



**Paramount**  
*resources ltd.*

**Annual Information Form  
For the Year Ended December 31, 2021**

**March 1, 2022**

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## DEFINITIONS

In this annual information form, capitalized terms have the following meanings:

"2021 Financial Statements and MD&A" means Paramount's audited consolidated financial statements as at and for the year ended December 31, 2021 and the accompanying Management's Discussion and Analysis, which can be found under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com);

"ABCA" means the *Business Corporations Act* (Alberta);

"AER" means the Alberta Energy Regulator;

"Cavalier Energy" means Paramount's wholly-owned subsidiary, Cavalier Energy Inc.;

"COGE Handbook" means the Canadian Oil and Gas Evaluation Handbook;

"Common Shares" means class A common shares in the capital of the Company;

"Credit Facility" means Paramount's senior secured revolving bank credit facility;

"Debentures" means the 7.5% senior unsecured convertible debentures of the Company with a maturity date of January 31, 2024;

"ESG" means environmental, social and governance;

"Fox Drilling" means Paramount's wholly-owned limited partnership, Fox Drilling Limited Partnership;

"GHG" means greenhouse gases;

"IFRS" means International Financial Reporting Standards;

"McDaniel" means McDaniel & Associates Consultants Ltd.;

"McDaniel Report" means the report of McDaniel on Paramount's oil and natural gas reserves effective as of December 31, 2021 and dated and prepared as of March 1, 2022;

"Paramount" or the "Company" means Paramount Resources Ltd. and, unless otherwise specified or the context otherwise requires, its subsidiaries and partnerships; and

"TSX" means the Toronto Stock Exchange.

Information herein is presented as at December 31, 2021 unless otherwise noted.

## OIL AND NATURAL GAS MEASURES, ABBREVIATIONS AND TERMS

Oil and natural gas measures, abbreviations and terms used in this annual information form have the meanings set forth below.

<u>Liquids</u>		<u>Natural Gas</u>	
Bbl	barrels	Mcf	thousands of cubic feet
Bbl/d	barrels per day	MMcf	millions of cubic feet
MBbl	thousands of barrels	MMcf/d	millions of cubic feet per day
MMBbl	millions of barrels	Bcf	billions of cubic feet
		Btu	British thermal units
		MMBtu	millions of British thermal units
		GJ	gigajoule

  

<u>Oil and Gas Equivalent</u>	
Boe	barrels of oil equivalent
Boe/d	barrels of oil equivalent per day
MBoe	thousands of barrels of oil equivalent
MMBoe	millions of barrels of oil equivalent
Mcfe	thousands of cubic feet of natural gas equivalent

"Abandonment and Reclamation Costs" mean the costs associated with restoring properties disturbed by oil and gas activities to the standard imposed by applicable government and regulatory authorities. Such costs are incurred in connection with abandoning, decommissioning, remediating and reclaiming wells, facilities, pipelines and associated surface leases.

"gross" means:

- (i) in relation to wells, the total number of wells in which Paramount has an interest;
- (ii) in relation to properties, the total area of properties in which Paramount has an interest; and
- (iii) in relation to Paramount's interest in production or reserves, Paramount's working interest share before deduction of any royalties and without including Paramount's royalty interests.

"net" means:

- (i) in relation to wells, the number of wells obtained by aggregating Paramount's working interest in each of its gross wells;
- (ii) in relation to Paramount's interest in a property, the total area in which Paramount has an interest multiplied by the working interest it owns; and
- (iii) in relation to Paramount's interest in production or reserves, Paramount's working interest share after deduction of royalty obligations, plus Paramount's royalty interests.

"NGLs" means natural gas liquids, including pentanes-plus (or condensate) (C5<sup>+</sup>), ethane (C2), propane (C3) and butane (C4).

"liquids" means oil and NGLs.

All oil and natural gas information includes tight oil and shale gas, respectively, unless such product type is presented on a separate basis.

A ratio of six thousand cubic feet of natural gas to one barrel (6:1) is used when converting natural gas to Boe and a ratio of one barrel to six thousand cubic feet of natural gas (1:6) is used when converting NGLs to Mcfe. Equivalency measures such as Boe and Mcfe may be misleading, particularly if used in isolation. A conversion ratio of 6:1 for Boe or 1:6 for Mcfe is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. During the year ended December 31, 2021, the value ratio between six thousand cubic feet of natural gas and one barrel of oil was approximately 24:1. This value ratio is significantly different from the energy equivalency ratio of 6:1 for Boe and using such a ratio would be misleading as an indication of value.

## **RESERVES CATEGORIES AND DEFINITIONS**

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, from a given date forward, based on: (i) analysis of drilling, geological, geophysical and engineering data; (ii) use of established technology; and (iii) specified economic conditions, which are generally accepted as being reasonable. The following definitions and assumptions form the basis of classification for reserves presented in the McDaniel Report:

Reserves are classified according to the degree of certainty associated with the estimates:

**Proved Reserves** are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

**Probable Reserves** are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.

Each of the reserves categories (proved and probable) may be divided into developed and undeveloped categories:

**Developed Reserves** are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (for example, when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing as follows:

**Developed Producing Reserves** are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

**Developed Non-producing Reserves** are those reserves that either have not been on production, or have previously been on production, but are shut-in, and the date of resumption of production is unknown.

**Undeveloped Reserves** are those reserves expected to be recovered from known accumulations where a significant expenditure (for example, when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved or probable) to which they are assigned.

In multi-well pools it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

The qualitative certainty levels referred to in the definitions above are applicable to individual reserves entities (which refers to the lowest level at which reserves calculations are performed) and to reported reserves (which refers to the highest level sum of individual entity estimates for which reserves are presented). Reported reserves should target the following levels of certainty under a specific set of economic conditions: (i) at least a 90 per cent probability that the quantities actually recovered will equal or exceed the estimated proved reserves; and (ii) at least a 50 per cent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves.

A quantitative measure of the certainty levels pertaining to estimates prepared for the various reserves categories is desirable to provide a clearer understanding of the associated risks and uncertainties. However, the majority of reserves estimates will be prepared using deterministic methods that do not provide a mathematically derived quantitative measure of probability. In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in the COGE Handbook.

## **FINANCIAL INFORMATION**

Unless otherwise specified, all dollar amounts are expressed in Canadian dollars and all references to "dollars" or "\$" are to Canadian dollars and all references to "US\$" are to United States dollars.

Unless otherwise indicated, all financial information included in this annual information form has been prepared in accordance with IFRS. The 2021 Financial Statements and MD&A can be found under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com).

## NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this document constitute forward-looking information under applicable securities legislation. Forward-looking information typically contains statements with words such as "anticipate", "believe", "estimate", "will", "expect", "plan", "schedule", "intend", "propose", or similar words suggesting future outcomes or an outlook. Forward looking information in this document includes, but is not limited to:

- exploration, development and associated operational plans and strategies;
- the expectation that targeted plateau production will be reached at Wapiti in 2023;
- the expected sources of funding of future development costs and the expectation that the costs of funding future development costs will not make the development of any material properties uneconomic;
- estimated reserves and the undiscounted and discounted present value of future net revenues therefrom;
- future taxes payable or owing and the Company's tax horizon;
- plans for the development of undeveloped reserves;
- the expectation that no amounts will be required to be paid to the TIER Fund with respect to 2021;
- the potential expiry of leases;
- the timing and amount of future Abandonment and Reclamation Costs;
- the payment of future dividends under the Company's monthly dividend program;
- the potential outcome and timing of any legal claims, audits, assessments or other regulatory matters or proceedings, including the belief that the Apache Canada Ltd. action described under the heading "Legal Proceedings" will not have a material impact on the Company's financial position;
- the potential for the imposition of additional regulatory requirements;
- the expected availability and capacity of facilities; and
- general business strategies and objectives.

Such forward-looking information is based on a number of assumptions which may prove to be incorrect. Assumptions have been made with respect to the following matters, in addition to any other assumptions identified in this document:

- future commodity prices;
- the impact of the COVID-19 pandemic on the Company;
- the ability to realize expected cost savings;
- royalty rates, taxes and capital, operating, processing, general & administrative and other costs;
- foreign currency exchange rates, interest rates and the rate of inflation;
- general business, economic and market conditions;
- the performance of wells and facilities;
- the ability of Paramount to obtain the required capital to finance its exploration, development and other operations and meet its commitments and financial obligations;
- the ability of Paramount to obtain equipment, materials, services and personnel in a timely manner and at an acceptable cost to carry out its activities;
- the ability of Paramount to secure adequate product processing, transportation, fractionation and storage capacity on acceptable terms and the capacity and reliability of facilities;
- the ability of Paramount to market its production successfully to current and new customers;
- the ability of Paramount and its industry partners to obtain drilling success (including in respect of anticipated production volumes, reserves additions, product yields and resource recoveries) and operational improvements, efficiencies and results consistent with expectations;
- the merits of legal claims, audits, assessments or other regulatory matters and proceedings;
- the provisions and application of laws and regulations;
- the timely receipt of required governmental and regulatory approvals; and
- anticipated timelines and budgets being met in respect of drilling programs and other operations (including well completions and tie-ins and the construction, commissioning and start-up of new and expanded facilities, including third-party facilities, and facility turnarounds and maintenance).

Although Paramount believes that the expectations reflected in such forward-looking information are reasonable, undue reliance should not be placed on them as Paramount can give no assurance that such expectations will prove to be correct. Forward-looking information is based on expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by Paramount and described in the forward-looking information. The material risks and uncertainties include, but are not limited to:

- fluctuations in commodity prices;
- changes in capital spending plans and planned exploration and development activities;
- changes in foreign currency exchange rates, interest rates and the rate of inflation;
- the uncertainty of estimates and projections relating to future revenue, free cash flow, production, reserves additions, product yields (including condensate to natural gas ratios), resource recoveries, royalty rates, taxes and costs and expenses;
- the ability to secure adequate product processing, transportation, fractionation and storage capacity on acceptable terms;
- operational risks in exploring for, developing and producing natural gas, NGLs (including condensate) and oil, including the risk of spills, leaks or blowouts;
- the ability to obtain equipment, materials, services and personnel in a timely manner and at an acceptable cost;
- potential disruptions, delays or unexpected technical or other difficulties in designing, developing, expanding or operating new, expanded or existing facilities (including third-party facilities);
- processing, transportation and fractionation outages, disruptions and constraints;
- risks and uncertainties involving the geology of oil and gas deposits;
- the uncertainty of reserves estimates;
- general business, economic and market conditions;
- the ability to generate sufficient cash from operating activities and obtain any necessary financing to fund planned exploration, development and operational activities and meet current and future commitments and obligations (including asset retirement obligations and product processing, transportation, fractionation and similar commitments and obligations);
- changes in, or in the interpretation of, laws, regulations or policies (including environmental laws);
- the ability to obtain required governmental or regulatory approvals in a timely manner, and to obtain and maintain leases and licenses;
- the effects of weather and other factors, including wildlife and environmental restrictions, which affect field operations and access;
- uncertainties as to the timing and amount of future Abandonment and Reclamation Costs and potential liabilities for environmental damage and contamination;
- uncertainties regarding First Nations and Metis claims and in maintaining relationships with local populations and other stakeholders;
- risks that may result in the Company changing, suspending or discontinuing its monthly dividend program, including changes to free cash flow, operating results, capital requirements, financial position, market conditions or corporate strategy and the need to comply with requirements under debt agreements and applicable laws respecting the declaration and payment of dividends;
- uncertainties and risks respecting the outcome of existing and potential lawsuits, regulatory actions, audits and assessments; and
- other risks and uncertainties described elsewhere in this document and in Paramount's other filings with Canadian securities authorities.

The foregoing list of risks is not exhaustive. For more information relating to risks, see the section titled "Risk Factors" in this annual information form. The forward-looking information contained in this annual information form is made as of the date hereof and, except as required by applicable securities law, Paramount undertakes no obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise.



## THE COMPANY

Paramount Resources Ltd. is incorporated under the ABCA. The Company's corporate and registered office is located at Suite 2800, 421 – 7<sup>th</sup> Avenue SW, Calgary, Alberta T2P 4K9. The Common Shares are listed on the TSX under the symbol "POU".

The Company has various subsidiaries and partnerships, including Cavalier Energy and Fox Drilling. The Company's subsidiaries and partnerships each accounted for: (i) less than 10 percent of the Company's consolidated assets as at December 31, 2021; and (ii) less than 10 percent of the Company's consolidated revenues for the year ended December 31, 2021. In aggregate, the Company's subsidiaries and partnerships did not exceed 20 percent of the Company's total consolidated assets or total consolidated revenues as at and for the year ended December 31, 2021.

