple SOFR is not also the subject of Section 2.13(a)(i) or (ii) above or (y) an ABR Borrowing if the Adjusted Daily Simple SOFR also is the subject of Section 2.13(a)(i) or (ii) above and (2) any Borrowing Request that requests an RFR Borrowing shall instead be deemed to be a Borrowing Request, as applicable, for an ABR Borrowing; provided that if the circumstances giving rise to such notice affect only one Type of Borrowings, then all other Types of Borrowings shall be permitted. Furthermore, if any Term Benchmark Loan or RFR Loan is outstanding on the date of the Borrower's receipt of the notice from the Administrative Agent referred to in this Section 2.13(a) with respect to a Relevant Rate applicable to such Term Benchmark Loan or RFR Loan, then until (x) the Administrative Agent notifies the Company and the Lenders that the circumstances giving rise to such notice no longer exist with respect to the relevant Benchmark and (y) the Company delivers a new Interest Election Request in accordance with the terms of Section 2.07 or a new Borrowing Request in accordance with the terms of Section 2.03 or Section 2.04, (1) any Term Benchmark Loan shall on the last day of the Interest Period applicable to such Loan, be converted by the Administrative Agent to, and shall constitute, (x) an RFR Borrowing so long as the Adjusted Daily Simple SOFR is not also the subject of Section 2.13(a)(i) or (ii) above or (y) an ABR Loan if the Adjusted Daily Simple SOFR also is the subject of Section 2.13(a)(i) or (ii) above, on such day, and (2) any RFR Loan shall on and from such day be converted by the Administrative Agent to, and shall constitute an ABR Loan.

(b) Notwithstanding anything to the contrary herein or in any other Loan Document, if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any setting of the then-current Benchmark, then (x) if a Benchmark Replacement is determined in accordance with clause (1) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of such Benchmark setting and subsequent Benchmark settings without any

amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document and (y) if a Benchmark Replacement is determined in accordance with clause (2) of the definition of “Benchmark Replacement” for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Required Lenders.

(c) Notwithstanding anything to the contrary herein or in any other Loan Document, the Administrative Agent will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Benchmark Replacement Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(d) The Administrative Agent will promptly notify the Company and the Lenders of (i) any occurrence of a Benchmark Transition Event, (ii) the implementation of any Benchmark Replacement, (iii) the effectiveness of any Benchmark Replacement Conforming Changes, (iv) the removal or reinstatement of any tenor of a Benchmark pursuant to clause (f) below and (v) the commencement or conclusion of any Benchmark Unavailability Period. Any determination, decision or election that may be made by the Administrative Agent or, if applicable, any group of Lenders pursuant to this Section 2.13, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document, except, in each case, as expressly required pursuant to this Section 2.13.

(e) Notwithstanding anything to the contrary herein or in any other Loan Document, at any time (including in connection with the implementation of a Benchmark Replacement), (i) if the then-current Benchmark is a term rate (including the Term SOFR Rate) and either (A) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion or (B) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is or will be no longer representative, then the Administrative Agent may modify the definition of “Interest Period” for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor and (ii) if a tenor that was removed pursuant to clause (i) above either (A) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (B) is not, or is no longer, subject to an announcement that it is or will no longer be representative for a Benchmark (including a Benchmark Replacement), then the Administrative Agent may modify the definition of “Interest Period” for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(f) Upon the Company's receipt of notice of the commencement of a Benchmark Unavailability Period, the Company may revoke any request for a Term Benchmark Borrowing or RFR Borrowing of, conversion to or continuation of Term Benchmark Loans to be made, converted or continued during any Benchmark Unavailability Period and, failing that, the Company will be deemed to have converted any request for a Term Benchmark Borrowing into a request for a Borrowing of or conversion to (A) an RFR Borrowing so long as the Adjusted Daily Simple SOFR is not the subject of a Benchmark Transition Event or (B) an ABR Borrowing if the Adjusted Daily Simple SOFR is the subject of a Benchmark Transition Event. During any Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of ABR based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of ABR. Furthermore, if any Term Benchmark Loan or RFR Loan is outstanding on the date of the Company's receipt of notice of the commencement of a Benchmark Unavailability Period with respect to a Relevant Rate applicable to such Term Benchmark Loan or RFR Loan, then until such time as a Benchmark Replacement is implemented pursuant to this Section 2.13, (1) any Term Benchmark Loan shall on the last day of the Interest Period applicable to such Loan, be converted by the Administrative Agent to, and shall constitute, (x) an RFR Borrowing so long as the Adjusted Daily Simple SOFR is not the subject of a Benchmark Transition Event or (y) an ABR Loan if the Adjusted Daily Simple SOFR is the subject of a Benchmark Transition Event, on such day and (2) any RFR Loan shall on and from such day be converted by the Administrative Agent to, and shall constitute an ABR Loan.

Section 2.14 Increased Costs. (a) If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, liquidity or similar requirement (including any compulsory loan requirement, insurance charge or other assessment) against assets of, deposits with or for the account of, or credit extended by, any Lender or any Issuing Bank; or

(ii) impose on any Lender or any Issuing Bank, or the applicable offshore market any other condition, cost or expense (other than Taxes) affecting this Agreement or Loans made by such Lender or any Letter of Credit or participation therein; or

(iii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto;

and the result of any of the foregoing shall be to increase the cost to such Lender, Issuing Bank or such other Recipient of making, continuing, converting or maintaining any Loan (or of maintaining its obligation to make any such Loan) or to increase the cost to such Lender, such Issuing Bank or such other Recipient of participating in, issuing or maintaining any Letter of Credit or to reduce the amount of any sum received or receivable by such Lender, such Issuing Bank or such other Recipient hereunder (whether of principal, interest or otherwise), then the applicable Borrower will pay to such Lender, such Issuing Bank or such other Recipient, as the case may be, such additional amount or amounts as will compensate such Lender, such Issuing Bank or such other Recipient, as the case may be, for such additional costs incurred or reduction suffered.

(b) If any Lender or any Issuing Bank determines that any Change in Law regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's or such Issuing Bank's capital or on the capital of such Lender's or such Issuing Bank's holding company, if any, as a consequence of this Agreement or the Loans made by, or participations in Letters of Credit held by, such Lender, or the Letters of Credit issued by such Issuing Bank, to a level below that which such Lender or such Issuing Bank or such Lender's or such Issuing Bank's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or such Issuing Bank's policies and the policies of such Lender's or such Issuing Bank's holding company with respect to capital adequacy and liquidity), then from time to time the applicable Borrower will pay to such Lender or such Issuing Bank, as the case may be, such additional amount or amounts as will compensate such Lender or such Issuing Bank or such Lender's or such Issuing Bank's holding company for any such reduction suffered.

(c) A certificate of a Lender or an Issuing Bank setting forth the amount or amounts necessary to compensate such Lender or such Issuing Bank or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section 2.14 shall be delivered to the Company and shall be conclusive absent manifest error. The applicable Borrower shall pay such Lender or the applicable Issuing Bank, as the case may be, the amount shown as due on any such certificate within ten days after receipt thereof.

(d) Failure or delay on the part of any Lender or any Issuing Bank to demand compensation pursuant to this Section 2.14 shall not constitute a waiver of such Lender's or such Issuing Bank's right to demand such compensation; *provided* that the applicable Borrower shall not be required to compensate a Lender or any Issuing Bank pursuant to this Section 2.14 for any increased costs or reductions incurred more than 270 days prior to the date that such Lender or such Issuing Bank, as the case may be, notifies the Company of the Change in Law giving rise to such increased costs or reductions and of such Lender's or such Issuing Bank's intention to claim compensation therefor; *provided, further*, that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the 270-day period referred to above shall be extended to include the period of retroactive effect thereof.

Section 2.15 Break Funding Payments. (a) With respect to Term Benchmark Loans, in the event of (i) the payment of any principal of any Term Benchmark Loan other than on the last day of an Interest Period applicable thereto (including as a result of an Event of Default or an optional or mandatory prepayment of Loans), (ii) the conversion of any Term Benchmark Loan other than on the last day of the Interest Period applicable thereto, (iii) the failure to borrow, convert, continue or prepay any Term Benchmark Loan on the date specified in any notice delivered pursuant hereto (regardless of whether such notice may be revoked under Section 2.10(b) and is revoked in accordance therewith), or (iv) the assignment of any Term Benchmark Loan other than on the last day of the Interest Period applicable thereto as a result of a request by the Company pursuant to Section 2.18, then, in any such event, the applicable Borrower shall compensate each Lender for the loss, cost and expense attributable to such event. A certificate of any Lender setting forth any amount or amounts that such Lender is entitled to receive pursuant to this Section 2.15 shall be delivered to the Company and shall be conclusive absent manifest error. The applicable Borrower shall pay such Lender the amount shown as due on any such certificate within ten days after receipt thereof.

(b) With respect to RFR Loans, in the event of (i) the payment of any principal of any RFR Loan other than on the Interest Payment Date applicable thereto (including as a result of an Event of Default or an optional or mandatory prepayment of Loans), (ii) the failure to borrow or prepay any RFR Loan on the date specified in any notice delivered pursuant hereto (regardless of whether such notice may be revoked under Section 2.10(b) and is revoked in accordance therewith) or (iii) the assignment of any RFR Loan other than on the Interest Payment Date applicable thereto as a result of a request by the Company pursuant to Section 2.18, then, in any such event, the applicable Borrower shall compensate each Lender for the loss, cost and expense attributable to such event. A certificate of any Lender setting forth any amount or amounts that such Lender is entitled to receive pursuant to this Section shall be delivered to the Company and shall be conclusive absent manifest error. The applicable Borrower shall pay such Lender the amount shown as due on any such certificate within ten days after receipt thereof.

Section 2.16 Payments Free of Taxes. (a) Any and all payments by or on account of any obligation of any Loan Party under this Agreement or any other Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law (as determined in the good faith discretion of a Loan Party or the Administrative Agent, as applicable) requires the deduction or withholding of any Tax from any such payment by a Loan Party or the Administrative Agent, as applicable, then such Loan Party or the Administrative Agent, as applicable, shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, then the sum payable by the applicable Loan Party shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section 2.16) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) Payment of Other Taxes by the Loan Parties. Each Loan Party shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Administrative Agent timely reimburse it for, Other Taxes.

(c) Evidence of Payments. As soon as practicable after any payment of Taxes by any Loan Party to a Governmental Authority pursuant to this Section 2.16, the Company shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(d) Indemnification by the Loan Parties. The Loan Parties shall jointly and severally indemnify each Recipient, within ten days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 2.16) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Company by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(e) Indemnification by the Lenders. Each Lender shall severally indemnify the Administrative Agent, within ten days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that the Loan Parties have not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of any Loan Party to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 10.04(c) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or any other Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this clause (e).

(f) Status of Lenders. (i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under this Agreement or any other Loan Document shall deliver to the Company and the Administrative Agent, at the time or times reasonably requested by the Company, on behalf of itself, Expro-Intl. or MOCL, or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Company or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Company or the Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Company or the Administrative Agent as will enable the Company or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 2.16(f)(ii)(A), (ii)(B) and (ii)(D) below) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing, in the event that the Company is a U.S. Person,

(A) any Lender that is a U.S. Person shall deliver to the Company and the Administrative Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), an executed IRS Form W-9 certifying that such Lender is exempt from U.S. Federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Company and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under this Agreement or any other Loan Document, an executed IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the “interest” article of such tax treaty and (y) with respect to any other applicable payments under this Agreement or any other Loan Document, IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the “business profits” or “other income” article of such tax treaty;

(2) in the case of a Foreign Lender claiming that its extension of credit will generate U.S. effectively connected income, an executed IRS Form W-8ECI;

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit C-1 to the effect that such Foreign Lender is not a “bank” within the meaning of Section 881(c)(3)(A) of the Code, a “ten percent shareholder” of any Borrower within the meaning of Section 871(h)(3)(B) of the Code, or a “controlled foreign corporation” described in Section 881(c)(3)(C) of the Code (a “**U.S. Tax Compliance Certificate**”) and (y) an executed IRS Form W-8BEN-E or IRS Form W-8BEN; or

(4) to the extent a Foreign Lender is not the beneficial owner, an executed IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN-E, IRS Form W-8BEN, a U.S. Tax Compliance Certificate substantially in the form of Exhibit C-2 or Exhibit C-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; *provided* that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit C-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Company and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Company or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under this Agreement or any other Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Company and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Company or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i))

of the Code) and such additional documentation reasonably requested by the Company or the Administrative Agent as may be necessary for any Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Company and the Administrative Agent in writing of its legal inability to do so.

(g) Treatment of Certain Refunds. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 2.16 (including by the payment of additional amounts pursuant to this Section 2.16), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 2.16 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this clause (g) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this clause (g), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this clause (g) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(h) Survival. Each party's obligations under this Section 2.16 shall survive the resignation or replacement of the Administrative Agent or any assignment of rights by, or the replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all obligations under any Loan Document.

(i) Defined Terms. For purposes of this Section 2.16, the term "Lender" includes any Issuing Bank and the term "applicable law" includes FATCA.

Section 2.17 Payments Generally; Pro Rata Treatment; Sharing of Set-offs. (a) Each Borrower shall make each payment or prepayment required to be made by it hereunder (whether of principal, interest, fees or reimbursement of LC Disbursements, or of amounts payable under Sections 2.14, 2.15 or 2.16, or otherwise) prior to 12:00 noon, New York City time, on the date when due or the date fixed for any prepayment hereunder, in immediately available funds, without set-off, recoupment or counterclaim. Any amounts received after such time on any date may, in the discretion of the Administrative Agent, be deemed to have been received on the next

succeeding Business Day for purposes of calculating interest thereon. All such payments shall be made to the Administrative Agent at its offices at 383 Madison Avenue, New York, New York, except payments to be made directly to an Issuing Bank as expressly provided herein and except that payments pursuant to Sections 2.14, 2.15 or 2.16 and 10.03 shall be made directly to the Persons entitled thereto. The Administrative Agent shall distribute in like funds as those received any such payments received by it for the account of any other Person to the appropriate recipient promptly following receipt thereof. If any payment hereunder shall be due on a day that is not a Business Day, the date for payment shall be extended to the next succeeding Business Day, and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension. Except as set forth in Section 2.05, all payments hereunder shall be made in dollars.

(b) If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, unreimbursed LC Disbursements, interest and fees then due hereunder, such funds shall be applied (i) first, towards payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, towards payment of principal and unreimbursed LC Disbursements then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and unreimbursed LC Disbursements then due to such parties.

(c) If any Lender shall, by exercising any right of set-off or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Loans or participations in LC Disbursements resulting in such Lender receiving payment of a greater proportion of the aggregate amount of its Loans and participations in LC Disbursements and accrued interest thereon than the proportion received by any other Lender, then the Lender receiving such greater proportion shall purchase (for cash at face value) participations in the Loans and participations in LC Disbursements of other Lenders to the extent necessary so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Loans and participations in LC Disbursements; *provided* that (i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and (ii) the provisions of this paragraph shall not be construed to apply to any payment made by any Borrower pursuant to and in accordance with the express terms of this Agreement or any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or participations in LC Disbursements to any assignee or participant, other than to a Borrower or any Subsidiary or Affiliate thereof (as to which the provisions of this paragraph shall apply). Each Borrower consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against such Borrower rights of set-off and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of such Borrower in the amount of such participation.

(d) Unless the Administrative Agent shall have received notice from the Company prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders or any Issuing Bank hereunder that the applicable Borrower will not make such payment, the Administrative Agent may assume that the applicable Borrower has made such

payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Lenders or such Issuing Bank, as the case may be, the amount due. In such event, if the applicable Borrower has not in fact made such payment, then each of the Lenders or such Issuing Bank, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or such Issuing Bank with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

(e) If any Lender shall fail to make any payment required to be made by it pursuant to Sections 2.05(d) or (e), 2.06(b), 2.17(d) or 10.03(c) then the Administrative Agent may, in its discretion (notwithstanding any contrary provision hereof), (i) apply any amounts thereafter received by the Administrative Agent for the account of such Lender to satisfy such Lender's obligations to it under such Sections until all such unsatisfied obligations are fully paid, and/or (ii) hold such amounts in a segregated account over which the Administrative Agent shall have exclusive control as cash collateral for, and application to, any future funding obligations of such Lender under any such Section, in the case of each of clauses (i) and (ii) above, in any order as determined by the Administrative Agent in its discretion.

Section 2.18 Mitigation Obligations; Replacement of Lenders.

(a) If any Lender requests compensation under Section 2.14, or if any Borrower is required to pay any Indemnified Taxes or additional amounts to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.16, then such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Sections 2.14 or 2.16, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be materially disadvantageous to such Lender. Each Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment.

(b) If (i) any Lender requests compensation under Section 2.14, (ii) any Borrower is required to pay any Indemnified Taxes or additional amounts to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.16, or (iii) any Lender becomes a Defaulting Lender, then the Company may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in Section 10.04), all its interests, rights (other than its existing rights to payments pursuant to Section 2.14 or Section 2.16) and obligations under this Agreement and the other Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment); *provided* that (i) the Company shall have received the prior written consent of the Administrative Agent (and if a Commitment is being assigned, each Issuing Bank) which consent shall not unreasonably be withheld, (ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and participations in LC Disbursements, accrued interest thereon, accrued fees and all other amounts payable to it hereunder, from the assignee (to

the extent of such outstanding principal and accrued interest and fees) or the Company (in the case of all other amounts) and (iii) in the case of any such assignment resulting from a claim for compensation under Section 2.14 or payments required to be made pursuant to Section 2.16, such assignment will result in a reduction in such compensation or payments. A Lender shall not be required to make any such assignment and delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Company to require such assignment and delegation cease to apply. Each party hereto agrees that (A) an assignment required pursuant to this paragraph may be effected pursuant to an Assignment and Assumption executed by the Borrower, the Administrative Agent and the assignee (or, to the extent applicable, an agreement incorporating an Assignment and Assumption by reference pursuant to an Approved Electronic Platform as to which the Administrative Agent and such parties are participants), and (B) the Lender required to make such assignment need not be a party thereto in order for such assignment to be effective and shall be deemed to have consented to and be bound by the terms thereof; provided that, following the effectiveness of any such assignment, the other parties to such assignment agree to execute and deliver such documents necessary to evidence such assignment as reasonably requested by the applicable Lender; *provided* that any such documents shall be without recourse to or warranty by the parties thereto.

Section 2.19 Defaulting Lenders.

Notwithstanding any provision of this Agreement to the contrary, if any Lender becomes a Defaulting Lender, then the following provisions shall apply for so long as such Lender is a Defaulting Lender:

(a) fees shall cease to accrue on the Commitment of such Defaulting Lender (or the Mexico Commitment if such Defaulting Lender is the Mexico Lender) pursuant to Section 2.11(a).

(b) any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of such Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Section 7.02(c) or otherwise) or received by the Administrative Agent from a Defaulting Lender pursuant to Section 10.08 shall be applied at such time or times as may be determined by the Administrative Agent as follows: first, to the payment of any amounts owing by such Defaulting Lender to the Administrative Agent hereunder; second, to the payment on a pro rata basis of any amounts owing by such Defaulting Lender to any Issuing Bank hereunder; third, to cash collateralize LC Exposure with respect to such Defaulting Lender in accordance with this Section; fourth, as the Company may request (so long as no Default or Event of Default exists), to the funding of any Loan in respect of which such Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; fifth, if so determined by the Administrative Agent and the Company, to be held in a deposit account and released pro rata in order to (x) satisfy such Defaulting Lender's potential future funding obligations with respect to Loans under this Agreement and (y) cash collateralize future LC Exposure with respect to such Defaulting Lender with respect to future Letters of Credit issued under this Agreement, in accordance with this Section; sixth, to the payment of any amounts owing to the Lenders or the Issuing Banks as a result of any judgment of a court of competent jurisdiction obtained by any Lender or the Issuing Banks against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement or under any other Loan

Document; seventh, so long as no Default or Event of Default exists, to the payment of any amounts owing to any Borrower as a result of any judgment of a court of competent jurisdiction obtained by such Borrower against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement or under any other Loan Document; and eighth, to such Defaulting Lender or as otherwise directed by a court of competent jurisdiction; *provided* that if (x) such payment is a payment of the principal amount of any Loans or LC Disbursements in respect of which such Defaulting Lender has not fully funded its appropriate share, and (y) such Loans were made or the related Letters of Credit were issued at a time when the conditions set forth in Section 4.02 were satisfied or waived, such payment shall be applied solely to pay the Loans of, and LC Disbursements owed to, all non-Defaulting Lenders on a pro rata basis prior to being applied to the payment of any Loans of, or LC Disbursements owed to, such Defaulting Lender until such time as all Loans and funded and unfunded participations in the Borrowers' obligations corresponding to such Defaulting Lender's LC Exposure are held by the Lenders pro rata in accordance with the Commitments without giving effect to clause (d) below. Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender or to post cash collateral pursuant to this Section shall be deemed paid to and redirected by such Defaulting Lender, and each Lender irrevocably consents hereto.

(c) the Commitment (or the Mexico Commitment if such Defaulting Lender is the Mexico Lender) and Credit Exposure of such Defaulting Lender shall not be included in determining whether the Required Lenders have taken or may take any action hereunder (including any consent to any amendment, waiver or other modification pursuant to Section 10.02); *provided* that this clause (c) shall not apply to the vote of a Defaulting Lender in the case of an amendment, waiver or other modification requiring the consent of such Lender or each Lender affected thereby.

(d) if any LC Exposure exists at the time such Lender (other than the Mexico Lender) becomes a Defaulting Lender then:

(i) all or any part of the LC Exposure of such Defaulting Lender shall be reallocated among the non-Defaulting Lenders in accordance with their respective Applicable Percentages but only (x) to the extent that such reallocation does not, as to any non-Defaulting Lender, cause such non-Defaulting Lender's Credit Exposure to exceed its Commitment and (y) the conditions set forth in Section 4.02 are satisfied at such time;

(ii) if the reallocation described in clause (i) above cannot, or can only partially, be effected, the Borrowers shall within one Business Day following notice by the Administrative Agent, cash collateralize for the benefit of the Issuing Banks only the Borrowers' obligations corresponding to such Defaulting Lender's LC Exposure (after giving effect to any partial reallocation pursuant to clause (i) above) in accordance with the procedures set forth in Section 2.05(j) for so long as such LC Exposure is outstanding;

(iii) if the Borrowers cash collateralize any portion of such Defaulting Lender's LC Exposure pursuant to clause (ii) above, the Borrowers shall not be required to pay any fees to such Defaulting Lender pursuant to Section 2.11(b) with respect to such Defaulting Lender's LC Exposure during the period such Defaulting Lender's LC Exposure is cash collateralized;

(iv) if the LC Exposure of the non-Defaulting Lenders is reallocated pursuant to clause (i) above, then the fees payable to the Lenders pursuant to Section 2.11(b) shall be adjusted in accordance with such non-Defaulting Lenders' Applicable Percentages;

(v) if all or any portion of such Defaulting Lender's LC Exposure is neither reallocated nor cash collateralized pursuant to clause (i) or (ii) above, then, without prejudice to any rights or remedies of any Issuing Bank or any other Lender hereunder, all commitment fees that otherwise would have been payable to such Defaulting Lender (solely with respect to the portion of such Defaulting Lender's Commitment that was utilized by such LC Exposure) and letter of credit fees payable under Section 2.11(b) with respect to such Defaulting Lender's LC Exposure shall be payable to the applicable Issuing Banks until and to the extent that such LC Exposure is reallocated and/or cash collateralized; and

(vi) subject to Section 10.17, no reallocation pursuant to clause (i) shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Lender arising from that Lender having become a Defaulting Lender, including any claim of a non-Defaulting Lender as a result of such non-Defaulting Lender's increase exposure following such reallocation; and

(e) so long as such Lender is a Defaulting Lender, no Issuing Bank (other than the Mexico Issuing Bank) shall be required to issue, amend or increase any Letter of Credit, unless it is satisfied that the related exposure and the Defaulting Lender's then outstanding LC Exposure will be 100% covered by the Commitments of the non-Defaulting Lenders and/or cash collateral will be provided by the Borrowers in accordance with Section 2.19(d), and LC Exposure related to any newly issued or increased Letter of Credit shall be allocated among non-Defaulting Lenders in a manner consistent with Section 2.19(d)(i) (and such Defaulting Lender shall not participate therein).

If (i) a Bankruptcy Event or a Bail-In Action with respect to a Lender Parent shall occur following the Effective Date and for so long as such event shall continue or (ii) any Issuing Bank (other than the Mexico Issuing Bank) has a good faith belief that any Lender has defaulted in fulfilling its obligations under one or more other agreements in which such Lender commits to extend credit, such Issuing Bank shall not be required to issue, amend or increase any Letter of Credit, unless such Issuing Bank shall have entered into arrangements with the Borrowers or such Lender, satisfactory to such Issuing Bank, as the case may be, to defease any risk to it in respect of such Lender hereunder.

In the event that the Administrative Agent, the Company and the Issuing Banks each agrees that a Defaulting Lender that is a Revolving Lender has adequately remedied all matters that caused such Lender to be a Defaulting Lender, then the LC Exposure of the Revolving Lenders shall be readjusted to reflect the inclusion of such Revolving Lender's Commitment and on such date such Lender shall purchase at par such of the Revolving Loans of the other Revolving Lenders as the Administrative Agent shall determine may be necessary in order for such Revolving Lender to hold such Revolving Loans in accordance with its Applicable Percentage.

Section 2.20 Commitment Increase.

(a) Subject to the terms and conditions set forth herein, the Company shall have the right from time to time to cause an increase in the total Commitments of the Lenders (a “Commitment Increase”) by adding to this Agreement one or more additional financial institutions that are not already Lenders hereunder (each, a “New Lender”) or by allowing one or more existing Lenders to increase their respective Commitments; *provided* that (i) both before and immediately after giving effect to such Commitment Increase, no Default or Event of Default shall have occurred and be continuing as of the effective date of such Commitment Increase (such date, the “Commitment Increase Date”), (ii) no such Commitment Increase shall be in an amount less than \$10,000,000, (iii) the aggregate amount of all such Commitment Increases shall not exceed \$450,000,000, and after giving effect to all such Commitment Increases, the total Commitments shall not exceed \$1,250,000,000, (iv) no Lender’s Commitment shall be increased without such Lender’s prior written consent (which consent may be given or withheld in such Lender’s sole and absolute discretion) and (v) each New Lender and any increase in the Commitment of an existing Lender pursuant to any Commitment Increase shall be subject to the prior written consent of the Administrative Agent and each Issuing Bank (each such consent not to be unreasonably withheld or delayed).

(b) The Company shall provide the Administrative Agent with written notice (a “Notice of Commitment Increase”) of its intention to increase the total Commitments pursuant to this Section 2.20. Each such Notice of Commitment Increase shall specify (i) the proposed Commitment Increase Date, which date shall be no earlier than five (5) Business Days after receipt by the Administrative Agent of such Notice of Commitment Increase, (ii) the amount of the requested Commitment Increase, (iii) as applicable, the identity of each New Lender and/or existing Lender that has agreed in writing to increase its Commitment hereunder, and (iv) the amount of the respective Commitments of the then existing Lenders and the New Lenders from and after the Commitment Increase Date.

(c) On any Commitment Increase Date, the Revolving Lenders shall purchase and assume (without recourse or warranty) from the other Revolving Lenders (i) Revolving Loans, to the extent that there are any Revolving Loans then outstanding, and (ii) undivided participation interests in any outstanding LC Exposure, in each case, to the extent necessary to ensure that after giving effect to the Commitment Increase, each Revolving Lender has outstanding Revolving Loans and participation interests in outstanding LC Exposure equal to its Applicable Percentage of the total Commitments. Each Revolving Lender shall make any payment required to be made by it pursuant to the preceding sentence via wire transfer to the Administrative Agent on the Commitment Increase Date. Each existing Revolving Lender shall be automatically deemed to have assigned any outstanding Revolving Loans on the Commitment Increase Date and the existing Revolving Lenders, each New Lender and the Borrowers each agree to take any further steps reasonably requested by the Administrative Agent, in each case to the extent deemed necessary by the Administrative Agent to effectuate the provisions of the preceding sentences, including, without limitation, the execution and delivery of one or more joinder or similar agreements. If, on such Commitment Increase Date, any Revolving Loans that are Term Benchmark Loans have been funded, then the Borrowers shall be obligated to pay any breakage fees or costs that are payable pursuant to Section 2.15 in connection with the reallocation of such outstanding Revolving Loans to effectuate the provisions of this paragraph.

(d) Each Commitment Increase shall become effective on the respective Commitment Increase Date and upon such effectiveness: (i) to the extent applicable, the Administrative Agent shall record in the Register each New Lender's information as provided in the applicable Notice of Commitment Increase and pursuant to an Administrative Questionnaire that shall be executed and delivered by each New Lender to the Administrative Agent on or before such Commitment Increase Date, (ii) Schedule 2.01 shall be amended and restated to set forth all Lenders (including any New Lenders) that will be Lenders hereunder after giving effect to such Commitment Increase (which amended and restated Schedule 2.01 shall be set forth in Annex I to the applicable Notice of Commitment Increase) and the Administrative Agent shall distribute to each Lender (including each New Lender) a copy of such amended and restated Schedule 2.01, and (iii) each New Lender identified on the Notice of Commitment Increase for such Commitment Increase shall be a "Lender" for all purposes under this Agreement.

(e) As a condition precedent to any Commitment Increase, the Company shall deliver to the Administrative Agent (i) a certificate of a Responsible Officer of the Company dated as of the Commitment Increase Date certifying and attaching the resolutions adopted by the Borrowers approving or consenting to such Commitment Increase and certifying that, before and after giving effect to such Commitment Increase, (A) the representations and warranties contained in this Agreement made by the Borrowers are true and correct on and as of the Commitment Increase Date (unless such representations and warranties are stated to relate to a specific earlier date, in which case such representations and warranties shall be true and correct as of such earlier date) and (B) no Default or Event of Default exists or will exist as of the Commitment Increase Date, and (ii) any legal opinions, certificates and/or other documents reasonably requested by the Administrative Agent in connection with the Commitment Increase.

Section 2.21 Sustainability Targets.

(a) The parties hereto acknowledge that the Sustainability Targets have not been determined and agreed as of the date of this Agreement and that Schedule 2.21 therefore has been intentionally left blank. The Company may, at any time prior to the second anniversary of the Effective Date, submit a request in writing to the Administrative Agent that this Agreement be amended to include the Sustainability Targets and other related provisions (including without limitation those provisions described in this Section 2.21), to be mutually agreed among the parties hereto in accordance with this Section 2.21 and Section 10.02 (such amendment, the "ESG Amendment"). Such request shall be accompanied by the proposed Sustainability Targets as prepared by the Company in consultation with the Sustainability Structuring Agent and devised with assistance from the Sustainability Assurance Provider (defined below), which shall be included as Schedule 2.21 (the "Sustainability Table").

(b) In connection with a request for the ESG Amendment, the Company shall engage in good faith discussions with the Administrative Agent and the Sustainability Structuring Agent in respect of the proposed Sustainability Targets and Sustainability Assurance Provider, and any proposed incentives and penalties for compliance and noncompliance, respectively, with the Sustainability Targets, including any adjustments to the Applicable Rate (and/or Commitment Fee Rate therein) (such provisions, collectively, the "ESG Pricing Provisions"); provided that the amount of any such adjustments made pursuant to an ESG Amendment shall not result in a decrease or an increase of more than (a) 0.01% in the Commitment Fee Rate set forth in the

definition of “Applicable Rate” and/or (b) 0.05% in the Term Benchmark Spread and the ABR Spread set forth in the definition of “Applicable Rate” during any fiscal year, which pricing adjustments shall be applied in accordance with the terms as further described in the ESG Pricing Provisions; provided that (i) in no event shall any of the Term Benchmark Spread, the ABR Spread or the Commitment Fee Rate be less than 0% at any time and (ii) for the avoidance of doubt, such pricing adjustments shall not be cumulative year-over-year, and each applicable adjustment shall only apply until the date on which the next adjustment is due to take place. The Company agrees and confirms that the ESG Pricing Provisions shall follow the Sustainability Linked Loan Principles, as published in May 2021, and as may be updated, revised or amended from time to time by the Loan Market Association and the Loan Syndications & Trading Association (the “SLL Principles”).

(c) The proposed ESG Amendment shall: (i) set forth the Sustainability Targets and the ESG Pricing Provisions, (ii) shall identify a sustainability assurance provider, which shall be a qualified external reviewer, independent of the Company and its Subsidiaries, with relevant expertise, such as an auditor, environmental consultant and/or independent ratings agency of recognized national standing (the “Sustainability Assurance Provider”) and (iii) may contain provisions relating thereto, including, without limitation, the provisions described in this Section 2.21 and provisions setting forth indemnities and other protections for the benefit of the Sustainability Structuring Agent.

(d) A copy of the proposed ESG Amendment shall be posted to all the Lenders. The effectiveness of the ESG Amendment (including the ESG Pricing Provisions) shall be subject to the execution and delivery thereof by the Borrowers, the Administrative Agent and the Required Lenders. Each Lender’s decision to approve of any proposed ESG Amendment shall be made in such Lender’s sole discretion.

(e) Following the effectiveness of the ESG Amendment, any amendment or other modification to the ESG Pricing Provisions which does not have the effect of reducing the Term Benchmark Spread, the ABR Spread, or the Commitment Fee Rate to a level not otherwise permitted by this Section 2.21 shall be subject only to the consent of the Required Lenders and the Administrative Agent.

ARTICLE III REPRESENTATIONS AND WARRANTIES

Each Borrower represents and warrants to the Lenders that:

Section 3.01 Organization; Powers. Each of the Company and its Material Subsidiaries is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, has all requisite power and authority to carry on its business as now conducted and, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect, is qualified to do business in, and is in good standing in, every jurisdiction where such qualification is required.