## GENERAL DEVELOPMENT OF THE BUSINESS

Paramount is an independent, publicly traded, liquids-focused Canadian energy company that explores for and develops both conventional and unconventional petroleum and natural gas. Paramount commenced operations as a public company in 1978 and has adapted to a multitude of operating and economic climates over the years.

Paramount's operations are organized into the following three regions:

- the Grande Prairie Region, located in the Peace River Arch area of Alberta, which is focused on Montney developments at Karr and Wapiti;
- the Kaybob Region, located in west-central Alberta, which includes Duvernay developments at Kaybob Smoky, Kaybob North and Kaybob South, Montney oil developments at Kaybob North and Ante Creek and other shale gas and conventional natural gas producing properties; and
- the Central Alberta and Other Region, which includes the Willesden Green Duvernay development in central Alberta and shale gas producing properties in the Horn River Basin in northeast British Columbia.

The Company's assets include: (i) strategic investments in exploration and pre-development stage assets, including prospective shale gas acreage in the Liard Basin in northeast British Columbia and the Northwest Territories, prospective natural gas and oil acreage in the Mackenzie Delta and Central Mackenzie in the Northwest Territories and interests held by Cavalier Energy prospective for in-situ thermal oil recovery and heavy oil; (ii) drilling rigs owned by Fox Drilling; and (iii) investments in other entities.

Set forth below is a brief description of the events that have influenced the general development of Paramount's business over the past three fiscal years.

### **2019**

In August 2019, Paramount sold its natural gas processing facility at Karr for gross cash proceeds of \$331.6 million plus a commitment by the purchaser to fund and complete the associated expansion of the facility. In conjunction with the completion of the transaction, Paramount entered into a long-term, firm-service arrangement with the purchaser of the facility. See "*Narrative Description of the Business – Oil and Gas Properties – Grande Prairie Region*".

In November 2019, Paramount completed a non-brokered private placement of approximately 5.9 million Common Shares at a price of \$6.65 per share for total proceeds of \$39.2 million. The Common Shares were issued on a "flow through" basis in respect of Canadian development expenses.

In December 2019, Paramount completed the disposition of certain non-core natural gas-weighted properties in the Central Alberta and Other Region for gross cash proceeds of \$52.4 million. These properties had average sales volumes of approximately 8,500 Boe/d in 2019 (30.6 MMcf/d of conventional natural gas, 2,947 Bbl/d of NGLs and 466 Bbl/d of light and medium crude oil).

## **2020**

The erosion of global petroleum demand in connection with the COVID-19 pandemic, combined with disputes among members of OPEC+ concerning production levels, led to a material deterioration in oil and condensate prices received by the Company in the latter part of the first quarter of 2020. Despite the resolution of the OPEC+ disputes in the latter part of the second quarter of 2020, adverse pricing conditions resulting from the continuing impact of the COVID-19 pandemic continued through 2020. Paramount's response to these conditions included adjustments to budgeted capital expenditures, the shut-in of certain production and cost reduction initiatives that achieved significant reductions in its capital, operating and general and administrative costs.

## **2021**

In January 2021, the Company completed a private placement of \$35.0 million of Debentures.

In the first quarter of 2021, the Company sold certain non-core properties in the Kaybob Region and the Central Alberta and Other Region for aggregate cash proceeds of approximately \$79 million. These properties had average sales volumes of approximately 2,700 Boe/d in the fourth quarter of 2020 (15.4 MMcf/d of conventional natural gas and 142 Bbl/d of NGLs).

The Company achieved an important milestone in the first quarter of 2021 by exceeding 40,000 Boe/d of production at its Karr property for the first time.

In June 2021, the Company renewed its Credit Facility. The Credit Facility has a credit limit of \$900 million, which can be increased to \$1.0 billion at Paramount's request pursuant to an accordion feature in the facility, subject to incremental lender commitments. The maturity date of the Credit Facility is June 2, 2024. Additional information concerning the Credit Facility is included in the 2021 Financial Statements and MD&A.

In June 2021, Paramount announced: (i) the implementation of a regular monthly dividend of \$0.02 per Common Share, beginning in July 2021, (ii) the acceptance by the TSX of a normal course issuer bid under which the Company may purchase up to 7,308,743 Common Shares and (iii) the receipt of a cash payment of \$67 million from Strathcona Resources Ltd. in settlement of previously disclosed dissent proceedings respecting Strath Resources Ltd. and for the sale of its remaining securities in Strathcona Resources Ltd.

In July 2021, Paramount closed the sale of its non-operated Birch property in northeast British Columbia, which was included in the Central Alberta and Other Region, for proceeds of approximately \$85 million. The property had average sales volumes of approximately 2,300 Boe/d (10.7 MMcf/d of shale gas and 524 Bbl/d of NGLs) in the second quarter of 2021.

In November 2021, Paramount announced an increase of its regular monthly dividend to \$0.06 per Common Share.

In November 2021, Paramount delivered notices to redeem all \$35.0 million of the Debentures effective December 31, 2021. Prior to the redemption date, all of the Debentures were converted by their holders to acquire an aggregate of 5,249,019 Common Shares.

## **NARRATIVE DESCRIPTION OF THE BUSINESS**

### **OVERVIEW**

Paramount's oil and natural gas properties are located primarily in Alberta and British Columbia. The Company's ongoing exploration, development and production activities are intended to discover new reserves, increase the productive capacity of existing fields and extract, process and sell the Company's natural gas, NGLs and oil sustainably, economically and safely. From time-to-time, Paramount furthers its exploration, development and production activities through acquisitions of petroleum and natural gas assets and companies, farm-ins, farm-outs, joint ventures and dispositions.

Paramount's operations are organized into the Grande Prairie Region, the Kaybob Region and the Central Alberta and Other Region. The map below depicts the location of the Company's properties in these Regions that are the current focus of development.



The Company's reserves, properties, production and material development plans and facilities are discussed in more detail below.

## OIL AND GAS PROPERTIES

Paramount retained McDaniel, an independent qualified reserves evaluator, to prepare a report on the Company's natural gas, NGLs and oil reserves for 2021. At December 31, 2021, approximately 98.6 percent of Paramount's proved plus probable reserves were located in Alberta. See "*Reserves and Other Oil and Gas Information*".

The Company's gross reserves volumes, production and petroleum and natural gas sales for the years ended December 31, 2021 and 2020 are summarized below.

	2021	2020
<b>Reserves</b>		
<b>Proved</b>		
Shale Gas (Bcf)	908.4	850.5
Conventional Natural Gas (Bcf)	125.5	163.9
NGLs (MMBbl)	146.3	126.1
Tight Oil (MMBbl)	16.2	8.2
Light & Medium Crude Oil (MMBbl)	4.7	8.0
<b>Total (MMBoe)</b>	<b>339.5</b>	<b>311.3</b>
<b>Proved plus Probable</b>		
Shale Gas (Bcf)	1,837.5	1,762.4
Conventional Natural Gas (Bcf)	172.5	231.9
NGLs (MMBbl)	296.9	258.2
Tight Oil (MMBbl)	23.0	29.1
Light & Medium Crude Oil (MMBbl)	7.6	12.4
<b>Total (MMBoe)</b>	<b>662.5</b>	<b>632.0</b>
<b>Production <sup>(1)</sup></b>		
Shale Gas (MMcf/d)	207.9	156.7
Conventional Natural Gas (MMcf/d)	67.3	92.0
NGLs (Bbl/d)	33,475	23,659
Light & Medium Crude Oil (Bbl/d)	2,174	2,768
Tight Oil (Bbl/d)	487	462
<b>Total Production (Boe/d)</b>	<b>82,001</b>	<b>68,340</b>
<b>Petroleum and Natural Gas Sales (\$ millions)</b>		
Shale gas revenue	282.6	120.7
Conventional natural gas revenue	90.7	84.2
NGLs revenue	932.6	359.9
Oil revenue	72.5	48.6
Royalty and other revenue	4.6	12.6
<b>Total Petroleum and Natural Gas Sales</b>	<b>1,383.0</b>	<b>626.0</b>
<b>Wells Drilled</b>		
Gross	35	25
Net	35.0	25.0

(1) Sales volumes measured in marketable quantities, after processing and shrinkage.

## ***Grande Prairie Region***

As at December 31, 2021, Paramount had approximately 230,000 gross (176,000 net) acres of land in the Grande Prairie Region, including approximately 100,000 net acres of Montney rights and approximately 65,000 net acres of Deep Basin Cretaceous rights, which partially overlap the Montney rights.

The primary focus in the Grande Prairie Region is the Karr and Wapiti Montney properties, located south of Grande Prairie, Alberta, in the over-pressured, liquids-rich Deep Basin Montney trend. Sales volumes for the Grande Prairie Region averaged 51,869 Boe/d in 2021 (comprised of 138.8 MMcf/d of shale gas, 2.2 MMcf/d of conventional natural gas, 28,356 Bbl/d of NGLs and 5 Bbl/d of light and medium crude oil) and 31,076 Boe/d in 2020 (comprised of 77.2 MMcf/d of shale gas, 1.4 MMcf/d of conventional natural gas, 17,955 Bbl/d of NGLs and 14 Bbl/d of light and medium crude oil). Capital expenditures for the Grande Prairie Region were \$228.6 million in 2021 and \$196.9 million in 2020.

### *Karr*

Paramount is developing its Montney property at Karr, producing natural gas and liquids from horizontal wells drilled on multi-well pads.

Karr production volumes are handled at a third-party natural gas processing facility under a long-term, firm-service arrangement. Gas volumes are either processed at the facility or compressed and dehydrated at the facility and shipped via pipeline to another third-party natural gas processing facility where they are processed under another long-term, firm-service arrangement. Both processing options provide sales specification natural gas and liquids which are shipped via pipeline under long-term, firm-service arrangements. Paramount also has the flexibility to truck liquids from the facility to various sales points.

In 2021, Paramount drilled 20 (20.0 net) Montney wells at Karr and brought onstream 19 (19.0 net) Montney wells.

As of the date of this annual information form, Paramount's 2022 plans at Karr are to drill 12 (12.0 net) Montney wells and bring onstream 16 (16.0 net) Montney wells. The Company also plans to bring onstream additional gas lift compression in the year to support liquids production and build out certain infrastructure to debottleneck future production.

### *Wapiti*

Paramount is developing its Montney property at Wapiti, which is located approximately 5 kilometers to the northwest of the Karr development, producing natural gas and liquids from horizontal wells drilled on multi-well pads.

Wapiti production volumes are processed at a third-party natural gas processing facility under a long-term, firm-service processing arrangement. Sales specification volumes of natural gas and liquids are then shipped via pipeline under long-term, firm-service arrangements. The facility, which commenced operations in 2019, has been designed to process production from liquids-rich Montney wells and includes water management facilities.

In 2021, Paramount drilled 12 (12.0 net) Montney wells at Wapiti and brought onstream 10 (10.0 net) Montney wells.

As of the date of this annual information form, Paramount's 2022 plans at Wapiti are to drill 32 (32.0 net) Montney wells and bring onstream a total of 23 (23.0 net) Montney wells in support of achieving targeted plateau production at Wapiti of approximately 30,000 Boe/d in 2023.

## ***Kaybob Region***

As at December 31, 2021, Paramount had approximately 1.032 million gross (800,000 net) acres of land in the Kaybob Region, including approximately 192,000 net acres of Duvernay rights and approximately 260,000 net acres of Montney rights.

The Kaybob Region includes the Kaybob Smoky, Kaybob North and Kaybob South Duvernay developments and the Kaybob North and Ante Creek Montney oil developments. Sales volumes for the Kaybob Region averaged 22,588 Boe/d in 2021 (comprised of 38.6 MMcf/d of shale gas, 58.6 MMcf/d of conventional natural gas, 3,907 Bbl/d of NGLs and 2,484 Bbl/d of light and medium crude oil and tight oil) and 28,685 Boe/d in 2020 (comprised of 43.8 MMcf/d of shale gas, 82.1 MMcf/d of conventional natural gas, 4,697 Bbl/d of NGLs and 3,010 Bbl/d of light and medium crude oil and tight oil). Capital expenditures for this region were \$14.5 million in 2021 and \$16.4 million in 2020.