Section 3.02 Authorization; Enforceability. The Transactions are within each Loan Party’s corporate or equivalent powers and have been duly authorized by all necessary corporate

and, if required, stockholder action. Each Loan Document to which each Loan Party is a party has been duly executed and delivered by such Loan Party and constitutes a legal, valid and binding obligation of such Loan Party, enforceable in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

Section 3.03 Governmental Approvals; No Conflicts. The Transactions (a) do not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any third Person (including holders of its Equity Interests or any class of directors, managers or supervisors, as applicable, whether interested or disinterested, of any Borrower or any other Person), except such as have been obtained or made and are in full force and effect, (b) will not violate any applicable law or regulation or the charter, by-laws or other organizational documents of the Company or any of its Material Subsidiaries or any order of any Governmental Authority, nor is any such consent, approval, registration, filing or other action necessary for the validity or enforceability of any Loan Document or the consummation of the Transactions, except such as have been obtained or made and are in full force and effect other than those third party approvals or consents which, if not made or obtained would not cause a Default hereunder, could not reasonably be expected to have a Material Adverse Effect or do not have an adverse effect on the enforceability of the Loan Documents, (c) will not violate or result in a default under the Existing Notes, any indenture pursuant to which any Existing Notes are issued or any other indenture, agreement or other instrument binding upon the Company or any of its Material Subsidiaries or its assets, or give rise to a right thereunder to require any payment to be made by the Company or any of its Material Subsidiaries, and (d) will not result in the creation or imposition of any Lien on any asset of the Company or any of its Material Subsidiaries.

Section 3.04 Financial Condition; No Material Adverse Effect; No Default. (a) The Company has heretofore furnished to the Lenders its consolidated balance sheet and statements of income, stockholders equity and cash flows (i) as of and for the fiscal year ended December 31, 2021, reported on by KPMG LLP, independent public accountants, and (ii) as of and for the fiscal quarter and the portion of the fiscal year ended June 30, 2022, certified by its chief financial officer. Such financial statements present fairly, in all material respects, the financial position and results of operations and cash flows of the Company and its consolidated Subsidiaries as of such dates and for such periods in accordance with GAAP, subject to year-end audit adjustments and the absence of footnotes in the case of the statements referred to in clause (i) above.

(b) Since December 31, 2021, there has been no change in the business, assets, operations, prospects or condition, financial or otherwise, of the Company and its Subsidiaries that, taken as a whole, has had or could reasonably be expected to have, a Material Adverse Effect.

(c) No Default or Event of Default has occurred and is continuing.

Section 3.05 Properties. (a) Each of the Company and its Material Subsidiaries has good title to, or valid leasehold interests in, all its real and personal property material to its business, except for (i) Liens permitted by Section 6.03 and (ii) minor defects in title that do not interfere with its ability to conduct its business as currently conducted or to utilize such properties for their intended purposes.

(b) Each of the Company and its Subsidiaries owns, or is licensed to use, all trademarks, tradenames, copyrights, patents and other intellectual property material to its business, and the use thereof by the Company and its Subsidiaries does not infringe upon the rights of any other Person, except for any such infringements that, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

(c) Prior to the Investment Grade Rating Date, except for such acts or failures to act as could not be reasonably expected to have a Material Adverse Effect, the Oil and Gas Properties (and Properties unitized therewith) of the Company and its Subsidiaries have been maintained, operated and developed in conformity with all Governmental Requirements and in conformity with the provisions of all leases, subleases or other contracts comprising a part of the Hydrocarbon Interests and other contracts and agreements forming a part of the Oil and Gas Properties of the Company and its Subsidiaries. Specifically in connection with the foregoing, except for those as could not be reasonably expected to have a Material Adverse Effect, (i) no Oil and Gas Property of the Company or any Subsidiary is subject to having allowable production reduced below the full and regular allowable (including the maximum permissible tolerance) because of any overproduction (whether or not the same was permissible at the time) and (ii) none of the wells comprising a part of the Oil and Gas Properties (or Properties unitized therewith) of the Company or any Subsidiary is deviated from the vertical more than the maximum permitted by Governmental Requirements, and such wells are, in fact, bottomed under and are producing from, and the well bores are wholly within, the Oil and Gas Properties (or in the case of wells located on Properties unitized therewith, such unitized Properties) of the Company or such Subsidiary. Prior to the Investment Grade Rating Date, all pipelines, wells, gas processing plants, platforms and other material improvements, fixtures and equipment owned in whole or in part by the Company or any of its Subsidiaries that are necessary to conduct normal operations are being maintained in a state adequate to conduct normal operations, and with respect to such of the foregoing which are operated by the Company or any of its Subsidiaries, in a manner consistent with the Company's or its Subsidiaries' past practices (other than those the failure of which to maintain in accordance with this Section 3.05(c) could not reasonably be expected to have a Material Adverse Effect).

Section 3.06 Litigation and Environmental Matters. (a) There are no actions, suits or proceedings by or before any arbitrator or Governmental Authority pending against or, to the knowledge of the Company, threatened against the Company or any of its Subsidiaries (i) as to which there is a reasonable possibility of an adverse determination and that, if adversely determined, could reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect or (ii) that involve this Agreement, any other Loan Document or the Transactions.

(b) Except with respect to any other matters that, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect, neither the Company nor any of its Subsidiaries (i) has failed to comply with any Environmental Law or to obtain, maintain or comply with any permit, license or other approval required under any Environmental Law, (ii) has become subject to any Environmental Liability, (iii) has received written notice of any claim with respect to any Environmental Liability or (iv) knows of any basis for any Environmental Liability.

Section 3.07 Compliance with Laws and Agreements. Each of the Company and its Subsidiaries is in compliance with all laws, regulations and orders of any Governmental Authority applicable to it or its property and all indentures, agreements and other instruments binding upon it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect. No Default has occurred and is continuing or will result from the execution and delivery of this Agreement or any of the other Loan Documents, or the making of the Loans hereunder.

Section 3.08 Investment Company Status. Neither the Company nor any of its Subsidiaries is an “investment company” as defined in, or subject to regulation under, the Investment Company Act of 1940.

Section 3.09 Taxes. Each of the Company and its Subsidiaries has timely filed or caused to be filed all Tax returns and reports required to have been filed and has paid or caused to be paid all Taxes required to have been paid by it, except (a) Taxes that are being contested in good faith by appropriate proceedings and for which the Company or such Subsidiary, as applicable, has set aside on its books adequate reserves or (b) to the extent that the failure to do so could not reasonably be expected to result in a Material Adverse Effect.

Section 3.10 ERISA. No ERISA Event has occurred or is reasonably expected to occur that, when taken together with all other such ERISA Events for which liability is reasonably expected to occur, could reasonably be expected to result in a Material Adverse Effect. The Company and each ERISA Affiliate has fulfilled its obligations under the minimum funding standards of ERISA and the Code with respect to each Plan and is in compliance in all material respects with the presently applicable provisions of ERISA and the Code with respect to each Plan. Neither the Company nor any ERISA Affiliate has (a) sought a waiver of the minimum funding standard under Section 412 of the Code in respect of any Plan, (b) failed to make any contribution or payment to any Plan or Multiemployer Plan, or made any amendment to any Plan that has resulted or could result in the imposition of a Lien or the posting of a bond or other security under ERISA or the Code, or (c) incurred any liability under Title IV of ERISA other than a liability to the PBGC for premiums under Section 4007 of ERISA that are not past due.

Section 3.11 Disclosure.

(a) The Company has disclosed to the Lenders all agreements, instruments and corporate or other restrictions to which it or any of its Subsidiaries is subject, and all other matters known to it, that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. None of the reports, financial statements, certificates or other information furnished by or on behalf of the Company to the Administrative Agent or any Lender in connection with the negotiation of this Agreement or delivered hereunder (as modified or supplemented by other information so furnished) contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that, with respect to projected financial information, the Company represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time. There are no statements or conclusions in any Reserve Report which are based upon or include misleading information or fail to take into account material information regarding the matters reported therein,

it being understood that projections concerning volumes attributable to the Oil and Gas Properties of the Company and the Subsidiaries and production and cost estimates contained in each Reserve Report are necessarily based upon professional opinions, estimates and projections and that the Company and the Subsidiaries do not warrant that such opinions, estimates and projections will ultimately prove to have been accurate.

(b) As of the Effective Date, to the best knowledge of the Borrower, the information included in the Beneficial Ownership Certification provided on or prior to the Effective Date to any Lender in connection with this Agreement is true and correct in all respects.

Section 3.12 Insurance. The Company has, and has caused all of its Subsidiaries to have, (a) all insurance policies sufficient for the compliance by each of them with all material Governmental Requirements and all material agreements and (b) insurance coverage in at least amounts and against such risk (including, without limitation, public liability) that are usually insured against by companies similarly situated and engaged in the same or a similar business for the assets and operations of the Company and its Subsidiaries.

Section 3.13 Restriction on Subsidiary Distributions. Prior to the Investment Grade Rating Date, neither the Company nor any Subsidiary is a party to any agreement or arrangement, or subject to any order, judgment, writ or decree, which either restricts or purports to restrict any Subsidiary from paying dividends or making any other distributions in respect of its Equity Interests to the Company or any Subsidiary, or restricts any Subsidiary from making loans or advances or transferring any Property to the Company or any Subsidiary, or which requires the consent of or notice to other Persons in connection therewith, except, in each case, for such restrictions permitted under Section 6.07.

Section 3.14 Subsidiaries. Except as disclosed to the Administrative Agent by the Company in writing from time to time after the Effective Date, which shall be a supplement to Schedule 3.14, (a) Schedule 3.14 sets forth (i) each Subsidiary's name as listed in the public records of its jurisdiction of organization and jurisdiction of organization, and the location of its principal place of business and chief executive office and, as to each such Subsidiary, the percentage of each class of Equity Interests issued by such Subsidiary and, if such percentage is not 100% (excluding directors' qualifying shares as required by law), a description of each class issued and outstanding and (ii) the identity of each (A) Material Subsidiary, (B) Subsidiary Guarantor, (C) Required Subsidiary Guarantor (and specifying the basis for such Person being a Required Subsidiary Guarantor, including whether such Required Subsidiary Guarantor has been designated as such pursuant to the proviso to the definition of Required Subsidiary Guarantor) and (D) Excluded Canam Entity. All of the outstanding shares or other Equity Interests of each such Subsidiary owned by the Company or any other Subsidiary are validly issued and outstanding and, to the extent applicable, fully paid and not assessable, and all such shares or other Equity Interests are owned, beneficially and of record, free and clear of all Liens other than restrictions on transfer imposed by applicable law (or, in respect of the Permitted JV, pursuant to the Permitted JV LLC Agreement). There are no outstanding subscriptions, options, warrants, calls, rights or other agreements or commitments (other than stock options granted to employees or directors and directors' qualifying shares) of any nature relating to any Equity Interests of the Company or any Subsidiary, except as created by the Loan Documents and securities laws and other Liens permitted

hereunder that arise by operation of law, or, in respect of the Permitted JV, pursuant to the Permitted JV Agreements.

Section 3.15 Solvency. (a) Each Borrower and each of their respective Subsidiaries is (in each case), and after giving effect to any extension of credit hereunder, will be (in each case), Solvent and (b) no Borrower nor any of their respective Subsidiaries intend to (i) be or become subject to a voluntary or involuntary case under any debtor relief law, (ii) make a general assignment for the benefit of creditors, or (iii) have a custodian, conservator, receiver or similar official appointed for any Borrower, any of their respective Subsidiaries or a substantial part of any Borrower's assets, in each case within the next ten Business Days.

Section 3.16 Priority Status. None of the Company or any Subsidiary has taken any action which would cause the claims of unsecured creditors of the Company or of any other Subsidiary, as the case may be (other than claims of such creditors to the extent that they are statutorily preferred or Permitted Liens), to have priority over any of the Obligations.

Section 3.17 Anti-Corruption Laws and Sanctions.

(a) Each Borrower has implemented and maintains in effect policies and procedures reasonably designed to ensure compliance by such Borrower, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions, and each Borrower and its Subsidiaries and to the knowledge of such Borrower its and its Subsidiaries' officers, directors, employees and agents, are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects and are not knowingly engaged in any activity that would reasonably be expected to result in such Borrower being designated as a Sanctioned Person.

(b) None of (i) the Borrowers or any of their Subsidiaries, or to the knowledge of any Borrower or any Subsidiary, any of their respective directors, officers or employees, or (ii) to the knowledge of any Borrower, any agent of any Borrower or any of its Subsidiaries that will act in any capacity in connection with or benefit from the credit facility established hereby, is a Sanctioned Person.

Section 3.18 Use of Proceeds. The proceeds of the Loans and the Letters of Credit will be used as permitted by Section 5.09. The Borrowers and the Subsidiaries are not engaged principally, or as one of their important activities, in the business of extending credit for the purpose, whether immediate, incidental or ultimate, of buying or carrying margin stock (within the meaning Regulation T, U or X of the Board).

Section 3.19 Affected Financial Institutions. No Loan Party is an Affected Financial Institution.

**ARTICLE IV
CONDITIONS**

Section 4.01 Effective Date. This Agreement shall not become effective until the date on which each of the following conditions precedent is satisfied (or waived in accordance with Section 10.02):

(a) The Administrative Agent (or its counsel) shall have received (i) either (A) a counterpart of this Agreement signed on behalf of each Person party hereto or (B) written evidence satisfactory to the Administrative Agent (which may include telecopy or email transmission of a signed signature page or signed signature pages with respect to this Agreement) that each such Person has signed a counterpart of this Agreement, (ii) either (A) a counterpart of the Guaranty Agreement signed on behalf of the Borrowers and each Required Subsidiary Guarantor or (B) written evidence satisfactory to the Administrative Agent (which may include telecopy or email transmission of a signed signature page or signed signature pages with respect to this Agreement) that each such Person has signed a counterpart of the Guaranty Agreement and (iii) either (A) a counterpart of the Subordinated Intercompany Note signed on behalf of the Borrowers and each Subsidiary or (B) written evidence satisfactory to the Administrative Agent (which may include telecopy or email transmission of a signed signature page or signed signature pages with respect to this Agreement) that each such Person has signed a counterpart of the Subordinated Intercompany Note.

(b) The Administrative Agent shall have received favorable written opinions (addressed to the Administrative Agent and the Lenders and dated the Effective Date) of (i) Davis Polk & Wardwell LLP, as counsel for the Loan Parties, substantially in the form of Exhibit B-1 and (ii) Osler, Hoskin & Harcourt LLP, as counsel for MOCL, substantially in the form of Exhibit B-2. The Company hereby requests such counsel to deliver such opinions.

(c) Since December 31, 2021, there has been no change in the business, assets, operations, prospects or condition, financial or otherwise, of the Company and its Subsidiaries that, taken as a whole, has had or could reasonably be expected to have, a Material Adverse Effect.

(d) The Administrative Agent shall have received financial projections and forecasts with respect to the Company and its Consolidated Subsidiaries, in each case, in form and substance reasonably satisfactory to it.

(e) The Administrative Agent and the Lenders shall have received (at least three Business Days prior to the Effective Date), and shall be reasonably satisfied in form and substance with, (i) all documentation and other information required by bank regulatory authorities under applicable “know-your-customer” and anti-money laundering rules and regulations, including but not limited to the Patriot Act, to the extent such documentation or other information was requested by the Administrative Agent or any such applicable Lender at least seven days prior to the Effective Date and (ii) to the extent any Borrower qualifies as a “legal entity customer” under the Beneficial Ownership Regulation, a Beneficial Ownership Certification in relation to the Borrowers (*provided* that, upon the execution and delivery by such Lender of its signature page to this Agreement, the condition set forth in this clause (ii) shall be deemed to be satisfied).

(f) The Administrative Agent shall have received such documents and certificates as the Administrative Agent or its counsel may reasonably request relating to the organization, existence and good standing of each Loan Party, the authorization of the Transactions and any other legal matters relating to the Loan Parties, this Agreement, the other Loan Documents or the Transactions, all in form and substance satisfactory to the Administrative Agent and its counsel.

(g) The Administrative Agent shall have received a certificate, dated as of the Effective Date and signed by a Responsible Officer of the Company, confirming compliance with the conditions set forth in paragraphs (a) and (b) of Section 4.02.

(h) The Administrative Agent, Lenders and Lead Arrangers shall have received all fees and other amounts due and payable to each such Person (including, without limitation, the fees and expenses of Paul Hastings LLP, as counsel to the Administrative Agent) on or prior to the Effective Date, including, to the extent invoiced, reimbursement or payment of all out-of-pocket expenses required to be reimbursed or paid by the Borrowers hereunder.

(i) All principal, interest, fees and other amounts due or outstanding under the Existing Credit Agreement shall have been paid in full and the commitments thereunder shall have been terminated, and the Administrative Agent shall have received reasonably satisfactory evidence thereof.

(j) The Lenders shall have received such documents and other instruments as are customary for transactions of this type or as they or their counsel may reasonably request.

The Administrative Agent shall notify the Company and the Lenders of the occurrence of the Effective Date, and such notice shall be conclusive and binding. Notwithstanding the foregoing, the Effective Date shall not occur unless each of the foregoing conditions is satisfied (or waived pursuant to Section 10.02) at or prior to 11:59 p.m., New York City time, on November 30, 2022 (and, in the event such conditions are not so satisfied, extended or waived, the Commitments shall terminate at such time). For purposes of determining compliance with the conditions specified in this Section 4.01, each Lender shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received written notice from such Lender prior to the proposed Effective Date specifying its objection thereto.

Section 4.02 Each Credit Event. The obligation of each Lender to make, convert or continue a Loan on the occasion of any Borrowing, and of the Issuing Banks to issue, amend, renew or extend any Letter of Credit, is subject to the satisfaction of the following conditions:

(a) The representations and warranties of the Loan Parties set forth in this Agreement and each other Loan Documents shall be true and correct on and as of the date of such Borrowing or the date of the issuance, amendment, renewal or extension of such Letter of Credit, as applicable (unless such representations and warranties are stated to relate to a specific earlier date, in which case such representations and warranties shall be true and correct as of such earlier date).

(b) At the time of and immediately after giving effect to such Borrowing or the issuance, amendment, renewal or extension of such Letter of Credit, as applicable, no Default shall have occurred and be continuing.

(c) The Administrative Agent shall have received a Borrowing Request (or any request for the issuance, amendment, renewal or extension of a Letter of Credit) as required by

Section 2.03 or Section 2.04 in respect of a Borrowing, or in the case of the issuance, amendment, extension or renewal of a Letter of Credit, the applicable Issuing Bank and the Administrative Agent shall have received a request as required by Section 2.05(b).

(d) In the case of the issuance, amendment, extension or increase of a Letter of Credit to be denominated in a Designated Currency, (i) there shall not have occurred any change in national or international financial, political or economic conditions or currency exchange rates or exchange controls that in the reasonable opinion of the Administrative Agent or the applicable Issuing Bank would make it impracticable for such issuance, amendment, extension or increase to be denominated in the relevant Designated Currency or (ii) the issuance of such Letter of Credit would not violate one or more policies of the Issuing Bank applicable to letters of credit generally (including, without limitation, country exposure limitations).

Each Borrowing and each issuance, amendment, renewal or extension of a Letter of Credit shall be deemed to constitute a representation and warranty by each Borrower on the date thereof as to the matters specified in paragraphs (a) and (b) of this Section 4.02.

ARTICLE V AFFIRMATIVE COVENANTS

During the period commencing on and including the Effective Date and until the Commitments have expired or been terminated and the principal of and interest on each Loan and all fees payable hereunder shall have been paid in full and all Letters of Credit shall have expired or terminated, in each case, without any pending draw, and all LC Disbursements shall have been reimbursed, the Company (and each Borrower, in the case of Section 5.08 and Section 5.09) covenants and agrees with the Lenders that:

Section 5.01 Financial Statements, Ratings Change, and Other Information. The Company will furnish to the Administrative Agent and each Lender:

(a) no later than 30 days following the date required by applicable SEC rules (without giving effect to any extensions available thereunder) for the filing of such financial statements after the end of each fiscal year of the Company, its audited consolidated balance sheet and related statements of operations, stockholders' equity and cash flows as of the end of and for such year, setting forth in each case in comparative form the figures for the previous fiscal year, all reported on by KPMG LLP or other independent public accountants of recognized national standing (without a "going concern" or like qualification or exception and without any qualification or exception as to the scope of such audit) to the effect that such consolidated financial statements present fairly in all material respects the financial condition and results of operations of the Company and its consolidated Subsidiaries on a consolidated basis in accordance with GAAP consistently applied;

(b) no later than 30 days following the date required by applicable SEC rules (without giving effect to any extensions available thereunder) for the filing of such financial statements after the end of each of the first three fiscal quarters of each fiscal year of the Company, its consolidated balance sheet and related statements of operations, stockholders' equity and cash flows as of the end of and for such fiscal quarter and the then elapsed portion of the fiscal year,

setting forth in each case in comparative form the figures for the corresponding period or periods of (or, in the case of the balance sheet, as of the end of) the previous fiscal year, all certified by one of its Financial Officers as presenting fairly in all material respects the financial condition and results of operations of the Company and its consolidated Subsidiaries on a consolidated basis in accordance with GAAP consistently applied, subject to normal year-end audit adjustments and the absence of footnotes;

(c) simultaneously with the delivery of the financial statements referred to in subsections (a) or (b) above, a copy of the certification signed by the principal executive officer and the principal financial officer of the Company (each, a “Certifying Officer”) as required by Rule 13A-14 under the Securities Exchange Act of 1934 and a copy of the internal controls disclosure statement by such Certifying Officers as required by Rule 13A-15 under the Securities Exchange Act of 1934, each as included in the Company’s Annual Report on Form 10-K or Quarterly Report on Form 10-Q, for the applicable fiscal period;

(d) concurrently with any delivery of financial statements under Section 5.01(a) and Section 5.01(b), a certificate of a Financial Officer of the Company, substantially in the form attached hereto as Exhibit D (a “Compliance Certificate”), (i) certifying as to whether a Default has occurred and, if a Default has occurred, specifying the details thereof and any action taken or proposed to be taken with respect thereto, (ii) setting forth reasonably detailed calculations demonstrating compliance with each of the Financial Covenants set forth in Section 6.14, (iii) stating whether any change in GAAP or in the application thereof has occurred since the date of the audited financial statements referred to in Section 3.04 and, if any such change has occurred, specifying the effect of such change on the financial statements accompanying such certificate and (iv) with respect to any Compliance Certificate delivered prior to the Investment Grade Rating Date, (A) setting forth reasonably detailed calculations demonstrating the Leverage Ratio Ex-MOCL as of the last day of the fiscal quarter for such financial statements, and stating whether a MOCL Guarantee Trigger Event has occurred (and attaching thereto consolidating financial statements, in form and substance reasonably satisfactory to the Administrative Agent, demonstrating the portion of Consolidated EBITDA attributable to the Excluded MOCL Entities), (B) specifying the identity of each Required Subsidiary Guarantor, Material Subsidiary, Guarantor and Excluded Canam Entity as of the end of such fiscal quarter or fiscal year, as applicable (and including reasonable detail, in form and substance satisfactory to the Administrative Agent, with respect thereto), as the case may be, (C) to the extent necessary pursuant to the definition of “Required Subsidiary Guarantor” and/or “Material Subsidiary”, as applicable, designating sufficient additional Subsidiaries as Required Subsidiary Guarantors or Material Subsidiaries, respectively, so as to comply with the definition of “Required Subsidiary Guarantor” or “Material Subsidiary”, respectively and (D) specifying the amount of cash dividends declared and paid by Canam to the Loan Parties pursuant to Section 5.18 for each fiscal quarter or fiscal year, as applicable (and including reasonably detailed backup information, in form and substance satisfactory to the Administrative Agent, with respect thereto);

(e) prior to the Investment Grade Rating Date, as soon as available, and in any event within 60 days after the beginning of each fiscal year of the Company, an annual forecast with respect to such fiscal year and the immediately succeeding fiscal year;

(f) concurrently with any delivery of financial statements under Section 5.01(a), a certificate of insurance coverage from each insurer with respect to the insurance required by Section 5.06, in form and substance satisfactory to the Administrative Agent, and, if requested by the Administrative Agent or any Lender, all copies of the applicable policies;

(g) prior to the Investment Grade Rating Date, concurrently with any delivery of financial statements under Section 5.01(a) or, solely for each fiscal quarter of the Company ending on June 30 of each year, Section 5.01(b), a certificate of a Financial Officer, in form and substance satisfactory to the Administrative Agent, setting forth as of a recent date, a true and complete list of all Hedging Agreements of the Company and each Subsidiary, the material terms thereof (including the type, term effective date, termination date and notional amounts or volumes), the net mark-to-market value therefor, any new credit support agreements relating thereto not otherwise previously disclosed pursuant to this Section 5.01(g), any margin required or supplied under any credit support document, and the counterparty to each such agreement; provided that, to the extent all information required to be delivered pursuant to this Section 5.01(g) has otherwise been made available for review by the Lenders on the Company's website at <http://www.murphyoilcorp.com> or at <http://www.sec.gov>, the requirements of this Section 5.01(g) shall be satisfied upon delivery of a certificate of a Financial Officer (i) notifying the Administrative Agent and the Lenders that such information has been made available on one or both of the above websites and (ii) certifying that such information constitutes a true and complete list of all Hedging Agreements of the Company and each Subsidiary;

(h) promptly after the same become publicly available, copies of all periodic and other reports, proxy statements and other materials filed by the Company or any Subsidiary with the SEC, or any Governmental Authority succeeding to any or all of the functions of said Commission, or with any national securities exchange, or distributed by the Company to its shareholders generally, as the case may be;

(i) prior to the Investment Grade Rating Date, prompt written notice, and in any event within five Business Days, of the occurrence of any Casualty Event having a fair market value in excess of \$25,000,000 or the commencement of any action or proceeding that could reasonably be expected to result in a Casualty Event having a fair market value in excess of \$25,000,000;

(j) promptly after the Rating Agencies shall have announced a change in the rating established or deemed to have been established for the Index Debt, written notice of such rating change; and

(k) promptly following any request therefor, (i) such other information regarding the operations, business affairs and financial condition of the Company or any Subsidiary, or compliance with the terms of this Agreement, as the Administrative Agent or any Lender may reasonably request and (ii) information and documentation reasonably requested by the Administrative Agent or any Lender for purposes of compliance with applicable "know your customer" and anti-money laundering rules and regulations, including the Patriot Act and the Beneficial Ownership Regulation.

Information required to be delivered pursuant to Section 5.01(a), (b), (c), or (e) shall be deemed to have been delivered on the date on which (i) such information is actually available for review by the Lenders on the Company's website at <http://www.murphyoilcorp.com> or at <http://www.sec.gov>, and (ii) the Company provides notice to the Lenders that such information is available and designates one or both of the above websites on which such information is located.

Section 5.02 Notices of Material Events. The Company will furnish to the Administrative Agent and each Lender prompt written notice of the following:

(a) the occurrence of any Default;

(b) the filing or commencement of any action, suit or proceeding by or before any arbitrator or Governmental Authority against or affecting the Company or any Affiliate thereof that, if adversely determined, could reasonably be expected to result in a Material Adverse Effect;

(c) the occurrence of any ERISA Event that, alone or together with any other ERISA Events that have occurred, could reasonably be expected to result in liability of the Company and its Subsidiaries in an aggregate amount exceeding \$75,000,000; and

(d) any other development that results in, or could reasonably be expected to result in, a Material Adverse Effect.

Each notice delivered under this Section 5.02 shall be accompanied by a statement of a Financial Officer or other executive officer of the Company setting forth the details of the event or development requiring such notice and any action taken or proposed to be taken with respect thereto.

Section 5.03 Existence; Conduct of Business. The Company will, and will cause each of its Material Subsidiaries to, do or cause to be done all things necessary to preserve, renew and keep in full force and effect its legal existence and the rights, licenses, permits, privileges and franchises material to the conduct of its business; *provided* that the foregoing shall not prohibit any merger, consolidation, liquidation or dissolution permitted under Section 6.04.

Section 5.04 Payment of Obligations. The Company will, and will cause each of its Subsidiaries to, pay its obligations, including Tax liabilities, that, if not paid, could result in a Material Adverse Effect before the same shall become delinquent or in default, except where (a) the validity or amount thereof is being contested in good faith by appropriate proceedings, (b) the Company or such Subsidiary has set aside on its books adequate reserves with respect thereto in accordance with GAAP and (c) the failure to make payment pending such contest could not reasonably be expected to result in a Material Adverse Effect.

Section 5.05 Maintenance of Properties. The Company will, and will cause each of its Material Subsidiaries to, (a) keep and maintain all property material to the conduct of its business in good working order and condition, ordinary wear and tear excepted and (b) operate its Oil and Gas Properties and other material Properties or cause such Oil and Gas Properties and other material Properties to be operated in a careful and efficient manner in accordance with the practices of the industry and in compliance with all applicable contracts and agreements and in compliance with all Governmental Requirements, including, without limitation, applicable pro ration

requirements and Environmental Law (including responding to any release of Hazardous Materials at, on, or from any Oil and Gas Properties as required under Environmental Law), and all applicable laws, rules and regulations of every other Governmental Authority from time to time constituted to regulate the development and operation of its Oil and Gas Properties and the production and sale of Hydrocarbons and other minerals therefrom.

Section 5.06 Insurance. The Company will, and will cause each Subsidiary to, maintain, with financially sound and reputable insurance companies, insurance in such amounts and against such risks as are customarily maintained by companies engaged in the same or similar businesses operating in the same or similar locations. Upon the reasonable request of the Administrative Agent from time to time, the Company shall deliver to the Administrative Agent information in reasonable detail as to the Company's and its Subsidiaries' insurance then in effect, stating the names of the insurance companies, the amounts of insurance, the dates of the expiration thereof and the properties and risks covered thereby. In the event the Company or any Subsidiary at any time shall fail to obtain or maintain any of the insurance required herein, then the Administrative Agent, without waiving or releasing any obligations or resulting Default hereunder, may at any time or times thereafter (but shall be under no obligation to do so) obtain and maintain such policies of insurance and pay premiums and take any other action with respect thereto which the Administrative Agent deems advisable. All sums so disbursed by the Administrative Agent shall constitute part of the Obligations, payable as provided in this Agreement.

Section 5.07 Books and Records; Inspection Rights. The Company will, and will cause each of its Material Subsidiaries to, keep proper books of record and account in which full, true and correct entries are made of all dealings and transactions in relation to its business and activities. The Company will, and will cause each of its Material Subsidiaries to, permit any representatives designated by the Administrative Agent or any Lender, upon reasonable prior notice, to visit and inspect its properties, to examine and make extracts from its books and records, and to discuss its affairs, finances and condition with its officers and independent accountants, all at such reasonable times and as often as reasonably requested.

Section 5.08 Compliance with Laws.

(a) The Company will, and will cause each of its Subsidiaries to, comply with all laws, rules, regulations and orders of any Governmental Authority applicable to it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

(b) Each Borrower will maintain in effect policies and procedures reasonably designed to ensure compliance by such Borrower, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions.

Section 5.09 Use of Proceeds.

(a) The proceeds of the Loans will be used only (i) to refinance all of the outstanding Indebtedness and other obligations under the Existing Credit Agreement and (ii) for general corporate purposes or as liquidity support for commercial paper issued by or on behalf of the Company or a Subsidiary of the Company.

(b) No part of the proceeds of any Loan will be used, whether directly or indirectly, for any purpose that entails a violation of any of the Regulations of the Board, including Regulations T, U and X. No Borrower will request any Borrowing or Letter of Credit, and no Borrower shall directly or, to the knowledge of such Borrower, indirectly use the proceeds of any Borrowing or Letter of Credit (A) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (B) for the purpose of funding, financing or facilitating any activities, business or transaction of or with any Sanctioned Person, or in any Sanctioned Country, except to the extent permitted for a Person required to comply with Sanctions, or (C) in any manner that would result in the violation of any Sanctions applicable to any party hereto.

Section 5.10 Reserve Reports. Prior to the Investment Grade Rating Date:

(a) On or before March 1st of each year, commencing March 1, 2019, the Company shall furnish to the Administrative Agent and the Lenders a Reserve Report, in form and substance consistent with the requirements set forth in the definition thereof, evaluating the Proved Oil and Gas Properties of the Company and its Subsidiaries as of the immediately preceding January 1st; *provided* that if as of the last day of the fiscal quarter ending June 30th of such year, the Consolidated Leverage Ratio for the period of four consecutive fiscal quarters ending on such day exceeds 3.00 to 1.00, then, if requested by the Administrative Agent, the Company shall furnish to the Administrative Agent and the Lenders, on or before September 1st of such year, a Reserve Report, in form and substance consistent with the requirements set forth in the definition thereof, evaluating the Proved Oil and Gas Properties of the Company and its Subsidiaries as of the immediately preceding July 1st of such year. Each Reserve Report shall be either prepared by one or more Approved Petroleum Engineers, or by or under the supervision of the chief engineer of the Company, who shall certify such Reserve Report to be true and accurate and to have been prepared in accordance with the procedures used in the immediately preceding January 1 Reserve Report.

(b) With the delivery of each Reserve Report, the Company shall provide to the Administrative Agent and the Lenders a certificate from a Responsible Officer certifying that in all material respects: (i) the information contained in the Reserve Report, as applicable, and any other information delivered in connection therewith is true and correct, (ii) the Company or its Subsidiaries owns good and defensible title to the Oil and Gas Properties evaluated in such Reserve Report, and such Properties are free of all Liens except for Liens permitted by Section 6.03 and (iii) none of their Oil and Gas Properties have been sold (other than Hydrocarbons sold in the ordinary course of business) since the date of the most recently delivered Reserve Report hereunder except as set forth on an exhibit to the certificate, which certificate shall list all of its Oil and Gas Properties sold (other than Hydrocarbons sold in the ordinary course of business) and in such detail as required by the Administrative Agent.

Section 5.11 [Reserved].

Section 5.12 Additional Guarantors. Prior to the Investment Grade Rating Date, with respect to any Person that after the Effective Date is or becomes a Required Subsidiary Guarantor (other than MOCL), or with respect to MOCL, upon any MOCL Guarantee Trigger Event, the Company shall, or shall cause its Subsidiaries to, promptly (and in any event within ten days of

the delivery of the Compliance Certificate for any fiscal quarter or fiscal year, as applicable, pursuant to Section 5.01(d) (or with respect to clause (i) of the definition of MOCL Guarantee Trigger Event, within ten days of the date on which the Global Exposure (excluding any Global LC Exposure) exceeds \$650,000,000)) cause such Person to (i) become a Guarantor by executing and delivering to the Administrative Agent a duly executed Guaranty Agreement (or supplement to a Guaranty Agreement or such other document as the Administrative Agent shall deem appropriate for such purpose), (ii) execute and deliver to the Administrative Agent such legal opinions, organizational and authorization documents and certificates of the type referred to in Section 4.01(b) and Section 4.01(g), and (iii) deliver to the Administrative Agent such other documents as may be reasonably requested by the Administrative Agent, all in form, content and scope reasonably satisfactory to the Administrative Agent.

Section 5.13 [Reserved].

Section 5.14 Accounts. Prior to the Investment Grade Rating Date, the Company shall, and shall cause each Subsidiary to: (i) deposit or cause to be deposited directly, all Cash Receipts into one or more Deposit Accounts listed on Schedule 5.14, (ii) deposit or credit or cause to be deposited or credited directly, all securities and financial assets held or owned by (whether directly or indirectly), credited to the account of, or otherwise reflected as an asset on the balance sheet of, the Company and its Subsidiaries (including, without limitation, all marketable securities, treasury bonds and bills, certificates of deposit, investments in money market funds and commercial paper) into one or more Securities Accounts listed on Schedule 5.14 and (iii) cause all commodity contracts held or owned by (whether directly or indirectly), credited to the account of, or otherwise reflected as an asset on the balance sheet of, the Company and its Subsidiaries, to be carried or held in one or more Commodity Accounts listed on Schedule 5.14.

Section 5.15 [Reserved].

Section 5.16 More Favorable Financial Covenants. Prior to the Investment Grade Rating Date:

(a) If, at any time after the Effective Date, any Other Debt Agreement includes one or more Additional Financial Covenants (including, for the avoidance of doubt, as a result of any amendment, supplement, waiver or other modification to any Other Debt Agreement causing it to contain one or more Additional Financial Covenants), then (i) on or prior to the third Business Day following the effectiveness of any such Additional Financial Covenants, as applicable, the Company shall notify the Administrative Agent thereof, and (ii) whether or not the Company provides such notice, the terms of this Agreement shall, without any further action on the part of any Borrower, the Administrative Agent or any Lender, be deemed to be amended automatically to include each Additional Financial Covenant in this Agreement, *mutatis mutandis* effective as of the date when such Additional Financial Covenant became effective under such Other Debt Agreement. The Company further covenants to promptly execute and deliver at its expense an amendment to this Agreement in form and substance reasonably satisfactory to the Required Lenders evidencing the amendment of this Agreement to include such Additional Financial Covenants in this Agreement; *provided* that the execution and delivery of such amendment shall not be a precondition to the effectiveness of such amendment as provided for this Section 5.16(a), but shall merely be for the convenience of the parties hereto.

(b) If at any time after this Agreement is amended pursuant to Section 5.16(a) to include any Additional Financial Covenant contained in any Other Debt Agreement (each, an “Incorporated Provision”), such Incorporated Provision ceases to be in effect under, or is deleted from, such Other Debt Agreement, or is amended or modified for the purposes of such Other Debt Agreement, so as to become less restrictive with respect to the Borrowers or any of their respective Subsidiaries, then (i) on or prior to the third Business Day following the effectiveness of any such cessation, deletion, amendment or modification, the Company shall notify the Administrative Agent thereof, and (ii) whether or not the Company provides such notice, so long as no Default or Event of Default in respect of such Incorporated Provision shall be in existence, the terms of this Agreement shall, without any further action on the part of the Company, the Administrative Agent or any Lender, be deemed to be amended automatically to delete such Incorporated Provision or incorporate the same amendments or modifications to such Incorporated Provision, as applicable, *mutatis mutandis* effective as of the date when such Incorporated Provision ceased to be in effect under, or was deleted from, or was amended or modified in such Other Debt Agreement. Upon the request of the Company, the Required Lenders will execute and deliver an amendment to this Agreement to delete or similarly amend or modify, as the case may be, such Incorporated Provision as in effect in this Agreement. Notwithstanding the foregoing, no amendment to this Agreement pursuant to this Section 5.16(b) as the result of any Incorporated Provision ceasing to be in effect or being deleted, amended or otherwise modified shall cause any covenant or Event of Default in this Agreement to be less restrictive as to the Company or any Subsidiary than such covenant or Event of Default as contained in this Agreement as in effect on the Effective Date, and as amended, supplemented or otherwise modified thereafter (other than as the result of the application of Section 5.16(a)).

Section 5.17 Commodity Exchange Act Keepwell Provisions. Prior to the Investment Grade Rating Date, the Company hereby guarantees the payment and performance of all Obligations of each Loan Party (other than the Company) and absolutely, unconditionally and irrevocably undertakes to provide such funds or other support as may be needed from time to time by each Loan Party (other than the Company) in order for such Loan Party to honor its obligations under its respective Guaranty Agreement including obligations with respect to Hedging Agreements (*provided, however*, that the Company shall only be liable under this Section 5.17 for the maximum amount of such liability that can be hereby incurred without rendering its obligations under this Section 5.17, or otherwise under this Agreement or any Loan Document, as it relates to such other Loan Parties, voidable under applicable law relating to fraudulent conveyance or fraudulent transfer, and not for any greater amount). The obligations of the Company under this Section 5.17 shall remain in full force and effect until all amounts owing to the Guaranteed Parties on account of the Obligations are irrevocably and indefeasibly paid in full in cash, no Letter of Credit is outstanding and all of the Commitments are terminated. The Company intends that this Section 5.17 shall constitute, and this Section 5.17 shall be deemed to constitute, a “keepwell, support, or other agreement” for the benefit of each other Loan Party for all purposes of Section 1a(18)(A)(v)(II) of the Commodity Exchange Act.

Section 5.18 Canam Distribution Covenant. Prior to the Investment Grade Rating Date, the Company shall cause Canam to directly or indirectly transfer to one or more Loan Parties, by way of dividend or other distribution, within 30 days after (a) the last day of each of the fiscal quarters of the Company ending June 30 and December 31, an amount not less than the positive difference of (i) the Canam Cash Amount as of the last day of such fiscal quarter minus (ii)

\$150,000,000 and (b) the last day of each of the fiscal quarters of the Company ending March 31 and September 30, an amount not less than the positive difference of (i) the Canam Cash Amount as of the last day of such fiscal quarter minus (ii) \$200,000,000. Concurrently with the consummation of each such transfer, the Company shall deliver a certificate of a Financial Officer of the Company certifying the calculation of the Canam Cash Amount (and attaching thereto reasonably detailed back-up documentation with respect thereto) for such applicable fiscal quarter.

Section 5.19 Permitted JV Closing. On the Permitted JV Closing Date, the Company shall deliver to the Administrative Agent a certificate of a Responsible Officer certifying that (a) the Permitted JV Contribution Agreement (including the exhibits and schedules attached thereto) shall not have been modified, amended, supplemented or waived, and no consent shall have been granted thereunder, in each case in a manner that is materially adverse to the Lender, (b) attached thereto is a true, complete and correct copy of each of the Permitted JV Agreements, (c) each of such Permitted JV Agreements is in full force and effect and (d) except as attached thereto, no such Permitted JV Agreement has not been amended, modified or supplemented.

ARTICLE VI NEGATIVE COVENANTS

During the period commencing on and including the Effective Date and until the Commitments have expired or terminated and the principal of and interest on each Loan and all fees payable hereunder have been paid in full and all Letters of Credit have expired or terminated, in each case, without any pending draw, and all LC Disbursements shall have been reimbursed, the Company covenants and agrees with the Lenders that:

Section 6.01 Indebtedness.

(a) Prior to the Investment Grade Rating Date, the Company will not, and will not permit any Subsidiary to create, incur, assume or permit to exist, any Indebtedness, except:

(i) the Obligations;

(ii) Indebtedness (other than (A) any such Indebtedness referred to in clause (a)(iii) below and (B) Indebtedness constituting Guarantees by any Subsidiary of Indebtedness of any Person) (x) existing on the Effective Date and set forth on Schedule 6.01 hereto and (y) any Indebtedness that is incurred in exchange for, or the proceeds of which are used to extend, refinance, replace, defease, discharge, refund or otherwise retire for value any such Indebtedness; *provided* that, (1) the aggregate principal amount (or accreted value, in the case of Indebtedness issued with original issue discount) of any such Indebtedness incurred pursuant to this clause (a)(ii)(y) (including undrawn or available committed amounts) does not exceed the sum of (I) the aggregate principal amount (or accreted value, in the case of Indebtedness issued with original issue discount) of the Indebtedness being refinanced, plus (II) an amount necessary to pay all accrued (including, for purposes of defeasance, future accrued) and unpaid interest on the Indebtedness being refinanced and any fees (including original issue discount and upfront fees), premiums and expenses related to such exchange or refinancing, (2) any such Indebtedness incurred pursuant to this clause (a)(ii)(y) has a stated maturity that is no earlier than the later of (I) the date that is 180 days after the Maturity Date and (II) the maturity date of the Indebtedness

being refinanced, (3) the Indebtedness incurred pursuant to this clause (a)(ii)(y) does not provide for any mandatory redemptions or repayments prior to the date that is 180 days after the Maturity Date, (4) any such Indebtedness incurred pursuant to this clause (a)(ii)(y) has terms (including with respect to the priority thereof) that are substantially similar to (and, in any event, no less favorable to the lenders) than those that were applicable to the Indebtedness being refinanced and (5) any such Indebtedness incurred pursuant to this clause (a)(ii)(y) is incurred solely by the Company and is not Guaranteed by any Subsidiary;

(iii) (A) the Existing Notes, in each case, to the extent outstanding on the Effective Date; (B) any Indebtedness that is incurred in exchange for, or the proceeds of which are used to extend, refinance, replace, defease, discharge, refund or otherwise retire for value any Existing Notes; *provided* that, (1) the aggregate principal amount (or accreted value, in the case of Indebtedness issued with original issue discount) of any such Indebtedness incurred pursuant to this clause (a)(iii)(B) (including undrawn or available committed amounts) does not exceed the sum of (x) the aggregate principal amount (or accreted value, in the case of Indebtedness issued with original issue discount) of the Existing Notes being refinanced, plus (y) an amount necessary to pay all accrued (including, for purposes of defeasance, future accrued) and unpaid interest on the Existing Notes being refinanced and any fees, premiums and expenses related to such exchange or refinancing, (2) any such Indebtedness incurred pursuant to this clause (a)(iii)(B) has a stated maturity that is no earlier than the later of (x) the date that is 180 days after the Maturity Date and (y) the maturity date of the Existing Notes being refinanced, (3) the Indebtedness incurred pursuant to this clause (a)(iii)(B) does not provide for any mandatory redemptions or repayments prior to the date that is 180 days after the Maturity Date except as a result of a customary change of control tender offer, (4) any such Indebtedness incurred pursuant to this clause (a)(iii)(B) has terms (including with respect to the priority thereof) that are either (x) substantially similar to (and, in any event, no less favorable to the Lenders) than those that were applicable to the Existing Notes being refinanced or (y) otherwise on customary market terms as determined in good faith by the Company in its reasonable judgment and (5) any such Indebtedness incurred pursuant to this clause (a)(iii)(B) is incurred solely by the Company and is not Guaranteed by any Subsidiary; and (C) senior unsecured or senior subordinated unsecured Indebtedness; *provided* that, (1) both before and immediately after giving effect to the incurrence of any such Indebtedness, (I) no Default has occurred and is continuing or would result therefrom, (II) the Consolidated Leverage Ratio (calculated on *pro forma* basis using (i) Consolidated Total Debt as of such day and (ii) Consolidated EBITDA for the period of four consecutive fiscal quarters most recently ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b)) does not exceed 3.00 to 1.00 and (III) the Administrative Agent shall have received a certificate of a Financial Officer of the Company, in form and substance satisfactory to the Administrative Agent, certifying as to each of the requirements set forth in the foregoing clauses (I) and (II), (2) any such Indebtedness incurred pursuant to this clause (a)(iii)(C) has a stated maturity that is no earlier than 90 days after the Maturity Date, (3) such Indebtedness incurred pursuant to this clause (a)(iii)(C) does not provide for any mandatory redemptions or repayments prior to the date that is 90 days after the Maturity Date except as a result of a customary change of control tender offer, (4) any such Indebtedness incurred pursuant to this clause (a)(iii)(C) has customary market terms as determined in good faith by the Company in its reasonable judgment and (5) any such Indebtedness incurred pursuant to this clause (a)(iii)(C) is incurred solely by the Company and is not Guaranteed by any Subsidiary;

(iv) (A) Indebtedness of any Loan Party that is due and owing to the Company or any Subsidiary of the Company; *provided* that any such Indebtedness shall be unsecured and subordinated to the Obligations pursuant to the Subordinated Intercompany Note or (B) to the extent permitted by Section 6.09, Indebtedness of any Subsidiary that is not a Loan Party that is due and owing to the Company or any Subsidiary of the Company;

(v) Indebtedness of any Subsidiary that is not a Loan Party that is due and owing to any other Subsidiary that is not a Loan Party;

(vi) Indebtedness incurred to finance insurance premiums in the ordinary course of business in an aggregate principal amount not to exceed the amount of such insurance premiums;

(vii) Indebtedness of the Company or any Subsidiary incurred to finance the acquisition, construction or improvement of any fixed or capital assets, including Capital Lease Obligations, and extensions, renewals and replacements of any such Indebtedness that do not increase the outstanding principal amount thereof or change the priority or security (if any) with respect thereto; *provided* that (A) such Indebtedness is incurred prior to or within 90 days after such acquisition or the completion of such construction or improvement, (B) after giving effect to the incurrence of such Indebtedness, the Company shall be in *pro forma* compliance with each of the Financial Covenants and (C) the aggregate principal amount of Indebtedness permitted by this clause (a)(vii) shall not exceed \$200,000,000 at any time outstanding;

(viii) Guarantees permitted by Section 6.02; and

(ix) Indebtedness solely in the form of letters of credit and/or letters of guaranty, including letters of credit and/or letters of guaranty issued for the benefit of counterparties under Hedging Agreements permitted pursuant to Section 6.05;

provided that, notwithstanding anything herein to the contrary, no Indebtedness permitted to be incurred and remain outstanding pursuant to the foregoing clauses (a)(i) through (ix) shall be permitted to be in the form of Guarantees (with any Indebtedness in the form a Guarantee being required to comply with the requirements set forth in Section 6.02).

(b) From and after the Investment Grade Rating Date:

(i) the Company will not, and will not permit any Subsidiary to create, incur, assume or permit to exist any Indebtedness to the extent that as a result of such Indebtedness the Company would be, or could reasonably be expected to be, in breach of the covenant set forth in Section 6.14(b);

(ii) the Company will not permit any Subsidiary to create, incur, assume or permit to exist, any Indebtedness, except:

(A) Indebtedness of any Subsidiary that is due and owing to the Company or any Subsidiary of the Company;

(B) Indebtedness of any Subsidiary incurred to finance the acquisition, construction or improvement of any fixed or capital assets, including Capital Lease Obligations, and extensions, renewals and replacements of any such Indebtedness that do not increase the outstanding principal amount thereof or change the priority or security (if any) with respect thereto; *provided* that such Indebtedness is incurred prior to or within 90 days after such acquisition or the completion of such construction or improvement;

(C) Indebtedness solely in the form of letters of credit and/or letters of guaranty, in each case incurred in the ordinary course of business, including letters of credit and/or letters of guaranty issued for the benefit of counterparties under Hedging Agreements permitted pursuant to Section 6.05 and any Guaranties of such Indebtedness; and

(D) other Indebtedness; *provided* that the sum, without duplication, of (1) the outstanding aggregate principal amount of all such Indebtedness, plus (2) the Attributable Debt under all Sale and Leaseback Transactions of the Company and its Subsidiaries, plus (3) the outstanding aggregate principal amount of all Indebtedness or other obligations secured by Liens permitted under Section 6.03(b)(v), shall not exceed the lesser of (a) 15% of Consolidated Net Tangible Assets at the time of creation, incurrence or assumption thereof and (b) \$500,000,000 at the time of creation, incurrence or assumption thereof.

(iii) The Company will not, and will not permit any Subsidiary to, enter into any Sale and Leaseback Transaction if, after giving effect to such Sale and Leaseback Transaction, the sum, without duplication, of (A) the aggregate amount of the Attributable Debt under all Sale and Leaseback Transactions of the Company and its Subsidiaries, plus (B) the outstanding aggregate principal amount of all Indebtedness permitted under Section 6.01(b)(ii)(D), plus (C) the outstanding aggregate principal amount of all Indebtedness or other obligations secured by Liens permitted under Section 6.03(b)(v), shall exceed 15% of Consolidated Net Tangible Assets at the time of consummation of such Sale and Leaseback Transaction.

Section 6.02 Subsidiary Guarantees Prior to the Investment Grade Rating Date. Prior to the Investment Grade Rating Date, the Company will not, at any time, permit any Subsidiary to Guarantee any Indebtedness or other obligations of any Person, except:

(a) Guarantees by Subsidiaries constituting Obligations;

(b) Performance guarantees in the ordinary course of business (excluding, for the avoidance of doubt, Guarantees of surety bonds or similar instruments or any other Indebtedness); and

(c) Guarantees by Subsidiaries of any Indebtedness permitted pursuant to Section 6.01(a)(ix).

Section 6.03 Liens. The Company will not, and will not permit any Subsidiary to, create, assume or suffer to exist any Lien on any asset now owned or hereafter acquired by it, except:

(a) Prior to the Investment Grade Rating Date:

(i) Liens in favor of the Administrative Agent securing the Obligations described in clause (a) of the definition thereof;

(ii) any Lien on any property or asset of the Company or any Subsidiary existing on the Effective Date and set forth in Schedule 6.03; *provided* that (i) such Lien shall not apply to any other Property or asset of the Company or any Subsidiary and (ii) such Lien shall secure only those obligations which it secures on the date hereof and extensions, renewals and replacements thereof that do not increase the outstanding principal amount thereof;

(iii) Permitted Encumbrances;

(iv) Liens on fixed or capital assets acquired, constructed or improved by the Company or any Subsidiary; *provided* that (i) such security interests secure Indebtedness permitted by Section 6.01(a)(vii), (ii) such Lien and the Indebtedness secured thereby are incurred prior to or within 90 days after such acquisition or the completion of such construction or improvement, (iii) the Indebtedness secured thereby does not exceed the cost of acquiring, constructing or improving such fixed or capital assets and (iv) such Lien shall not apply to any other property or assets of the Company or any Subsidiary;

(v) Liens securing any Indebtedness that constitutes Project Financing;

(vi) Liens securing Indebtedness permitted by Section 6.01(a)(ix); *provided* that the aggregate principal amount of the Indebtedness secured thereby does not exceed \$100,000,000 at any time; and

(vii) other Liens securing Indebtedness or other obligations in an aggregate principal amount not exceeding \$50,000,000 at any time.

(b) From and after the Investment Grade Rating Date, the Company will not, and will not permit any Subsidiary to create, assume or suffer to exist any Lien on any asset now owned or hereafter acquired by it, except:

(i) Liens in favor of the Administrative Agent securing the Obligations;

(ii) any Lien on any property or asset of the Company or any Subsidiary existing on the Effective Date and set forth in Schedule 6.03; *provided* that (i) such Lien shall not apply to any other Property or asset of the Company or any Subsidiary and (ii) such Lien shall secure only those obligations which it secures on the date hereof and extensions, renewals and replacements thereof that do not increase the outstanding principal amount thereof;

(iii) Permitted Encumbrances;

(iv) Liens on fixed or capital assets acquired, constructed or improved by the Company or any Subsidiary; *provided* that (i) such security interests secure Indebtedness permitted by Section 6.01(b)(ii)(B), (ii) such Lien and the Indebtedness secured thereby are incurred prior to or within 90 days after such acquisition or the completion of such construction or improvement, (iii) the Indebtedness secured thereby does not exceed the cost of acquiring,

constructing or improving such fixed or capital assets and (iv) such Lien shall not apply to any other property or assets of the Company or any Subsidiary; and

(v) other Liens; *provided* that the sum, without duplication, of (1) the outstanding aggregate principal amount of all Indebtedness permitted under Section 6.01(b)(ii)(D), plus (2) the Attributable Debt under all Sale and Leaseback Transactions of the Company and its Subsidiaries, plus (3) the outstanding aggregate principal amount of all Indebtedness or other obligations secured by such Liens, shall not exceed 15% of Consolidated Net Tangible Assets at the time of creation, incurrence or assumption thereof.

Section 6.04 Fundamental Changes. (a) The Company will not, and will not permit any other Borrower to, merge into or consolidate with any other Person, or permit any other Person to merge into or consolidate with it, or consummate a Division as the Dividing Person, or sell, transfer, lease or otherwise dispose of (in one transaction or in a series of transactions) all or substantially all of its assets, or all or substantially all of the stock of any of its Material Subsidiaries (in each case, whether now owned or hereafter acquired), or liquidate or dissolve, except that if at the time thereof and immediately after giving effect thereto, no Default shall have occurred and be continuing, any Person may merge into the Company in a transaction in which the Company is the surviving corporation.

(b) Prior to the Investment Grade Rating Date, the Company will not permit any Material Subsidiary to merge into or consolidate with any other Person, or permit any other Person to merge into or consolidate with any Material Subsidiary, or consummate a Division as the Dividing Person, or permit any Material Subsidiary to sell, transfer, lease or otherwise dispose of (in one transaction or in a series of transactions) all or substantially all of its assets, or all or substantially all of the stock of any of its Material Subsidiaries (in each case, whether now owned or hereafter acquired), or liquidate or dissolve, except that if at the time thereof and immediately after giving effect thereto no Default shall have occurred and be continuing (i) any Person (other than any Borrower) may merge into any Subsidiary in a transaction in which the surviving entity is a Subsidiary; *provided* that (A) if any Borrower (other than the Company) is a party to such transaction, such Borrower shall be the surviving entity and (B) if any Guarantor (other than a Borrower) is a party to such transaction, such Guarantor shall be the surviving entity, (ii) any such Subsidiary (other than a Borrower) may sell, transfer, lease or otherwise dispose of its assets to the Company or to another Subsidiary; *provided* that if such transferor is a Guarantor, the acquirer shall be a Loan Party; and (iii) any such Subsidiary (other than a Borrower) may liquidate or dissolve if the Company determines in good faith that such liquidation or dissolution is in the best interests of the Company and is not materially disadvantageous to the Lenders; *provided* that if such Subsidiary is a Guarantor, the assets shall be distributed to or otherwise received by a Loan Party.

(c) The Company will not, and will not permit any of its Subsidiaries to, engage to any material extent in any business other than businesses of the type conducted by the Company and its Subsidiaries on the date of execution of this Agreement and businesses reasonably related thereto.

(d) No Borrower will reorganize or otherwise change its jurisdiction of organization or incorporation, or otherwise become organized or incorporated in any jurisdiction,

other than in any State of the United States, or in the case of MOCL, any province of Canada or under the Canada Business Corporations Act.

Section 6.05 Hedging Agreements. The Company will not, and will not permit any of its Subsidiaries to, enter into any Hedging Agreement, other than Hedging Agreements that are entered into in the ordinary course of business to hedge or mitigate risks to which the Company or any Subsidiary is exposed in the conduct of its business or the management of its liabilities, and not for speculative purposes; provided that the counterparty to each such Hedging Agreement shall, at the time such Hedging Agreement is entered into, be a Lender or an Affiliate of a Lender except where consented to by the Administrative Agent.

Section 6.06 Transactions with Affiliates. The Company will not, and will not permit any of its Subsidiaries to, sell, lease or otherwise transfer any property or assets to, or purchase, lease or otherwise acquire any property or assets from, or otherwise engage in any other transactions with, any of its Affiliates, except (a) in the ordinary course of business at prices and on terms and conditions not less favorable to the Company or such Subsidiary than could be obtained on an arm's-length basis from unrelated third parties, (b) transactions between or among the Company and its Subsidiaries not involving any other Affiliate and (c) transactions pursuant to the Permitted JV Agreements.

Section 6.07 Restrictive Agreements; Subsidiary Distributions. Until the Investment Grade Rating Date has occurred, the Company will not, and will not permit any of its Subsidiaries to, directly or indirectly, enter into, incur or permit to exist any agreement or other arrangement that prohibits, restricts or imposes any condition upon (a) the ability of the Borrower or any Subsidiary to create, incur or permit to exist any Lien upon any of its property or assets, or (b) the ability of any Subsidiary to pay dividends or other distributions with respect to any shares of its capital stock or to make or repay loans or advances to the Company or any other Subsidiary or to Guarantee Indebtedness of the Company or any other Subsidiary; *provided* that (i) the foregoing shall not apply to restrictions and conditions imposed by (A) law or by this Agreement, (B) the Permitted JV LLC Agreement in respect of the Permitted JV or Equity Interests in the Permitted JV or (C) the Permitted JV Contribution Agreement in respect of the Permitted JV or the "Assets" (as defined in the Permitted JV Contribution Agreement), (ii) the foregoing shall not apply to customary restrictions and conditions contained in agreements relating to the sale of a Subsidiary pending such sale; *provided* such restrictions and conditions apply only to the Subsidiary that is to be sold and such sale is permitted hereunder, (iii) clause (a) of the foregoing shall not apply to restrictions or conditions imposed by any agreement relating to secured Indebtedness permitted by this Agreement if such restrictions or conditions apply only to the property or assets securing such Indebtedness and (iv) clause (a) of the foregoing shall not apply to customary provisions in leases and other contracts restricting the assignment thereof.

Section 6.08 Restricted Payments. The Company will not, and will not permit any of its Subsidiaries to, declare or make, or agree to pay or make, directly or indirectly, any Restricted Payment, except:

(a) any Wholly-Owned Subsidiaries of the Company may declare and pay dividends and other distributions ratably with respect to their Equity Interests;

(b) the Company may declare and pay dividends with respect to its Equity Interests payable solely in additional shares of its Equity Interests (other than Disqualified Capital Stock);

(c) the Company may make Restricted Payments pursuant to and in accordance with stock option plans or other benefit plans for management or employees of the Company and its Subsidiaries;

(d) the Permitted JV may declare and pay dividends or other distributions in accordance with the Permitted JV LLC Agreement and the Permitted JV Contribution Agreement (including any non-ratable distributions to the extent expressly provided therein);

(e) prior to the Investment Grade Rating Date, the Company and any Subsidiary may make Restricted Payments so long as (i) both before and immediately after giving effect to any such Restricted Payment, (x) no Default has occurred and is continuing or would result therefrom, (y) the Consolidated Leverage Ratio is equal to or less than 3.00 to 1.00 (calculated on a *pro forma* basis using (I) Consolidated Total Debt as of such day and (II) Consolidated EBITDA for the period of four consecutive fiscal quarters most recently ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b)), and (z) the Consolidated Interest Coverage Ratio is equal to or greater than 2.75 to 1.00 for the period of four consecutive fiscal quarters most recently ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b)) and (ii) the Administrative Agent shall have received a certificate of a Financial Officer of the Company, in form and substance satisfactory to the Administrative Agent, certifying as to each of the requirements set forth in this clause (e); and

(f) from and after the Investment Grade Rating Date, the Company and any Subsidiary may make Restricted Payments so long as both before and immediately after giving effect to any such Restricted Payment, no Default has occurred and is continuing or would result therefrom.

Section 6.09 Investments Prior to the Investment Grade Rating Date. Prior to the Investment Grade Rating Date, the Company will not, and will not permit any of its Subsidiaries to, make or permit to remain outstanding any Investment in or to any Person, except:

(a) (i) Investments made prior to the Effective Date in Subsidiaries in existence on the Effective Date and (ii) other Investments in existence on the Effective Date and described on Schedule 6.09 and any renewal or extension of any such Investments referred to in this clause (a)(ii), so long so long as such renewal or extension does not increase the amount of the Investment being renewed or extended (as determined as of such date of renewal or extension);

(b) Investments made by any Borrower or any other Loan Party in any Person that, prior to such Investment, is a Loan Party;

(c) Investments made by any Subsidiary that is not a Loan Party in the Company or any Subsidiary of the Company; *provided* that any such Investment that is the form of a loan or advance from a non-Loan Party to a Loan Party shall be unsecured and subordinated to the Obligations pursuant to the Subordinated Intercompany Note;

(d) accounts receivable arising in the ordinary course of business, and Investments received in connection with the bankruptcy or reorganization of suppliers and customers or in settlement of delinquent obligations of, and other disputes with, customers and suppliers to the extent reasonably necessary in order to prevent or limit loss;

(e) Permitted Investments;

(f) Investments consisting of Hedging Agreements permitted under Section 6.05;

(g) to the extent constituting Investments, Guarantees of Indebtedness permitted by Section 6.02;

(h) Investments received in connection with a Disposition permitted by Section 6.11; and

(i) Investments so long as (i) both before and immediately after giving effect to any such Investment, no Default has occurred and is continuing or would result therefrom, (ii) immediately before and after giving effect to such Investment, the Company shall be in pro forma compliance with each of the Financial Covenants and (iii) the Administrative Agent shall have received a certificate of a Financial Officer of the Company, in form and substance satisfactory to the Administrative Agent, certifying as to each of the requirements set forth in this clause (i); and

(j) Investments in the Permitted JV (i) in existence on the Permitted JV Closing Date pursuant to the terms of the Permitted JV Contribution Agreement, the Permitted JV MEPU Conveyance and the Permitted JV Units Conveyance and (ii) made after the Permitted JV Closing Date pursuant to and in accordance with the Permitted JV LLC Agreement.

Section 6.10 Restricted Debt Payments Prior to the Investment Grade Rating Date. Prior to the Investment Grade Rating Date, the Company will not, and will not permit any of its Subsidiaries to, voluntarily Redeem any Junior Indebtedness prior to its stated maturity, except the Company and any Subsidiary may Redeem Junior Indebtedness so long as (i) both before and immediately after giving effect to such Redemption, no Default has occurred and is continuing or would result therefrom, (ii) immediately before and after giving effect to such Redemption, the Company shall be in pro forma compliance with each of the Financial Covenants and (iii) the Administrative Agent shall have received a certificate of a Financial Officer of the Company, in form and substance satisfactory to the Administrative Agent, certifying as to each of the requirements set forth in this clause (b).

Section 6.11 Asset Dispositions Prior to the Investment Grade Rating Date. Prior to the Investment Grade Rating Date, the Company will not, and will not permit any of its Subsidiaries to, Dispose of any Property, except:

(a) Dispositions of Surplus Inventory;

(b) Dispositions of Hydrocarbons and seismic data in the ordinary course of business and consistent with past practices;

(c) any Disposition of Property resulting from a Casualty Event;

(d) Dispositions of accounts receivable in connection with the collection or compromise thereof (other than in connection with any financing transaction);

(e) so long as such Disposition would not result in a violation of the limitations and agreements set forth in Section 6.04, additional Dispositions to any Person (other than the Company or any Affiliate thereof); *provided* that (i) both before and immediately after giving effect to such Disposition, no Default has occurred and is continuing or would result therefrom, (ii) after giving to such Disposition, the Company shall be *pro forma* compliance with each of the Financial Covenants, (iii) the consideration received in respect of such Disposition shall be equal to or greater than the fair market value of the assets subject to such Disposition and (iv) the Administrative Agent shall have received, at least three Business Days prior to the consummation of such Disposition (or such shorter period as to which the Administrative Agent may agree), a certificate of a Financial Officer of the Company, in form and substance satisfactory to the Administrative Agent, certifying as to the matters set forth in this clause (f);

(f) other Dispositions for fair market value in an aggregate amount since the Effective Date not to exceed \$25,000,000 (determined at the time of any such Disposition); and

(g) the Disposition of the “MEPU Assets”, the “Medusa Spar Units” and the “MEPU Cash Contribution” (as each such term is defined in the Permitted JV Contribution Agreement) by Expro-USA to the Permitted JV pursuant to and in accordance with the terms of the Permitted JV Contribution Agreement, and Dispositions of Property by the Permitted JV permitted to be made without “Mutual Consent of the Board” (as defined in the Permitted JV LLC Agreement) pursuant to Section 5.6(b) of the Permitted JV LLC Agreement;

provided that if after giving effect to any Disposition pursuant to Section 6.11(c) (to the extent the fair market value of the Property subject to the Casualty Event exceeds \$25,000,000) or Section 6.11(e), the Consolidated Leverage Ratio exceeds 2.75 to 1.00 (calculated on *pro forma* basis using (i) Consolidated Total Debt as of such day and (ii) Consolidated EBITDA for the period of four consecutive fiscal quarters most recently ended for which financial statements have been delivered pursuant to Section 5.01(a) or Section 5.01(b)), the Borrowers shall prepay the Loans to the extent required by Section 2.10(e).

Section 6.12 [Reserved].

Section 6.13 New Accounts Prior to the Investment Grade Rating Date. Prior to the Investment Grade Rating Date, the Company will not, and will not permit any Subsidiary to, open or otherwise establish or maintain, or deposit, credit or otherwise transfer any Cash Receipts, securities, financial assets or any other property into, any Deposit Account, Securities Account or Commodity Account (other than any Excluded DDA) other than a Deposit Account, Securities Account or Commodity Account listed on Schedule 5.14, which is maintained with the Administrative Agent or a Lender or another financial institution reasonably acceptable to the Administrative Agent.

Section 6.14 Financial Covenants.

(a) Prior to the Investment Grade Rating Date:

(i) Consolidated Leverage Ratio. The Company will not, as of the last day of any fiscal quarter of the Company, permit the Consolidated Leverage Ratio for the period of four consecutive fiscal quarters ending on such day, to exceed 3.50 to 1.00.

(ii) Consolidated Interest Coverage Ratio. The Company will not, as of the last day of any fiscal quarter of the Company, permit the Consolidated Interest Coverage Ratio for the period of four consecutive fiscal quarters ending on such day, to be less than 2.50 to 1.00.

(b) Ratio of Consolidated Recourse Debt to Adjusted Consolidated Capitalization. From and after the Investment Grade Rating Date, the Company will not, as of the last day of any fiscal quarter of the Company, permit the ratio of (a) Consolidated Total Debt as of such day to (b) Consolidated Total Capitalization as of such day, to exceed 60%.

Section 6.15 Amendment to Permitted JV Agreements. From and after the Effective Date, the Company will not, and will not permit any of its Subsidiaries to, amend, modify or supplement (or permit to be amended, modified or supplemented), or enter into any agreement that has the effect of amending, modifying or supplementing any Permitted JV Agreement in a manner that would be adverse to the Lenders in any material respect.