Natural gas production in the Kaybob Region is processed at Paramount facilities, including the Kaybob 8-9 natural gas processing plant and Smoky 6-16 natural gas processing plant, and at third-party operated processing facilities under long-term, firm-service processing arrangements. Oil and certain other liquids production is processed through Paramount's 12-10 oil terminal and battery, which has sour fluid handling capacity of 20,000 Bbl/d.

In 2021, Paramount completed and brought onstream 1 (1.0 net) Montney oil well in Ante Creek that was drilled in 2020 and initiated an enhanced oil recovery pilot project on a portion of the Kaybob North Montney oil development to assess the viability of implementing the program across the field.

As of the date of this annual information form, Paramount's 2022 plans in the Kaybob Region are to pursue the development of its Duvernay assets at Kaybob North and Kaybob Smoky. At Kaybob North, the Company plans to drill 2 (2.0 net) Duvernay wells and bring 3 (3.0 net) Duvernay wells onstream. At Kaybob Smoky, the Company plans to expand its 100% owned and operated 6-16 facility to increase natural gas processing capacity from 6.5 MMcf/d to 12 MMcf/d and increase condensate processing and handling capacity from 2,000 Bbl/d to 5,000 Bbl/d. The Company also plans to drill and bring onstream 4 (4.0 net) Duvernay wells at Kaybob Smoky. Other plans in the Kaybob Region in 2022 include bringing onstream 4 (2.5 net) Montney gas wells, 2 (2.0 net) Montney oil wells and 2 (2.0 net) Gething oil wells, 7 (5.5 net) of which will be drilled in 2022, and, contingent on the success of the existing pilot, expanding the enhanced oil recovery project at the Company's Kaybob North Montney oil property to continue to assess the viability of implementation across the entire field.

## ***Central Alberta and Other Region***

As at December 31, 2021, Paramount had approximately 1.386 million gross (664,000 net) acres of land in the Central Alberta and Other Region, including approximately 19,000 net acres of shale gas holdings in the Horn River Basin in northeast British Columbia and approximately 73,000 net acres of Duvernay rights at Willesden Green.

Sales volumes for the Central Alberta and Other Region averaged 7,544 Boe/d in 2021 (comprised of 30.5 MMcf/d of shale gas, 6.5 MMcf/d of conventional natural gas, 1,213 Bbl/d of NGLs and 171 Bbl/d of light and medium crude oil and tight oil) and 8,579 Boe/d in 2020 (comprised of 35.7 MMcf/d of shale gas, 8.5 MMcf/d of conventional natural gas, 1,007 Bbl/d of NGLs and 207 Bbl/d of light and medium crude oil and tight oil). Capital expenditures for the region were \$25.3 million in 2021 and \$4.6 million in 2020.

Development activities in the Central Alberta and Other Region are currently focused on the Duvernay formation at Willesden Green. The Company has to date drilled and completed 7 (7.0 net) horizontal wells at Willesden Green to delineate the Duvernay resource potential of this property.

In 2021, Paramount drilled and brought onstream 2 (2.0 net) Duvernay wells in the Willesden Green area and drilled 1 (1.0 net) exploratory oil well in southern Alberta that was uneconomic and subsequently abandoned.

As of the date of this annual information form, Paramount's 2022 plans in the region include the addition of water infrastructure and the conduct of front-end engineering design studies for future facility expansion that will benefit Duvernay development in the Willesden Green area.

## **BUSINESS STRATEGY**

Paramount has a proud 40+ year history of responsible energy development in Western Canada. The Company seeks to provide long-term value creation for its stakeholders by the early identification, low-cost-capture and efficient and sustainable development of material and contiguous positions in resource plays in the Western Canadian Sedimentary Basin. The Company leverages its technical and managerial expertise and allocates capital within its portfolio of assets to maximize risk-adjusted rates of return.

Paramount's immediate development plans are primarily focused on its liquids-rich natural gas Montney developments in the Grande Prairie Region. Paramount is also pursuing the development of its liquids-rich natural gas Duvernay assets in the Kaybob Region and at Willesden Green in the Central Alberta and Other Region. The Company is actively evaluating, de-risking and optimizing full field development plans for several other properties that will compete for capital in the medium term, including the Montney oil developments at Kaybob North and Ante Creek.

The Company's land acquisition strategy is to identify new opportunities at an early stage and capture large holdings at a low cost as well as to complement existing land positions in its core properties with selective acquisitions. Paramount targets contiguous acreage blocks that are prospective for multi-zone development and have high working interests to preserve operational control.

Paramount employs multi-well pad developments to realize the benefits of economies of scale and minimize capital and operating costs. The Company enhances its horizontal wellbore economics by refining drilling techniques and completion designs. Paramount also invests in processing facilities and gathering infrastructure and enters into firm-service arrangements to secure processing and transportation capacity for its production.

Paramount's primary objectives in managing its capital structure are to: (i) ensure liquidity to fund ongoing operations and capital programs, the settlement of obligations when due and the payment of regular monthly dividends; (ii) preserve financial flexibility and access to capital markets, including for the pursuit of strategic initiatives; and (iii) maximize shareholder returns considering the risk environment.

In addition, the Company maintains a portfolio of emerging longer-term conventional and unconventional assets as longer-term prospects with the potential for future revenue generation, spin-outs or dispositions.

## **OTHER ASSETS**

### ***Investments in Securities***

Paramount holds investments in a number of publicly traded and private corporations as part of its portfolio of investments, including 39,752,142 common shares of NuVista Energy Ltd. as at December 31, 2021 with a market value of approximately \$277 million as of such date. Additional information respecting the Company's investments is included in the 2021 Financial Statements and MD&A.

### ***Cavalier Energy***

Cavalier Energy is a wholly-owned subsidiary of Paramount. As at December 31, 2021, Cavalier Energy held approximately 1.360 million gross (1.315 million net) acres of land located primarily in the Athabasca and Peace River regions of Alberta, 43,000 gross (41,000 net) acres of which are due to expire in 2022. Cavalier Energy's lands, which include 278,000 net acres with Clearwater and Bluesky potential, are prospective for in-situ thermal oil recovery and heavy oil but are not currently being developed. No reserves have been attributed to Cavalier Energy's lands and there are no assurances that Cavalier Energy will develop the properties, generate earnings, operate profitably or provide a return on investment in the future.

### ***Fox Drilling***

Fox Drilling owns seven triple-sized rigs, including four walking rigs, that are used to drill Company wells. The walking rigs have the capability of moving across a lease with the derrick and drill pipe remaining vertical, significantly increasing efficiencies when drilling multi-well pads. Five of the Fox Drilling rigs are bi-fuel capable, enabling the use of Company-produced natural gas to save costs and reduce emissions compared to diesel engines.

### ***Other Strategic Investments***

Paramount holds approximately 103,000 gross (85,000 net) acres of undeveloped land in the Liard Basin in northeast British Columbia and the Northwest Territories prospective for natural gas production from the Besa River shale formation and approximately 483,000 gross (207,000 net) acres of undeveloped land in the Mackenzie Delta and Central Mackenzie in the Northwest Territories prospective for natural gas and oil production.



## RESERVES AND OTHER OIL AND GAS INFORMATION

The reserves information provided below is derived from the McDaniel Report. The McDaniel Report is effective as of December 31, 2021 and dated and prepared as of March 1, 2022. The evaluation by McDaniel was prepared in accordance with the standards included in the COGE Handbook and National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities. McDaniel evaluated 100 percent of the proved plus probable reserves of the Company and reported on them in the McDaniel Report. McDaniel did not evaluate any of the properties of Cavalier Energy.

The following tables summarize, as at December 31, 2021, Paramount's estimated oil, natural gas and NGLs reserves and the net present values of future net revenues for these reserves, using forecast prices and costs prior to provision for interest, general and administrative expenses and certain other corporate costs, the impact of any hedging activities involving derivative financial instruments and Abandonment and Reclamation Costs associated with properties not evaluated in the McDaniel Report. Estimated future net revenues have been presented on a before-tax and after-tax basis. Columns and rows may not add due to rounding.

**The estimates of future net revenues presented in the tables below do not represent the fair market value of the reserves. There is no assurance that the forecast prices and costs assumptions will be attained, and variances could be material. The estimates of oil, natural gas and NGLs reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual oil, natural gas and NGLs reserves may be greater than or less than the estimates provided herein. See "Risk Factors – Reserves Estimates".**

Readers should review the definitions and information under the headings "*Oil and Natural Gas Measures Abbreviations and Terms*" and "*Reserves Categories and Definitions*" in conjunction with the following tables and notes.

Paramount's Reserves Committee, comprised of independent board members, reviews the qualifications and appointment of McDaniel, Paramount's independent qualified reserves evaluator. The Reserves Committee also reviews the procedures for providing information to the evaluator. The Report on Reserves Data by McDaniel on Form 51-101F2 and the Report of Management and Directors on Reserves Data and Other Information on Form 51-101F3 are attached as Appendices A and B, respectively, to this annual information form.

## RESERVES INFORMATION

### Reserves Data

The following table summarizes Paramount's reserves at December 31, 2021. Numbers may not add due to rounding.

Reserves Category	Light & Medium Oil		Tight Oil		NGLs	
	Gross (MBbl)	Net (MBbl)	Gross (MBbl)	Net (MBbl)	Gross (MBbl)	Net (MBbl)
Proved						
Developed Producing	2,960	2,480	471	409	44,916	34,358
Developed Non-Producing	-	-	-	-	-	-
Undeveloped	1,690	1,450	15,759	13,224	101,348	82,033
<b>Total Proved</b>	<b>4,651</b>	<b>3,930</b>	<b>16,230</b>	<b>13,634</b>	<b>146,264</b>	<b>116,390</b>
<b>Total Probable</b>	<b>2,928</b>	<b>2,448</b>	<b>6,752</b>	<b>5,185</b>	<b>150,653</b>	<b>115,462</b>
<b>Total Proved &amp; Probable</b>	<b>7,579</b>	<b>6,378</b>	<b>22,982</b>	<b>18,818</b>	<b>296,918</b>	<b>231,853</b>

Reserves Category	Conventional Natural Gas		Shale Gas		Total Company	
	Gross (MMcf)	Net (MMcf)	Gross (MMcf)	Net (MMcf)	Gross (MBoe)	Net (MBoe)
Proved						
Developed Producing	119,109	111,966	340,852	316,906	125,008	108,726
Developed Non-Producing	-	-	-	-	-	-
Undeveloped	6,439	6,041	567,584	523,851	214,468	185,022
<b>Total Proved</b>	<b>125,548</b>	<b>118,007</b>	<b>908,436</b>	<b>840,757</b>	<b>339,476</b>	<b>293,748</b>
<b>Total Probable</b>	<b>46,937</b>	<b>43,952</b>	<b>929,020</b>	<b>844,256</b>	<b>322,993</b>	<b>271,129</b>
<b>Total Proved &amp; Probable</b>	<b>172,485</b>	<b>161,960</b>	<b>1,837,456</b>	<b>1,685,013</b>	<b>662,469</b>	<b>564,878</b>

## Net Present Value of Future Net Revenue

The following table summarizes the net present values of future net revenue attributable to Paramount's reserves as at December 31, 2021. The net present values are reported before income tax and after income tax and have been discounted using rates of 0 percent, 5 percent, 10 percent, 15 percent and 20 percent. Future Net Revenue does not represent fair market value. Numbers may not add due to rounding.

Reserves Category	Net Present Values of Future Net Revenue									
	Before Income Taxes Discounted at (%/year)					After Income Taxes Discounted at (%/year)				
	@0.0%	@5.0%	@10.0%	@15.0%	@20.0%	@0.0%	@5.0%	@10.0%	@15.0%	@20.0%
	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)
<b>Proved</b>										
Developed Producing	1,049	1,481	1,436	1,332	1,236	1,049	1,481	1,436	1,332	1,236
Developed Non-Producing	-	-	-	-	-	-	-	-	-	-
Undeveloped	4,251	2,939	2,136	1,611	1,248	3,875	2,737	2,026	1,552	1,219
<b>Total Proved</b>	<b>5,300</b>	<b>4,420</b>	<b>3,573</b>	<b>2,944</b>	<b>2,484</b>	<b>4,924</b>	<b>4,218</b>	<b>3,462</b>	<b>2,885</b>	<b>2,455</b>
<b>Probable</b>										
Developed Producing	873	583	435	350	295	873	583	435	350	295
Developed Non-Producing	-	-	-	-	-	-	-	-	-	-
Undeveloped	6,052	3,498	2,227	1,521	1,095	4,518	2,573	1,623	1,106	799
<b>Total Probable</b>	<b>6,925</b>	<b>4,081</b>	<b>2,662</b>	<b>1,871</b>	<b>1,390</b>	<b>5,392</b>	<b>3,156</b>	<b>2,059</b>	<b>1,456</b>	<b>1,094</b>
<b>Total Proved &amp; Probable</b>	<b>12,225</b>	<b>8,501</b>	<b>6,235</b>	<b>4,814</b>	<b>3,874</b>	<b>10,315</b>	<b>7,374</b>	<b>5,521</b>	<b>4,340</b>	<b>3,549</b>

## Future Net Revenue

The following table summarizes the total undiscounted future net revenue attributable to Paramount's reserves as at December 31, 2021.