ARTICLE VII EVENTS OF DEFAULT

Section 7.01 Events of Default. If any of the following events ("Events of Default") shall occur at any time on or after the Effective Date:

(a) any Borrower shall fail to pay any principal of any Loan or any reimbursement obligation in respect of any LC Disbursement when and as the same shall become due and payable, whether at the due date thereof or at a date fixed for prepayment thereof or otherwise;

(b) any Borrower shall fail to pay any interest on any Loan or any fee or any other amount (other than an amount referred to in clause (a) of this Section 7.01) payable under this Agreement or any other Loan Document, when and as the same shall become due and payable, and such failure shall continue unremedied for a period of five days;

(c) any representation or warranty made or deemed made by or on behalf of the Company or any Subsidiary in or in connection with this Agreement (or any amendment or modification hereof or waiver or consent hereunder), in or in connection with any other Loan Document (or any amendment or modification thereof or waiver or consent thereunder) or in any report, certificate, financial statement or other document furnished pursuant to or in connection with this Agreement (or any amendment or modification hereof or waiver or consent hereunder) or pursuant to or in connection with any other Loan Document (or any amendment or modification thereof or waiver or consent thereunder), shall, in any such case, prove to have been incorrect in any material respect when made or deemed made;

(d) any Borrower or any Subsidiary shall fail to observe or perform any covenant, condition or agreement contained in Section 5.02, Section 5.03 (with respect to such Borrower's existence), Section 5.09, Section 5.10, Section 5.12, Section 5.14, Section 5.16, Section 5.18 or Article VI;

(e) any Borrower or any Subsidiary shall fail to observe or perform any covenant, condition or agreement contained in this Agreement (other than those specified in clause (a), (b) or (d) of this Section 7.01) or in any other Loan Document, and such failure shall continue unremedied for a period of ten days after notice thereof from the Administrative Agent to the Company (which notice will be given at the request of any Lender);

(f) the Company or any Subsidiary shall fail to make any payment (whether of principal or interest and regardless of amount) in respect of any Material Indebtedness, when and as the same shall become due and payable;

(g) any event or condition occurs that results in any Material Indebtedness becoming due prior to its scheduled maturity or that enables or permits (with or without the giving of notice, the lapse of time or both) the holder or holders of any Material Indebtedness or any trustee or agent on its or their behalf to cause any Material Indebtedness to become due, or to require the prepayment, repurchase, redemption or defeasance thereof, prior to its scheduled maturity; *provided* that this clause (g) shall not apply to secured Indebtedness that becomes due as a result of the voluntary sale or transfer of the property or assets securing such Indebtedness;

(h) an involuntary proceeding shall be commenced or an involuntary petition shall be filed seeking (i) liquidation, reorganization or other relief in respect of the Company or any Material Subsidiary or its debts, or of a substantial part of its assets, under any Federal, state or foreign bankruptcy, insolvency, receivership or similar law now or hereafter in effect or (ii) the appointment of a receiver, trustee, custodian, sequestrator, conservator or similar official for the Company or any Material Subsidiary or for a substantial part of its assets, and, in any such case, such proceeding or petition shall continue undismissed for 45 days or an order or decree approving or ordering any of the foregoing shall be entered;

(i) the Company or any Material Subsidiary shall (i) voluntarily commence any proceeding or file any petition seeking liquidation, reorganization or other relief under any Federal, state or foreign bankruptcy, insolvency, receivership or similar law now or hereafter in effect, (ii) consent to the institution of, or fail to contest in a timely and appropriate manner, any proceeding or petition described in clause (h) of this Section 7.01, (iii) apply for or consent to the appointment of a receiver, trustee, custodian, sequestrator, conservator or similar official for the Company or any Material Subsidiary or for a substantial part of its assets, (iv) file an answer admitting the material allegations of a petition filed against it in any such proceeding, (v) make a general assignment for the benefit of creditors or (vi) take any action for the purpose of effecting any of the foregoing;

(j) the Company or any Material Subsidiary shall become unable, admit in writing its inability or fail generally to pay its debts as they become due;

(k) one or more judgments for the payment of money in an aggregate amount in excess of \$75,000,000 shall be rendered against the Company, any Subsidiary or any combination thereof and the same shall remain undischarged for a period of 30 consecutive days during which execution shall not be effectively stayed, or any action shall be legally taken by a judgment creditor to attach or levy upon any assets of the Company or any Subsidiary to enforce any such judgment;

(l) an ERISA Event shall have occurred that, in the opinion of the Required Lenders, when taken together with all other ERISA Events that have occurred, could reasonably be expected to result in a Material Adverse Effect;

(m) the Loan Documents after delivery thereof shall for any reason, except to the extent permitted by the terms thereof, cease to be in full force and effect and valid, binding and enforceable in accordance with their terms against any Borrower or any Guarantor party thereto or shall be repudiated by any of them, or any Borrower or any Guarantor or any of their respective Affiliates shall so state in writing; or

(n) a Change in Control shall occur;

then, and in every such event (other than an event with respect to any Borrower described in clause (h) or (i) of this Section 7.01), and at any time thereafter during the continuance of such event, the Administrative Agent may, and at the request of the Required Lenders shall, by notice to the Company, take either or both of the following actions, at the same or different times: (i) terminate the Commitments, and thereupon the Commitments shall terminate immediately, and (ii) declare the Loans then outstanding to be due and payable in whole (or in part, in which case any principal not so declared to be due and payable may thereafter be declared to be due and payable), and thereupon the principal of the Loans so declared to be due and payable, together with accrued interest thereon and all fees and other obligations of the Borrowers accrued hereunder, shall become due and payable immediately, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Borrower; and in case of any event with respect to any Borrower described in clause (h) or (i) of this Section 7.01, the Commitments shall automatically terminate and the principal of the Loans then outstanding, together with accrued interest thereon and all fees and other obligations of the Borrowers accrued hereunder, shall automatically become due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Borrower.

Section 7.02 Remedies.

(a) In the case of an Event of Default other than one described in Section 7.01(h) or Section 7.01(i), at any time thereafter during the continuance of such Event of Default, the Administrative Agent may, and at the request of the Required Lenders, shall, by notice to the Borrowers, take either or both of the following actions, at the same or different times: (i) terminate the Commitments, and thereupon the Commitments shall terminate immediately, and (ii) declare the Notes and the Loans then outstanding to be due and payable in whole (or in part, in which case any principal not so declared to be due and payable may thereafter be declared to be due and payable), and thereupon the principal of the Loans so declared to be due and payable, together with accrued interest thereon and all fees and other obligations of the Borrowers and the

Guarantors accrued hereunder and under the Notes and the other Loan Documents (including, without limitation, the payment of cash collateral to secure the Global LC Exposure as provided in Section 2.05(j)), shall become due and payable immediately, without presentment, demand, protest, notice of intent to accelerate, notice of acceleration or other notice of any kind, all of which are hereby waived by each Borrower and each Guarantor; and in case of an Event of Default described in Section 7.01(h) or Section 7.01(i), the Commitments shall automatically terminate and the Notes and the principal of the Loans then outstanding, together with accrued interest thereon and all fees and the other obligations of the Borrowers and the Guarantors accrued hereunder and under the Notes and the other Loan Documents (including, without limitation, the payment of cash collateral to secure the Global LC Exposure as provided in Section 2.05(j)), shall automatically become due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Borrowers and each Guarantor.

(b) In the case of the occurrence of an Event of Default, the Administrative Agent and the Lenders will have all other rights and remedies available at law and equity.

(c) Notwithstanding anything herein to the contrary, following the occurrence and during the continuance of an Event of Default, and notice thereof to the Administrative Agent by the Company or the Required Lenders, all payments received on account of the Obligations shall, subject to Section 2.19, be applied by the Administrative Agent as follows:

(i) *first*, to payment or reimbursement of that portion of the Obligations constituting fees, expenses and indemnities payable to the Administrative Agent in its capacity as such;

(ii) *second*, pro rata to payment or reimbursement of that portion of the Obligations constituting fees, expenses and indemnities payable to the Lenders;

(iii) *third*, pro rata to payment of accrued interest on the Loans;

(iv) *fourth*, pro rata to payment of (A) principal outstanding on the Loans, (B) reimbursement obligations in respect of Letters of Credit pursuant to Section 2.05(e) (and cash collateralization of Global LC Exposure hereunder) and (C) Guaranteed Cash Management Obligations owing to Guaranteed Cash Management Providers;

(v) *fifth*, pro rata to Guaranteed Hedging Obligations owing to Guaranteed Hedging Parties;

(vi) *sixth*, pro rata to any other Obligations; and

(vii) *seventh*, any excess, after all of the Obligations shall have been indefeasibly paid in full in cash, shall be paid to the Borrowers or as otherwise required by any Governmental Requirement;

provided that, for the avoidance of doubt, Excluded Guaranteed Hedging Obligations with respect to any Subsidiary Guarantor shall not be paid with amounts received from such Subsidiary Guarantor or its assets, but appropriate adjustments shall be made with respect to payments from

the Borrowers and any other Guarantors to preserve the allocation to Obligations otherwise set forth above in this Section 7.02(c).

**ARTICLE VIII
[RESERVED]**

**ARTICLE IX
THE ADMINISTRATIVE AGENT**

Section 9.01 Each of the Lenders and the Issuing Banks hereby irrevocably appoints the Administrative Agent as its agent and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof, together with such actions and powers as are reasonably incidental thereto.

The bank serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent, and such bank and its Affiliates may accept deposits from, lend money to and generally engage in any kind of business with each Borrower or any Subsidiary or other Affiliate thereof as if it were not the Administrative Agent hereunder. In addition to and not in limitation of the foregoing, each Borrower and each Lender acknowledges that the Administrative Agent is or may be an agent, arranger and/or lender under other loans or other securities and waives any existing or future conflicts of interest associated with its role hereunder and in such other transactions.

The Administrative Agent shall not have any duties or obligations except those expressly set forth herein. Without limiting the generality of the foregoing, (a) the Administrative Agent shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing, (b) the Administrative Agent shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 10.02), and (c) except as expressly set forth herein, the Administrative Agent shall not have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to any Borrower or any of its Subsidiaries that is communicated to or obtained by the bank serving as Administrative Agent or any of its Affiliates in any capacity. The Administrative Agent shall not be liable for any action taken or not taken by it with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 10.02) or in the absence of its own gross negligence or willful misconduct. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice thereof is given to the Administrative Agent by any Borrower or a Lender, and the Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement, (ii) the contents of any certificate, report or other document delivered hereunder or in connection herewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement or any other agreement, instrument or document, or (v) the satisfaction of any condition set forth in Article IV or elsewhere

herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing believed by it to be genuine and to have been signed or sent by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to be made by the proper Person, and shall not incur any liability for relying thereon. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrowers), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

The Administrative Agent may perform any and all its duties and exercise its rights and powers by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all its duties and exercise its rights and powers through their respective Related Parties. The exculpatory provisions of the preceding paragraphs shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

Subject to the appointment and acceptance of a successor Administrative Agent as provided in this paragraph, the Administrative Agent may resign at any time by notifying the Lenders, the Issuing Banks and the Company. Upon any such resignation, the Required Lenders shall have the right, in consultation with the Company, to appoint a successor. If no successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may, on behalf of the Lenders and the Issuing Banks, appoint a successor Administrative Agent which shall be a bank with an office in New York, New York, or an Affiliate of any such bank. Upon the acceptance of its appointment as Administrative Agent hereunder by a successor, such successor shall succeed to and become vested with all the rights, powers, privileges and duties of the retiring Administrative Agent, and the retiring Administrative Agent shall be discharged from its duties and obligations hereunder. The fees payable by the Company to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Company and such successor. After the Administrative Agent's resignation hereunder, the provisions of this Article IX and Section 10.03 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them (i) while it was acting as Administrative Agent and (ii) after such resignation or removal for as long as any of them continues to act in any capacity hereunder or under any agreement or instrument contemplated hereby, including in respect of any actions taken in connection with transferring the agency to any successor Administrative Agent.

Each Lender acknowledges and agrees that the extensions of credit made hereunder are commercial loans and letters of credit and not investments in a business enterprise or securities. Each Lender further represents that it is engaged in making, acquiring or holding commercial loans in the ordinary course of its business and has, independently and without reliance upon the

Administrative Agent, the Sustainability Structuring Agent, any Co-Syndication Agent, the Documentation Agent, any Lead Arranger or any other Lender and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement as a Lender, and to make, acquire or hold Loans hereunder. Each Lender shall, independently and without reliance upon the Administrative Agent, the Sustainability Structuring Agent, any Co-Syndication Agent, the Documentation Agent, any Lead Arranger or any other Lender and based on such documents and information (which may contain material, non-public information within the meaning of the United States securities laws concerning the Borrowers and their respective Affiliates) as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder and in deciding whether or to the extent to which it will continue as a Lender or assign or otherwise transfer its rights, interests and obligations hereunder. Each Lender further acknowledges and agrees that (i) none of the Administrative Agent, the Sustainability Structuring Agent, or the Lead Arrangers have made any assurances as to (A) whether the credit facility established hereunder meets such Lender's criteria or expectations with regard to environmental impact and sustainability performance or (B) whether any characteristics of the credit facility established hereunder, including the characteristics of the relevant key performance indicators to which the Company will link a potential interest rate spreads or commitment fee step-up or step-down, including their environmental and sustainability criteria, meet any industry standards for sustainability-linked credit facilities and (ii) each Lender has performed its own independent investigation and analysis of the credit facility established hereunder and whether such credit facility meets its own criteria or expectations with regard to environmental impact and/or sustainability performance.

Each Lender and each Issuing Bank hereby authorizes the Administrative Agent to release any Guarantor from the Guaranty Agreement to which it is a party (i) pursuant to the terms thereof or (ii) with respect to any Subsidiary Guarantor at such time, on the Investment Grade Rating Date pursuant to Section 10.20.

No Lead Arranger, Co-Syndication Agent or Documentation Agent shall have any right, power, obligation, liability, responsibility or duty under this Agreement other than those applicable to all Lenders in their capacity as such. Without limiting the foregoing, no Lead Arranger, Sustainability Structuring Agent, Co-Syndication Agent, or Documentation Agent shall have or be deemed to have any fiduciary relationship with any Lead Arranger or any Lender. Each Lender acknowledges that it has not relied, and will not rely, on the Administrative Agent, the Sustainability Structuring Agent, any Co-Syndication Agent, the Documentation Agent, any Lead Arranger or any other Lender so identified in deciding to enter into this Agreement or in taking or not taking any action hereunder.

Section 9.02 (a) Each Lender hereby agrees that (i) if the Administrative Agent notifies such Lender that the Administrative Agent has determined in its sole discretion that any funds received by such Lender from the Administrative Agent or any of its Affiliates (whether as a payment, prepayment or repayment of principal, interest, fees or otherwise; individually and collectively, a "Payment") were erroneously transmitted to such Lender (whether or not known to such Lender), and demands the return of such Payment (or a portion thereof), such Lender shall promptly, but in no event later than one Business Day thereafter, return to the Administrative Agent the amount of any such Payment (or portion thereof) as to which such a demand was made

in same day funds, together with interest thereon in respect of each day from and including the date such Payment (or portion thereof) was received by such Lender to the date such amount is repaid to the Administrative Agent at the greater of the NYFRB Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation from time to time in effect, and (ii) to the extent permitted by applicable law, such Lender shall not assert, and hereby waives, as to the Administrative Agent, any claim, counterclaim, defense or right of set-off or recoupment with respect to any demand, claim or counterclaim by the Administrative Agent for the return of any Payments received, including without limitation any defense based on “discharge for value” or any similar doctrine. A notice of the Administrative Agent to any Lender under this Section 9.02(a) shall be conclusive, absent manifest error.

(b) Each Lender hereby further agrees that if it receives a Payment from the Administrative Agent or any of its Affiliates (i) that is in a different amount than, or on a different date from, that specified in a notice of payment sent by the Administrative Agent (or any of its Affiliates) with respect to such Payment (a “Payment Notice”) or (ii) that was not preceded or accompanied by a Payment Notice, it shall be on notice, in each such case, that an error has been made with respect to such Payment. Each Lender agrees that, in each such case, or if it otherwise becomes aware a Payment (or portion thereof) may have been sent in error, such Lender shall promptly notify the Administrative Agent of such occurrence and, upon demand from the Administrative Agent, it shall promptly, but in no event later than one Business Day thereafter, return to the Administrative Agent the amount of any such Payment (or portion thereof) as to which such a demand was made in same day funds, together with interest thereon in respect of each day from and including the date such Payment (or portion thereof) was received by such Lender to the date such amount is repaid to the Administrative Agent at the greater of the NYFRB Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation from time to time in effect.

(c) Each Borrower and each other Loan Party hereby agrees that (i) in the event an erroneous Payment (or portion thereof) are not recovered from any Lender that has received such Payment (or portion thereof) for any reason, the Administrative Agent shall be subrogated to all the rights of such Lender with respect to such amount and (y) an erroneous Payment shall not pay, prepay, repay, discharge or otherwise satisfy any Obligations owed by such Borrower or any other Loan Party, except, in each case, to the extent such Payment is, and solely with respect to the amount of such Payment that is, comprised of funds of any Borrower or any Subsidiary for the purpose of prepaying, repaying, discharging or otherwise satisfying such Obligations.

(d) Each party’s obligations under this Section 9.02 shall survive the resignation or replacement of the Administrative Agent or any transfer of rights or obligations by, or the replacement of, a Lender, the termination of the Commitments or the repayment, satisfaction or discharge of all Obligations under any Loan Document.

ARTICLE X MISCELLANEOUS

Section 10.01 Notices.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone (and subject to paragraph (b) below), all notices and other

communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopy, as follows:

- (i) if to a Borrower, to the Company at:

9805 Katy Freeway Suite G-200,
Houston, Texas 77024,
Attention of Treasurer
Phone: 281-685-0996
Email: Leyster_Jumawan@murphyoilcorp.com;

- (ii) if to the Administrative Agent, to it at:

JPMorgan Chase Bank, N.A.,
500 Stanton Christiana Road, NCC5 / 1st Floor Newark, DE 19713
Attention: Loan & Agency Services Group
Phone: 302-634-8193
Fax: 12012443657@tls.ldsprod.com
Email: Andrew.katella@chase.com

Agency Withholding Tax Inquiries:
Email: agency.tax.reporting@jpmorgan.com

Agency Compliance/Financials/Intralinks:
Email: covenant.compliance@jpmchase.com

- (iii) if to JPMorgan Chase Bank, N.A., in its capacity as Issuing Bank, to it at:

JPMorgan Chase Bank, N.A.
10420 Highland Manor Dr., 4th Floor
Tampa, Florida 33610
Attention: Standby LC Unit
Phone: 800-364-1969
Fax: 856-294-5267
Email: GTS.Client.Services@jpmchase.com

with a copy to:

JPMorgan Chase Bank, N.A.,
500 Stanton Christiana Road, NCC5 / 1st Floor Newark, DE 19713
Attention: Loan & Agency Services Group
Phone: 302-634-8193
Fax: 12012443657@tls.ldsprod.com
Email: Andrew.katella@chase.com

(iv) if to any other Lender, to it at its address (or telecopy number) set forth in its Administrative Questionnaire.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by telecopy shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through Electronic Systems, to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Notices and other communications to the Lenders and the Issuing Banks hereunder may be delivered or furnished using Electronic Systems pursuant to procedures approved by the Administrative Agent; *provided* that the foregoing shall not apply to notices pursuant to Article II unless otherwise agreed by the Administrative Agent and the applicable Lender. The Administrative Agent or the Company may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; *provided* that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient, at its e-mail address as described in the foregoing clause (i), of notification that such notice or communication is available and identifying the website address therefor; *provided* that, for both clauses (i) and (ii) above, if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(c) Any party hereto may change its address or telecopy number for notices and other communications hereunder by notice to the other parties hereto.

(d) Electronic Systems.

(i) Each Borrower agrees that the Administrative Agent may, but shall not be obligated to, make Communications (as defined below) available to the Issuing Banks and the other Lenders by posting the Communications on Debt Domain, Intralinks, Syndtrak, ClearPar or a substantially similar Electronic System.

(ii) Any Electronic System used by the Administrative Agent is provided "as is" and "as available." The Agent Parties (as defined below) do not warrant the adequacy of such Electronic Systems and expressly disclaim liability for errors or omissions in the Communications. No warranty of any kind, express, implied or statutory, including any warranty of merchantability, fitness for a particular purpose, non-infringement of third-party rights or freedom from viruses or other code defects, is made by any Agent Party in connection with the Communications or any Electronic System. In no event shall the Administrative Agent or any of

its Related Parties (collectively, the “Agent Parties”) have any liability to any Borrower or the other Loan Parties, any Lender, any Issuing Bank or any other Person or entity for damages of any kind, including direct or indirect, special, incidental or consequential damages, losses or expenses (whether in tort, contract or otherwise) arising out of any Borrower’s, any other Loan Party’s or the Administrative Agent’s transmission of communications through an Electronic System. “Communications” means, collectively, any notice, demand, communication, information, document or other material provided by or on behalf of any Borrower or any other Loan Party pursuant to this Agreement, the other Loan Documents or the transactions contemplated therein which is distributed by the Administrative Agent, any Lender or any Issuing Bank by means of electronic communications pursuant to this Section 10.01, including through an Electronic System.

Section 10.02 Waivers; Amendments. (a) No failure or delay by the Administrative Agent, any Issuing Bank or any Lender in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the Administrative Agent, the Issuing Banks and the Lenders hereunder are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or consent to any departure by any Borrower therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section 10.02, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. Without limiting the generality of the foregoing, the making of a Loan or issuance of a Letter of Credit shall not be construed as a waiver of any Default, regardless of whether the Administrative Agent, any Lender or any Issuing Bank may have had notice or knowledge of such Default at the time.

(b) Subject to Section 2.13(b) and Section 10.02(c), neither this Agreement nor any provision hereof nor any other Loan Document nor any provision thereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by each Borrower and the Required Lenders or by each Borrower and the Administrative Agent with the consent of the Required Lenders; *provided* that no such agreement shall (i) increase the Commitment of any Lender without the written consent of such Lender or increase the Mexico Commitment without the written consent of the Mexico Lender, (ii) reduce the principal amount of any Loan or LC Disbursement or reduce the rate of interest thereon, or reduce any fees payable hereunder, without the written consent of each Lender affected thereby, (iii) postpone the scheduled date of payment of the principal amount of any Loan or LC Disbursement, or any interest thereon, or any fees payable hereunder, or reduce the amount of, waive or excuse any such payment, or postpone the scheduled date of expiration of any Commitment, without the written consent of each Lender affected thereby, (iv) (A) change Section 2.17(b) or (c) in a manner that would alter the pro rata sharing of payments required thereby, (B) subordinate in right of payment any of the Obligations owed to the Lenders to any other Indebtedness or (C) if at any time the Obligations owed to the Lenders under the Loan Documents are secured by Liens, subordinate any such Liens (excluding any Liens that the Administrative Agent is authorized to release or subordinate pursuant to the express terms of the Loan Documents) to Liens securing any other Indebtedness, in each case under this clause (iv) without the written consent of each Lender, (v) waive or amend Section 7.02(c) or Section 10.16 without the written consent of each Lender; *provided* that any waiver or amendment of Section 10.16, this proviso in this Section 10.02(b)(v),

Section 10.02(b)(vi) or Section 10.02(b)(vii), shall also require the written consent of each Guaranteed Hedging Party and each Guaranteed Cash Management Provider, (vi) modify the terms of Section 7.02(c) without the written consent of each Lender, Guaranteed Hedging Party and Guaranteed Cash Management Provider adversely affected thereby, or amend or otherwise change the definition of “Guaranteed Hedging Agreement,” “Guaranteed Hedging Obligations” or “Guaranteed Hedging Party,” without the written consent of each Guaranteed Hedging Party adversely affected thereby or the definition of “Guaranteed Cash Management Agreement,” “Guaranteed Cash Management Obligations” or “Guaranteed Cash Management Provider,” without the written consent of each Guaranteed Cash Management Provider adversely affected thereby), (vii) release any Guarantor from any Guaranty Agreement (except as set forth in such Guaranty Agreement or pursuant to Section 10.20) or limit its liability in respect thereof, without the written consent of each Lender or (viii) change any of the provisions of this Section 10.02 or the definition of “Required Lenders” or any other provision hereof specifying the number or percentage of Lenders required to waive, amend or modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender; *provided, further*, that no such agreement shall amend, modify or otherwise affect the rights or duties of the Administrative Agent or any Issuing Bank hereunder or under any other Loan Document without the prior written consent of the Administrative Agent or such Issuing Bank, as the case may be. Notwithstanding the foregoing, any supplement to Schedule 3.14 shall be effective simply by delivering to the Administrative Agent a supplemental schedule clearly marked as such and, upon receipt, the Administrative Agent will promptly deliver a copy thereof to the Lenders.

(c) if the Administrative Agent and the Company acting together identify any ambiguity, omission, mistake, typographical error or other defect in any provision of this Agreement or any other Loan Document, then the Administrative Agent and the Company shall be permitted to amend, modify or supplement such provision to cure such ambiguity, omission, mistake, typographical error or other defect, and such amendment shall become effective without any further action or consent of any other party to this Agreement.

Section 10.03 Expenses; Limitation of Liability; Indemnity; Etc. (a) Each Borrower, jointly and severally, shall pay (i) all reasonable out-of-pocket expenses incurred by the Administrative Agent, the Sustainability Structuring Agent and their respective Affiliates, including the reasonable fees, charges and disbursements of counsel for the Administrative Agent, in connection with the syndication of the credit facilities provided for herein, the preparation and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (ii) all reasonable out-of-pocket expenses incurred by any Issuing Bank in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iii) all reasonable out-of-pocket expenses incurred by the Administrative Agent, the Sustainability Structuring Agent, any Issuing Bank or any Lender, including the reasonable fees, charges and disbursements of any counsel for the Administrative Agent, any Issuing Bank or any Lender, in connection with the enforcement or protection of its rights in connection with this Agreement and the other Loan Documents, including its rights under this Section 10.03, or in connection with the Loans made or Letters of Credit issued hereunder, including all such reasonable out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) Each Borrower, jointly and severally, shall indemnify the Administrative Agent, each Lead Arranger, the Sustainability Structuring Agent, each Co-Syndication Agent, the Documentation Agent, each Issuing Bank and each Lender, and each Related Party of any of the foregoing Persons (each such Person being called an “Indemnitee”) against, and hold each Indemnitee harmless from, any and all Liabilities and related expenses, including the reasonable fees, charges and disbursements of any counsel for any Indemnitee, incurred by or asserted against any Indemnitee arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document, or any agreement or instrument contemplated hereby or thereby, (ii) the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the Transactions or any other transactions contemplated hereby, (iii) any Loan or Letter of Credit or the use of the proceeds therefrom (including any refusal by any Issuing Bank to honor a demand for payment under a Letter of Credit issued by it if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (iv) any actual or alleged presence or release of Hazardous Materials on or from any property owned or operated by the Company or any of its Subsidiaries, or any Environmental Liability related in any way to the Company or any of its Subsidiaries, or (v) any actual or prospective Proceeding relating to any of the foregoing, whether or not such Proceeding is brought by any Borrower or any other Loan Party or its or their respective equity holders, Affiliates, creditors or any other third Person and whether based on contract, tort or any other theory and regardless of whether any Indemnitee is a party thereto; *provided* that such indemnity shall not, as to any Indemnitee, be available to the extent that such Liabilities or related expenses are determined by a court of competent jurisdiction by final and non-appealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee. This Section 10.03(b) shall not apply with respect to Taxes other than any Taxes that represent losses, claims or damages arising from any non-Tax claim.

(c) Each Lender severally agrees to pay any amount required to be paid by any Borrower under paragraphs (a), (b) or (d) of this Section 10.03 to the Administrative Agent, the Sustainability Structuring Agent, each Issuing Bank, and each Related Party of any of the foregoing Persons (each, an “Agent-Related Person”) (to the extent not reimbursed by the Borrowers and without limiting the obligation of the Borrowers to do so), ratably according to their respective Pro Rata Percentage in effect on the date on which such payment is sought under this Section (or, if such payment is sought after the date upon which the Commitments shall have terminated and the Loans shall have been paid in full, ratably in accordance with such Pro Rata Percentage immediately prior to such date), and agrees to indemnify and hold each Agent-Related Person harmless from and against any and all Liabilities and related expenses, including the fees, charges and disbursements of any kind whatsoever that may at any time (whether before or after the payment of the Loans) be imposed on, incurred by or asserted against such Agent-Related Person in any way relating to or arising out of the Commitments, this Agreement, any of the other Loan Documents or any documents contemplated by or referred to herein or therein or the transactions contemplated hereby or thereby or any action taken or omitted by such Agent-Related Person under or in connection with any of the foregoing; *provided* that the unreimbursed expense or Liability or related expense, as the case may be, was incurred by or asserted against such Agent-Related Person in its capacity as such; *provided further* that no Lender shall be liable for the payment of any portion of such Liabilities, costs, expenses or disbursements that are found by a final and nonappealable decision of a court of competent jurisdiction to have resulted primarily from such Agent-Related Person’s gross negligence or willful misconduct. The agreements in this

Section shall survive the termination of this Agreement and the payment of the Loans and all other amounts payable hereunder.

(d) To the extent permitted by applicable law, (i) no Borrower shall assert, and each Borrower hereby waives, any claim against the Administrative Agent, any Lead Arranger, any Co-Syndication Agent, the Documentation Agent, any Issuing Bank and any Lender, and any Related Party of any of the foregoing Persons (each such Person being called a “Lender-Related Person”) for any Liabilities arising from the use by others of information or other materials (including, without limitation, any personal data) obtained through telecommunications, electronic or other information transmission systems (including the Internet) except to the extent resulting from the gross negligence or willful misconduct by such Lender-Related Person, as determined by a final and non-appealable judgment of a court of competent jurisdiction, and (ii) no Borrower shall assert, and each Borrower hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document, or any agreement or instrument contemplated hereby or thereby, the Transactions, any Loan or Letter of Credit or the use of the proceeds thereof.

(e) All amounts due under this Section 10.03 shall be payable promptly after written demand therefor.

Section 10.04 Successors and Assigns. (a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), except that (i) a Borrower may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of each Lender (and any attempted assignment or transfer by a Borrower without such consent shall be null and void) and (ii) no Lender may assign or otherwise transfer its rights or obligations hereunder except in accordance with this Section 10.04. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), Participants (to the extent provided in paragraph (c) of this Section 10.04) and, to the extent expressly contemplated hereby, the Related Parties of each of the Administrative Agent, the Issuing Banks, the Sustainability Structuring Agent, the Lead Arrangers, the Co-Syndication Agents, the Documentation Agent and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) (i) Subject to the conditions set forth in paragraph (b)(ii) below, any Lender may assign to one or more Persons (other than an Ineligible Institution) all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment, participations in Letters of Credit and the Loans at the time owing to it) with the prior written consent (such consent not to be unreasonably withheld) of:

(A) each Borrower; *provided* that each Borrower shall be deemed to have consented to an assignment unless it shall have objected thereto by written notice to the Administrative Agent within five Business Days after having received notice thereof; *provided, further*, that no consent of any Borrower shall be required for an assignment to a Lender,

an Affiliate of a Lender, an Approved Fund or, if an Event of Default has occurred and is continuing, any other assignee;

(B) the Administrative Agent; *provided* that no consent of the Administrative Agent shall be required for an assignment of any Commitment to an assignee that is a Lender (other than a Defaulting Lender) with a Commitment immediately prior to giving effect to such assignment; and

(C) each Issuing Bank.

(ii) Assignments shall be subject to the following additional conditions:

(A) except in the case of an assignment to a Lender or an Affiliate of a Lender or an assignment of the entire remaining amount of the assigning Lender's Commitment or Loans of any Class, the amount of the Commitment or Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent) shall not be less than \$5,000,000 unless each of the Borrowers and the Administrative Agent otherwise consent; *provided* that no such consent of the Borrowers shall be required if an Event of Default has occurred and is continuing;

(B) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement; *provided* that this clause shall not be construed to prohibit the assignment of a proportionate part of all the assigning Lender's rights and obligations in respect of one Class of Commitments or Loans;

(C) the parties to each assignment shall execute and deliver to the Administrative Agent (x) an Assignment and Assumption or (y) to the extent applicable, an agreement incorporating an Assignment and Assumption by reference pursuant to a Platform as to which the Administrative Agent and the parties to the Assignment and Assumption are participants), together with a processing and recordation fee of \$3,500; and

(D) the assignee, if it shall not be a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire in which the assignee designates one or more Credit Contacts to whom all syndicate-level information (which may contain material non-public information about the Loan Parties and their related parties or their respective securities) will be made available and who may receive such information in accordance with the assignee's compliance procedures and applicable laws, including Federal and state securities laws.

For the purposes of this Section 10.04(b), the term "Approved Fund" and "Ineligible Institution" have the following meanings:

"Approved Fund" means any Person (other than a natural person) that is engaged in making, purchasing, holding or investing in bank loans and similar extensions of credit in the ordinary course of its business and that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

“Ineligible Institution” means (a) a natural person, (b) a Defaulting Lender or its Lender Parent, (c) a company, investment vehicle or trust for, or owned and operated for the primary benefit of, a natural person or relative(s) thereof or (d) the Company or any of its Affiliates; provided that, with respect to clause (c), such company, investment vehicle or trust shall not constitute an Ineligible Institution if it (x) has not been established for the primary purpose of acquiring any Loans or Commitments, (y) is managed by a professional advisor, who is not such natural person or a relative thereof, having significant experience in the business of making or purchasing commercial loans, and (z) has assets greater than \$25,000,000 and a significant part of its activities consist of making or purchasing commercial loans and similar extensions of credit in the ordinary course of its business.

(iii) Subject to acceptance and recording thereof pursuant to paragraph (b)(iv) of this Section 10.04, from and after the effective date specified in each Assignment and Assumption the assignee thereunder shall be a party hereto and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender’s rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Section 2.14, Section 2.15, Section 2.16, Section 10.03 and Article IX). Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this Section 10.04 shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (c) of this Section 10.04.