Reserves Category	Revenue <sup>(1)</sup>	Royalties <sup>(2)</sup>	Operating Costs	Development Costs	Abandonment & Reclamation Costs <sup>(3)</sup>	Future Net Revenue Before Income Taxes	Income Taxes <sup>(4)</sup>	Future Net Revenue After Income Taxes
	MM\$	MM\$	MM\$	MM\$	MM\$	MM\$	MM\$	MM\$
Total Proved Reserves	16,577	2,701	5,016	2,425	1,135	5,300	377	4,924
Total Proved & Probable Reserves	33,778	6,048	10,089	4,205	1,211	12,225	1,910	10,315

(1) Includes all product revenues and other revenues as forecast.

(2) Royalties includes any net profits interests paid.

(3) See "Reserves and Other Oil and Gas Information – Other Oil and Gas Information" for further information regarding Abandonment and Reclamation Costs.

(4) Estimates of the after income tax value of future net revenue have been prepared based on before income tax reserves information and include assumptions and estimates of Paramount's tax pools and the sequences of claims and rates of claim thereon.

### Future Net Revenue by Product Type

The following table summarizes the net present value of future net revenue by product type and on a unit value basis, before income tax, attributable to Paramount's net reserves evaluated at December 31, 2021. Amounts have been discounted at 10 percent. Numbers may not add due to rounding.

Reserves Category	Product Type <sup>(1)</sup>	Future Net Revenue Before Income Taxes (discounted @ 10%)	Unit Value <sup>(2)</sup>
		MM\$	\$/Mcf \$/Bbl
Total Proved Reserves	Light and Medium Oil	131	33.43
	Tight Oil	321	23.57
	Conventional Natural Gas	83	0.86
	Shale Gas	3,037	3.87
	<b>Total</b>	<b>3,573</b>	
Total Proved & Probable Reserves	Light and Medium Oil	206	32.38
	Tight Oil	456	24.22
	Conventional Natural Gas	118	0.92
	Shale Gas	5,455	3.39
	<b>Total</b>	<b>6,235</b>	

(1) Including solution gas and by-products in the case of Light and Medium Oil and Tight Oil and by-products in the case of Conventional Natural Gas and Shale Gas.

(2) Unit values are calculated by dividing the net present value of future net revenue by product type by net reserves for that product type.

### Summary of Pricing and Inflation Rate Assumptions

Pricing and inflation rate assumptions used in the McDaniel Report in calculating the net present value of future net revenue attributable to Paramount's reserves as of December 31, 2021 were an average of forecast prices and inflation rate assumptions published by Sproule Associates Ltd. as at December 31, 2021 and GLJ Petroleum Consultants Ltd. and McDaniel as at January 1, 2022 (each of which is available on their respective websites at [www.sproule.com](http://www.sproule.com), [www.gljpc.com](http://www.gljpc.com) and [www.mcdan.com](http://www.mcdan.com)). The forecast prices are set out in the table below. An inflation rate for forecasting costs of 0% was used in 2022, 2.33% in 2023 and 2.0% for each year thereafter.

Year	U.S. Henry Hub Gas \$/US/MMBtu	AECO Spot \$/Cdn/MMBtu	WTI Crude Oil \$/US/Bbl	Edmonton Light Crude Oil \$/Cdn/Bbl	Edmonton Cond. & Natural Gasolines \$/Cdn/Bbl	Edmonton Ethane \$/Cdn/Bbl	Edmonton Propane \$/Cdn/Bbl	Edmonton Butane \$/Cdn/Bbl	Exchange Rate \$/US/\$Cdn
2023	3.44	3.21	68.78	80.73	85.53	10.33	35.92	50.17	0.797
2024	3.17	3.05	66.76	78.01	82.98	9.81	34.62	48.53	0.797
2025	3.24	3.11	68.09	79.57	84.63	10.01	35.31	49.50	0.797
2026	3.30	3.17	69.45	81.16	86.33	10.22	36.02	50.49	0.797
2027	3.37	3.23	70.84	82.78	88.05	10.42	36.74	51.50	0.797
2028	3.44	3.30	72.26	84.44	89.82	10.64	37.47	52.53	0.797
2029	3.50	3.36	73.70	86.13	91.61	10.86	38.22	53.58	0.797
2030	3.58	3.43	75.18	87.85	93.44	11.08	38.99	54.65	0.797
2031	3.65	3.50	76.68	89.61	95.32	11.31	39.77	55.74	0.797

Thereafter prices escalated at 2.0% per year and exchange rate of \$0.797 US/Cdn applied.

The price of natural gas, NGLs and oil are determined by negotiations between buyers and sellers. See "*Industry Conditions – Pricing and Marketing*" and "*Industry Conditions – Export, Transportation and Curtailment*".

Paramount's 2021 weighted average realized prices, before the settlement of financially settled commodity contracts, were \$3.72/Mcf for natural gas, \$74.68/Bbl for oil and \$76.32/Bbl for NGLs. Additional information respecting Paramount's financial commodity contracts is included in the 2021 Financial Statements and MD&A.

Paramount's natural gas portfolio primarily consists of sales priced at Alberta, British Columbia, California, Chicago, Ventura and Eastern Canada markets, which are sold in a combination of daily, monthly, seasonal and fixed-price physical contracts.

Paramount ships a majority of its oil and condensate production on third-party pipelines for sale in Edmonton, Alberta, where volumes sold generally receive higher prices due to the greater diversity of potential purchasers. A minimal portion of the Company's production is sold at the lease when warranted by economic or operational factors. Sales prices for condensate and oil are based on West Texas Intermediate reference prices, adjusted for transportation, quality and density differentials.

Other NGLs production is sold under a variety of contracts with prices based on the Edmonton market or based on weighted-average sales prices received by the purchaser, adjusted for transportation and fractionation.

In addition, the Company may purchase and sell third-party products to provide operational flexibility in transportation, processing or fractionation commitments.

## Reserves Reconciliation

The following table reconciles Paramount's gross reserves by principle product type for the year ended December 31, 2021. Numbers may not add due to rounding.

	Shale Gas (Bcf)	Conventional Natural Gas (Bcf)	Light & Medium Oil (MBbl)	Tight Oil (MBbl)	NGLs (MBbl)	Total Reserves (MBoe)
<b>PROVED</b>						
December 31, 2020	850.5	163.9	7,972	8,204	126,080	311,317
Technical Revisions	(3.4)	0.3	(3,107)	5,140	854	2,375
Acquisition	-	-	-	-	-	-
Disposition	(41.2)	(33.2)	-	-	(2,415)	(14,806)
Economic Factors	24.0	19.0	579	82	1,676	9,512
Extension / Improved Recovery	154.4	-	-	2,982	32,288	61,007
Production	(75.9)	(24.6)	(794)	(178)	(12,218)	(29,930)
December 31, 2021	908.4	125.5	4,651	16,230	146,264	339,476
<b>PROBABLE</b>						
December 31, 2020	911.9	68.0	4,405	20,850	132,138	320,708
Technical Revisions	(67.1)	(9.6)	(1,693)	(11,148)	5,534	(20,093)
Acquisition	-	-	-	-	-	-
Disposition	(21.3)	(16.9)	-	-	(1,229)	(7,592)
Economic Factors	8.5	5.4	217	32	686	3,255
Extension / Improved Recovery	97.0	-	-	(2,982)	13,525	26,714
December 31, 2021	929.0	46.9	2,928	6,752	150,653	322,993
<b>PROVED PLUS PROBABLE</b>						
December 31, 2020	1,762.4	231.9	12,377	29,054	258,217	632,025
Technical Revisions	(70.6)	(9.2)	(4,800)	(6,008)	6,388	(17,717)
Acquisition	-	-	-	-	-	-
Disposition	(62.5)	(50.1)	-	-	(3,644)	(22,398)
Economic Factors	32.5	24.5	796	114	2,361	12,767
Extension / Improved Recovery	251.4	-	-	-	45,814	87,722
Production	(75.9)	(24.6)	(794)	(178)	(12,218)	(29,930)
December 31, 2021	1,837.5	172.5	7,579	22,982	296,918	662,469

Negative technical revisions to probable shale gas were primarily attributable to changes at Wapiti and development plan changes in the Kaybob Region. Negative technical revisions to light and medium oil were primarily attributable to the removal of undeveloped locations in the Kaybob Region due to changes in development plans. Positive technical revisions to proved tight oil were primarily attributable to improvements in well design at Kaybob North Duvernay. Negative technical revisions to probable tight oil were primarily attributable to the reclassification of tight oil to NGLs at Willesden Green Duvernay.

Dispositions were primarily attributable to the non-core property dispositions described under "General Development of the Business – 2021".

Economic factors were attributable to higher overall commodity price forecasts.

Extension / improved recovery was primarily attributable to the acceleration of development plans across the Company's Montney and Duvernay resource plays, with the negative extension / improved recovery with respect to probable tight oil resulting from the movement of undeveloped locations from probable into proved.

## Additional Information Relating to Reserves Data

### Developed and Undeveloped Reserves

The following table summarizes the Company's gross proved and proved plus probable developed reserves and undeveloped reserves as at December 31, 2021 and the net present value of future net revenue of such reserves before income taxes, undiscounted and discounted at 10%. Numbers may not add due to rounding.

Category	Proved			Proved plus Probable		
	Gross Reserves (MBoe)	NPV @0.0% (MM\$)	NPV @10.0% (MM\$)	Gross Reserves (MBoe)	NPV @0.0% (MM\$)	NPV @10.0% (MM\$)
Developed	125,008	1,049	1,436	169,419	1,922	1,872
Undeveloped	214,468	4,251	2,136	493,050	10,303	4,363
<b>Total</b>	<b>339,476</b>	<b>5,300</b>	<b>3,573</b>	<b>662,469</b>	<b>12,225</b>	<b>6,235</b>

### Proved Undeveloped Reserves

The following table summarizes the Company's gross proved undeveloped reserves that were first attributed in each of the three most recent financial years.

Product Type	2019		2020		2021	
	First Attributed	Total at Year End	First Attributed	Total at Year End	First Attributed	Total at Year End
Shale Gas (Bcf)	87.0	622.6	45.3	542.7	154.4	567.6
Conventional Natural Gas (Bcf)	-	19.8	4.0	18.4	-	6.4
Light and Medium Crude Oil (MBbl)	-	6,411	-	3,782	-	1,690
Tight Oil (MBbl)	5,417	5,417	2,507	7,771	2,982	15,759
NGLs (MBbl)	11,102	104,412	4,817	85,589	32,288	101,348

Reserves are classified as proved undeveloped if they meet the requirements prescribed by the COGE Handbook, and if they are expected to be recovered from known accumulations on previously undrilled acreage or they are reserves from existing wells where significant expenditure is required to render them capable of production.

### Probable Undeveloped Reserves

The following table summarizes the Company's gross probable undeveloped reserves that were first attributed in each of the three most recent financial years.

Product Type	2019		2020		2021	
	First Attributed	Total at Year End	First Attributed	Total at Year End	First Attributed	Total at Year End
Shale Gas (Bcf)	239.8	769.4	44.0	816.1	97.0	808.2
Conventional Natural Gas (Bcf)	-	11.6	7.1	17.0	-	5.0
Light and Medium Crude Oil (MBbl)	-	4,126	312	2,841	-	1,353
Tight Oil (MBbl)	1,943	11,963	7,528	20,677	-	6,556
NGLs (MBbl)	36,150	111,050	3,452	120,042	13,525	135,129

Reserves are classified as probable undeveloped when they are less certain to be recovered than proved undeveloped reserves as prescribed by the COGE Handbook.

### *Plans for Developing Proved and Probable Undeveloped Reserves*

Paramount's development plans for its properties take into account a number of factors, including estimated capital expenditures, the timing for access to required processing, transportation and fractionation capacity and the course of development necessary to optimize production, cost efficiency, safety and the environment over the life of the property.