(iv) The Administrative Agent, acting for this purpose as a non-fiduciary agent of the Borrowers, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and a register (which register may be in electronic form) for the recordation of the names and addresses of the Lenders, and the Commitment of, and principal amount (and stated interest) of the Loans and LC Disbursements owing to, each Lender pursuant to the terms hereof from time to time (the “Register”). The entries in the Register shall be conclusive absent manifest error, and each Borrower, the Administrative Agent, the Issuing Banks and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by any Borrower, the Issuing Banks and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

(v) Upon its receipt of (x) a duly completed Assignment and Assumption executed by an assigning Lender and an assignee or (y) to the extent applicable, an agreement incorporating an Assignment and Assumption by reference pursuant to a Platform as to which the Administrative Agent and the parties to the Assignment and Assumption are participants), the assignee’s completed Administrative Questionnaire (unless the assignee shall already be a Lender hereunder), the processing and recordation fee referred to in paragraph (b) of this Section 10.04 and any written consent to such assignment required by paragraph (b) of this Section 10.04, the Administrative Agent shall accept such Assignment and Assumption and record the information contained therein in the Register; *provided* that if either the assigning Lender or the assignee shall have failed to make any payment required to be made by it pursuant to

Section 2.05(d), Section 2.05(e), Section 2.06(b), Section 2.17(d) or Section 10.03(c), the Administrative Agent shall have no obligation to accept such Assignment and Assumption and record the information therein in the Register unless and until such payment shall have been made in full, together with all accrued interest thereon. No assignment shall be effective for purposes of this Agreement unless it has been recorded in the Register as provided in this paragraph.

(c) Any Lender may, without the consent of any Borrower, the Administrative Agent or any Issuing Bank, sell participations to one or more banks or other entities (a “Participant”), other than an Ineligible Institution, in all or a portion of such Lender’s rights and obligations under this Agreement (including all or a portion of its Commitment and the Loans owing to it); *provided* that (i) such Lender’s obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) each Borrower, the Administrative Agent, the Issuing Banks and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender’s rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; *provided* that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver described in the first proviso to Section 10.02(b) that affects such Participant. Each Borrower agrees that each Participant shall be entitled to the benefits of Section 2.14, Section 2.15 and Section 2.16 (subject to the requirements and limitations therein, including the requirements under Section 2.16(f), it being understood that the documentation required under Section 2.16(f) shall be delivered to the participating Lender) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to paragraph (b) of this Section 10.04; *provided* that such Participant (A) agrees to be subject to the provisions of Section 2.18 as if it were an assignee under paragraph (b) of this Section 10.04; and (B) shall not be entitled to receive any greater payment under Section 2.14 or Section 2.16, with respect to any participation, than its participating Lender would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. Each Lender that sells a participation agrees, at the Company’s request and expense, to use reasonable efforts to cooperate with the Company to effectuate the provisions of Section 2.18(b) with respect to any Participant. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 10.08 as though it were a Lender; *provided* that such Participant agrees to be subject to Section 2.17(c) as though it were a Lender. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrowers, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant’s interest in the Loans or other obligations under the Loan Documents (the “Participant Register”); *provided* that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant’s interest in any Commitments, Loans, Letters of Credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such Commitment, Loan, Letter of Credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement

notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

(d) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including without limitation any pledge or assignment to secure obligations to a Federal Reserve Bank or an central bank, and this Section 10.04 shall not apply to any such pledge or assignment of a security interest; *provided* that no such pledge or assignment of a security interest shall release a Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

Section 10.05 Survival. All covenants, agreements, representations and warranties made by any Borrower herein and in the certificates or other instruments delivered in connection with or pursuant to this Agreement shall be considered to have been relied upon by the other parties hereto and shall survive the execution and delivery of this Agreement and the making of any Loans and issuance of any Letters of Credit, regardless of any investigation made by any such other party or on its behalf and notwithstanding that the Administrative Agent, any Issuing Bank or any Lender may have had notice or knowledge of any Default or incorrect representation or warranty at the time any credit is extended hereunder, and shall continue in full force and effect as long as the principal of or any accrued interest on any Loan or any fee or any other amount payable under this Agreement is outstanding and unpaid or a Letter of Credit is outstanding and so long as the Commitments have not expired or terminated. The provisions of Section 2.14, Section 2.15, Section 2.16, Section 10.03 and Article IX shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loans, the expiration or termination of the Letters of Credit and the Commitments or the termination of this Agreement or any provision hereof.

Section 10.06 Counterparts; Integration; Effectiveness; Electronic Execution.

(a) This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement, the other Loan Documents and any separate letter agreements with respect to (i) fees payable to the Administrative Agent and (ii) the reductions of the Letter of Credit Commitment of any Issuing Bank constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 4.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof which, when taken together, bear the signatures of each of the other parties hereto, and thereafter shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

(b) Delivery of an executed counterpart of a signature page of (x) this Agreement, (y) any other Loan Document and/or (z) any document, amendment, approval, consent, information, notice (including, for the avoidance of doubt, any notice delivered pursuant to Section 10.01), certificate, request, statement, disclosure or authorization related to this

Agreement, any other Loan Document and/or the transactions contemplated hereby and/or thereby (each an “Ancillary Document”) that is an Electronic Signature transmitted by telecopy, emailed pdf. or any other electronic means that reproduces an image of an actual executed signature page shall be effective as delivery of a manually executed counterpart of this Agreement, such other Loan Document or such Ancillary Document, as applicable. The words “execution,” “signed,” “signature,” “delivery,” and words of like import in or relating to this Agreement, any other Loan Document and/or any Ancillary Document shall be deemed to include Electronic Signatures, deliveries or the keeping of records in any electronic form (including deliveries by telecopy, emailed pdf. or any other electronic means that reproduces an image of an actual executed signature page), each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be; provided that nothing herein shall require the Administrative Agent to accept Electronic Signatures in any form or format without its prior written consent and pursuant to procedures approved by it; *provided, further*, without limiting the foregoing, (i) to the extent the Administrative Agent has agreed to accept any Electronic Signature, the Administrative Agent and each of the Lenders shall be entitled to rely on such Electronic Signature purportedly given by or on behalf of any Borrower or any other Loan Party without further verification thereof and without any obligation to review the appearance or form of any such Electronic signature and (ii) upon the request of the Administrative Agent or any Lender, any Electronic Signature shall be promptly followed by a manually executed counterpart. Without limiting the generality of the foregoing, each Borrower hereby (A) agrees that, for all purposes, including without limitation, in connection with any workout, restructuring, enforcement of remedies, bankruptcy proceedings or litigation among the Administrative Agent, the Lenders, the Borrowers and the other Loan Parties, Electronic Signatures transmitted by telecopy, emailed pdf. or any other electronic means that reproduces an image of an actual executed signature page and/or any electronic images of this Agreement, any other Loan Document and/or any Ancillary Document shall have the same legal effect, validity and enforceability as any paper original, (B) the Administrative Agent and each of the Lenders may, at its option, create one or more copies of this Agreement, any other Loan Document and/or any Ancillary Document in the form of an imaged electronic record in any format, which shall be deemed created in the ordinary course of such Person’s business, and destroy the original paper document (and all such electronic records shall be considered an original for all purposes and shall have the same legal effect, validity and enforceability as a paper record), (C) waives any argument, defense or right to contest the legal effect, validity or enforceability of this Agreement, any other Loan Document and/or any Ancillary Document based solely on the lack of paper original copies of this Agreement, such other Loan Document and/or such Ancillary Document, respectively, including with respect to any signature pages thereto and (D) waives any claim against any Lender-Related Person for any Liabilities arising solely from the Administrative Agent’s and/or any Lender’s reliance on or use of Electronic Signatures and/or transmissions by telecopy, emailed pdf. or any other electronic means that reproduces an image of an actual executed signature page, including any Liabilities arising as a result of the failure of any Borrower and/or any other Loan Party to use any available security measures in connection with the execution, delivery or transmission of any Electronic Signature.

Section 10.07 Severability. Any provision of this Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and

enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

Section 10.08 Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender, each Issuing Bank, and each of their respective Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by law, to setoff and apply any and all deposits (general or special, time or demand, provisional or final) at any time held, and other obligations at any time owing, by such Lender, such Issuing Bank or any such Affiliate, to or for the credit or the account of any Borrower against any and all of the obligations of such Borrower now or hereafter existing under this Agreement or any other Loan Document to such Lender or such Issuing Bank or their respective Affiliates, irrespective of whether or not such Lender, Issuing Bank or Affiliate shall have made any demand under this Agreement or any other Loan Document and although such obligations of such Borrower may be contingent or unmatured or are owed to a branch office or Affiliate of such Lender or such Issuing Bank different from the branch office or Affiliate holding such deposit or obligated on such indebtedness; *provided* that in the event that any Defaulting Lender shall exercise any such right of setoff, (x) all amounts so setoff shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.19 and, pending such payment, shall be segregated by such Defaulting Lender from its other funds and deemed held in trust for the benefit of the Administrative Agent, the Issuing Banks, and the Lenders, and (y) the Defaulting Lender shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Lender as to which it exercised such right of setoff. The rights of each Lender, each Issuing Bank and their respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender, such Issuing Bank or their respective Affiliates may have. Each Lender and Issuing Bank agrees to notify the Company and the Administrative Agent promptly after any such setoff and application; *provided* that the failure to give such notice shall not affect the validity of such setoff and application.

Section 10.09 Governing Law; Jurisdiction; Consent to Service of Process. (a) This Agreement shall be construed in accordance with and governed by the law of the State of New York.

(b) Each Borrower hereby irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of the Supreme Court of the State of New York sitting in the Borough of Manhattan, and of the United States District Court for the Southern District of New York sitting in the Borough of Manhattan, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement, or for recognition or enforcement of any judgment, and each of the parties hereto hereby irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York State or, to the extent permitted by law, in such Federal court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement shall affect any right that the Administrative Agent, any Issuing Bank or any Lender may otherwise have to bring any action or proceeding relating to this Agreement against any Borrower or its properties in the courts of any jurisdiction.

(c) Each Borrower hereby irrevocably and unconditionally waives, to the fullest extent it may legally and effectively do so, any objection which it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to this Agreement in any court referred to in paragraph (b) of this Section 10.09. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) Each party to this Agreement irrevocably consents to service of process in the manner provided for notices in Section 10.01. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

(e) In furtherance of the foregoing, MOCL hereby irrevocably appoints the Company, with an office on the date hereof at the address specified in Section 10.01, as its authorized agent with all powers necessary to receive on its behalf service of copies of the summons and complaint and any other process which may be served in any action or proceeding arising out of or relating to the Loan Documents in any of the courts in and of the State of New York. Such service may be made by mailing or delivering a copy of such process to MOCL in care of the Company at the Company's above address and MOCL hereby irrevocably authorizes and directs the Company to accept such service on its behalf and agrees that the failure of the Company to give any notice of any such service to MOCL shall not impair or affect the validity of such service or of any judgment rendered in any action or proceeding based thereon. If for any reason the Company shall cease to act as process agent, MOCL shall appoint forthwith, in the manner provided for herein, a single successor process agent qualified to act as an agent for service of process with respect to all courts in and of the State of New York and acceptable to the Administrative Agent. Nothing in this paragraph shall affect the right of the Administrative Agent or any Lender to serve legal process in any other manner permitted by law or limit the right of the Administrative Agent or any Lender to bring any action or proceeding against MOCL or its property in the courts of other jurisdictions. To the extent that MOCL has or hereafter may acquire any right of immunity from jurisdiction of any court on the grounds of sovereignty or otherwise with respect to itself or its property, MOCL hereby irrevocably waives such immunity for itself and for its property in respect of all of its Obligations under the Loan Documents.

Section 10.10 Waiver of Jury Trial. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (a) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (b) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 10.10.

Section 10.11 Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Agreement and shall not affect the construction of, or be taken into consideration in interpreting, this Agreement.

Section 10.12 Confidentiality. Each of the Administrative Agent, the Issuing Banks and the Lenders agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its and its Affiliates' directors, officers, employees and agents, including accountants, legal counsel and other advisors (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by any Governmental Authority (including any self-regulatory authority or self-regulatory body) such as the National Association of Insurance Commissioners, (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process, (d) to any other party to this Agreement, (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any suit, action or proceeding relating to this Agreement or the enforcement of rights hereunder or under any other Loan Document, (f) subject to an agreement containing provisions substantially the same as those of this Section 10.12, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to any Borrower and its obligations, (g) with the consent of the Company, (h) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section 10.12 or (ii) becomes available to the Administrative Agent, any Issuing Bank or any Lender on a nonconfidential basis from a source other than the Borrowers, or (i) on a confidential basis to (i) any rating agency in connection with rating the Borrowers or their Subsidiaries or the credit facility established hereby, (ii) the CUSIP Service Bureau or any similar agency in connection with the issuance and monitoring of CUSIP numbers with respect to the credit facility established hereby or (iii) to any provider of credit insurance. For the purposes of this Section 10.12, "Information" means all information received from any Borrower relating to such Borrower or its business, other than any such information that is available to the Administrative Agent, the Issuing Banks or any Lender on a nonconfidential basis prior to disclosure by such Borrower and other than information pertaining to this Agreement routinely provided by arrangers to data service providers, including league table providers, that serve the lending industry; *provided* that, in the case of information received from a Borrower after the Effective Date, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section 10.12 shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Section 10.13 Material Non-Public Information.

(a) EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN SECTION 10.12 FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING THE BORROWERS AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT

WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS.

(b) ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY ANY BORROWER OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT THE LOAN PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO EACH BORROWER AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW.

Section 10.14 Interest Rate Limitation. Notwithstanding anything herein to the contrary, if at any time the interest rate applicable to any Loan, together with all fees, charges and other amounts which are treated as interest on such Loan under applicable law (collectively the "Charges"), shall exceed the maximum lawful rate (the "Maximum Rate") which may be contracted for, charged, taken, received or reserved by the Lender holding such Loan in accordance with applicable law, the rate of interest payable in respect of such Loan hereunder, together with all Charges payable in respect thereof, shall be limited to the Maximum Rate and, to the extent lawful, the interest and Charges that would have been payable in respect of such Loan but were not payable as a result of the operation of this Section 10.14 shall be cumulated and the interest and Charges payable to such Lender in respect of other Loans or periods shall be increased (but not above the Maximum Rate therefor) until such cumulated amount, together with interest thereon at the NYFRB Rate to the date of repayment, shall have been received by such Lender.

Section 10.15 USA Patriot Act. Each Lender that is subject to the requirements of the Patriot Act hereby notifies each Borrower and the Guarantors that pursuant to the requirements of the Patriot Act, it is required to obtain, verify and record information that identifies each Borrower and the Guarantors, which information includes the name and address of each Borrower and the Guarantors and other information that will allow such Lender to identify each Borrower and the Guarantors in accordance with the Patriot Act.

Section 10.16 Hedging Agreements; Cash Management Agreements.

(a) Except as provided in Section 10.02(b), no Guaranteed Hedging Party or Guaranteed Cash Management Provider shall have any voting rights under any Loan Document as a result of the existence of any Guaranteed Hedging Obligation or Guaranteed Cash Management Obligation owed to it.

(b) If any Lender determines, acting reasonably, that any applicable law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for such Lender to hold or benefit from a Lien over real property pursuant to any law of the United States or any State thereof, such Lender may notify the Administrative Agent and disclaim any benefit of such Lien to the extent of such illegality; provided, that such determination or disclaimer by

such Lender shall not invalidate or render unenforceable such Lien for the benefit of any other Lender.

Section 10.17 Acknowledgement and Consent to Bail-In of Affected Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Affected Financial Institution arising under any Loan Document may be subject to the Write-Down and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an Affected Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent entity, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of the applicable Resolution Authority.

Section 10.18 No Fiduciary Duty, etc.

(a) Each Borrower acknowledges and agrees, and acknowledges its Subsidiaries' understanding, that (i) no fiduciary, advisory or agency relationship between the Borrowers and the Subsidiaries, on the one hand, and the Credit Parties and the Sustainability Structuring Agent and their Affiliates, on the other hand, is intended to be or has been created in respect of the transactions contemplated hereby or by this Agreement or the other Loan Documents and (ii) none of the Credit Parties or the Sustainability Structuring Agent will have any obligations except those obligations expressly set forth herein and in the other Loan Documents and each Credit Party and the Sustainability Structuring Agent is acting solely in the capacity of an arm's length contractual counterparty to such Borrower with respect to the Loan Documents and the transactions contemplated herein and therein and not as a financial advisor or a fiduciary to, or an agent of, such Borrower or any other person. Each Borrower agrees that it will not assert any claim against any Credit Party or the Sustainability Structuring Agent based on an alleged breach of fiduciary duty by such Credit Party or the Sustainability Structuring Agent in connection with this Agreement and the transactions contemplated hereby. Additionally, each Borrower acknowledges and agrees that no Credit Party or the Sustainability Structuring Agent is advising any Borrower or any of the Subsidiaries as to any legal, tax, investment, accounting, regulatory or any other matters in any jurisdiction. Each Borrower and the Subsidiaries shall consult with its

own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated herein or in the other Loan Documents, and none of Credit Parties or the Sustainability Structuring Agent shall have any responsibility or liability to any Borrower or any Subsidiary with respect thereto.

(b) Each Borrower further acknowledges and agrees, and acknowledges its Subsidiaries' understanding, that each Credit Party, together with its Affiliates, is a full service securities or banking firm engaged in securities trading and brokerage activities as well as providing investment banking and other financial services. In the ordinary course of business, any Credit Party may provide investment banking and other financial services to, and/or acquire, hold or sell, for its own accounts and the accounts of customers, equity, debt and other securities and financial instruments (including bank loans and other obligations) of, any Borrower and other companies with which any Borrower may have commercial or other relationships. With respect to any securities and/or financial instruments so held by any Credit Party or any of its customers, all rights in respect of such securities and financial instruments, including any voting rights, will be exercised by the holder of the rights, in its sole discretion.

(c) In addition, each Borrower acknowledges and agrees, and acknowledges its Subsidiaries' understanding, that each Credit Party and its affiliates may be providing debt financing, equity capital or other services (including financial advisory services) to other companies in respect of which any Borrower may have conflicting interests regarding the transactions described herein and otherwise. No Credit Party will use confidential information obtained from any Borrower by virtue of the transactions contemplated by the Loan Documents or its other relationships with such Borrower in connection with the performance by such Credit Party of services for other companies, and no Credit Party will furnish any such information to other companies. Each Borrower also acknowledges that no Credit Party has any obligation to use in connection with the transactions contemplated by the Loan Documents, or to furnish to the Borrower, confidential information obtained from other companies.

Section 10.19 Currency Conversion; Judgment Currency.

(a) Notwithstanding anything to the contrary contained herein, if any payment of any obligation shall be made in a currency other than the currency required hereunder, such amount shall be converted into the currency required hereunder at the rate determined by the Administrative Agent, as the rate quoted by it in accordance with methods customarily used by the Administrative Agent for such or similar purposes as the spot rate for the purchase by the Administrative Agent of the required currency with the currency of actual payment through its principal foreign exchange trading office at approximately 11:00 a.m. (local time at such office) two Business Days prior to the effective date of such conversion; provided that the Administrative Agent may obtain such spot rate from another financial institution actively engaged in foreign currency exchange if the Administrative Agent does not then have a spot rate for the required currency.

(b) The obligations of each party hereto in respect of any sum due to any other party hereto or any holder of the obligations owing hereunder (the "Applicable Creditor") shall, notwithstanding any judgment in a currency (the "Judgment Currency") other than dollars, be discharged only to the extent that, on the Business Day following receipt by the Applicable

Creditor of any sum adjudged to be so due in the Judgment Currency, the Applicable Creditor may in accordance with normal banking procedures in the relevant jurisdiction purchase dollars with the Judgment Currency; and if the amount of dollars so purchased is less than the sum originally due to the Applicable Creditor in dollars, such party agrees, as a separate obligation and notwithstanding any such judgment, to indemnify the Applicable Creditor against such deficiency. The obligations of the parties contained in this Section shall survive the termination of this Agreement and the payment of all other amounts owing hereunder.

Section 10.20 Release of Guarantees. On the Investment Grade Rating Date, so long as no Default has occurred and is continuing, then, promptly following the Company's written request therefor, the Administrative Agent shall execute a release of each Subsidiary Guarantor from its surety and guarantee liabilities and obligations as a Guarantor under the Guaranty Agreement (and each such Person shall cease to constitute a "Guarantor" thereunder and hereunder), other than those obligations which are expressly stated to survive termination of the Guaranty Agreement. For the avoidance of doubt, any such release shall in no way impair or affect the liabilities and obligations of the Company (including in its capacity as a Guarantor) under the Credit Agreement and the other Loan Documents, or any other Borrower under the Credit Agreement and the other Loan Documents (other than the Guaranty Agreement), all of which liabilities and obligations shall continue in full force and effect on and after the Investment Grade Rating Date.

Section 10.21 Acknowledgement Regarding Any Supported QFCs. To the extent that the Loan Documents provide support, through a guarantee or otherwise, for any Hedging Agreement or any other agreement or instrument that is a QFC (such support, "QFC Credit Support", and each such QFC, a "Supported QFC"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "U.S. Special Resolution Regimes") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Loan Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

(a) In the event a Covered Entity that is party to a Supported QFC (each, a "Covered Party") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Loan Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Loan Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of

the parties with respect to a Defaulting Lender shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

(b) As used in this Section 10.21, the following terms have the following meanings:

(i) “BHC Act Affiliate” of a party means an “affiliate” (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

(ii) “Covered Entity” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

(iii) “Default Right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

(iv) “QFC” has the meaning assigned to the term “qualified financial contract” in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

[SIGNATURE PAGES BEGIN NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective authorized officers as of the day and year first above written.

MURPHY OIL CORPORATION

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

**MURPHY EXPLORATION & PRODUCTION COMPANY –
INTERNATIONAL**

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

MURPHY OIL COMPANY LTD.

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

**Administrative Agent, Issuing Bank
& Lender:**

JPMORGAN CHASE BANK, N.A.

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

**Co-Syndication Agent, Issuing Bank
& Lender:**

BANK OF AMERICA, N.A.

By: _____

Name: _____

Title: _____

Issuing Bank:

**BANK OF AMERICA MEXICO, S.A., INSTITUCIÓN DE
BANCA MÚLTIPLE**

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

**Co-Syndication Agent, Issuing Bank
& Lender:**

THE BANK OF NOVA SCOTIA, HOUSTON BRANCH

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

**Co-Syndication Agent, Issuing Bank
& Lender:**

CAPITAL ONE, NATIONAL ASSOCIATION

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

**Co-Syndication Bank, Issuing Bank
& Lender:**

MUFG BANK, LTD.

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

Documentation Agent & Lender:

SUMITOMO MITSUI BANKING CORPORATION

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

Lender:

CADENCE BANK

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

Lender:

REGIONS BANK

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

Lender:

STANDARD CHARTERED BANK

By: _____

Name: _____

Title: _____

Signature Page
CREDIT AGREEMENT

**Schedule 2.01
to Credit Agreement**

GLOBAL COMMITMENTS

COMMITMENT		
Lender	Amount of Commitment	Percentage of Commitment
JPMorgan Chase Bank, N.A.	\$110,000,000.00	14.864864865%
Bank of Nova Scotia, Houston Branch	\$110,000,000.00	14.864864865%
Capital One, National Association	\$110,000,000.00	14.864864865%
MUFG Bank, Ltd.	\$110,000,000.00	14.864864865%
Sumitomo Mitsui Banking Corporation	\$85,000,000.00	11.486486486%
Cadence Bank	\$65,000,000.00	8.783783784%
Regions Bank	\$60,000,000.00	8.108108108%
Bank of America, N.A.	\$50,000,000.00	6.756756757%
Standard Chartered Bank	\$40,000,000.00	5.405405405%
TOTAL:	\$740,000,000.00	100.000000000%

MEXICO COMMITMENT		
Mexico Lender	Amount of Mexico Commitment	Percentage of Mexico Commitment
Bank of America Mexico, S.A., Institución de Banca Múltiple	\$60,000,000.00	100.000000000%
TOTAL:	\$60,000,000.00	100.000000000%

TOTAL GLOBAL COMMITMENTS:	\$800,000,000.00
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EXISTING LETTERS OF CREDIT

Issuing Bank	Alias	Pricing Option	Facility/Borrower	Current Amount	Original Amount	CCY	Effective Date	Adjusted Expiry
Bank of America, N.A.	BOA SB100613/18	Standby Letter of Credit	R/C COMM/Murphy EXPRO- Intl for Murphy SUR	27,242,985.00	37,181,197.50	USD	04/03/2018	04/03/2023
Bank of America, N.A.	BOA SB100682/22	Standby Letter of Credit	R/C COMM/Murphy EXPRO- Intl for Murphy SUR	26,265,000.00	26,265,000.00	USD	07/21/2022	07/21/2023
Bank of America, N.A.	BOA 68174771	Standby Letter of Credit	R/C COMM/MP GOM of Mexico, LLC	400,000.00	400,000.00	USD	02/22/2019	01/21/2023

SUSTAINABILITY TARGETS

None.

**Schedule 3.14
to Credit Agreement**

SUBSIDIARIES

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Arkansas Oil Company	Corporation ¹	Delaware	Arkansas	Houston	100 % Common Stock ²	No	No	No
Caledonia Land Company	Corporation	Delaware	Arkansas	Houston	100 % Common Stock	No	No	No
El Dorado Engineering Inc.	Corporation	Delaware	Arkansas	Houston	100 % Common Stock	No	No	No
El Dorado Contractors	Corporation	Delaware	Arkansas	Houston	100 % Common Stock	No	No	No
Marine Land Company	Corporation	Delaware	Arkansas	Houston	100 % Common Stock	No	No	No
Murphy Eastern Oil Company	Corporation	Delaware	Inactive	Houston	100 % Common Stock	No	No	No
Murphy Exploration & Production Company	Corporation	Delaware	Holding Company	Houston	100 % Common Stock	Yes	Guarantor	No

¹ All Subsidiaries are "C" corporations or the equivalent in other jurisdictions.

² All Subsidiaries have issued common stock. There are no other classes of equity except see notes below pertaining to certain Australian entities.

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Mentor Holding Corporation	Corporation	Delaware	Inactive	Houston	100 % Common Stock	No	No	No
Mentor Excess and Surplus Lines Insurance Company	Corporation	Delaware	Inactive	Houston	100 % Common Stock	No	No	No
MIRC Corporation	Corporation	Louisiana	Inactive	Houston	100 % Common Stock	No	No	No
Murphy Building Corporation	Corporation	Delaware	Arkansas	Houston	100 % Common Stock	No	No	No
Murphy Exploration & Production Company – International	Corporation	Delaware	Worldwide	Houston	100 % Common Stock	Yes	Guarantor	No
Canam Offshore Limited	Corporation	Bahamas	Holding Company	Nassau	100 % Common Stock	Yes	No	Yes
Canam Brunei Oil Ltd.	Corporation	Bahamas	Brunei	Houston	100 % Common Stock	No	No	Yes
Murphy Peninsular Malaysia Oil Co., Ltd.	Corporation	Bahamas	Malaysia	Houston	100 % Common Stock	No	No	Yes
El Dorado Exploration, S.A.	Corporation	Delaware	Inactive	N/A	100 % Common Stock	No	No	No

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Murphy Asia Oil Co., Ltd.	Corporation	Bahamas	SE Asia	Houston	100 % Common Stock	No	No	No
					³			
Murphy Australia AC/P 57 Oil Pty. Ltd.	Corporation	Western Australia	Australia	Perth	100 % Common Stock	No	No	No
Murphy Australia AC/P 58 Oil Pty. Ltd.	Corporation	Western Australia	Australia	Perth	100 % Common Stock	No	No	No
Murphy Australia EPP43 Oil Pty. Ltd.	Corporation	Western Australia	Australia	Perth	100 % Common Stock	No	No	No
Murphy Australia Oil Pty. Ltd	Corporation	Western Australia	Australia	Perth	100% Preferred ⁴	No	No	No
Murphy Australia AC/P 36 Oil Pty. Limited	Corporation	Western Australia	Australia	Perth	100 % Common Stock	No	No	No
					⁵			
Murphy Australia WA-481-P Oil Pty. Ltd.	Corporation	Western Australia	Australia	Perth	100% Preferred ⁶	No	No	No

³ Redeemable preferred shares issued which are treated as common shares for U.S. purposes.

⁴ See note no. 3 above.

⁵ See note no. 3 above.

⁶ See note no. 3 above.

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Murphy Australia AC/P 59 Oil Pty. Ltd.	Corporation	Western Australia	Australia	Perth	100 % Common Stock	No	No	No
Murphy Brazil Exploracao e Producao de Petroleo e Gas Ltda.	Corporation	Brazil	Brazil	N/A ⁷	100 % Common Stock	No	No	No
Murphy Cuu Long Bac Oil Co., Ltd.	Corporation	Bahamas	Vietnam	Ho Chi Minh City	100 % Common Stock	No	No	No
Murphy Dai Nam Oil Co., Ltd.	Corporation	Bahamas	Vietnam	Ho Chi Minh City	100 % Common Stock	No	No	No
Murphy Equatorial Guinea Oil Co., Ltd.	Corporation	Bahamas	Equatorial Guinea ⁸	N/A	100 % Common Stock	No	No	No
Murphy Exploration (Alaska), Inc.	Corporation	Delaware	Alaska	Houston	100 % Common Stock	No	No	No
Murphy Luderitz Oil Co., Ltd.	Corporation	Bahamas	Namibia	N/A	100 % Common Stock	No	No	No
Murphy Nha Trang Oil Co., Ltd.	Corporation	Bahamas	Vietnam	Ho Chi Minh City	100 % Common Stock	No	No	No

⁷ No office has been established.

⁸ Murphy has exited Equatorial Guinea.

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Murphy Overseas Ventures Inc.	Corporation	Delaware	Worldwide	Houston	100 % Common Stock	No	No	No
Murphy Phuong Nam Oil Co., Ltd.	Corporation	Bahamas	Vietnam	Ho Chi Minh City	100 % Common Stock	No	No	No
Murphy Semai IV Ltd.	Corporation	Bahamas	Indonesia ⁹	N/A	100 % Common Stock	No	No	No
Murphy Semai Oil Co., Ltd. Note: Name changed to Murphy Cuu Long Tay Oil Co., Ltd.	Corporation	Bahamas	Vietnam	Ho Chi Minh City	100 % Common Stock	No	No	Yes ¹⁰
			¹¹					
Murphy South Barito, Ltd.	Corporation	Bahamas	Indonesia	N/A	100 % Common Stock	No	No	No
Murphy Spain Oil Company	Corporation	Delaware	Spain	Madrid ¹²	100 % Common Stock	No	No	No

⁹ Murphy has exited Indonesia.

¹⁰ Moved under Canam Offshore Ltd. effective June 2016 for Vietnam operations.

¹¹ No activity.

¹² Branch office in process of winding down.

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
Murphy West Africa, Ltd.	Corporation	Bahamas	Republic of Congo ¹³	N/A	100 % Common Stock	No	No	No
Murphy Wokam Oil Company, Ltd.	Corporation	Bahamas	Indonesia	N/A	100 % Common Stock	No	No	No
Murphy Worldwide, Inc.	Corporation	Delaware	Worldwide	Houston	100 % Common Stock	No	No	No
Murphy Offshore Oil Co. Ltd.	Corporation	Bahamas	Worldwide	Nassau	100 % Common Stock	No	No	No
Murphy Netherlands Holdings B.V.	Corporation	Netherlands	Netherlands	N/A ¹⁴	100 % Common Stock	No	No	No
Murphy Netherlands Holdings II B.V.	Corporation	Netherlands	Netherlands	N/A	100 % Common Stock	No	No	No
Murphy Sur, S. de R. L. de C.V.	Corporation	Mexico	Mexico	N/A ¹⁵	100 % Common Stock	No	No	No
Murphy Exploration & Production Company – USA	Corporation	Delaware	United States	Houston	100 % Common Stock	Yes	Guarantor	No

¹³ Murphy has exited Congo.

¹⁴ No offices have been established in the Netherlands.

¹⁵ No offices have been established in Mexico.

Name of Subsidiary	Type of Entity	Jurisdiction	Principal Place of Business	Chief Executive Office	Equity Interests Issued	Material Subsidiary	Guarantor/Required Subsidiary Guarantor	Excluded Canam Entity
MP Gulf of Mexico, LLC	Limited Liability Company	Delaware	United States	Houston	80% LLC Units	Yes	No	No
Murphy Oil Company Ltd.	Corporation	Canada	Canada	Calgary	100 % Common Stock	Yes	No	No
Murphy Canada Holding ULC	Corporation	Alberta	Canada	Calgary	100 % Common Stock	No	No	No
Murphy Canada, Ltd.	Corporation	Canada	Canada	Calgary	100 % Common Stock	No	No	No
			¹⁶					
New Murphy Oil (UK) Corporation	Corporation	Delaware	Holding Company	Houston	100 % Common Stock	No	No	No
Murphy Petroleum Limited	Corporation	England	U.K.	N/A ¹⁷	100 % Common Stock	No	No	No
Murco Petroleum Limited	Corporation	England	U.K.	N/A	100 % Common Stock	No	No	No

¹⁶ Inactive.

¹⁷ Murphy no longer has continuing operations in the U.K.