96% of the Company's proved undeveloped reserves and 98% of its probable undeveloped reserves are related to its unconventional resource play Montney and Duvernay properties. Paramount's development plans for these properties are focused on the cost efficient and orderly development of the Montney and Duvernay unconventional resource plays over time within the context of available processing and transportation capacity and allocated drilling and development capital. The scheduled timing of the development of the Company's proved undeveloped and probable undeveloped Montney and Duvernay reserves extends past two years due to the extent of the drilling inventory associated with the resource plays, the significant levels of capital required for development and anticipated processing and transportation capacity. Proved undeveloped unconventional resource play Montney and Duvernay reserves are scheduled for development within 5 years and probable undeveloped reserves are scheduled for development within 10 years.

The remainder of the Company's proved undeveloped and probable undeveloped reserves are scheduled for development within 5 years. The scheduled timing of the development of these reserves extends past two years due to the anticipated allocation of available drilling and development capital.

The ultimate timing of the development of the Company's undeveloped reserves will be dependent on a number of factors, including prevailing commodity prices, capital expenditure levels and priorities, royalties and economic conditions, applicable regulations, costs, the evolution of development programs for key fields, changing technical conditions and the availability of transportation, processing and fractionation capacity.

### *Significant Factors or Uncertainties Affecting Reserves Data*

Estimating reserves is a complex process requiring significant judgments based on available geological, geophysical, engineering and economic data. As additional data from development activities, including production results, becomes available and as internal or external economic conditions change, reserves estimates may change substantially. Paramount's reserves can be materially affected by changes in internal and external factors, including, without limitation: commodity prices; access to processing, fractionation and transportation capacity; well performance; royalties; capital, operating, transportation and other costs; regulatory approvals and requirements; and available capital.

Paramount has a significant amount of proved undeveloped and probable undeveloped reserves assigned to unconventional resource plays, primarily its Montney and Duvernay properties. Large capital expenditures are required to convert these undeveloped reserves into developed producing reserves. Changes to future commodity price forecasts relative to the forecast in the McDaniel Report would also have an impact on the economics and timing of the development of undeveloped reserves.

Abandonment and Reclamation Costs affecting the reserves data are discussed under "*Other Oil and Gas Information - Abandonment and Reclamation Costs*" below.

See "*Risk Factors – Reserves Estimates*", in particular, as well as the other risk factors herein.



### Future Development Costs

The following table provides the undiscounted estimated future development costs deducted in the estimation of future net revenue. Numbers may not add due to rounding.

Development Cost Forecast (MM\$)	2022	2023	2024	2025	2026	Remaining	Total
Total Proved Undiscounted	497	488	562	466	293	118	2,425
Total Proved & Probable Undiscounted	498	488	580	566	460	1,614	4,205

Paramount expects that future development costs will be funded with cash from operating activities. Depending on prevailing capital requirements and market conditions, Paramount may fund portions of the future development costs from the proceeds of the sale of non-core assets, from the proceeds of capital market transactions or from borrowings under the Credit Facility. Additional information concerning the Credit Facility and Paramount's costs of borrowing thereunder is included in 2021 Financial Statements and MD&A.

### OTHER OIL AND GAS INFORMATION

#### Oil and Gas Wells

The table below sets out the producing and non-producing oil and natural gas wells in which Paramount had a working interest as at December 31, 2021. Non-producing wells are wells that have previously produced oil or natural gas or are expected to produce oil or natural gas in the future but exclude wells that have been abandoned or converted to water disposal, water injection or service wells.

	Producing		Non-producing	
	Gross	Net	Gross	Net
<b>Oil wells</b>				
Alberta	257	244.5	488	448.7
Northwest Territories	-	-	3	1.7
Subtotal	257	244.5	491	450.4
<b>Natural gas wells</b>				
Alberta	1,083	818.8	895	655.9
British Columbia	68	32.4	47	25.5
Northwest Territories	-	-	26	16.3
Subtotal	1,151	851.2	968	697.7
<b>Total</b>	<b>1,408</b>	<b>1,095.8</b>	<b>1,459</b>	<b>1,148.0</b>

### ***Properties Without Attributed Reserves and Expiries***

As at December 31, 2021, Paramount's land base, not including lands held by Cavalier Energy, encompassed approximately 2.648 million gross (1.640 million net) acres in Western Canada. Approximately 1.995 million gross (1.126 million net) acres of this land had no attributed reserves as at December 31, 2021.

As at December 31, 2021, Paramount held approximately 134,000 gross (119,000 net) acres of land due to expire in 2022. The actual acreage that will expire in 2022 may be less than this amount to the extent leases are continued through drilling, farm outs or other activities prior to their expiry.

In this annual information form, gross acreage is calculated only once per lease or license of petroleum and natural gas rights regardless of whether Paramount holds a working and/or royalty interest and whether or not the lease or license includes multiple prospective formations. If Paramount holds interests in different formations under the same surface area pursuant to separate leases or licenses, the acreage set out in each lease or license is counted.

### ***Significant Factors or Uncertainties Relevant to Properties with No Attributed Reserves***

Paramount has properties with no attributed reserves, including its holdings in the Liard Basin in northeast British Columbia and the Northwest Territories of approximately 103,000 gross (85,000 net) acres and its holdings in the Mackenzie Delta and Central Mackenzie in the Northwest Territories of approximately 483,000 gross (207,000 net) acres, that are located in remote areas and may experience operational challenges and higher development costs due to the geographic location, weather conditions and limited infrastructure in the area. In addition, these properties and the properties held by Cavalier Energy will require significant capital to develop and there are no assurances that this acreage will ever be developed and, if it is, whether it will operate profitably or provide a return on investment.

### ***Abandonment and Reclamation Costs***

Abandonment and Reclamation Costs are estimated by incorporating assumptions respecting the expected costs of particular activities and the expected timing thereof. Costs are estimated for individual assets and then aggregated to determine total estimated Abandonment and Reclamation Costs. In making such estimates, reference is made to historical costs and values, internal estimates, third-party environmental reports and assessments and information provided by provincial regulatory authorities, industry organizations and third-party engineering firms. See "*Risk Factors - Abandonment and Reclamation Cost Estimates*".

Paramount estimates, as at the end of each fiscal quarter, the Abandonment and Reclamation Costs related to its working interest in all wells, facilities, pipelines and associated surface leases. These estimates are inflated at the long-term inflation rate, discounted at the credit-adjusted risk-free discount rate and recorded as asset retirement obligations in the financial statements of the Company. Paramount has recorded in its audited consolidated financial statements for the year ended December 31, 2021 asset retirement obligations of \$651.1 million (using a credit-adjusted risk-free discount rate of 7.0 percent per annum and an inflation rate of 2.0 percent per annum). Estimated asset retirement obligations as at December 31, 2021 calculated on an undiscounted and uninflated basis were \$1,318.7 million. Additional information concerning asset retirement obligations and the calculation thereof is included in the 2021 Financial Statements and MD&A.

In estimating the future net revenue of the Company's reserves disclosed in this annual information form, the McDaniel Report deducts the estimated Abandonment and Reclamation Costs for Paramount's working

interest in all wells, undeveloped reserves locations, facilities, pipelines and associated surface leases related to all properties evaluated in the McDaniel Report. Estimated Abandonment and Reclamation Costs of \$1,211.1 million (undiscounted, but inflated at a rate 2.33 percent in 2023 and 2.0 percent per annum thereafter) were deducted in the McDaniel Report in estimating the undiscounted future net revenue of the Company's proved plus probable reserves as at December 31, 2021. Estimated Abandonment and Reclamation Costs used for the purposes of the McDaniel Report calculated on an undiscounted and uninflated basis were \$685.6 million as at December 31, 2021.

The Abandonment and Reclamation Costs deducted in estimating the future net revenue of the Company's reserves in the McDaniel Report differ from the estimates of asset retirement obligations recorded in the Company's financial statements in the following ways: (i) the McDaniel Report deducts estimated costs associated with undeveloped wells, facilities, pipelines and associated surface leases that will be required for future development of undeveloped reserves, whereas the estimated asset retirement obligations recorded in the Company's financial statements include costs only with respect to existing wells, facilities, pipelines and associated surface leases; (ii) the McDaniel Report does not include estimated costs with respect to properties not evaluated in the McDaniel Report, such as the Company's permanently shut-in Zama and Hawkeye properties, whereas the estimated asset retirement obligations recorded in the Company's financial statements include costs with respect to all of the Company's properties, and (iii) different discount and inflation rates are used in each case.

For illustrative comparison purposes, the table below sets out the composition of the estimated asset retirement obligations (calculated on an uninflated and undiscounted basis) recorded in the Company's audited consolidated financial statements as at December 31, 2021 compared to the composition of the estimated Abandonment and Reclamation Costs (calculated on an uninflated and undiscounted basis) used in estimating the future net revenue of the Company's proved plus probable reserves in the McDaniel Report. Numbers may not add due to rounding.

	Existing Wells, Facilities, Pipelines and Surface Leases (MM\$)	Future Wells, Facilities, Pipelines and Surface Leases for Undeveloped Reserves (MM\$)	Total Undiscounted and Uninflated Abandonment and Reclamation Costs used in the McDaniel Report (MM\$)
Costs associated with properties evaluated by McDaniel	612.2	73.4	685.6
Costs associated with properties not evaluated by McDaniel	706.5		
<b>Total Undiscounted and Uninflated Asset Retirement Obligations in the Company's Financial Statements as at December 31, 2021</b>	<b>1,318.7</b>		

### **Forward Contracts**

The nature of Paramount's operations results in exposure to fluctuations in commodity prices, foreign exchange rates and interest rates. Paramount monitors and, from time-to-time, utilizes derivative financial instruments and/or physical forward delivery contracts to hedge its exposure to these risks. Paramount's derivative contracts and/or future commitments are disclosed in its audited consolidated financial statements as at and for the year ended December 31, 2021, which can be found under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com).

### ***Pipeline Transportation and Production Processing Commitments***

As part of normal business operations, the Company has entered into firm-service agreements for the processing and transportation of natural gas, NGLs and oil. The Company renews or amends existing agreements and enters into new agreements from time-to-time based on forecast capacity requirements.

The Company's processing and transportation commitments exceed forecast production volumes of proved reserves in the McDaniel Report by an average of approximately 2,800 Boe/d for processing and approximately 17,400 Boe/d for transportation over the next 5 years. If the Company's actual sales volumes are equivalent to the forecast production of proved reserves, the aggregate fees that would be paid by the Company in respect of unused capacity would average approximately \$7.6 million for processing and \$9.8 million for transportation per year over the next 5 years. If the Company's actual sales volumes are equivalent to the forecast production of proved plus probable reserves in the McDaniel Report, which is approximately 21 percent higher than forecast production from proved reserves, no fees would be paid by the Company in respect of unused processing capacity and the aggregate fees that would be paid by the Company in respect of unused transportation capacity would average approximately \$5.7 million per year over the next 5 years.

The production, processing and transportation of natural gas, NGLs and oil are interdependent and the Company's ability to fulfill each commitment could be impacted by well performance and disruptions and constraints at the Company's and/or at third-party facilities and pipelines. The Company could experience a financial loss and its operations could be adversely affected if Paramount is unable to fulfill its commitments through its operations or, where necessary, amend its commitments or assign any excess capacity to one or more third-parties. Additional disclosure related to such commitments can be found in the 2021 Financial Statements and MD&A.

### ***Tax Horizon***

Based on the current tax regime, current commodity prices, the Company's tax pools, assumptions of production and capital expenditures, anticipated future net revenue from assumed production and capital expenditures and assumptions regarding the allocation of free cash flow, Paramount forecasts that material Canadian income taxes will not be payable for at least five years. Taxable income varies depending on total income and expenses and Paramount's estimate is sensitive to assumptions regarding commodity prices, production, cash from operating activities, capital spending levels, the allocation of free cash flow and acquisition and disposition transactions. Changes in these factors could result in the Company paying income taxes earlier than expected.

Additional information concerning Paramount's tax pools is included in the 2021 Financial Statements and MD&A. Also, see "*Risk Factors – Government Regulation*".

### Costs Incurred

The following table summarizes the costs incurred by Paramount for property acquisitions and exploration and development activities in 2021. Numbers may not add due to rounding.