ACCOUNTS

Account	Financial Institution or Intermediary	Account Number	Account Type	Excluded DDA (Y/N)
Murphy Oil Corporation - General (Wires)	Bank of America, N. A., New York, NY	USD A/C # 004451259985	Depository Account	Y
Murphy Oil Corporation - CDA (ACH/Check)	Bank of America, N. A., New York, NY	USD A/C # 003359985473	Depository Account	Y
Murphy Oil Corporation - Lease Rental	Bank of America, N. A., New York, NY	USD A/C # 003359985481	Depository Account	Y
Murphy Exploration & Production Company	Bank of America, N. A., New York, NY	USD A/C # 004451259862	Depository Account	Y
Canam Offshore Limited	Bank of America, N. A., New York, NY	USD A/C # 004451259859	Depository Account	Y
Murphy Oil Corporation	BancorpSouth, El Dorado, AR	USD A/C # 6400074412/ 6400074404	Marine Land Co/ Caledonia Land Co	N
Murphy Brasil Exploracao E. Producao De Petroleo E Gas Ltda.	Bank of America, Sao Paulo, Brazil	BRL A/C #11057015	Depository Account	N
Canam Brunei Oil Ltd.	J. P. Morgan Chase Bank Berhad Kuala Lumpur, Malaysia	USD A/C # 0076953752	Depository Account	N
Murphy Oil Corporation	Capital One Bank N. A.	USD A/C # 4670140461	Money Market Cash Account	N
Murphy Oil Corporation	J. P. Morgan Chase Bank, New York, New York	USD A/C # 325-008361	Depository Account	N

Account	Financial Institution or Intermediary	Account Number	Account Type	Excluded DDA (Y/N)
New Murphy Oil Corporation (UK)	Bank of America, N. A., New York, NY	USD A/C # 004451259901	Depository Account	Y
MP Gulf of Mexico, LLC	Bank of America, N. A., New York, NY	USD A/C # 4451312783	Depository Account	Y
MP Gulf of Mexico, LLC	Bank of America, N. A., New York, NY	Controlled Disbursement USD A/C # 3359992560	Controlled Disbursement Account	N
Murphy Sur S de RL de CV	Bank of America Mexico, S. A., Mexico	USD A/C# 14633028	Depository Account	N
Murphy Sur S de RL de CV	Bank of America Mexico, S. A., Mexico	MXN A/C# 14633010	Depository Account	N
Murphy Sur S de RL de CV	Grupo Financiero Banorte, S.A.B de C.V.	MXN A/C# 1044029462	Depository Account	N
El Dorado Exploracion Y Produccion S de RL de CV	Bank of America Mexico, S. A., Mexico	MXN A/C# 14795026	Depository Account	N
El Dorado Exploracion Y Produccion S de RL de CV	Bank of America Mexico, S. A., Mexico	USD A/C# 14795018	Depository Account	N
Murphy Netherlands Holdings BV	Bank of America Merrill Lynch Intl Ltd., Amsterdam	USD A/C # 20451013	Depository Account	N
Murphy Netherlands Holdings II BV	Bank of America Merrill Lynch Intl Ltd., Amsterdam	USD A/C # 20452011	Depository Account	N
Murphy Nha Trang Oil Co., Ltd.	J. P. Morgan Chase Bank Ho Chi Minh Branch, Vietnam	USD A/C # 0076958206 VND A/C # 0076958205	Depository Account	N
Murphy Phuong Nam Oil Co., Ltd.	J. P. Morgan Chase Bank Ho Chi Minh Branch, Vietnam	USD A/C # 0076958246 VND A/C # 0076958245	Depository Account	N

Account	Financial Institution or Intermediary	Account Number	Account Type	Excluded DDA (Y/N)
Murphy Cuu Long Bac Oil Co., Ltd.	J. P. Morgan Chase Bank Ho Chi Minh Branch, Vietnam	USD A/C # 0076958288 VND A/C # 0076958301	Depository Account	N
Murphy Cuu Long Tay Oil Co., Ltd.	J. P. Morgan Chase Bank Ho Chi Minh Branch, Vietnam	USD A/C # 0076958392 VND A/C # 0076958391	Depository Account	N
Murphy Oil Corporation	J. P. Morgan Chase Bank, New York, NY	USD A/C # 5029438	Money Market Cash Account	N
Murphy Oil Corporation	Regions Bank	USD A/C # 0179852122	Money Market Cash Account	N
Murphy Oil Corporation	Wells Fargo Bank	USD A/C # 793-3000992336	Money Market Cash Account	N
Murphy Oil Corporation	Bank of America, New York, NY	USD A/C # 5S4-04P36-1-7 EJE	Money Market Cash Account	N
Murphy Oil Corporation	MUFG / Union Bank	USD A/C # 0820000973	Money Market Cash Account	N
Murphy Oil Corporation	Simmons Bank, El Dorado, AR	USD A/C # 132612862	Money Market Cash Account	N
Murphy Australia Oil Pty. Ltd.	J. P. Morgan Chase Bank, Sydney, Australia	AUD A/C # 083602700 USD A/C # 0083602735	Depository Account	N
Murphy Australia AC/P58 Oil Pty Ltd.	J. P. Morgan Chase Bank, Sydney, Australia	USD A/C # 0083602882	Depository Account	N
Murphy Petroleum Ltd.	Bank of America NA London, UK	GBP A/C # 80451017 USD A/C # 80451025	Depository Account	N
MURCO Petroleum Ltd.	Bank of America NA London, UK	GBP A/C # 80449020 USD A/C # 80449012	Depository Account	N
Murphy Oil Corporation	MUFG / Union Bank	General USD A/C # 0021420914	Depository Account	N

Account	Financial Institution or Intermediary	Account Number	Account Type	Excluded DDA (Y/N)
Murphy Oil Corporation	MUFG / Union Bank	Controlled Disb USD A/C # 9081002454	Controlled Disbursement Account	N
MP Gulf of Mexico, LLC	MUFG / Union Bank	O&G Royalty USD A/C # 0021418355	Depository Account	N
Murphy Spain Oil Company	Bank of America Merrill Lynch Intl Ltd.	EUR A/C # ES79 1485 0001 0900 3663 1014	Depository Account	N
Murphy Exploration & Production Company – USA/Y Bar Ranch Ltd.	JP Morgan Chase Bank, N.A.	USD A/C # 528207496	Escrow Account	Y
Murphy Oil Corporation	Scotiabank, Ontario, Canada	CDN A/C # 129890008818	Depository Account	N
Murphy Oil Company Ltd.	Scotiabank, Ontario, Canada	CDN A/C # 10009 0439118 USD A/C # 129898926913	Depository Account	N
Murphy Oil Company Ltd.	Scotiabank, Ontario, Canada	CDN A/C # 129890007013 USD A/C # 129890349518	Pool Accounts	N
Murphy Canada Ltd.	Scotiabank, Ontario, Canada	CDN A/C # 12989 0003816 USD A/C # 12989 0350311	Depository Account	N
Murphy Oil Canada	Scotiabank, Ontario, Canada	CDN A/C # 12989 0005010	Depository Account	N
Murphy Oil Company Ltd.	CIBC	CDN A/C # 894-18540	T-Bill Investment Account	N
Murphy Oil Company Ltd.	Scotiabank, Ontario, Canada	USD A/C # 800-50673	Investment Account	N
Murphy Oil Company Ltd.	MUFG Bank, Ltd.	USD A/C #0820001619	Investment Account	N

Account	Financial Institution or Intermediary	Account Number	Account Type	Excluded DDA (Y/N)
Murphy Oil Company Ltd.	Scotiabank, Ontario, Canada	CDN A/C # 78047309-14	Trust Accounts	N
		CDN A/C # 78047311-10		
		CDN A/C # 78047312-19		
		CDN A/C # 78047308-15		
		CDN A/C # 78049077-10		
		IDR A/C # 010-6185.018		
Murphy Exploration & Production Company International	Bank of America, N. A., New York, NY	USD A/C # 4451452041	Depository Account	Y
Murphy Oil Corporation Royalty (ACH/Check)	Bank of America, N. A., New York, NY	USD A/C # 4451688857	Depository Account	N
MP Gulf of Mexico, LLC Royalty (ACH/Check)	Bank of America, N. A., New York, NY	USD A/C # 4451688860	Depository Account	N

EXISTING INDEBTEDNESS

1. SEMI-FPS Lease Agreement, dated as of November 9, 2012 between Sabah Shell Petroleum Company Limited and Gumusut-Kakap Semi-Floating Production System (Labuan Limited) (as amended prior to the date hereof).

EXISTING LIENS

None.

EXISTING INVESTMENTS

None.

EXHIBIT A
FORM OF
ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the “Assignment and Assumption”) is dated as of the Effective Date set forth below and is entered into by and between [Insert name of Assignor] (the “Assignor”) and [Insert name of Assignee] (the “Assignee”). Capitalized terms used but not defined herein shall have the meanings given to them in the Credit Agreement identified below (as amended, supplemented or otherwise modified from time to time, the “Credit Agreement”), receipt of a copy of which is hereby acknowledged by the Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to the Assignee, and the Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below (i) all of the Assignor’s rights and obligations in its capacity as a Lender under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below (including any letters of credit and guarantees included in such facilities) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned pursuant to clauses (i) and (ii) above being referred to herein collectively as the “Assigned Interest”). Such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: _____
2. Assignee: _____
[and is an Affiliate/Approved Fund of [*identify Lender*]]
3. Borrowers: Murphy Oil Corporation, Murphy Exploration & Production Company – International and Murphy Oil Company Ltd.
4. Administrative Agent: JPMorgan Chase Bank, N.A., as the administrative agent under the Credit Agreement

5. Credit Agreement: Credit Agreement dated as of November 17, 2022, among Murphy Oil Corporation, Murphy Exploration & Production Company – International, and Murphy Oil Company Ltd., as Borrowers, the Lenders parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, and the other agents parties thereto

6. Assigned Interest:

Facility Assigned	Aggregate Amount of Commitment / Loans for all Lenders	Amount of Commitment / Loans Assigned	Percentage Assigned of Commitment / Loans ¹⁸
	\$	\$	%
	\$	\$	%
	\$	\$	%

Effective Date: : _____, 20__ [TO BE INSERTED BY ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

The Assignee agrees to deliver to the Administrative Agent a completed Administrative Questionnaire in which the Assignee designates one or more Credit Contacts to whom all syndicate-level information (which may contain material non-public information about the Borrowers and their Related Parties or their respective securities) will be made available and who may receive such information in accordance with the Assignee’s compliance procedures and applicable laws, including Federal and state securities laws.

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR

[NAME OF ASSIGNOR]

By: _____
 Name:
 Title:

ASSIGNEE

¹⁸ Set forth, to at least 9 decimals, as a percentage of the Commitments/Loans of all Lenders thereunder.

[NAME OF ASSIGNEE]

By: _____
Name:
Title:

Consented to and Accepted:

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By: _____
Name:
Title:

[Consented to:]¹⁹

MURPHY OIL CORPORATION,
as Borrower

By: _____
Name:
Title:

MURPHY EXPLORATION & PRODUCTION COMPANY – INTERNATIONAL,
as Borrower

By: _____
Name:
Title:

MURPHY OIL COMPANY LTD.,

¹⁹ To be added only if the consent of the Borrowers and/or other parties (e.g. Issuing Banks) is required by the terms of the Credit Agreement.

as Borrower

By: _____
Name:
Title:

[NAME OF RELEVANT PARTY]

By _____
Title:

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

1.1 Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim, (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and (iv) it is not a Defaulting Lender; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement or any other documents or instruments delivered pursuant thereto, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Credit Agreement or any collateral thereunder, (iii) the financial condition of the Company, any of its Subsidiaries or Affiliates or any other Person obligated in respect of the Credit Agreement or (iv) the performance or observance by the Company, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under the Credit Agreement or any other documents or instruments delivered pursuant thereto.

1.2 Assignee. The Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it is not an Ineligible Institution and it satisfies the requirements, if any, specified in the Credit Agreement that are required to be satisfied by it in order to acquire the Assigned Interest and become a Lender, (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of the Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it is sophisticated with respect to decisions to acquire assets of the type represented by the Assigned Interest and either it, or the Person exercising discretion in making its decision to acquire the Assigned Interest, is experienced in acquiring assets of such type, (v) it has received a copy of the Credit Agreement, together with copies of the most recent financial statements delivered pursuant to Section 5.01 thereof, as applicable, and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase the Assigned Interest on the basis of which it has made such analysis and decision independently and without reliance on the Administrative Agent or any other Lender, and (vi) attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by the Assignee; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, the Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and

other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to the Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Acceptance and adoption of the terms of this Assignment and Assumption by the Assignee and the Assignor by Electronic Signature or delivery of an executed counterpart of a signature page of this Assignment and Assumption by any Electronic System shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of New York.

EXHIBIT A (PAGE 6)

CREDIT AGREEMENT

EXHIBIT B-1
FORM OF OPINION OF DAVIS POLK & WARDWELL LLP

EXHIBIT B-1

CREDIT AGREEMENT

EXHIBIT B-2
FORM OF OPINION OF OSLER, HOSKIN & HARCOURT LLP

EXHIBIT B-2

CREDIT AGREEMENT

[FORM OF]

U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among Murphy Oil Corporation, a Delaware corporation (the “*Company*”), Murphy Exploration & Production Company – International, a Delaware corporation (“*Expro-Intl.*”) and Murphy Oil Company Ltd., a Canadian corporation (“*MOCL*”; the Company, Expro-Intl. and MOCL, collectively, the “*Borrowers*”), JPMorgan Chase Bank, N.A., as administrative agent, and each lender from time to time party thereto.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Company with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Company and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20[]

[FORM OF]

U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among Murphy Oil Corporation, a Delaware corporation (the “*Company*”), Murphy Exploration & Production Company – International, a Delaware corporation (“*Expro-Intl.*”) and Murphy Oil Company Ltd., a Canadian corporation (“*MOCL*”; the Company, Expro-Intl. and MOCL, collectively, the “*Borrowers*”), JPMorgan Chase Bank, N.A., as administrative agent, and each lender from time to time party thereto.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code, and (iv) it is not a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20[]

[FORM OF]

U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among Murphy Oil Corporation, a Delaware corporation (the “*Company*”), Murphy Exploration & Production Company – International, a Delaware corporation (“*Expro-Intl.*”) and Murphy Oil Company Ltd., a Canadian corporation (“*MOCL*”; the Company, Expro-Intl. and MOCL, collectively, the “*Borrowers*”), JPMorgan Chase Bank, N.A., as administrative agent, and each lender from time to time party thereto.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or IRS Form W-8BEN-E or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E from each of such partner’s/member’s beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20[]

[FORM OF]

U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among Murphy Oil Corporation, a Delaware corporation (the “*Company*”), Murphy Exploration & Production Company – International, a Delaware corporation (“*Expro-Intl.*”) and Murphy Oil Company Ltd., a Canadian corporation (“*MOCL*”; the Company, Expro-Intl. and MOCL, collectively, the “*Borrowers*”), JPMorgan Chase Bank, N.A., as administrative agent, and each lender from time to time party thereto.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Company with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or IRS Form W-8BEN-E or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E from each of such partner’s/member’s beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Company and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By:

Name:

Title:

Date: _____, 20[]

EXHIBIT D

[FORM OF]

COMPLIANCE CERTIFICATE

Reference is hereby made to the Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among Murphy Oil Corporation (the “*Company*”), Murphy Exploration & Production Company – International, and Murphy Oil Company Ltd., as borrowers, JPMorgan Chase Bank, N.A., as administrative agent, and each lender from time to time party thereto. This certificate is delivered to you pursuant to Section 5.01(d) of the Credit Agreement.

1. I, [____], a Responsible Officer of the Borrower, have reviewed the financial statements of the Borrower and its Subsidiaries for the [fiscal year][fiscal quarter] ended [____] and such statements fairly present in all material respects the financial condition and results of operations of the Company and its consolidated Subsidiaries on a consolidated basis in accordance with GAAP consistently applied[, subject to normal year-end audit adjustments and the absence of footnotes]²⁰.

2. As of the date hereof, no Default or Event of Default has occurred and is continuing **[or specify Default and describe any actions taken or proposed to be taken with respect thereto]**.

3. (a) The Borrower is in compliance with the financial covenants contained in Section 6.14 of the Credit Agreement as shown on Schedule 1 attached hereto.

(b) Attached hereto as Schedule 2 are consolidating financial statements demonstrating the portion of Consolidated EBITDA attributable to the Excluded MOCL Entities. The Leverage Ratio Ex-MOCL as of the last day of the [fiscal year][fiscal quarter] ended [____] is as shown on Schedule 2 attached hereto, and a MOCL Guarantee Trigger Event [has][has not] occurred.

4. No change in GAAP or in the application thereof has occurred since the date of the audited financial statements referred to in Section 3.04 of the Credit Agreement **[or, if any such change has occurred, specifying the effect of such change on the financial statements accompanying such certificate]**.

5. The identity of each Required Subsidiary Guarantor, Material Subsidiary, Guarantor and Excluded Canam Entity as of the end of such [fiscal quarter][fiscal year] (and calculations with respect thereto) are as set forth on Schedule 3 attached hereto and to the extent necessary pursuant to the definition of “Required Subsidiary Guarantor” and/or “Material Subsidiary”, as applicable, Schedule 3 designates sufficient additional Subsidiaries as Required Subsidiary Guarantors or Material Subsidiaries, respectively, so as to comply with the definition of “Required Subsidiary Guarantor” or “Material Subsidiary”, respectively.

6. The amount of cash dividends declared and paid by Canam to the Loan Parties pursuant to Section 5.18 of the Credit Agreement for such [fiscal quarter][fiscal year], is \$[____], and evidence thereof is attached hereto as Schedule 4.

²⁰ [To be included in compliance certificates for quarterly financials].

EXHIBIT D

[Signature Page Follows]

Executed and delivered this [] day of [].

MURPHY OIL CORPORATION,
a Delaware corporation

By: _____

Name: _____

Title: _____

EXHIBIT D

CREDIT AGREEMENT

EXHIBIT E

FORM OF GUARANTY AGREEMENT

[see attached]

EXHIBIT E-1

CREDIT AGREEMENT

EXHIBIT F

[FORM OF]

SUBORDINATED INTERCOMPANY NOTE

[see attached]

EXHIBIT F

CREDIT AGREEMENT

FIRST AMENDMENT

TO

CREDIT AGREEMENT

dated as of

December 16, 2022

among

**MURPHY OIL CORPORATION,
MURPHY EXPLORATION & PRODUCTION COMPANY – INTERNATIONAL,**

and

**MURPHY OIL COMPANY LTD.,
as Borrowers**

**JPMORGAN CHASE BANK, N.A.,
as Administrative Agent,**

and

THE LENDERS PARTY HERETO

FIRST AMENDMENT TO CREDIT AGREEMENT

THIS FIRST AMENDMENT TO CREDIT AGREEMENT (this “First Amendment”) dated as of December 16, 2022 is among **MURPHY OIL CORPORATION**, a Delaware corporation (the “Company”), **MURPHY EXPLORATION & PRODUCTION COMPANY – INTERNATIONAL**, a Delaware corporation (“Expro-Intl.”), **MURPHY OIL COMPANY LTD.**, a Canadian corporation (“MOCL” and, together with the Company and Expro-Intl., collectively, the “Borrowers”); the undersigned Guarantors; **JPMORGAN CHASE BANK, N.A.**, as administrative agent (in such capacity, together with its successors in such capacity, the “Administrative Agent”) for the lenders party to the Credit Agreement referred to below (collectively, the “Lenders”); and the undersigned Lenders.

RECITALS

A. The Borrowers, the Administrative Agent and the Lenders are parties to that certain Credit Agreement dated as of November 17, 2022 (as amended, supplemented or otherwise modified prior to the date hereof, the “Credit Agreement”), pursuant to which the Lenders have made certain extensions of credit available to the Borrowers.

B. The Borrowers have requested and the undersigned Administrative Agent and Lenders have agreed, subject to the terms and conditions set forth herein, to amend certain provisions of the Credit Agreement as set forth herein.

C. NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Defined Terms. Each capitalized term used herein but not otherwise defined herein has the meaning given such term in the Credit Agreement (as amended hereby). Unless otherwise indicated, all references to Sections and Articles in this First Amendment refer to Sections and Articles of the Credit Agreement.

Section 2. Amendments to Credit Agreement.

2.1 Amendment to Schedule 2.05. Schedule 2.05 is hereby amended and restated in its entirety to read as set forth on Schedule 2.05 to this First Amendment.

Section 3. Conditions Precedent. This First Amendment shall not become effective until the date on which each of the following conditions is satisfied (or waived in accordance with Section 10.02 of the Credit Agreement) (the “First Amendment Effective Date”):

3.1 The Administrative Agent, the Lenders and the Lead Arrangers shall have received all fees and other amounts due and payable to each such Person on or prior to the First Amendment Effective Date, including to the extent invoiced, reimbursement or payment of all out-of-pocket expenses required to be reimbursed or paid by the Borrowers pursuant to the Credit Agreement (including, without limitation, the fees and expenses of Paul Hastings LLP, as special counsel to the Administrative Agent).

3.2 The Administrative Agent shall have received from the Required Lenders and the Obligors, counterparts of this First Amendment signed on behalf of such Persons.

3.3 The Administrative Agent shall have received such other documents as the Administrative Agent or special counsel to the Administrative Agent may reasonably request.

3.4 No Default shall have occurred and be continuing.

The Administrative Agent is hereby authorized and directed to declare the occurrence of the First Amendment Effective Date when it has received documents confirming compliance with the conditions set forth in this Section 3 or the waiver of such conditions as agreed to by the Lenders pursuant to Section 10.02(b) of the Credit Agreement. Such declaration shall be final, conclusive and binding upon all parties to this First Amendment for all purposes. For purposes of determining compliance with the conditions specified in this Section 3, each Lender shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received written notice from such Lender prior to the proposed First Amendment Effective Date specifying its objection thereto.

Section 4. Miscellaneous.

4.1 Confirmation. The provisions of the Credit Agreement, as amended by this First Amendment, shall remain in full force and effect following the effectiveness of this First Amendment.

4.2 Ratification and Affirmation; Representations and Warranties. Each Borrower and each Guarantor (each, an "Obligor") hereby: (a) acknowledges the terms of this First Amendment; (b) acknowledges, ratifies and affirms its obligations and continued liability under, the Credit Agreement and the other Loan Documents to which it is party and agrees that the Credit Agreement remains in full force and effect, except as expressly amended hereby, after giving effect to the amendments and waivers contained herein; (c) agrees that the terms "Agreement", "this Agreement", "herein", "hereinafter", "hereto", "hereof" and words of similar import, as used in the Credit Agreement, shall, unless the context otherwise requires, refer to the Credit Agreement, as amended hereby, and the term "Credit Agreement" as used in the other Loan Documents shall mean the Credit Agreement, as amended hereby; and (d) represents and warrants to the Lenders that as of the date hereof, after giving effect to the terms of this First Amendment: (i) all of the representations and warranties contained in the Credit Agreement are true and correct, unless such representations and warranties are stated to relate to a specific earlier date, in which case, such representations and warranties shall continue to be true and correct as of such earlier date and (ii) no Default has occurred and is continuing.

4.3 Counterparts. This First Amendment may be executed by one or more of the parties hereto in any number of separate counterparts, and all of such counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this First Amendment by telecopy, emailed pdf or any other electronic means that reproduces an image of the actual executed signature page shall be effective as delivery of a manually executed counterpart of this First Amendment.

4.4 NO ORAL AGREEMENT. THIS FIRST AMENDMENT, THE CREDIT AGREEMENT AND THE OTHER LOAN DOCUMENTS EXECUTED IN CONNECTION HERewith AND THEREWITH REPRESENT THE FINAL AGREEMENT AMONG THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR UNWRITTEN ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO ORAL AGREEMENTS BETWEEN THE PARTIES.

4.5 GOVERNING LAW. THIS FIRST AMENDMENT (INCLUDING, BUT NOT LIMITED TO, THE VALIDITY AND ENFORCEABILITY HEREOF) SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF NEW YORK AND EACH BORROWER HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE NONEXCLUSIVE JURISDICTION OF THE SUPREME COURT OF THE STATE OF NEW YORK SITTING IN NEW YORK COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE SOUTHERN DISTRICT OF NEW YORK, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THE CREDIT AGREEMENT OR THIS FIRST AMENDMENT, OR FOR THE RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THE CREDIT AGREEMENT OR THIS FIRST AMENDMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT OR ANY LENDER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THE CREDIT AGREEMENT OR THIS FIRST AMENDMENT AGAINST ANY BORROWER OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

4.6 Successors and Assigns. This First Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

4.7 Loan Document. This First Amendment is a "Loan Document" as defined and described in the Credit Agreement, and all of the terms and provisions of the Credit Agreement relating to Loan Documents shall apply hereto.

4.8 Severability. Any provision of this First Amendment held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

[SIGNATURES BEGIN NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to be duly executed as of the date first written above.

BORROWERS:

MURPHY OIL CORPORATION

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

**MURPHY EXPLORATION & PRODUCTION COMPANY –
INTERNATIONAL**

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

MURPHY OIL COMPANY LTD.

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

GUARANTORS:

MURPHY EXPLORATION & PRODUCTION COMPANY

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

MURPHY EXPLORATION & PRODUCTION COMPANY – USA

By: _____
Name: Leyster Jumawan
Title: Vice President and Treasurer

JPMORGAN CHASE BANK, N.A., as Administrative Agent, an Issuing Bank and
a Lender

By: _____
Name:
Title:

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

BANK OF AMERICA, N.A., as a Lender and an Issuing Bank

By: _____

Name: _____

Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

**BANK OF AMERICA MEXICO, S.A., INSTITUCIÓN DE BANCA
MÚLTIPLE,
as an Issuing Bank**

By: _____

Name: _____

Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

**THE BANK OF NOVA SCOTIA,
HOUSTON BRANCH**, as a Lender and an
Issuing Bank

By: _____
Name: _____
Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

**CAPITAL ONE, NATIONAL ASSOCIATION, as a Lender
and an Issuing Bank**

By: _____

Name: _____

Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

MUFG BANK, LTD., as a Lender and an Issuing Bank

By: _____

Name: _____

Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

SUMITOMO MITSUI BANKING CORPORATION, as a
Lender

By: _____
Name: _____
Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

CADENCE BANK, as a Lender

By: _____
Name: _____
Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

REGIONS BANK, as a Lender

By: _____

Name: _____

Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

STANDARD CHARTERED BANK, as a Lender

By: _____
Name: _____
Title: _____

SIGNATURE PAGE – FIRST AMENDMENT TO CREDIT AGREEMENT

EXISTING LETTERS OF CREDIT

Issuing Bank	Alias	Pricing Option	Facility/Borrower	Current Amount	Original Amount	CCY	Effective Date	Adjusted Expiry
Bank of America, N.A.	BOA SB100613/18	Standby Letter of Credit	R/C COMM/Murphy EXPRO- Intl for Murphy SUR	27,242,985.00	37,181,197.50	USD	04/03/2018	04/03/2023
Bank of America, N.A.	BOA SB100682/22	Standby Letter of Credit	R/C COMM/Murphy EXPRO- Intl for Murphy SUR	26,265,000.00	26,265,000.00	USD	07/21/2022	07/21/2023
Bank of America, N.A.	BOA 68174771	Standby Letter of Credit	R/C COMM/MP GOM of Mexico, LLC	400,000.00	400,000.00	USD	02/10/2021	01/21/2023
Bank of Nova Scotia	OSB69755 HOU	Standby Letter of Credit	R/C COMM/Murphy Oil Corporation	2,575,000.00	2,575,000.00	USD	04/16/2021	04/16/2023
Bank of Nova Scotia	OSB74437 GWS	Standby Letter of Credit	R/C COMM/Murphy Canada Ltd.	1,500,000.00	1,500,000.00	CAD	12/03/2021	12/02/2023

MURPHY OIL CORPORATION
SUBSIDIARIES OF THE REGISTRANT AS OF DECEMBER 31, 2022

Name of Company	State or Other Jurisdiction of Incorporation	Percentage of Voting Securities Owned by Immediate Parent
Murphy Oil Corporation (REGISTRANT)		
A. Arkansas Oil Company	Delaware	100.00
B. Caledonia Land Company	Delaware	100.00
C. El Dorado Engineering Inc.	Delaware	100.00
1. El Dorado Contractors	Delaware	100.00
2. El Dorado Exploracion y Produccion, S. de. R.L. de C.V. (see company F.3.b(1) below)	Mexico	10.00
D. Marine Land Company	Delaware	100.00
E. Murphy Eastern Oil Company	Delaware	100.00
F. Murphy Exploration & Production Company	Delaware	100.00
1. Mentor Holding Corporation	Delaware	100.00
a. Mentor Excess and Surplus Lines Insurance Company	Delaware	100.00
b. MIRC Corporation	Louisiana	100.00
2. Murphy Building Corporation	Delaware	100.00
3. Murphy Exploration & Production Company - International	Delaware	100.00
a. Canam Offshore Limited	Bahamas	100.00
(1) Canam Brunei Oil Ltd.	Bahamas	100.00
(2) Murphy Peninsular Malaysia Oil Co., Ltd.	Bahamas	100.00
(3) Murphy Cuu Long Tay Oil Co., Ltd.	Bahamas	100.00
b. El Dorado Exploration, S.A.	Delaware	100.00
(1) El Dorado Exploracion y Produccion, S. de. R.L. de C.V.	Mexico	90.00
c. Murphy Asia Oil Co., Ltd.	Bahamas	100.00
e. Murphy Brasil Exploracao e Producao de Petroleo e Gas Ltda. (see company I.(1) below)	Brazil	90.00
f. Murphy Cuu Long Bac Oil Co., Ltd.	Bahamas	100.00
g. Murphy Dai Nam Oil Co., Ltd.	Bahamas	100.00
h. Murphy Equatorial Guinea Oil Co., Ltd.	Bahamas	100.00
i. Murphy Exploration (Alaska), Inc.	Delaware	100.00
j. Murphy Luderitz Oil Co., Ltd.	Bahamas	100.00
k. Murphy Nha Trang Oil Co., Ltd.	Bahamas	100.00
l. Murphy Overseas Ventures Inc.	Delaware	100.00
(1) Murphy Brasil Exploracao e Producao de Petroleo e Gas Ltda.	Brazil	10.00
m. Murphy Phuong Nam Oil Co., Ltd.	Bahamas	100.00
n. Murphy Semai IV Ltd.	Bahamas	100.00
o. Murphy South Barito, Ltd.	Bahamas	100.00
p. Murphy-Spain Oil Company	Delaware	100.00
q. Murphy West Africa, Ltd.	Bahamas	100.00
r. Murphy Worldwide, Inc.	Delaware	100.00
s. Murphy Offshore Oil Co. Ltd.	Bahamas	100.00

Name of Company	State or Other Jurisdiction of Incorporation	Percentage of Voting Securities Owned by Immediate Parent
t. Murphy Netherlands Holdings B.V.	Netherlands	100.00
(1) Murphy Sur, S. de R. L. de C.V. (see company t(2)a. below)	Mexico	0.01
(2) Murphy Netherlands Holdings II B.V.	Netherlands	100.00
a. Murphy Sur, S. de R. L. de C.V.	Mexico	99.99
u. Murphy Exploration Holdings, LLC	Delaware	100.00
(1) Murphy Australia Oil Pty. Ltd.	Western Australia	100.00
a. Murphy Australia AC/P 36 Oil Pty. Limited	Western Australia	100.00
(2) Murphy Australia AC/P 57 Oil Pty. Ltd.	Western Australia	100.00
(3) Murphy Australia AC/P 58 Oil Pty. Ltd.	Western Australia	100.00
(4) Murphy Australia AC/P 59 Oil Pty. Ltd.	Western Australia	100.00
(5) Murphy Australia EPP43 Oil Pty. Ltd.	Western Australia	100.00
(6) Murphy Australia WA-481-P Oil Pty. Ltd.	Western Australia	100.00
4. Murphy Exploration & Production Company - USA	Delaware	100.00
a. MP Gulf of Mexico, LLC	Delaware	80.00
G. Murphy Oil Company Ltd.	Canada	100.00
1. Murphy Canada Holding ULC	AULC	100.00
2. Murphy Canada, Ltd.	Canada	100.00
H. New Murphy Oil (UK) Corporation	Delaware	100.00
1. Murphy Petroleum Limited	England	100.00
a. Murco Petroleum Limited	England	100.00

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-256048 and 333-241837) on Form S-8 and in the registration statement (No. 333-260287) on Form S-3 of our reports dated February 27, 2023, with respect to the consolidated financial statements and financial statement Schedule II of Murphy Oil Corporation and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Houston, Texas
February 27, 2023



TBPELS REGISTERED ENGINEERING FIRM F-1580 FAX (713) 651-0849
1100 LOUISIANA SUITE 4600 HOUSTON, TEXAS 77002-5294 TELEPHONE (713) 651-9191

CONSENT OF RYDER SCOTT COMPANY, L.P.

We hereby consent to the incorporation by reference in the Registration Statement (File Nos. 333-256048 and 333-241837) on Form S-8, the Registration Statement (File No. 333-260287) on Form S-3 of Murphy Oil Corporation, and of the reference to our reports regarding certain assets in the United States effective December 31, 2022 and dated January 27, 2023 for Murphy Oil Corporation, which appears in the December 31, 2022 annual report on Form 10-K of Murphy Oil Corporation, including any reference to our firm under the heading "Experts".

/s/ RYDER SCOTT COMPANY, L.P.

RYDER SCOTT COMPANY, L.P.
TBPELS Firm Registration No. F-1580

Houston, Texas
February 22, 2023

SUITE 2800, 350 7TH AVENUE, S.W. CALGARY, ALBERTA T2P 3N9 TEL (403) 262-2799
633 17TH STREET, SUITE 1700 DENVER, COLORADO 80202 TEL (303) 339-8110



Jeffrey Wilson
General Manager - Corporate Reserves
Murphy Oil Corporation
9805 Katy Freeway, Suite G-200
Houston, TX 77024

We hereby consent to the reference of our firm and to the use of our report conducting an audit of the Canadian Oil and Gas Properties for the Kaybob Duvernay, Placid Montney and Greater Tupper Montney Projects located within the Province of British Columbia and Alberta, Canada, and the Hibernia Main and Hibernia Southern Extension projects ("Hibernia") located offshore within the Province of Newfoundland and Labrador, Canada, effective December 31, 2022 and dated January 31, 2023 in the Murphy Oil Corporation Registration Statement Form S-8, No. 333-256048 and Registration Statement Form S-3, No. 333-260287 and in any related prospectus, including any reference to our firm under the heading "Experts" in such prospectus.

McDaniel & Associates Consultants Ltd.

/s/ Jared W. B. Wynveen

Jared W. B. Wynveen, P. Eng.
Executive Vice President

February 27, 2023
APEGA PERMIT NUMBER: P3145

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Roger W. Jenkins, certify that:

1. I have reviewed this annual report on Form 10-K of Murphy Oil 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 registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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 registrant 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 registrant, 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 registrant'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 registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal controls over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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 registrant's internal controls over financial reporting.

Date: February 27, 2023

/s/ Roger W. Jenkins
Roger W. Jenkins
Principal Executive Officer

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas J. Mireles, certify that:

1. I have reviewed this annual report on Form 10-K of Murphy Oil 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 registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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 registrant 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 registrant, 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 registrant'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 registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal controls over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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 registrant's internal controls over financial reporting.