Cost Type (\$ millions)	2021
Acquisitions	
Proved properties	1.0
Unproved properties	4.4
Exploration	9.4
Development (including facilities)	270.6
<b>Total</b>	<b>285.5</b>

### Exploration and Development Activities

The following table summarizes Paramount's drilling activity for the year ended December 31, 2021. All natural gas wells drilled were development wells, meaning wells drilled within or in close proximity to a discovered pool of petroleum or natural gas. The dry hole drilled in 2021 was an exploratory oil well.

	Gross	Net
Natural Gas	34	34.0
Dry Hole	1	1.0
<b>Total</b>	<b>35</b>	<b>35.0</b>

For a description of the Company's currently planned exploration and development activities for 2022, see "Narrative Description of the Business – Oil and Gas Properties".

### Production Estimates

The following table summarizes the estimated working interest production for 2022 from the McDaniel Report in total and for the Karr and Wapiti properties separately.

	Estimated Total Production (Gross)		Estimated Karr Production (Gross)		Estimated Wapiti Production (Gross)	
	Proved	Probable	Proved	Probable	Proved	Probable
Shale Gas (MMcf)	84,054	9,267	41,828	5,473	18,377	2,496
Conventional Natural Gas (MMcf)	23,587	1,054	84	2	99	3
Light & Medium Crude Oil (MBbl)	837	80	-	-	-	-
Tight Oil (MBbl)	186	14	-	-	-	-
NGLs (MBbl)	13,702	1,854	6,960	1,051	4,693	699
<b>Total Production (MBoe)</b>	<b>32,665</b>	<b>3,669</b>	<b>13,945</b>	<b>1,964</b>	<b>7,772</b>	<b>1,115</b>

## Production History

The following table summarizes average daily sales volumes for Paramount before the deduction of royalties on a quarterly and annual basis for 2021.

Sales <sup>(1)</sup>	2021	Q4	Q3	Q2	Q1
Shale Gas (MMcf/d)	207.9	220.4	207.1	205.8	197.8
Conventional Natural Gas (MMcf/d)	67.3	64.4	62.6	67.3	75.3
Light & Medium Crude Oil (Bbl/d)	2,174	2,048	2,032	2,265	2,358
Tight Oil (Bbl/d)	487	497	475	494	479
NGLs (Bbl/d)	33,475	35,259	34,687	31,722	32,187
<b>Total (Boe/d)</b>	<b>82,001</b>	<b>85,265</b>	<b>82,150</b>	<b>79,995</b>	<b>80,540</b>

(1) Sales volumes measured in marketable quantities, after processing and shrinkage.

The following table summarizes Paramount's average per-unit netbacks, by principal product, on a quarterly and annual basis for 2021.

	Netback - 2021 <sup>(1)</sup>				
	2021	Q4	Q3	Q2	Q1
<b>Shale gas (including by-products) <sup>(2)</sup> (\$/Mcf)</b>					
Revenue	8.04	9.55	8.47	7.19	6.75
Royalties	(0.68)	(1.14)	(0.63)	(0.51)	(0.40)
Operating costs <sup>(3)</sup>	(1.77)	(1.76)	(1.72)	(1.80)	(1.82)
Transportation and NGLs processing costs	(0.66)	(0.58)	(0.69)	(0.71)	(0.68)
<b>Netback</b>	<b>4.93</b>	<b>6.07</b>	<b>5.43</b>	<b>4.17</b>	<b>3.85</b>
<b>Conventional natural gas <sup>(2)</sup> (including by-products) (\$/Mcf)</b>					
Revenue	5.12	6.52	5.42	4.26	4.37
Royalties	(0.55)	(0.68)	(0.58)	(0.54)	(0.41)
Operating costs <sup>(3)</sup>	(2.11)	(2.32)	(2.17)	(1.90)	(2.07)
Transportation and NGLs processing costs	(0.58)	(0.53)	(0.62)	(0.65)	(0.53)
<b>Netback</b>	<b>1.88</b>	<b>2.99</b>	<b>2.05</b>	<b>1.17</b>	<b>1.36</b>
<b>Light and Medium Crude &amp; Tight Oil <sup>(2)</sup> (including by-products) (\$/Boe)</b>					
Revenue	75.31	88.05	78.49	72.48	63.53
Royalties	(12.59)	(16.76)	(15.23)	(12.30)	(6.64)
Operating costs <sup>(3)</sup>	(23.04)	(28.03)	(20.43)	(21.18)	(22.63)
Transportation and NGLs processing costs	(2.13)	(0.35)	(2.39)	(3.35)	(2.31)
<b>Netback</b>	<b>37.55</b>	<b>42.91</b>	<b>40.44</b>	<b>35.65</b>	<b>31.95</b>

(1) The Company's production volumes are generally gathered, processed and transported through common gathering systems, processing facilities and transportation pipelines. As a result, by-product sales volumes, royalties and operating and other costs have been allocated to each product type based on volume equivalencies and other reasonable methods of allocation.

(2) Based on sales volumes measured in marketable quantities, after processing and shrinkage.

(3) Operating costs include all costs related to the operation of wells and Paramount's facilities and gathering systems. Processing revenue earned from Company facilities has been deducted from these costs.

The Company realized a loss of \$218.3 million on the settlement of risk management contracts in 2021. This loss has not been reflected in the amounts above.

The following table summarizes the Company's total sales volumes for the year ended December 31, 2021, as well as for its Karr and Wapiti fields separately.

	Shale Gas MMcf	Conventional Natural Gas MMcf	NGLs MBbl	Light & Medium Oil MBbl	Tight Oil MBbl	Total Company MBoe
Total:	75,883	24,560	12,218	794	178	29,930
Karr	39,356	486	7,369	-	-	14,009
Wapiti	11,334	212	2,978	-	-	4,903

## **INDUSTRY CONDITIONS**

### **COVID-19 PANDEMIC**

The course of the COVID-19 pandemic remains highly uncertain. Pricing conditions for NGLs, oil and natural gas, general economic conditions (including inflation and monetary policy) and the availability and cost of materials and third-party services remain subject to the impact of the COVID-19 pandemic and the response thereto. The ultimate impact of the pandemic on Paramount's future operations and financial performance is unknown and is dependent on a number of unpredictable factors outside of the knowledge and control of the Company. See "*Risk Factors – COVID-19 Pandemic*".

As part of its efforts to mitigate the effect of the pandemic on its operations, Paramount implemented a corporate pandemic response plan that includes processes: (i) to enable its head and field office employees to work either remotely or in the office depending on public health measures in place from time to time and (ii) requiring testing and/or proof of vaccination for personnel working at business-critical field locations.

### **COMPETITIVE CONDITIONS, SEASONALITY AND TRENDS**

Competitive conditions affecting Paramount are described under "*Risk Factors – Industry Competition*".

The development and exploration of oil and natural gas reserves, including the drilling, completion and tie-in of wells, and road, lease, facility and pipeline construction, is dependent on access to areas where operations are to be conducted. Winter-access areas, seasonal weather variations, including freeze-up, break-up and wet ground conditions, and other restrictions can affect access. In addition, the seasonal accessibility of certain locations increases competition for equipment and personnel during those periods.

The oil and natural gas industry continues to develop new technologies that increase the recoverability of natural gas, NGLs and oil and/or improve returns, particularly longer multi-stage hydraulically-fractured horizontal wells incorporating higher intensities of proppant per stage and more fracs per well. Reservoir floods, polymer injection, water or oil-based fractionation fluids, and carbon dioxide injection techniques have also been used to increase recoveries.

## PRICING AND MARKETING

Negotiations between buyers and sellers determine the price of oil. As a result, macroeconomic and microeconomic market forces determine the price of oil. Worldwide supply and demand factors are the primary determinant of oil prices; however, regional market and transportation factors also influence prices. The specific price depends, in part, on oil quality, prices of competing fuels, distance to market, availability of transportation, value of refined products, supply/demand balance and contractual terms of sale.

Negotiations between buyers and sellers determine the price of natural gas sold in intra-provincial, interprovincial and international trade. The price received by a natural gas producer depends, in part, on the price of competing natural gas supplies and other fuels, natural gas quality, distance to market, availability of transportation, length of contract term, weather conditions, supply/demand balance within local, regional and larger interconnected markets and other contractual terms. Spot and future prices are also influenced by supply and demand fundamentals with respect to specific delivery points on various trading platforms.

The pricing of condensate and other NGLs sold in intra-provincial, interprovincial and international trade is determined by negotiation between buyers and sellers. Such prices depend, in part, on the quality of the NGLs, price of competing chemical stock, distance to market, access to downstream transportation, length of contract term, supply/demand balance within local, regional and larger interconnected markets and other contractual terms.

## EXPORT, TRANSPORTATION AND CURTAILMENT

Oil, natural gas and NGLs exports from Canada are subject to the *Canadian Energy Regulator Act* (Canada) and its associated regulations. Oil, natural gas and NGLs exports are authorized by short term orders or long term licenses granted under such legislation by the Canadian Energy Regulator. Oil, natural gas and NGLs exports from Canada are subject to international trade agreements and treaties that have been entered into by Canada.

Producers negotiate with pipeline operators (or other transport providers) to transport their products to market on a firm or interruptible basis. Transportation availability is highly variable across different areas and regions. This variability can determine the nature of transportation commitments available, the number of potential customers that can be reached in a cost-effective manner and the price received. From time to time, a lack of sufficient pipeline and rail infrastructure capacity has resulted in producers in Western Canada experiencing lower commodity pricing relative to other markets. Although certain pipeline and other transportation projects are underway, many contemplated projects have been cancelled or delayed due to regulatory hurdles, court challenges and economic and other socio-political factors. Major pipeline and other transportation infrastructure projects typically require a significant length of time to complete once all regulatory approvals have been obtained. The timing of completion of major pipeline and other transportation projects currently underway is uncertain.

Governments may order the curtailment or restriction of production of oil, NGLs or natural gas. On December 2, 2018, the Government of Alberta announced that, commencing January 1, 2019, it would order a short-term reduction in provincial oil and bitumen production. The curtailment order was suspended in December 2020. Paramount was not subject to the curtailment order as it did not produce more than 20,000 Bbl/d of oil.



## ROYALTIES

On January 1, 2017, the Government of Alberta implemented a modernized royalty framework (the "Modernized Framework"). The Modernized Framework applies to all oil and natural gas wells spud on or after January 1, 2017. All oil and natural gas wells currently subject to the previous royalty framework will become subject to the Modernized Framework after December 31, 2026. The Modernized Framework does not apply to oil sands production, which has a separate royalty framework.

Under the Modernized Framework, royalties are determined on a "revenue-minus-costs" basis, with the cost component based on a drilling and completion cost allowance formula for each well, which is dependent on the vertical depth and horizontal length of the well and proppant placed. The formula is based on the industry's average drilling and completion costs as determined by the Alberta Department of Energy ("ADOE") on an annual basis. The cost component attempts to incentivize innovation to reduce costs by allowing wells with below average costs to remain at a lower royalty rate even after recovering actual costs. Producers pay a flat royalty rate of five percent of gross revenue from each well that is subject to the Modernized Framework until the well reaches payout. Payout for a well is the point at which cumulative revenues from the well equals the drilling and completion cost allowance for the well determined by the ADOE. After payout, producers pay an increased royalty rate on revenues determined by reference to commodity prices of the various hydrocarbons and rates of production from the well. Once production in a mature well drops below a threshold level where the rate of production is too low to sustain the full royalty burden, its royalty rate is adjusted downward to a minimum of five percent as the mature well's production declines.

As part of the Modernized Framework, the Alberta government implemented two strategic royalty programs to encourage oil and natural gas producers to increase production and explore resources in new areas: the Enhanced Hydrocarbon Recovery Program and the Emerging Resources Program. These programs take into account the higher costs associated with development of emerging resources and the use of enhanced recovery methods when calculating royalty rates.

The *Royalty Guarantee Act* (Alberta) went into effect on July 18, 2019. The legislation provides that no fundamental restructuring of the legislative framework generally applicable to Crown royalties in Alberta shall be implemented for a period of 10 years and, when a well starts producing, it will be under the same royalty structure for a period of 10 years.

## LICENSING AND LIABILITY MANAGEMENT

In Alberta, the AER administers regulatory requirements respecting the eligibility of companies to hold licenses for wells, pipelines and facilities and the eligibility of transferees of such licenses in an effort to ensure that licensees have the financial wherewithal to carry out their abandonment, reclamation and other regulatory obligations. In addition, regulations and AER directives require licensees to contribute to the Orphan Well Fund to fund the costs of suspending, abandoning, remediating and reclaiming wells, pipelines and facilities when the licensee becomes defunct or insolvent.