Date: February 27, 2023

/s/ Thomas J. Mireles
Thomas J. Mireles
Principal Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Murphy Oil Corporation (the "Company") on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Roger W. Jenkins and Thomas J. Mireles, Principal Executive Officer and Principal Financial Officer, respectively, of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to our knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 27, 2023

/s/ Roger W. Jenkins

Roger W. Jenkins
Principal Executive Officer

/s/ Thomas J. Mireles

Thomas J. Mireles
Principal Financial Officer

MURPHY OIL CORPORATION

**Estimated
Future Reserves
Attributable to Certain
Leasehold Interests**

**U.S. Onshore
Gulf of Mexico**

SEC Parameters

**As of
December 31, 2022**

/s/ Eric T. Nelson

Eric T. Nelson, P.E.
TBPELS License No. 102286
Managing Senior Vice President

RYDER SCOTT COMPANY, L.P.
TBPELS Firm Registration No. F-1580

[SEAL]



RYDER SCOTT COMPANY
PETROLEUM CONSULTANTS

TBPELS REGISTERED ENGINEERING FIRM F-1580 FAX (713) 651-0849
1100 LOUISIANA STREET SUITE 4600 HOUSTON, TEXAS 77002-5294 TELEPHONE (713) 651-9191

January 27, 2023

Jeffrey Wilson
General Manager - Corporate Reserves
Murphy Oil Corporation
9805 Katy Freeway, Suite G-200
Houston, TX 77024

Dear Mr. Wilson:

At the request of Murphy Oil Corporation (Murphy), Ryder Scott Company, L.P. (Ryder Scott) has conducted a reserves audit of the estimates of the proved reserves as of December 31, 2022 prepared by Murphy's engineering and geological staff based on the definitions and disclosure guidelines of the United States Securities and Exchange Commission (SEC) contained in Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register (SEC regulations). Our reserves audit, completed on January 7, 2022 and presented herein, was prepared for public disclosure by Murphy in filings made with the SEC in accordance with the disclosure requirements set forth in the SEC regulations. For the U.S. Onshore properties, the estimated reserves shown herein represent Murphy's estimated net reserves attributable to the leasehold interests in certain properties owned by Murphy and the portion of those reserves reviewed by Ryder Scott, as of December 31, 2022. For the Gulf of Mexico (GOM) properties, the estimated reserves shown herein exclude the net reserves attributable to Murphy's leasehold interests in the Murphy and Petrobras GOM JV (MPGOM). The net reserves attributable to the MPGOM assets are included in a separate Ryder Scott report dated January 27, 2023. The properties reviewed by Ryder Scott incorporate Murphy's reserves determinations and are located onshore in the state of Texas and Louisiana and in the federal waters offshore Louisiana.

The combined U.S. Onshore and GOM properties reviewed by Ryder Scott account for a portion of Murphy's total net proved reserves as of December 31, 2022. Based on the estimates of total net proved reserves prepared by Murphy, the reserves audit conducted by Ryder Scott in this report addresses 36.8 percent of the total proved net reserves of Murphy on a barrel of oil equivalent, BOE basis as of December 31, 2022.

As prescribed by the Society of Petroleum Engineers in Paragraph 2.2(f) of the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (SPE auditing standards), a reserves audit is defined as "the process of reviewing certain of the pertinent facts interpreted and assumptions made that have resulted in an estimate of reserves and/or Reserves Information prepared by others and the rendering of an opinion about (1) the appropriateness of the methodologies employed; (2) the adequacy and quality of the data relied upon; (3) the depth and thoroughness of the reserves estimation process; (4) the classification of reserves appropriate to the relevant definitions used; and (5) the reasonableness of the estimated reserves quantities and/or Reserves Information." Reserves Information may consist of various estimates pertaining to the extent and value of petroleum properties.

Based on our review, including the data, technical processes and interpretations presented by Murphy, it is our opinion that the overall procedures and methodologies utilized by Murphy in preparing their estimates of the proved reserves as of December 31, 2022 comply with the current SEC regulations and that the overall proved reserves for the reviewed properties as estimated by Murphy are, in the aggregate and within each geographic area, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards.

The estimated reserves presented in this report are related to hydrocarbon prices. Murphy has informed us that in the preparation of their reserves and income projections, as of December 31, 2022, they used average prices during the 12-month period prior to the “as of date” of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements, as required by the SEC regulations. Actual future prices may vary considerably from the prices required by SEC regulations. The reserves volumes and the income attributable thereto have a direct relationship to the hydrocarbon prices actually received; therefore, volumes of reserves actually recovered and amounts of income actually received may differ significantly from the estimated quantities presented in this report. The net reserves as estimated by Murphy attributable to Murphy's interest and entitlement in properties that we reviewed are summarized by geographic area as follows.

SEC PARAMETERS
 Estimated Net Reserves
 Certain Leasehold Interests
Murphy Oil Corporation

As of December 31, 2022

	Proved			Total Proved
	Developed		Undeveloped	
	Producing	Non-Producing		
<u>Audited by Ryder Scott</u>				
U.S. Onshore				
<u>Net Reserves</u>				
Oil/Condensate – MBBL	75,124	1,429	35,471	112,024
Plant Products – MBBL	18,870	301	7,665	26,836
Gas – MMCF	154,921	1,586	53,489	209,996
MBOE	119,814	1,994	52,051	173,859
Gulf of Mexico (GOM)				
<u>Net Reserves</u>				
Oil/Condensate – MBBL	43,663	3,716	18,610	65,989
Plant Products – MBBL	4,903	693	1,881	7,477
Gas – MMCF	67,983	6,666	19,649	94,298
MBOE	59,897	5,519	23,766	89,182

Liquid hydrocarbons are expressed in standard 42 U.S. gallon barrels and shown herein as thousands of barrels (MBBL). All gas volumes are reported on an “as sold basis” expressed in millions of cubic feet (MMCF) at the official temperature and pressure bases of the areas in which the gas reserves are located. Certain gas volumes that are consumed as fuel in operations are also included

as net gas reserves; these volumes represent 68,205 MMcf, or 6.5 percent of the total U.S. Onshore net MBOE and 2,566 MMcf, or 0.5 percent of the total GOM net MBOE. The net reserves are also shown herein on an equivalent unit basis wherein natural gas is converted to oil equivalent using a factor of 6,000 cubic feet of natural gas per one barrel of oil equivalent. MBOE means thousand barrels of oil equivalent.

Reserves Included in This Report

In our opinion, the proved reserves presented in this report conform to the definition as set forth in the Securities and Exchange Commission's Regulations Part 210.4-10(a). An abridged version of the SEC reserves definitions from 210.4-10(a) entitled "PETROLEUM RESERVES DEFINITIONS" is included as an attachment to this report.

The various proved reserves status categories are defined in the attachment entitled "PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES" in this report. The proved developed non-producing reserves included herein consist of the shut-in and behind pipe status categories.

Reserves are "estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations." All reserves estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends primarily on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal categories, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-categorized as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. At Murphy's request, this report addresses only the proved reserves attributable to the properties reviewed herein.

Proved oil and gas reserves are "those quantities of oil and gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward." The proved reserves included herein were estimated using deterministic methods. The SEC has defined reasonable certainty for proved reserves, when based on deterministic methods, as a "high degree of confidence that the quantities will be recovered."

Proved reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change. For proved reserves, the SEC states that "as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to the estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease." Moreover, estimates of proved reserves may be revised as a result of future operations, effects of regulation by governmental agencies or geopolitical or economic risks. Therefore, the proved reserves included in this report are estimates only and should not be construed as being exact quantities. They may or may not be actually recovered.

Audit Data, Methodology, Procedure and Assumptions

The estimation of reserves involves two distinct determinations. The first determination results in the estimation of the quantities of recoverable oil and gas and the second determination results in the estimation of the uncertainty associated with those estimated quantities in accordance with the definitions set forth by the Securities and Exchange Commission's Regulations Part 210.4-10(a). The process of estimating the quantities of recoverable oil and gas reserves relies on the use of certain generally accepted analytical procedures. These analytical procedures fall into three broad categories or methods: (1) performance-based methods; (2) volumetric-based methods; and (3) analogy. These methods may be used individually or in combination by the reserves evaluator in the process of estimating the quantities of reserves. Reserves evaluators must select the method or combination of methods which in their professional judgment is most appropriate given the nature and amount of reliable geoscience and engineering data available at the time of the estimate, the established or anticipated performance characteristics of the reservoir being evaluated and the stage of development or producing maturity of the property.

In many cases, the analysis of the available geoscience and engineering data and the subsequent interpretation of this data may indicate a range of possible outcomes in an estimate, irrespective of the method selected by the evaluator. When a range in the quantity of reserves is identified, the evaluator must determine the uncertainty associated with the incremental quantities of the reserves. If the reserves quantities are estimated using the deterministic incremental approach, the uncertainty for each discrete incremental quantity of the reserves is addressed by the reserves category assigned by the evaluator. Therefore, it is the categorization of reserves quantities as proved, probable and/or possible that addresses the inherent uncertainty in the estimated quantities reported. For proved reserves, uncertainty is defined by the SEC as reasonable certainty wherein the "quantities actually recovered are much more likely to be achieved than not." The SEC states that "probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered." The SEC states that "possible reserves are those additional reserves that are less certain to be recovered than probable reserves and the total quantities ultimately recovered from a project have a low probability of exceeding proved plus probable plus possible reserves." All quantities of reserves within the same reserves category must meet the SEC definitions as noted above.

Estimates of reserves quantities and their associated reserves categories may be revised in the future as additional geoscience or engineering data become available. Furthermore, estimates of reserves quantities and their associated reserves categories may also be revised due to other factors such as changes in economic conditions, results of future operations, effects of regulation by governmental agencies or geopolitical or economic risks as previously noted herein.

The reserves prepared by Murphy for the properties that we reviewed were estimated by performance methods, the volumetric method, analogy, or a combination of methods. The proved producing reserves attributable to producing wells and/or reservoirs that we reviewed were primarily estimated by performance methods or a combination of methods. These performance methods include, but may not be limited to, decline curve analysis, material balance and/or reservoir simulation which utilized extrapolations of historical production and pressure data available through November 2022, in those cases where such data were considered to be definitive. The data utilized in this analysis were furnished to Ryder Scott by Murphy or obtained from public data sources and were considered sufficient for the purpose thereof. Certain proved producing reserves that we reviewed were estimated by the volumetric method, analogy, or a combination of methods. These methods were used where there were inadequate historical performance data to establish a definitive trend and where the use of production performance data as a basis for the reserves estimates was considered to be inappropriate.

Most of the proved developed non-producing and undeveloped reserves that we reviewed were estimated by performance methods, analogy, or a combination of methods. Certain proved non-developed and undeveloped reserves that we reviewed were estimated by the volumetric method or a combination of methods. The volumetric analysis utilized pertinent well and seismic data furnished to Ryder Scott by Murphy for our review or which we have obtained from public data sources that were available through November 2022. The data utilized from the analogues in conjunction with well and seismic data incorporated into the volumetric analysis were considered sufficient for the purpose thereof.

To estimate economically producible proved oil and gas reserves, many factors and assumptions are considered including, but not limited to, the use of reservoir parameters derived from geological, geophysical and engineering data which cannot be measured directly, economic criteria based on current costs and SEC pricing requirements, and forecasts of future production rates. Under the SEC regulations 210.4-10(a)(22)(v) and (26), proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. While it may reasonably be anticipated that the future prices received for the sale of production and the operating costs and other costs relating to such production may increase or decrease from those under existing economic conditions, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in conducting this review.

As stated previously, proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. To confirm that the proved reserves reviewed by us meet the SEC requirements to be economically producible, we have reviewed certain primary economic data utilized by Murphy relating to hydrocarbon prices and costs as noted herein.

The hydrocarbon prices furnished by Murphy for the properties reviewed by us are based on SEC price parameters using the average prices during the 12-month period prior to the “as of date” of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements. For hydrocarbon products sold under contract, the contract prices, including fixed and determinable escalations exclusive of inflation adjustments, were used until expiration of the contract. Upon contract expiration, the prices were adjusted to the 12-month unweighted arithmetic average as previously described.

The initial SEC hydrocarbon benchmark prices in effect on December 31, 2022 for the properties reviewed by us were determined using the 12-month average first-day-of-the-month benchmark prices appropriate to the geographic area where the hydrocarbons are sold. These benchmark prices are prior to the adjustments for differentials as described herein. The table below summarizes the “benchmark prices” and “price reference” used by Murphy for the geographic areas reviewed by us. In certain geographic areas, the price reference and benchmark prices may be defined by contractual arrangements.

The product prices that were actually used by Murphy to determine the future gross revenue for each property reviewed by us reflect adjustments to the benchmark prices for gravity, quality, local conditions, gathering and transportation fees and/or distance from market, referred to herein as “differentials.” The differentials used by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose.

The table below summarizes Murphy’s net volume weighted benchmark prices adjusted for differentials for the properties reviewed by us and referred to herein as Murphy’s “average realized prices.” The average realized prices shown in the table below were determined from Murphy’s estimate

of the total future gross revenue before production taxes for the properties reviewed by us and Murphy's estimate of the total net reserves for the properties reviewed by us for the geographic areas. At Murphy's request, also provided is the average realized gas price excluding fuel gas. The data shown in the table below is presented in accordance with SEC disclosure requirements for each of the geographic areas reviewed by us.

Geographic Area	Product	Price Reference	Average Benchmark Prices	Average Realized Prices	Average Realized Prices*
North America					
United States-Offshore	Oil/Condensate	WTI Cushing	\$93.67/Bbl	\$93.07/BBL	\$93.07/BBL
	NGLs	WTI Cushing	\$93.67/Bbl	\$30.40/BBL	\$30.40/BBL
	Gas	Henry Hub	\$6.36/MMBTU	\$6.34MCF	\$6.52/MCF
United States-Onshore	Oil/Condensate	WTI Cushing	\$93.67/Bbl	\$92.82/BBL	\$92.82/BBL
	NGLs	WTI Cushing	\$93.67/Bbl	\$35.17/BBL	\$35.17/BBL
	Gas	Henry Hub	\$6.36/MMBTU	\$3.81/MCF	\$5.64/MCF

*Realized prices excluding fuel gas volumes, as previously noted.

The effects of derivative instruments designated as price hedges of oil and gas quantities are not reflected in Murphy's individual property evaluations.

Accumulated gas production imbalances, if any, were not taken into account in the proved gas reserves estimates reviewed.

Operating costs furnished by Murphy are based on the operating expense reports of Murphy and include only those costs directly applicable to the leases or wells for the properties reviewed by us. The operating costs include a portion of general and administrative costs allocated directly to the leases and wells. For operated properties, the operating costs include an appropriate level of corporate general administrative and overhead costs. The operating costs for non-operated properties include the COPAS overhead costs that are allocated directly to the leases and wells under terms of operating agreements. The operating costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose; information provided included historic operating expenses, pay out balances, and royalty relief information. No deduction was made for loan repayments, interest expenses, or exploration and development prepayments that were not charged directly to the leases or wells.

Development costs furnished by Murphy are based on authorizations for expenditure for the proposed work or actual costs for similar projects. The development costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose. The estimated net cost of abandonment after salvage was included by Murphy for properties where abandonment costs net of salvage were material. The abandonment costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose.

The proved developed non-producing and undeveloped reserves for the properties reviewed by us have been incorporated herein in accordance with Murphy's plans to develop these reserves as of December 31, 2022. The implementation of Murphy's development plans as presented to us is subject to the approval process adopted by Murphy's management. As the result of our inquiries during the course of our review, Murphy has informed us that the development activities for the properties

reviewed by us have been subjected to and received the internal approvals required by Murphy's management at the appropriate local, regional and/or corporate level. In addition to the internal approvals as noted, certain development activities may still be subject to specific partner AFE processes, Joint Operating Agreement (JOA) requirements or other administrative approvals external to Murphy. Murphy has provided written documentation supporting their commitment to proceed with the development activities as presented to us. Additionally, Murphy has informed us that they are not aware of any legal, regulatory, or political obstacles that would significantly alter their plans. While these plans could change from those under existing economic conditions as of December 31, 2022, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in making this evaluation.

Current costs used by Murphy were held constant throughout the life of the properties.

Murphy's forecasts of future production rates are based on historical performance from wells currently on production. If no production decline trend has been established, future production rates were held constant, or adjusted for the effects of curtailment where appropriate, until a decline in ability to produce was anticipated. An estimated rate of decline was then applied until depletion of the reserves. If a decline trend has been established, this trend was used as the basis for estimating future production rates.

Test data and other related information were used by Murphy to estimate the anticipated initial production rates for those wells or locations that are not currently producing. For reserves not yet on production, sales were estimated to commence at an anticipated date furnished by Murphy. Wells or locations that are not currently producing may start producing earlier or later than anticipated in Murphy's estimates due to unforeseen factors causing a change in the timing to initiate production. Such factors may include delays due to weather, the availability of rigs, the sequence of drilling, completing and/or recompleting wells and/or constraints set by regulatory bodies.

The future production rates from wells currently on production or wells or locations that are not currently producing may be more or less than estimated because of changes including, but not limited to, reservoir performance, operating conditions related to surface facilities, compression and artificial lift, pipeline capacity and/or operating conditions, producing market demand and/or allowables or other constraints set by regulatory bodies.

Murphy's operations may be subject to various levels of governmental controls and regulations. These controls and regulations may include, but may not be limited to, matters relating to land tenure and leasing, the legal rights to produce hydrocarbons including the granting, drilling and production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax, and foreign trade and investment and are subject to change from time to time. Such changes in governmental regulations and policies may cause volumes of proved reserves actually recovered and amounts of proved income actually received to differ significantly from the estimated quantities.

The estimates of proved reserves presented herein were based upon a review of the properties in which Murphy owns an interest; however, we have not made any field examination of the properties. No consideration was given in this report to potential environmental liabilities that may exist nor were any costs included by Murphy for potential liabilities to restore and clean up damages, if any, caused by past operating practices.

Certain technical personnel of Murphy are responsible for the preparation of reserves estimates on new properties and for the preparation of revised estimates, when necessary, on old properties. These personnel assembled the necessary data and maintained the data and workpapers in an orderly

manner. We consulted with these technical personnel and had access to their workpapers and supporting data in the course of our audit.

Murphy has informed us that they have furnished us all of the material accounts, records, geological and engineering data, and reports and other data required for this investigation. In performing our audit of Murphy's forecast of future proved production, we have relied upon data furnished by Murphy with respect to property interests owned, production and well tests from examined wells, normal direct costs of operating the wells or leases, other costs such as transportation and/or processing fees, ad valorem and production taxes, recompletion and development costs, development plans, abandonment costs after salvage, product prices based on the SEC regulations, adjustments or differentials to product prices, geological structural and isochore maps, well logs, core analyses, and pressure measurements. The data furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose. We consider the factual data furnished to us by Murphy to be appropriate and sufficient for the purpose of our review of Murphy's estimates of reserves. In summary, we consider the assumptions, data, methods and analytical procedures used by Murphy and as reviewed by us appropriate for the purpose hereof, and we have used all such methods and procedures that we consider necessary and appropriate under the circumstances to render the conclusions set forth herein.

Audit Opinion

Based on our review, including the data, technical processes and interpretations presented by Murphy, it is our opinion that the overall procedures and methodologies utilized by Murphy in preparing their estimates of the proved reserves as of December 31, 2022 comply with the current SEC regulations and that the overall proved reserves for the reviewed properties as estimated by Murphy are, in the aggregate, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards. Ryder Scott found the processes and controls used by Murphy in their estimation of proved reserves to be effective and, in the aggregate, we found no bias in the utilization and analysis of data in estimates for these properties.

We were in reasonable agreement with Murphy's estimates of proved reserves for the properties which we reviewed; although in certain cases there was more than an acceptable variance between Murphy's estimates and our estimates due to a difference in interpretation of data or due to our having access to data which were not available to Murphy when its reserves estimates were prepared. However notwithstanding, it is our opinion that on an aggregate basis the data presented herein for the properties that we reviewed fairly reflects the estimated net reserves owned by Murphy.

Standards of Independence and Professional Qualification

Ryder Scott is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1937. Ryder Scott is employee-owned and maintains offices in Houston, Texas; Denver, Colorado; and Calgary, Alberta, Canada. We have approximately eighty engineers and geoscientists on our permanent staff. By virtue of the size of our firm and the large number of clients for which we provide services, no single client or job represents a material portion of our annual revenue. We do not serve as officers or directors of any privately-owned or publicly-traded oil and gas company and are separate and independent from the operating and investment decision-making process of our clients. This allows us to bring the highest level of independence and objectivity to each engagement for our services.

Ryder Scott actively participates in industry-related professional societies and organizes an annual public forum focused on the subject of reserves evaluations and SEC regulations. Many of our staff have authored or co-authored technical papers on the subject of reserves related topics. We encourage our staff to maintain and enhance their professional skills by actively participating in ongoing continuing education.

Prior to becoming an officer of the Company, Ryder Scott requires that staff engineers and geoscientists receive professional accreditation in the form of a registered or certified professional engineer's license or a registered or certified professional geoscientist's license, or the equivalent thereof, from an appropriate governmental authority or a recognized self-regulating professional organization. Regulating agencies require that, in order to maintain active status, a certain amount of continuing education hours be completed annually, including an hour of ethics training. Ryder Scott fully supports this technical and ethics training with our internal requirement mentioned above.

We are independent petroleum engineers with respect to Murphy. Neither we nor any of our employees have any financial interest in the subject properties, and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The results of this audit, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott. The professional qualifications of the undersigned, the technical person primarily responsible for overseeing the review of the reserves information discussed in this report, are included as an attachment to this letter.

Terms of Usage

The results of our third party audit, presented in report form herein, were prepared in accordance with the disclosure requirements set forth in the SEC regulations and intended for public disclosure as an exhibit in filings made with the SEC by Murphy.

Murphy Oil Corporation makes periodic filings on Form 10-K with the SEC under the 1934 Exchange Act. Furthermore, Murphy Oil Corporation has certain registration statements filed with the SEC under the 1933 Securities Act into which any subsequently filed Form 10-K is incorporated by reference. We have consented to the incorporation by reference in the registration statements on Form S-3 (File No. 333-260287) and Form S-8 (File Nos. 333-256048 and 333-241837) of Murphy Oil Corporation of the references to our name, as well as to the references to our report for Murphy Oil Corporation, which appears in the December 31, 2022 annual report on Form 10-K of Murphy Oil Corporation. Our written consent for such use is included as a separate exhibit to the filings made with the SEC by Murphy Oil Corporation.

We have provided Murphy with a digital version of the original signed copy of this report letter. In the event there are any differences between the digital version included in filings made by Murphy and the original signed report letter, the original signed report letter shall control and supersede the digital version.

The data and work papers used in the preparation of this report are available for examination by authorized parties in our offices. Please contact us if we can be of further service.

Very truly yours,

RYDER SCOTT COMPANY, L.P.
TBPELS Firm Registration No. F-1580

/s/ Eric T. Nelson

Eric T. Nelson, P.E.
TBPELS License No. 102286
Managing Senior Vice President

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RYDER SCOTT COMPANY PETROLEUM CONSULTANTS

Professional Qualifications of Primary Technical Person

The conclusions presented in this report are the result of technical analysis conducted by teams of geoscientists and engineers from Ryder Scott Company, L.P. Mr. Eric T. Nelson is the primary technical person responsible for the estimate of the reserves, future production and income.

Mr. Nelson, an employee of Ryder Scott Company, L.P. (Ryder Scott) since 2005, is a Managing Senior Vice President and a member of the Board of Directors. He is responsible for ongoing reservoir evaluation studies worldwide. Before joining Ryder Scott, Mr. Nelson served in a number of engineering positions with Exxon Mobil Corporation. For more information regarding Mr. Nelson's geographic and job specific experience, please refer to the Ryder Scott Company website at www.ryderscott.com/Company/Employees.

Mr. Nelson earned a Bachelor of Science degree in Chemical Engineering from the University of Tulsa in 2002 (summa cum laude) and a Master of Business Administration from the University of Texas in 2007 (Dean's Award). He is a licensed Professional Engineer in the State of Texas. Mr. Nelson is also a member of the Society of Petroleum Engineers.

In addition to gaining experience and competency through prior work experience, the Texas Board of Professional Engineers requires a minimum of 15 hours of continuing education annually, including at least one hour in the area of professional ethics, which Mr. Nelson fulfills. As part of his 2022 continuing education hours, Mr. Nelson attended over 20 hours of training during 2022 covering such topics as updates concerning the implementation of the latest SEC oil and gas reporting requirements, evaluations of resource play reserves, evaluation of simulation models, procedures and software, and ethics training.

Based on his educational background, professional training and more than 17 years of practical experience in the estimation and evaluation of petroleum reserves, Mr. Nelson has attained the professional qualifications as a Reserves Estimator set forth in Article III of the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information" promulgated by the Society of Petroleum Engineers as of June 2019.

PETROLEUM RESERVES DEFINITIONS

As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

PREAMBLE

On January 14, 2009, the United States Securities and Exchange Commission (SEC) published the "Modernization of Oil and Gas Reporting; Final Rule" in the Federal Register of National Archives and Records Administration (NARA). The "Modernization of Oil and Gas Reporting; Final Rule" includes revisions and additions to the definition section in Rule 4-10 of Regulation S-X, revisions and additions to the oil and gas reporting requirements in Regulation S-K, and amends and codifies Industry Guide 2 in Regulation S-K. The "Modernization of Oil and Gas Reporting; Final Rule", including all references to Regulation S-X and Regulation S-K, shall be referred to herein collectively as the "SEC regulations". The SEC regulations take effect for all filings made with the United States Securities and Exchange Commission as of December 31, 2009, or after January 1, 2010. Reference should be made to the full text under Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) for the complete definitions (direct passages excerpted in part or wholly from the aforementioned SEC document are denoted in italics herein).

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. All reserve estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. Under the SEC regulations as of December 31, 2009, or after January 1, 2010, a company may optionally disclose estimated quantities of probable or possible oil and gas reserves in documents publicly filed with the SEC. The SEC regulations continue to prohibit disclosure of estimates of oil and gas resources other than reserves and any estimated values of such resources in any document publicly filed with the SEC unless such information is required to be disclosed in the document by foreign or state law as noted in §229.1202 Instruction to Item 1202.

Reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, natural gas cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

Reserves may be attributed to either conventional or unconventional petroleum accumulations. Petroleum accumulations are considered as either conventional or unconventional based on the nature of their in-place characteristics, extraction method applied, or degree of processing prior to sale.

Examples of unconventional petroleum accumulations include coalbed or coalseam methane (CBM/CSM), basin-centered gas, shale gas, gas hydrates, natural bitumen and oil shale deposits. These unconventional accumulations may require specialized extraction technology and/or significant processing prior to sale.

Reserves do not include quantities of petroleum being held in inventory.

Because of the differences in uncertainty, caution should be exercised when aggregating quantities of petroleum from different reserves categories.

RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(26) defines reserves as follows:

Reserves. *Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.*

Note to paragraph (a)(26): Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

PROVED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(22) defines proved oil and gas reserves as follows:

Proved oil and gas reserves. *Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.*

(i) *The area of the reservoir considered as proved includes:*

(A) *The area identified by drilling and limited by fluid contacts, if any, and*

(B) *Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.*

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and

(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES

As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

and

2018 PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)
Sponsored and Approved by:
SOCIETY OF PETROLEUM ENGINEERS (SPE)
WORLD PETROLEUM COUNCIL (WPC)
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)
SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)
SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)
SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS (SPWLA)
EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS (EAGE)

Reserves status categories define the development and producing status of wells and reservoirs. Reference should be made to Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) and the SPE-PRMS as the following reserves status definitions are based on excerpts from the original documents (direct passages excerpted from the aforementioned SEC and SPE-PRMS documents are denoted in italics herein).

DEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(6) defines developed oil and gas reserves as follows:

Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Developed Producing (SPE-PRMS Definitions)

While not a requirement for disclosure under the SEC regulations, developed oil and gas reserves may be further sub-classified according to the guidance contained in the SPE-PRMS as Producing or Non-Producing.

Developed Producing Reserves

Developed Producing Reserves are expected quantities to be recovered from completion intervals that are open and producing at the effective date of the estimate.

Improved recovery reserves are considered producing only after the improved recovery project is in operation.

Developed Non-Producing

Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.

Shut-In

Shut-in Reserves are expected to be recovered from:

- (1) completion intervals that are open at the time of the estimate but which have not yet started producing;*
- (2) wells which were shut-in for market conditions or pipeline connections; or*
- (3) wells not capable of production for mechanical reasons.*

Behind-Pipe

Behind-pipe Reserves are expected to be recovered from zones in existing wells that will require additional completion work or future re-completion before start of production with minor cost to access these reserves.

In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.

UNDEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(31) defines undeveloped oil and gas reserves as follows:

Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in paragraph (a)(2) of this section, or by other evidence using reliable technology establishing reasonable certainty.

MURPHY OIL CORPORATION

**Estimated
Future Reserves
Attributable to the 100%
Leasehold Interests of the
Murphy Petrobras GOM JV**

SEC Parameters

**As of
December 31, 2022**

/s/ Eric T. Nelson
Eric T. Nelson, P.E.
TBPELS License No. 102286
Managing Senior Vice President

RYDER SCOTT COMPANY, L.P.
TBPELS Firm Registration No. F-1580

[SEAL]



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January 27, 2023

Jeffrey Wilson
General Manager - Corporate Reserves
Murphy Oil Corporation
9805 Katy Freeway, Suite G-200
Houston, TX 77024

Dear Mr. Wilson:

At the request of Murphy Oil Corporation (Murphy), Ryder Scott Company, L.P. (Ryder Scott) has conducted a reserves audit of the estimates of the proved reserves as of December 31, 2022 prepared by Murphy's engineering and geological staff based on the definitions and disclosure guidelines of the United States Securities and Exchange Commission (SEC) contained in Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register (SEC regulations). Our reserves audit, completed on January 13, 2023 and presented herein, was prepared for public disclosure by Murphy in filings made with the SEC in accordance with the disclosure requirements set forth in the SEC regulations. For the Gulf of Mexico properties, the estimated reserves shown herein represent the Murphy and Petrobras GOM JV (MPGOM) estimated net reserves attributable to Murphy's leasehold interests in certain properties owned by MPGOM. Murphy's net reserves attributable to Murphy's interests in non-MPGOM Gulf of Mexico and onshore U.S. properties are included in a separate report dated January 27, 2023. The properties reviewed by Ryder Scott incorporate Murphy's reserves determinations and are located in federal waters offshore Louisiana and Alabama.

The properties reviewed by Ryder Scott account for a portion of Murphy's total net proved reserves as of December 31, 2022. Based on the estimates of total net proved reserves prepared by Murphy, the reserves audit conducted by Ryder Scott in this report addresses 13.1 percent of the total proved net reserves of Murphy on a barrel of oil equivalent, BOE basis as of December 31, 2022. At your request, this report also presents the net reserves attributable to the 100% interests of the MPGOM, which includes the non-controlling interest of Petrobras.

As prescribed by the Society of Petroleum Engineers in Paragraph 2.2(f) of the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (SPE auditing standards), a reserves audit is defined as "the process of reviewing certain of the pertinent facts interpreted and assumptions made that have resulted in an estimate of reserves and/or Reserves Information prepared by others and the rendering of an opinion about (1) the appropriateness of the methodologies employed; (2) the adequacy and quality of the data relied upon; (3) the depth and thoroughness of the reserves estimation process; (4) the classification of reserves appropriate to the relevant definitions used; and (5) the reasonableness of the estimated reserves quantities and/or Reserves Information." Reserves Information may consist of various estimates pertaining to the extent and value of petroleum properties.

Based on our review, including the data, technical processes and interpretations presented by Murphy, it is our opinion that the overall procedures and methodologies utilized by Murphy in preparing their estimates of the proved reserves as of December 31, 2022 comply with the current SEC regulations

and that the overall proved reserves for the reviewed properties as estimated by Murphy are reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards.

The estimated reserves presented in this report are related to hydrocarbon prices. Murphy has informed us that in the preparation of their reserves and income projections, as of December 31, 2022, they used average prices during the 12-month period prior to the "as of date" of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements, as required by the SEC regulations. Actual future prices may vary considerably from the prices required by SEC regulations. The reserves volumes and the income attributable thereto have a direct relationship to the hydrocarbon prices actually received; therefore, volumes of reserves actually recovered and amounts of income actually received may differ significantly from the estimated quantities presented in this report. The net reserves as estimated by Murphy attributable to Murphy's interest and entitlement in properties that we reviewed are summarized as follows. The net reserves below represent 100 percent of the Murphy and Petrobras GOM JV (MPGOM) and include the non-controlling interest (NCI) of Petrobras:

SEC PARAMETERS
 Estimated Net Reserves
 Attributable to the 100 Percent Leasehold Interests of the
Murphy Petrobras GOM JV (MPGOM)
 As of December 31, 2022

	Proved			Total Proved
	Developed		Undeveloped	
	Producing	Non-Producing		
<i>Net Reserves to MPGOM</i>				
Oil/Condensate – MBarrels	66,492	3,970	15,096	85,558
Plant Products – MBarrels	2,519	147	646	3,312
Gas – MMcf	19,694	3,180	7,705	30,579
MBOE	72,293	4,647	17,026	93,966

Estimated Net Reserves
 Attributable to Murphy's Leasehold Interests in the
Murphy Petrobras GOM JV (MPGOM)
 As of December 31, 2022

	Proved			Total Proved
	Developed		Undeveloped	
	Producing	Non-Producing		
<i>Net Reserves to MPGOM</i>				
Oil/Condensate – MBarrels	53,536	3,199	12,262	68,997
Plant Products – MBarrels	2,039	119	527	2,685
Gas – MMcf	16,035	2,638	6,302	24,975
MBOE	58,248	3,757	13,839	75,844

Liquid hydrocarbons are expressed in standard 42 U.S. gallon barrels and shown herein as thousands of barrels (MBarrels). All gas volumes are reported on an "as sold basis" expressed in millions of cubic feet (MMcf) at the official temperature and pressure bases of the area in which the gas reserves

are located. Certain gas volumes that are consumed as fuel in operations are also included as net gas reserves; these volumes represent 4,160 MMcf at Murphy's Leasehold Interests of MPGOM, or 0.7 percent of the total MPGOM net MBOE. The net reserves are also shown herein on an equivalent unit basis wherein natural gas is converted to oil equivalent using a factor of 6,000 cubic feet of natural gas per one barrel of oil equivalent. MBOE means thousand barrels of oil equivalent.

Reserves Included in This Report

In our opinion, the proved reserves presented in this report conform to the definition as set forth in the Securities and Exchange Commission's Regulations Part 210.4-10(a). An abridged version of the SEC reserves definitions from 210.4-10(a) entitled "PETROLEUM RESERVES DEFINITIONS" is included as an attachment to this report.

The various proved reserves status categories are defined in the attachment entitled "PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES" in this report. The proved developed non-producing reserves included herein consist of the behind pipe status category.

Reserves are "estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations." All reserves estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends primarily on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal categories, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-categorized as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. At Murphy's request, this report addresses only the proved reserves attributable to the properties reviewed herein.

Proved oil and gas reserves are "those quantities of oil and gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward." The proved reserves included herein were estimated using deterministic methods. The SEC has defined reasonable certainty for proved reserves, when based on deterministic methods, as a "high degree of confidence that the quantities will be recovered."

Proved reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change. For proved reserves, the SEC states that "as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to the estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease." Moreover, estimates of proved reserves may be revised as a result of future operations, effects of regulation by governmental agencies or geopolitical or economic risks. Therefore, the proved reserves included in this report are estimates only and should not be construed as being exact quantities. They may or may not be actually recovered.

Audit Data, Methodology, Procedure and Assumptions

The estimation of reserves involves two distinct determinations. The first determination results in the estimation of the quantities of recoverable oil and gas and the second determination results in the

estimation of the uncertainty associated with those estimated quantities in accordance with the definitions set forth by the Securities and Exchange Commission's Regulations Part 210.4-10(a). The process of estimating the quantities of recoverable oil and gas reserves relies on the use of certain generally accepted analytical procedures. These analytical procedures fall into three broad categories or methods: (1) performance-based methods; (2) volumetric-based methods; and (3) analogy. These methods may be used individually or in combination by the reserves evaluator in the process of estimating the quantities of reserves. Reserves evaluators must select the method or combination of methods which in their professional judgment is most appropriate given the nature and amount of reliable geoscience and engineering data available at the time of the estimate, the established or anticipated performance characteristics of the reservoir being evaluated and the stage of development or producing maturity of the property.

In many cases, the analysis of the available geoscience and engineering data and the subsequent interpretation of this data may indicate a range of possible outcomes in an estimate, irrespective of the method selected by the evaluator. When a range in the quantity of reserves is identified, the evaluator must determine the uncertainty associated with the incremental quantities of the reserves. If the reserves quantities are estimated using the deterministic incremental approach, the uncertainty for each discrete incremental quantity of the reserves is addressed by the reserves category assigned by the evaluator. Therefore, it is the categorization of reserves quantities as proved, probable and/or possible that addresses the inherent uncertainty in the estimated quantities reported. For proved reserves, uncertainty is defined by the SEC as reasonable certainty wherein the "quantities actually recovered are much more likely to be achieved than not." The SEC states that "probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered." The SEC states that "possible reserves are those additional reserves that are less certain to be recovered than probable reserves and the total quantities ultimately recovered from a project have a low probability of exceeding proved plus probable plus possible reserves." All quantities of reserves within the same reserves category must meet the SEC definitions as noted above.

Estimates of reserves quantities and their associated reserves categories may be revised in the future as additional geoscience or engineering data become available. Furthermore, estimates of reserves quantities and their associated reserves categories may also be revised due to other factors such as changes in economic conditions, results of future operations, effects of regulation by governmental agencies or geopolitical or economic risks as previously noted herein.

The reserves, prepared by Murphy, for the properties that we reviewed were estimated by performance methods or the volumetric method. The proved producing reserves attributable to producing wells and/or reservoirs that we reviewed were primarily estimated by performance methods. These performance methods include, but may not be limited to, decline curve analysis, material balance and/or reservoir simulation which utilized extrapolations of historical production and pressure data available through November 2022, in those cases where such data were considered to be definitive. The data utilized in this analysis were furnished to Ryder Scott by Murphy or obtained from public data sources and were considered sufficient for the purpose thereof. Certain proved producing reserves that we reviewed were estimated by the volumetric method. This method was used where there were inadequate historical performance data to establish a definitive trend and where the use of production performance data as a basis for the reserves estimates was considered to be inappropriate.

Most of the proved developed non-producing and undeveloped reserves that we reviewed were estimated by the volumetric method. The volumetric analysis utilized pertinent well and seismic data furnished to Ryder Scott by Murphy for our review or which we have obtained from public data sources that were available through November 2022. Certain proved non-developed and undeveloped reserves that we reviewed were estimated by performance methods.

To estimate economically producible proved oil and gas reserves, many factors and assumptions are considered including, but not limited to, the use of reservoir parameters derived from geological, geophysical and engineering data which cannot be measured directly, economic criteria based on current costs and SEC pricing requirements, and forecasts of future production rates. Under the SEC regulations 210.4-10(a)(22)(v) and (26), proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. While it may reasonably be anticipated that the future prices received for the sale of production and the operating costs and other costs relating to such production may increase or decrease from those under existing economic conditions, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in conducting this review.

As stated previously, proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. To confirm that the proved reserves reviewed by us meet the SEC requirements to be economically producible, we have reviewed certain primary economic data utilized by Murphy relating to hydrocarbon prices and costs as noted herein.

The hydrocarbon prices furnished by Murphy for the properties reviewed by us are based on SEC price parameters using the average prices during the 12-month period prior to the "as of date" of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements. For hydrocarbon products sold under contract, the contract prices, including fixed and determinable escalations exclusive of inflation adjustments, were used until expiration of the contract. Upon contract expiration, the prices were adjusted to the 12-month unweighted arithmetic average as previously described.

The initial SEC hydrocarbon benchmark prices in effect on December 31, 2022 for the properties reviewed by us were determined using the 12-month average first-day-of-the-month benchmark prices appropriate to the geographic area where the hydrocarbons are sold. These benchmark prices are prior to the adjustments for differentials as described herein. The table below summarizes the "benchmark prices" and "price reference" used by Murphy for the geographic area reviewed by us. For certain properties, the price reference and benchmark prices may be defined by contractual arrangements.

The product prices that were actually used by Murphy to determine the future gross revenue for each property reviewed by us reflect adjustments to the benchmark prices for gravity, quality, local conditions, gathering and transportation fees and/or distance from market, referred to herein as "differentials." The differentials used by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose.

The table below summarizes Murphy's net volume weighted benchmark prices adjusted for differentials for the properties reviewed by us and referred to herein as Murphy's "average realized prices." The average realized prices shown in the table below were determined from Murphy's estimate of the total future gross revenue before production taxes for the properties reviewed by us and Murphy's estimate of the total net reserves for the properties reviewed by us for the geographic area. At Murphy's request, also provided is the average realized gas price excluding fuel gas. The data shown in the table below is presented in accordance with SEC disclosure requirements for the geographic area reviewed by us.

Geographic Area	Product	Price Reference	Average Benchmark Prices	Average Realized Prices	Average Realized Prices*
North America					
United States – Offshore	Oil/Condensate	WTI Cushing	\$93.67/Bbl	\$92.13/Bbl	\$92.13/Bbl
	NGLs	WTI Cushing	\$93.67/Bbl	\$32.69/Bbl	\$32.69/Bbl
	Gas	Henry Hub	\$6.36/MMBTU	\$5.85 /Mcf	\$6.77 /Mcf

*Realized prices excluding fuel gas volumes, as previously noted.

The effects of derivative instruments designated as price hedges of oil and gas quantities are not reflected in Murphy's individual property evaluations.

Accumulated gas production imbalances, if any, were not taken into account in the proved gas reserves estimates reviewed.

Operating costs furnished by Murphy are based on the operating expense reports of Murphy and include only those costs directly applicable to the leases or wells for the properties reviewed by us. The operating costs include a portion of general and administrative costs allocated directly to the leases and wells. For operated properties, the operating costs include an appropriate level of corporate general administrative and overhead costs. The operating costs for non-operated properties include the COPAS overhead costs that are allocated directly to the leases and wells under terms of operating agreements. The operating costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose; information provided included historic operating expenses, pay out balances, and royalty relief information. No deduction was made for loan repayments, interest expenses, or exploration and development prepayments that were not charged directly to the leases or wells.

Development costs furnished by Murphy are based on authorizations for expenditure for the proposed work or actual costs for similar projects. The development costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose. The estimated net cost of abandonment after salvage was included by Murphy for properties where abandonment costs net of salvage were material. The abandonment costs furnished by Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose.

The proved developed non-producing and undeveloped reserves for the properties reviewed by us have been incorporated herein in accordance with Murphy's plans to develop these reserves as of December 31, 2022. The implementation of Murphy's development plans as presented to us is subject to the approval process adopted by Murphy's management. As the result of our inquiries during the course of our review, Murphy has informed us that the development activities for the properties reviewed by us have been subjected to and received the internal approvals required by Murphy's management at the appropriate local, regional and/or corporate level. In addition to the internal approvals as noted, certain development activities may still be subject to specific partner AFE processes, Joint Operating Agreement (JOA) requirements or other administrative approvals external to Murphy. Murphy has provided written documentation supporting their commitment to proceed with the development activities as presented to us. Additionally, Murphy has informed us that they are not aware of any legal, regulatory, or political obstacles that would significantly alter their plans. While these plans could change from those under existing economic conditions as of December 31, 2022, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in making this evaluation.

Current costs used by Murphy were held constant throughout the life of the properties.

Murphy's forecasts of future production rates are based on historical performance from wells currently on production. If no production decline trend has been established, future production rates were held constant, or adjusted for the effects of curtailment where appropriate, until a decline in ability to produce was anticipated. An estimated rate of decline was then applied until depletion of the reserves. If a decline trend has been established, this trend was used as the basis for estimating future production rates.

Test data and other related information were used by Murphy to estimate the anticipated initial production rates for those wells or locations that are not currently producing. For reserves not yet on production, sales were estimated to commence at an anticipated date furnished by Murphy. Wells or locations that are not currently producing may start producing earlier or later than anticipated in Murphy's estimates due to unforeseen factors causing a change in the timing to initiate production. Such factors may include delays due to weather, the availability of rigs, the sequence of drilling, completing and/or recompleting wells and/or constraints set by regulatory bodies.

The future production rates from wells currently on production or wells or locations that are not currently producing may be more or less than estimated because of changes including, but not limited to, reservoir performance, operating conditions related to surface facilities, compression and artificial lift, pipeline capacity and/or operating conditions, producing market demand and/or allowables or other constraints set by regulatory bodies.

Murphy's operations may be subject to various levels of governmental controls and regulations. These controls and regulations may include, but may not be limited to, matters relating to land tenure and leasing, the legal rights to produce hydrocarbons, drilling and production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax and are subject to change from time to time. Such changes in governmental regulations and policies may cause volumes of proved reserves actually recovered and amounts of proved income actually received to differ significantly from the estimated quantities.

The estimates of proved reserves presented herein were based upon a review of the properties in which Murphy owns an interest; however, we have not made any field examination of the properties. No consideration was given in this report to potential environmental liabilities that may exist nor were any costs included by Murphy for potential liabilities to restore and clean up damages, if any, caused by past operating practices.

Certain technical personnel of Murphy are responsible for the preparation of reserves estimates on new properties and for the preparation of revised estimates, when necessary, on old properties. These personnel assembled the necessary data and maintained the data and workpapers in an orderly manner. We consulted with these technical personnel and had access to their workpapers and supporting data in the course of our audit.

Murphy has informed us that they have furnished us all of the material accounts, records, geological and engineering data, and reports and other data required for this investigation. In performing our audit of Murphy's forecast of future proved production, we have relied upon data furnished by Murphy with respect to property interests owned, production and well tests from examined wells, normal direct costs of operating the wells or leases, other costs such as transportation and/or processing fees, recompletion and development costs, development plans, abandonment costs after salvage, product prices based on the SEC regulations, adjustments or differentials to product prices, geological structural and isochore maps, well logs, core analyses, and pressure measurements. The data furnished by

Murphy were reviewed by us for their reasonableness using information furnished by Murphy for this purpose. We consider the factual data furnished to us by Murphy to be appropriate and sufficient for the purpose of our review of Murphy's estimates of reserves. In summary, we consider the assumptions, data, methods and analytical procedures used by Murphy and as reviewed by us appropriate for the purpose hereof, and we have used all such methods and procedures that we consider necessary and appropriate under the circumstances to render the conclusions set forth herein.

Audit Opinion

Based on our review, including the data, technical processes and interpretations presented by Murphy, it is our opinion that the overall procedures and methodologies utilized by Murphy in preparing their estimates of the proved reserves as of December 31, 2022 comply with the current SEC regulations and that the overall proved reserves for the reviewed properties as estimated by Murphy are, in the aggregate, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards. Ryder Scott found the processes and controls used by Murphy in their estimation of proved reserves to be effective and, in the aggregate, we found no bias in the utilization and analysis of data in estimates for these properties.

We were in reasonable agreement with Murphy's estimates of proved reserves for the properties which we reviewed; although in certain cases there was more than an acceptable variance between Murphy's estimates and our estimates due to a difference in interpretation of data or due to our having access to data which were not available to Murphy when its reserves estimates were prepared. However notwithstanding, it is our opinion that on an aggregate basis the data presented herein for the properties that we reviewed fairly reflects the estimated net reserves owned by Murphy in the Murphy and Petrobras GOM JV (MPGOM).

Standards of Independence and Professional Qualification

Ryder Scott is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1937. Ryder Scott is employee-owned and maintains offices in Houston, Texas; Denver, Colorado; and Calgary, Alberta, Canada. We have approximately eighty engineers and geoscientists on our permanent staff. By virtue of the size of our firm and the large number of clients for which we provide services, no single client or job represents a material portion of our annual revenue. We do not serve as officers or directors of any privately-owned or publicly-traded oil and gas company and are separate and independent from the operating and investment decision-making process of our clients. This allows us to bring the highest level of independence and objectivity to each engagement for our services.

Ryder Scott actively participates in industry-related professional societies and organizes an annual public forum focused on the subject of reserves evaluations and SEC regulations. Many of our staff have authored or co-authored technical papers on the subject of reserves related topics. We encourage our staff to maintain and enhance their professional skills by actively participating in ongoing continuing education.

Prior to becoming an officer of the Company, Ryder Scott requires that staff engineers and geoscientists receive professional accreditation in the form of a registered or certified professional engineer's license or a registered or certified professional geoscientist's license, or the equivalent thereof, from an appropriate governmental authority or a recognized self-regulating professional organization. Regulating agencies require that, in order to maintain active status, a certain amount of continuing

education hours be completed annually, including an hour of ethics training. Ryder Scott fully supports this technical and ethics training with our internal requirement mentioned above.

We are independent petroleum engineers with respect to Murphy. Neither we nor any of our employees have any financial interest in the subject properties, and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The results of this audit, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott. The professional qualifications of the undersigned, the technical person primarily responsible for overseeing the review of the reserves information discussed in this report, are included as an attachment to this letter.

Terms of Usage

The results of our third party audit, presented in report form herein, were prepared in accordance with the disclosure requirements set forth in the SEC regulations and intended for public disclosure as an exhibit in filings made with the SEC by Murphy.

Murphy Oil Corporation makes periodic filings on Form 10-K with the SEC under the 1934 Exchange Act. Furthermore, Murphy Oil Corporation has certain registration statements filed with the SEC under the 1933 Securities Act into which any subsequently filed Form 10-K is incorporated by reference. We have consented to the incorporation by reference in the registration statements on Form S-3 (File No. 333-260287) and Form S-8 (File Nos. 333-256048 and 333-241837) of Murphy Oil Corporation of the references to our name, as well as to the references to our report for Murphy Oil Corporation, which appears in the December 31, 2022 annual report on Form 10-K of Murphy Oil Corporation. Our written consent for such use is included as a separate exhibit to the filings made with the SEC by Murphy Oil Corporation.

We have provided Murphy with a digital version of the original signed copy of this report letter. In the event there are any differences between the digital version included in filings made by Murphy and the original signed report letter, the original signed report letter shall control and supersede the digital version.

The data and work papers used in the preparation of this report are available for examination by authorized parties in our offices. Please contact us if we can be of further service.

Very truly yours,

RYDER SCOTT COMPANY, L.P.
TBPELS Firm Registration No. F-1580

/s/ Eric T. Nelson

Managing Senior Vice President

Eric T. Nelson, P.E.
TBPELS License No. 102286

ETN (LPC)/pl

[SEAL]

Professional Qualifications of Primary Technical Person

The conclusions presented in this report are the result of technical analysis conducted by teams of geoscientists and engineers from Ryder Scott Company, L.P. Mr. Eric T. Nelson is the primary technical person responsible for the estimate of the reserves, future production and income.

Mr. Nelson, an employee of Ryder Scott Company, L.P. (Ryder Scott) since 2005, is a Managing Senior Vice President and a member of the Board of Directors. He is responsible for ongoing reservoir evaluation studies worldwide. Before joining Ryder Scott, Mr. Nelson served in a number of engineering positions with Exxon Mobil Corporation. For more information regarding Mr. Nelson's geographic and job specific experience, please refer to the Ryder Scott Company website at www.ryderscott.com/Company/Employees.

Mr. Nelson earned a Bachelor of Science degree in Chemical Engineering from the University of Tulsa in 2002 (summa cum laude) and a Master of Business Administration from the University of Texas in 2007 (Dean's Award). He is a licensed Professional Engineer in the State of Texas. Mr. Nelson is also a member of the Society of Petroleum Engineers.

In addition to gaining experience and competency through prior work experience, the Texas Board of Professional Engineers requires a minimum of 15 hours of continuing education annually, including at least one hour in the area of professional ethics, which Mr. Nelson fulfills. As part of his 2022 continuing education hours, Mr. Nelson attended over 20 hours of training during 2022 covering such topics as updates concerning the implementation of the latest SEC oil and gas reporting requirements, evaluations of resource play reserves, evaluation of simulation models, procedures and software, and ethics training.

Based on his educational background, professional training and more than 17 years of practical experience in the estimation and evaluation of petroleum reserves, Mr. Nelson has attained the professional qualifications as a Reserves Estimator set forth in Article III of the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information" promulgated by the Society of Petroleum Engineers as of June 2019.

PETROLEUM RESERVES DEFINITIONS

**As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)**

PREAMBLE

On January 14, 2009, the United States Securities and Exchange Commission (SEC) published the "Modernization of Oil and Gas Reporting; Final Rule" in the Federal Register of National Archives and Records Administration (NARA). The "Modernization of Oil and Gas Reporting; Final Rule" includes revisions and additions to the definition section in Rule 4-10 of Regulation S-X, revisions and additions to the oil and gas reporting requirements in Regulation S-K, and amends and codifies Industry Guide 2 in Regulation S-K. The "Modernization of Oil and Gas Reporting; Final Rule", including all references to Regulation S-X and Regulation S-K, shall be referred to herein collectively as the "SEC regulations". The SEC regulations take effect for all filings made with the United States Securities and Exchange Commission as of December 31, 2009, or after January 1, 2010. Reference should be made to the full text under Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) for the complete definitions (direct passages excerpted in part or wholly from the aforementioned SEC document are denoted in italics herein).

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. All reserve estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. Under the SEC regulations as of December 31, 2009, or after January 1, 2010, a company may optionally disclose estimated quantities of probable or possible oil and gas reserves in documents publicly filed with the SEC. The SEC regulations continue to prohibit disclosure of estimates of oil and gas resources other than reserves and any estimated values of such resources in any document publicly filed with the SEC unless such information is required to be disclosed in the document by foreign or state law as noted in §229.1202 Instruction to Item 1202.

Reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, natural gas cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

Reserves may be attributed to either conventional or unconventional petroleum accumulations. Petroleum accumulations are considered as either conventional or unconventional based on the nature of their in-place characteristics, extraction method applied, or degree of processing prior to sale.

Examples of unconventional petroleum accumulations include coalbed or coalseam methane (CBM/CSM), basin-centered gas, shale gas, gas hydrates, natural bitumen and oil shale deposits. These unconventional accumulations may require specialized extraction technology and/or significant processing prior to sale.

Reserves do not include quantities of petroleum being held in inventory.

Because of the differences in uncertainty, caution should be exercised when aggregating quantities of petroleum from different reserves categories.

RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(26) defines reserves as follows:

Reserves. *Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.*

Note to paragraph (a)(26): *Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).*

PROVED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(22) defines proved oil and gas reserves as follows:

Proved oil and gas reserves. *Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.*

(i) *The area of the reservoir considered as proved includes:*

(A) *The area identified by drilling and limited by fluid contacts, if any, and*

(B) *Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.*

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and

(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES

As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

and

2018 PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)
Sponsored and Approved by:
SOCIETY OF PETROLEUM ENGINEERS (SPE)
WORLD PETROLEUM COUNCIL (WPC)
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)
SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)
SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)
SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS (SPWLA)
EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS (EAGE)

Reserves status categories define the development and producing status of wells and reservoirs. Reference should be made to Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) and the SPE-PRMS as the following reserves status definitions are based on excerpts from the original documents (direct passages excerpted from the aforementioned SEC and SPE-PRMS documents are denoted in italics herein).

DEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(6) defines developed oil and gas reserves as follows:

Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Developed Producing (SPE-PRMS Definitions)

While not a requirement for disclosure under the SEC regulations, developed oil and gas reserves may be further sub-classified according to the guidance contained in the SPE-PRMS as Producing or Non-Producing.

Developed Producing Reserves

Developed Producing Reserves are expected quantities to be recovered from completion intervals that are open and producing at the effective date of the estimate.

Improved recovery reserves are considered producing only after the improved recovery project is in operation.

Developed Non-Producing

Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.

Shut-In

Shut-in Reserves are expected to be recovered from:

- (1) completion intervals that are open at the time of the estimate but which have not yet started producing;*
- (2) wells which were shut-in for market conditions or pipeline connections; or*
- (3) wells not capable of production for mechanical reasons.*

Behind-Pipe

Behind-pipe Reserves are expected to be recovered from zones in existing wells that will require additional completion work or future re-completion before start of production with minor cost to access these reserves.

In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.

UNDEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(31) defines undeveloped oil and gas reserves as follows:

Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in paragraph (a)(2) of this section, or by other evidence using reliable technology establishing reasonable certainty.



January 31, 2023

Murphy Oil Corporation

9805 Katy Freeway
Suite G-200
Houston, Texas
USA 77024

Attention: Mr. Jeffrey Wilson, General Manager, Corporate Reserves

Reference: Murphy Oil Corporation

Evaluation of the Canadian Oil and Gas Properties as of December 31, 2022

Dear Sir:

Pursuant to your request, McDaniel & Associates Consultants Ltd. ("McDaniel") has conducted an independent audit of Murphy Oil Corporation's ("Murphy") proved crude oil, natural gas and natural gas liquids reserves for Murphy's interests in the Kaybob Duvernay, Placid Montney and Greater Tupper Montney Projects located within the Province of British Columbia and Alberta, Canada and the Hibernia Main and Hibernia Southern Extension projects ("Hibernia") located offshore within the Province of Newfoundland and Labrador, Canada. Murphy holds a 99.75 percent working interest in the Greater Tupper Montney Project, a 70.07 percent working interest in the Kaybob Duvernay Project, a 26.93 percent working interest in the Placid Montney Project, a 6.5 percent working interest in the Hibernia Main Project, and a 4.3322 percent working interest in the Hibernia Southern Extension Project. Murphy has represented that these properties account for approximately 48.1 percent of its total company proved reserves on an equivalent barrel basis as of December 31, 2022, and that its reserves estimates have been prepared in accordance with the United States Securities and Exchange Commission (SEC) definitions. We have reviewed information provided to us by Murphy that it represents to be its estimates of the reserves, as of December 31, 2022, for the same properties as those which we audited. The completion date of our report is January 31, 2023. This report was prepared in accordance with guidelines specified in Item 1202(a)(8) of Regulation S-K and is to be used for inclusion in certain filings of the SEC.

Reserves included herein are expressed as reserves as represented by Murphy. Gross reserves are defined as the total estimated petroleum to be produced from these properties after December 31, 2022. Working interest reserves are defined as that portion of the gross reserves attributable to the interests owned by Murphy after deducting all working interests owned by others. Net reserves are defined as working

interest reserves after the deduction of royalties. Estimates of crude oil, natural gas and natural gas liquids reserves should be regarded only as estimates that may change as further production history and additional information become available. Not only are such reserves estimates based on that information, which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information.

Data used in this audit were obtained from reviews with Murphy personnel, Murphy files, from records on file with the appropriate regulatory agencies, and from public sources. In the preparation of this report we have relied upon such information furnished by Murphy with respect to property interests, production from such properties, current costs of operation and development, prices for production, agreements relating to current and future operations and sale of production, and various other information and data that were accepted as represented. Furthermore, if in the course of our examination something came to our attention, which brought into question the validity or sufficiency of any of such information or data, we did not rely on such information or data until we had satisfactorily resolved our questions relating thereto or had independently verified such information or data. A field examination of the properties was not considered necessary for the purposes of this report.

Methodology and Procedures

The process of estimating reserves requires complex judgments and decision-making based on available geological, geophysical, engineering and economic data. To estimate the economically recoverable oil, synthetic crude oil and natural gas reserves, and related future net cash flows, we consider many factors and make assumptions including:

- expected reservoir characteristics based on geological, geophysical and engineering assessments;
- future production rates based on historical performance and expected future operating and investment activities;
- future oil and gas prices and quality differentials;
- assumed effects of regulation by governmental agencies; and
- future development and operating costs



Estimates of reserves were prepared using standard geological and engineering methods generally accepted by the petroleum industry as presented in the publication of the Society of Petroleum Engineers entitled “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (Revision as of June 2019).” Generally accepted methods for estimating reserves include volumetric calculations, material balance techniques, production decline curves, pressure transient analysis, analogy with similar reservoirs, and reservoir simulation. The method or combination of methods used is based on professional judgment and experience.

Discovered oil and natural gas reserves are generally only produced when they are economically recoverable. As such, oil and gas prices, and capital and operating costs have an impact on whether reserves will ultimately be produced. As required by SEC rules, reserves represent the quantities that are expected to be economically recoverable using existing prices and costs. Estimates may change substantially as additional data from ongoing development activities and production performance becomes available and as economic conditions impacting oil and gas prices and costs change.

The proved reserves estimates in this report were based upon 2022 first-of-the month fiscal average pricing using benchmark pricing. Oil prices were based upon West Texas Intermediate at Cushing crude oil benchmark of USD\$93.67 per barrel and a Brent crude oil benchmark of USD\$101.24 per barrel. Specific pricing for each field was adjusted for historical quality and transportation cost differentials, and for currency exchange rates. For total proved reserves in the Kaybob Duvernay, Placid Montney and Greater Tupper Montney Project, the estimated realized prices were CAD\$5.52 per Mcf of natural gas, CAD\$115.28 per barrel of oil, and CAD\$76.37 per barrel of natural gas liquids. For total proved reserves in the Hibernia Main and Hibernia South East Extension projects, the estimated realized price was CAD\$133.66 per barrel of crude oil.

Generally, operations are subject to various levels of government controls and regulations. These laws and regulations may include matters relating to land tenure, drilling, production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax, and foreign trade and investment, that are subject to change from time to time. Current legislation is generally a matter of public record, and additional legislation or amendments that will affect reserves or when any such proposals, if enacted, might become effective generally cannot be predicted. Changes in government regulations could affect reserves or related economics. In the regions that are currently being evaluated we believe we have applied existing regulations appropriately.

Murphy Estimates

Murphy has represented that estimated proved reserves attributable to the audited properties are based on SEC definitions. These reserves are as follows, expressed in thousands of barrels (Mbbbl) and thousands of barrels of oil equivalent (Mboe):



Murphy's estimate of Reserves as of December 31, 2022
Certain Canadian Fields Audited by McDaniel & Associates

Business Unit	Crude Oil (Mbbbl)	Natural Gas (Mboe)	Natural Gas Liquids (Mboe)	Oil Equivalent (Mboe)
Working Interest Reserves (after royalties)				
Proved Developed Producing				
Kaybob Duvernay	7,609	4,556	1,676	13,841
Placid Montney	644	1,760	302	2,706
Tupper Montney	-	147,811	343	148,154
Hibernia	5,598	675	-	6,273
Proved Developed Non-Producing				
Kaybob Duvernay	207	9	4	220
Placid Montney	-	-	-	-
Tupper Montney	-	-	-	-
Hibernia	-	-	-	-
Proved Developed				
Kaybob Duvernay	7,816	4,565	1,680	14,061
Placid Montney	644	1,760	302	2,706
Tupper Montney	-	147,811	343	148,154
Hibernia	5,598	675	-	6,273
Proved Undeveloped				
Kaybob Duvernay	8,720	4,012	1,507	14,239
Placid Montney	-	-	-	-
Tupper Montney	-	153,463	290	153,753
Hibernia	4,949	98	-	5,047
Total Proved				
Kaybob Duvernay	16,536	8,577	3,187	28,300
Placid Montney	644	1,760	302	2,706
Tupper Montney	-	301,274	633	301,907
Hibernia	10,547	773	-	11,320



Note: Gas is converted to oil equivalent using a factor of 6,000 cubic feet of gas per 1 barrel of oil equivalent based on an energy equivalent basis. Of the Total Proved Natural Gas reserves estimated by Murphy above, 4,732Mboe are attributed to fuel gas reserves in the Kaybob Duvernay, Placid Montney, Greater Tupper Montney Project, and 773 Mboe are attributed to fuel gas reserves in the Hibernia Business Unit.

Reserves Audit Opinion

McDaniel has used all data, assumptions, procedures and methods that it considers necessary to prepare this report.

In our opinion, the information relating to estimated proved reserves of bitumen and synthetic crude oil contained in this opinion has been prepared in accordance with Paragraphs 932-235-50-4, 932-235-50-6, 932-235-50-7, 932-235-50-9, 932-235-50-30 and 932-235-50-31 of the Accounting Standards Update 932-235-50, *Extractive Industries – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures* (January 2010) of the Financial Accounting Standards Board and Rules 4–10(a) (1)–(32) of Regulation S–X and Rules 302(b), 1201, and 1202(a) (1), (2), (3), (4), (5), (8) of Regulation S-K of the Securities and Exchange Commission.

We have examined the assumptions, data, methods procedures and proved reserves estimates prepared by Murphy. In our opinion, the proved reserves for the reviewed properties as estimated by Murphy are, in aggregate on the basis of equivalent barrels, reasonable because when compared to our estimates, or if we were to perform our own detailed estimates, reflect a difference of not more than plus or minus 10 percent.

The analyses of these properties, as reported herein, was conducted within the context of an audit of a distinct group of properties in aggregate as part of the total corporate level reserves. Extraction and use of these analyses outside of this context may not be appropriate without supplementary due diligence.

McDaniel is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world for over 65 years. McDaniel does not have any financial interest, including stock ownership, in Murphy. Our fees were not contingent on the results of our evaluation. This letter report has been prepared at the request of Murphy.

McDaniel & Associates Consultants Ltd. (“McDaniel”) has been in the business of providing oil and gas reserves evaluations for over 65 years. Mr. Jared W. B. Wynveen, P. Eng., Executive Vice President has been with the firm since 2006, and has over 15 years of experience in the evaluation of oil and gas properties. As a senior engineer of McDaniel, Mr. Wynveen managed the preparation evaluation of the Murphy Oil Corporation properties. Mr. Wynveen is a registered professionals with the Association of Professional Engineers and Geoscientist of Alberta (APEGA) with over 15 years of experience with the firm.



This report was prepared by McDaniel & Associates Consultants Ltd. for the exclusive use of Murphy. It is not to be reproduced, distributed, or made available, in whole or in part to any person, company, or organization other than Murphy without the knowledge and consent of McDaniel & Associates Consultants Ltd. We reserve the right to revise any of the estimates provided herein if any relevant data existing prior to preparation of this report was not made available or if any data provided was found to be erroneous.

If there are any questions, please contact Jared Wynveen directly at (403) 218-1397.

Sincerely,

McDANIEL & ASSOCIATES CONSULTANTS LTD.
APEGA PERMIT NUMBER: P3145

/s/ Cameron T. Boulton /s/ Jared W.B. Wynveen

Cameron T. Boulton, P.Eng. Jared W.B. Wynveen P.Eng.
Executive Vice President Executive Vice President
January 31, 2023 January 31, 2023

CTB/JWBW:jep
[22-0158]



CERTIFICATE OF QUALIFICATION

I, Cameron Boulton, Petroleum Engineer of 2000, 2000, 525 - 8th Avenue SW, Calgary, Alberta, Canada hereby certify:

1. That I am an Executive Vice President of McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of Murphy Oil Corporation., the report entitled "Murphy Oil Corporation, Evaluation of Canadian Oil and Gas Properties, As of December 31, 2022", dated January 31, 2023, and that I was involved in the preparation of this report. I am also registered as a Responsible Member as outlined by APEGA for McDaniel & Associates Consultant Ltd. APEGA Permit Number 3145.
2. That I attended the Queen's University in the years 2002 to 2006 and that I graduated with a Bachelor of Science degree in Chemical Engineering, that I am a registered Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta and that I have in excess of 15 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of Murphy Oil Corporation, nor do I expect to receive any direct or indirect interest in the properties or securities of Murphy Oil Corporation, or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.

[SEAL]

APEGA ID 89981
Calgary, Alberta
Dated: January 31, 2023

CERTIFICATE OF QUALIFICATION

I, Jared W. B. Wynveen, Petroleum Engineer of 2000, 525 - 8th Avenue SW, Calgary, Alberta, Canada hereby certify:

1. That I am an Executive Vice President of McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of Murphy Oil Corporation., the report entitled "Murphy Oil Corporation, Evaluation of Canadian Oil and Gas Properties, As of December 31, 2022", dated January 31, 2023, and that I was involved in the preparation of this report. I am also registered as a Responsible Member as outlined by APEGA for McDaniel & Associates Consultant Ltd. APEGA Permit Number 3145.
2. That I attended the Queen's University in the years 2002 to 2006 and that I graduated with a Bachelor of Science degree in Mechanical Engineering, that I am a registered Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta and that I have in excess of 15 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of Murphy Oil Corporation, nor do I expect to receive any direct or indirect interest in the properties or securities of Murphy Oil Corporation, or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.

[SEAL]

APEGA ID 89207
Calgary, Alberta
Dated: January 31, 2023