In December 2021, the AER implemented Directive 088: Licensee Life-Cycle Management in support of the Government of Alberta's new liability management framework which is intended to better identify companies that might be unable to meet their abandonment, reclamation and other regulatory obligations. Directive 088: (i) provides for a holistic assessment of a licensee's capabilities and performance across the energy development life-cycle, which will be supported by a new Licensee Capability Assessment; (ii) introduces the Licensee Management Program, which determines how licensee management will occur across the energy development life-cycle; (iii) introduces the Inventory Reduction Program, which sets mandatory closure spend targets for closure activities by licensees; and (iv) describes the first phase of

changes to the AER's financial assurance system as the AER transitions to a broader security framework to replace the existing security collection system.

See "*Risk Factors – Environmental, Health and Safety Laws and Regulations*".

## **LAND TENURE**

The Government of Alberta owns a large majority of the mineral rights to oil and natural gas located in the province. The ADOE grants rights to explore for and produce provincially-owned oil and natural gas under leases, licenses and permits for varying terms, and on conditions set forth in provincial legislation, including requirements to perform specific work or make payments. The Government of Alberta conducts regular land sales where companies bid for leases and licenses to explore for and produce provincially owned oil and natural gas. The leases and licenses generally have a fixed term; however, the term generally may be continued after the initial term where certain minimum thresholds of production have been reached, all rental payments have been paid on time and other conditions are satisfied. To develop oil and natural gas resources, it is also necessary for the mineral estate owner to have access to the surface lands. The Government of Alberta has developed a process for granting and regulating surface access for oil and natural gas operations. Operators must comply with these regulatory requirements throughout the lifespan of a well and must compensate affected persons for the use of the surface of their land and any surface damage. Alberta has implemented legislation providing for the reversion to the province of mineral rights to deep, non-productive geological formations at the conclusion of the primary term of a lease or license. Additionally, Alberta has shallow rights reversion for shallow, non-productive geological formations for new leases and licenses.

In addition to Crown ownership of the rights to oil and natural gas, private ownership of oil and natural gas (i.e. freehold mineral lands) also exists in the province of Alberta. Rights to explore for and produce such oil and natural gas are granted by a lease or other contract on such terms and conditions as may be negotiated between the owner of the mineral rights and oil and natural gas explorers and producers.

## **GREENHOUSE GAS COMPLIANCE AND REPORTING OBLIGATIONS**

### *Carbon Pricing*

The *Technology Innovation and Emission Reduction Regulation* (the "TIER Regulation") came into force on January 1, 2020. The TIER Regulation applies to any facility that has emitted more than 100,000 tonnes of carbon dioxide equivalent ("tCO<sub>2e</sub>") in 2016 or in any subsequent year. The operator of two or more conventional oil and natural gas facilities may voluntarily apply to have those facilities form an aggregate facility regulated under the TIER Regulation. Paramount's operated facilities are regulated under the TIER Regulation as an aggregate facility.

Under the TIER Regulation, Paramount has an annual target of reducing the GHG emission intensity of stationary fuel combustion emissions from its aggregate facility by 10% relative to the aggregate facility's historical baseline emissions calculated in accordance with the regulation. If the aggregate facility exceeds its annual allowable GHG emissions intensity target, Paramount is required to pay an amount per tCO<sub>2e</sub> of excess emissions into the TIER Fund or, subject to applicable limits, retire offset emission credits. Payments into the TIER Fund for excess emissions in 2021 were set at \$40 per tCO<sub>2e</sub>. Paramount is still completing the required calculations for 2021 as of the date of this annual information form, but currently expects that its aggregate facility will meet its GHG emissions intensity reduction target for 2021 and that no payments to the TIER Fund will be required for 2021.

The TIER Regulation met the federal government's equivalency criteria for 2021 for carbon-pollution pricing systems for the emission sources covered by the regulation. As a result, in 2021 facilities governed by the TIER Regulation, including Paramount's aggregate facility, were not subject to the federal output-based carbon pricing system for large industry under the federal *Greenhouse Gas Pollution Pricing Act* (Canada). The TIER Regulation will be subject to annual federal government reviews to ensure it remains in compliance with the federal equivalency criteria, which include carbon prices that will rise to \$50 per tCO<sub>2e</sub> in 2022 and are proposed to increase by a further \$15 per tCO<sub>2e</sub> per year starting in 2023 through to 2030. The Government of Alberta has announced an increase in the price for excess emissions under the TIER Regulation to \$50 per tCO<sub>2e</sub> for 2022. Accordingly, Paramount's aggregate facility will not be subject to the federal output-based carbon pricing system in 2022. However, there is no guarantee that the TIER Regulation will remain compliant with the federal equivalency criteria in future years.

A federal fuel charge under the *Greenhouse Gas Pollution Pricing Act* (Canada) has been applied in Alberta since January 1, 2020. The charge was \$40 per tCO<sub>2e</sub> in 2021. The charge will rise to \$50 per tCO<sub>2e</sub> in 2022 and is proposed to increase by a further \$15 per tCO<sub>2e</sub> per year starting in 2023 through to 2030. The federal fuel charge applies to fossil fuels consumed as part of exploration, development and production operations in Alberta to the extent the operations are not at a facility subject to the TIER Regulation to which an exemption certificate applies. Paramount has received an exemption certificate in respect of its aggregate facility. Paramount is required to pay the federal fuel charge with respect to fossil fuels it consumes other than at its aggregate facility.

### *Methane Emissions*

Methane emission reduction in the oil and gas industry is a key element of Alberta's GHG reduction plan. The Alberta government has set a target of reducing methane emissions from the oil and gas industry by 45 percent from 2014 levels by 2025. Under the most recent version of Directive 060: Upstream Petroleum Industry Flaring, Incinerating and Venting, effective January 1, 2020 oil and gas companies are required to address the primary sources of methane emissions from Alberta's upstream oil and natural gas industry. These are fugitive emissions and venting, which include emissions from compressors, pneumatic devices, glycol dehydrators and other equipment. The Directive 60 requirements also focus on improved measurement, monitoring and reporting of methane emissions.

The federal government has also enacted methane emission regulations that apply to both existing and new sources of vented and fugitive methane emissions. However, the Alberta and federal governments have negotiated a five year equivalency agreement on methane emissions under which the federal government has agreed that Alberta's requirements are equivalent to the federal requirements. Accordingly, the federal requirements do not apply in Alberta so long as the equivalency agreement remains in place.

In October 2021, the federal government confirmed its support for the Global Methane Pledge and committed to developing regulations to reduce oil and natural gas methane emissions by at least 75 percent below 2012 levels by 2030. As of the date of this annual information form, the federal government has not introduced draft legislation or regulations to give effect to this announcement.

### *Reporting*

Under the Specified Gas Reporting Regulation (Alberta) companies are required to report the annual GHG emissions from facilities emitting more than 10,000 tCO<sub>2e</sub> per year. In 2021, Paramount reported its emissions from 5 facilities based on 2020 emission levels. The federal government's Greenhouse Gas Reporting Program imposes a similar reporting requirement for facilities emitting more than 10,000 tCO<sub>2e</sub> per year.

## *Proposed Federal Cap on GHG Emissions and Reduction Requirements*

In November 2021, the federal government announced its intention to cap emissions from Canada's oil and natural gas sector and to require reductions in emissions from the sector to achieve net zero GHG emissions by 2050, with five-year targets set to achieve this goal commencing in 2025. As of the date of this annual information form, the federal government has not introduced draft legislation or regulations to give effect to this announcement.

## **ENVIRONMENT, HEALTH, SAFETY AND SUSTAINABILITY**

### **REGULATION**

Paramount's oil and natural gas operations are governed by environmental requirements under Canadian federal, provincial, territorial and municipal laws and regulations that, among other things, restrict and/or prohibit the release of emissions or pollutants, regulate the storage, handling, transportation and disposal of various substances produced or utilized in association with oil and natural gas industry operations, and require Paramount to remedy the effect of its activities on the environment at current and former operating sites (including through the proper abandonment and decommissioning of wells, pipelines and facilities and the remediation and reclamation of associated lands). Paramount is also required to comply with a wide range of regulatory requirements designed to ensure the health and safety of its workers and other stakeholders who may be impacted by its operations. See "*Risk Factors – Environmental, Health and Safety Laws and Regulations*".

### **GOVERNANCE**

Paramount's environmental, health and safety policies and programs are overseen by the Environmental, Health and Safety Committee of the Board of Directors. The members of the Environmental, Health and Safety Committee are Dirk Jungé (Chairman), Keith MacLeod and James Riddell. The duties and responsibilities of the Environmental, Health and Safety Committee include:

- reviewing and monitoring the environmental, health and safety policies and activities of Paramount on behalf of the Board of Directors and recommending actions for further developing policies, programs and procedures;
- reviewing and monitoring on behalf of the Board of Directors the policies and activities of the Company relating to sustainability and to the identification and management of climate-related risks and opportunities;
- reviewing with management any material environmental, health and safety issues that have arisen in the course of the Company's operations; and
- reviewing and reporting to the Board of Directors on the sufficiency of the resources available to fulfill the environmental, health and safety responsibilities of the Company.

The Environmental, Health and Safety Committee meets at least semi-annually in May and November of each year and receives reports from management with respect to the above matters and, in particular, relative to Paramount's compliance with health, safety and environmental laws and regulations and the Company's management of its ongoing abandonment, reclamation, remediation and similar obligations. The written charter of the Environmental, Health and Safety Committee is available on the Company's website at [www.paramountres.com](http://www.paramountres.com).

Paramount has formed an ESG Committee comprised of a multidisciplinary team of senior officers and subject matter experts from across the Company. The ESG Committee is scheduled to meet at least monthly and is responsible for preparing Paramount's ESG reporting, keeping abreast of ESG related developments and trends and considering sustainability-related opportunities, risks and initiatives. The ESG Committee has formed a GHG Task Force to assist it in developing strategies to improve GHG performance metrics, including evaluating and implementing specific projects and initiatives to reduce GHG emissions and improve GHG emissions intensity.

## **ESG REPORTING**

The Environmental, Health and Safety Committee reviews Paramount's approach to ESG reporting and is mandated to review any ESG report prior to issuance. Paramount released its 2021 ESG report in August 2021.

## **POLICIES AND PROCEDURES**

### ***Corporate***

Paramount's Health, Safety and Environment Policy (the "HSE Policy") sets out the Company's governing principles respecting health, safety and the environment, including a commitment to the prevention of incidents in all phases of operations that could cause harm to people, property loss or an adverse impact on the environment. The HSE Policy is available on the Company's website at [www.paramountres.com](http://www.paramountres.com).

The Paramount Operations Excellence Management System ("POEMS") provides the framework pursuant to which the Company has developed a comprehensive operations management system. POEMS contains specific policies and procedures to address environmental, health and safety matters.

The HSE Policy and POEMS emphasize the Company's responsibility to make environmental protection and health and safety a consistent component of decision-making processes and require compliance from management, employees, contractors, consultants and other parties performing work on behalf of Paramount. Paramount's managers and supervisors are required to assess the potential effects of their projects and to integrate protective measures to prevent environmental, health and safety incidents from occurring as a result of Paramount's business activities. Managers and supervisors also are expected to provide training and to be prepared to respond safely and effectively to environmental, health and safety incidents. An HSE Steering Committee, comprised of Paramount operations management and reporting to the Executive Vice President, Operations, has been established to ensure the proper implementation and functioning of the environmental, health and safety components of POEMS and to endeavor to achieve continuous improvement on such matters.

### ***Safe Work Practices***

Paramount has adopted comprehensive written safe work practices applicable to all employees, contractors and visiting personnel working on Paramount premises and work sites, including practices respecting training and orientation, sour gas handling, the use of personal protective equipment, hazard assessment, elimination and control, noise exposure, wildlife awareness, handling of hazardous materials, fire prevention and control and vehicle operation. In addition, Paramount maintains a written safe work practice that establishes the authority and obligation of any individual to suspend a work task or group operation when the control of health, safety and environmental risk is not clearly established or understood.

### ***Emergency Response***

Paramount maintains corporate and property specific emergency response plans. In addition, all new drilling and construction projects are accompanied by site specific emergency response plans. The Company maintains a designated emergency support team and conducts regular field and tabletop emergency response exercises. After-action reviews are conducted following incidents and exercises to determine any required improvements or modifications to emergency response plans and preparedness.

### ***Spill Management and Control***

Paramount has adopted written spill management and control practices applicable to all employees, contractors and visiting personnel working on Paramount premises and work sites. The purpose of the practices is to reduce the number and potential impacts of spills on the environment with proper spill management through the implementation of spill prevention, initial spill reporting, timely response and long-term management.

### ***Incident Response***

Paramount maintains policies, practices and procedures respecting environmental and safety incidents designed to ensure that: (i) incidents and near misses are registered in a standardized format and centralized location and are tracked from investigation until closure; (ii) standard incident investigation practices are in place and followed; (iii) the level of leadership involved in incident investigations, including external representation where appropriate, is assigned based on the actual and potential severity of the incident; (iv) incident investigation data is periodically reviewed to identify and address emerging trends and potential weaknesses; and (v) any required preventive and corrective actions are implemented and lessons learned are communicated throughout the organization.

### ***Management of Contractors and Visiting Personnel***

Paramount's safe work practices and other relevant environmental, health and safety policies are expressly applicable to third-party contractors and visiting personnel working on Paramount premises and work sites. Paramount's safe work practice respecting orientation is designed to ensure that: (i) contractor staff at supervisory and management levels fully understand Paramount's policies, expectations and guidelines and individual responsibilities when on Paramount premises and work sites, (ii) contractors at all levels are orientated to site specific requirements prior to conducting work at a site, (iii) all workers and visitors are given a safety orientation; and (iv) the environmental, health and safety performance of contractors is monitored during the execution of their work. Paramount utilizes a third-party portal to register third-party contractors, confirm their regulatory status and validate that such contractors are compliant with permitting and insurance requirements. Paramount undertakes selective evaluations and audits of the environmental, health and safety management systems of contractors.

### ***Asset Integrity***

Paramount utilizes its Paramount Enterprise Asset Management system to monitor, maintain and track its assets, and undertake preventive and predictive maintenance on safety critical equipment as part of the Company's overall risk management practices and processes. Paramount's Pipeline Integrity Management Program seeks to ensure the safe, environmentally responsible and reliable operation of Paramount's pipelines, in compliance with the requirements of provincial and federal regulations. Paramount's Pressure Equipment Integrity Management Program provides for the integrity management of pressure equipment and facilities owned and operated by the Company.

## **Greenhouse Gases and Air Quality**

Paramount tracks GHG emissions, flared and vented gas volumes and fugitive emissions and reports the data to the Environmental, Health and Safety Committee.

Paramount has a written environmental work practice respecting flaring, incinerating and venting designed to comply with the AER's Directive 060 and the Alberta Ambient Air Quality Objectives and Guidelines developed under the *Environmental Protection and Enhancement Act* (Alberta).

Paramount has adopted a Fugitive Emissions Management Plan designed to detect, manage and reduce fugitive emissions.

Paramount maintains a Methane Reduction Retrofit Compliance Plan designed to comply with the equipment specific vent gas limits set out in Directive 060. The plan includes a schedule to reduce methane emissions by replacing, retrofitting or modifying high-vent pneumatic devices, compressor seals, glycol dehydrators and other equipment.

Paramount has implemented an emission management database to aid in tracking and reporting air emissions to provincial and federal governments.

## **Water Management**

Paramount's Water Management department is responsible for developing short-term water management plans and long-term strategies that are environmentally sustainable and compliant with regulations to support Paramount's development plans. This includes identifying water sources and opportunities for reduced usage and recycling, acquiring necessary regulatory approvals, determining storage requirements, organizing and overseeing transportation and logistics and interacting with stakeholders. Paramount tracks water usage and reports usage data to the Environmental, Health and Safety Committee.

## **Waste Management**

Paramount has a written environmental work practice respecting waste management and control that applies to all Paramount employees, contractors and visiting personnel working on Paramount premises and work sites. The purpose of the practice is to achieve compliance with applicable regulations respecting the tracking and handling of wastes, including ensuring that: (i) the waste is correctly characterized and classified; (ii) the capabilities and limitations of possible waste treatment and/or disposal facilities are known; (iii) appropriate waste documentation and manifesting is maintained; (iv) waste carriers and receivers are informed of the waste properties; and (v) requisite approvals and operations are in place for any on-site handling, treatment and disposal method.

## **RISKS**

Paramount is subject to numerous risks associated with environmental, health and safety matters, including those described under "*Risk Factors – Operating Risks and Insurance*", "*Risk Factors – Environmental, Health and Safety Laws and Regulations*" and "*Risk Factors – Hydraulic Fracturing*".

## **ABANDONMENT AND RECLAMATION STRATEGY AND ACTIVITIES**

As described under "*Reserves and Other Oil and Gas Information – Other Oil and Gas Information – Abandonment and Reclamation Costs*", Paramount has recorded in its audited consolidated financial statements for the year ended December 31, 2021 asset retirement obligations of \$651.1 million (using a credit-adjusted risk-free discount rate of 7.0 percent per annum and an inflation rate of 2.0 percent per annum). Additional information concerning asset retirement obligations is included in the 2021 Financial Statements and MD&A.

The Area Based Closure program introduced by the AER in September 2018 allows companies to approach abandonment and reclamation activities in an efficient and cost-effective manner by targeting efforts in a concentrated area. Paramount's strategy is to utilize the advantages of the Area Based Closure program by focusing its abandonment and reclamation activities on the Zama field, which was shut-in in 2019.

In 2021, Paramount spent approximately \$25.4 million on abandonment and reclamation activities. An additional \$9.7 million of abandonment and reclamation activities was funded under the Alberta Site Rehabilitation Program in 2021. In 2021, Paramount abandoned 156 inactive wells, decommissioned 371 pipeline segments and received 105 reclamation certificates from the AER and 2 reclamation certificates from the BC Oil & Gas Commission.

## **EMPLOYEES**

At December 31, 2021, Paramount had 250 head office employees and 160 field employees. In addition, Fox Drilling had 59 employees and Cavalier Energy had 6 employees at December 31, 2021.



## DIRECTORS AND EXECUTIVE OFFICERS

The following information is provided for each director and executive officer of Paramount as at the date of this annual information form. Each director will serve until the next annual meeting of shareholders or until his or her respective successor is elected or appointed.

### DIRECTORS

Name and Municipality of Residence	Director Since	Principal Occupation for Past Five Years
<b>James H.T. Riddell</b> (Chairman) <sup>(4)</sup> <sup>(6)</sup> Calgary, Alberta, Canada	2000	President and Chief Executive Officer of Paramount
<b>James G.M. Bell</b> <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup> <sup>(7)</sup> Calgary, Alberta, Canada	2011	Co-President of Dominion Lending Centres Inc., a TSX listed mortgage brokerage company, and served in various positions, including President and Chief Executive Officer, with its predecessor company Founders Advantage Capital Corp.
<b>Wilfred A. Gobert</b> <sup>(1)</sup> <sup>(3)</sup> <sup>(5)</sup> Calgary, Alberta, Canada	2017	Independent Businessman
<b>Dirk Jungé</b> <sup>(3)</sup> <sup>(4)</sup> Bryn Athyn, Pennsylvania, United States	2000	Independent Businessman
<b>Kim Lynch Proctor</b> <sup>(2)</sup> <sup>(3)</sup> <sup>(5)</sup> Calgary, Alberta, Canada	2021	Independent Businesswoman
<b>Robert M. MacDonald</b> <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup> Oakville, Ontario, Canada	2017	Independent Businessman
<b>R. Keith MacLeod</b> (Lead Director) <sup>(3)</sup> <sup>(4)</sup> <sup>(5)</sup> <sup>(8)</sup> Calgary, Alberta, Canada	2017	Independent Businessman
<b>Susan L. Riddell Rose</b> Calgary, Alberta, Canada	2000	President and Chief Executive Officer of Perpetual Energy Inc., a TSX listed energy producer, and President and Chief Executive Officer of Rubellite Energy Inc., a TSX listed energy producer

(1) Member of the Compensation Committee.

(2) Member of the Audit Committee.

(3) Member of the Corporate Governance Committee.

(4) Member of the Environmental, Health and Safety Committee.

(5) Member of the Reserves Committee.

(6) Mr. Riddell was a director of Sonde Resources Corp. ("Sonde") and Great Prairie Energy Services Inc. ("Great Prairie"), both public oil and gas companies, within one year of Sonde becoming bankrupt and Great Prairie having a receiver-manager appointed to manage its assets, undertakings and properties. Mr. Riddell was a director of Strategic Oil & Gas Ltd., a public oil and gas company, when it filed for creditor protection under the *Companies' Creditors Arrangement Act* (Canada) ("CCAA") and when it became subject to a cease trade order for failing to file its annual financial statements and management's discussion and analysis, which order remains in effect.

(7) Mr. Bell is a director of Just Energy Group Inc., a public retail energy provider ("Just Energy"). On March 9, 2021, Just Energy sought and received creditor protection under the CCAA and similar protection under Chapter 15 of the Bankruptcy Code in the United States. Just Energy remains in CCAA as it addresses liquidity issues caused by an extreme winter weather event in Texas in February 2021.

(8) Mr. MacLeod was a Director of Manito Energy Inc. ("Manitok"), a public oil and gas exploration and production company, within one year of Manito Energy filing a Notice of Intention to Make a Proposal under the Bankruptcy and Insolvency Act.

## EXECUTIVE OFFICERS

Name and Municipality of Residence	Office	Principal Occupation for Past Five Years
<b>James H.T. Riddell</b> Calgary, Alberta, Canada	President and Chief Executive Officer and Chairman	Executive officer of Paramount
<b>Paul R. Kinvig</b> Calgary, Alberta, Canada	Chief Financial Officer	Executive officer of Paramount
<b>Bernard K. Lee</b> Calgary, Alberta, Canada	Executive Vice President, Finance	Executive officer of Paramount
<b>D. Blake Reid</b> Calgary, Alberta, Canada	Executive Vice President, Operations	Executive officer of Paramount since June 2017; previously Managing Director of Energy Engineering Inc.
<b>Rodrigo R. Sousa</b> Calgary, Alberta, Canada	Executive Vice President, Corporate Development and Planning	Executive officer of Paramount since December 2017; previously Vice President, Corporate Development of Athabasca Oil Corporation
<b>John B. Williams</b> Calgary, Alberta, Canada	Executive Vice President, Kaybob Region	Executive officer of Paramount since September 2017; previously President and Chief Operating Officer of Trilogy Energy Corp.

As at December 31, 2021, the directors and executive officers of the Company as a group beneficially owned, controlled or directed, directly or indirectly, 51,053,520 Common Shares, representing approximately 36.3 percent of the 140,753,960 Common Shares outstanding at such date.

Certain directors and officers of Paramount are also directors and/or officers and/or significant shareholders of other companies or entities engaged in the oil and natural gas business generally and which, in certain cases, own interests in oil and natural gas properties in which Paramount holds, or may in the future, hold an interest. As a result, situations may arise where such individuals have a conflict of interest. Such conflicts of interest will be resolved in accordance with Paramount's governing corporate statute, the ABCA, and Paramount's internal policies respecting conflicts of interest. The ABCA requires that a director or officer of a corporation who is party to a material contract or proposed material contract with the corporation, or is a director or an officer of or has a material interest in any person who is a party to a material contract or proposed material contract with the corporation, disclose in writing to the corporation or request to have entered into the minutes of meetings of directors the nature and extent of the director's or officer's interest; and, if a director, that he or she not vote on any resolution to approve the contract, except in certain circumstances. The ABCA also requires that a corporation's directors and officers act honestly and in good faith with a view to the best interest of the corporation. Paramount's internal policies respecting conflicts of interest require that directors and officers of Paramount avoid putting themselves in a conflict of interest position and, if such a position arises, that disclosure of such position be made so that Paramount can approve or disapprove such position, with disapproved conflict of interest positions requiring immediate cessation by the director or officer.

## **AUDIT COMMITTEE INFORMATION**

### **AUDIT COMMITTEE CHARTER**

The full text of the audit committee's charter is included in Appendix C of this annual information form.

### **COMPOSITION OF THE AUDIT COMMITTEE**

The audit committee consists of three members, all of whom are independent and financially literate. The relevant education and experience of each audit committee member is outlined below:

#### ***Kim Lynch Proctor (Chair)***

Ms. Lynch Proctor has been a director of the Company since 2021. She is an independent businesswoman and an experienced lawyer, accountant and private equity executive with over 20 years of experience. Ms. Lynch Proctor was the Chief Financial Officer and General Counsel of KERN Partners, an energy focused private equity firm, from 2009 to 2016 and prior thereto a practicing lawyer and chartered professional accountant with Felesky Flynn LLP, Bennett Jones LLP, and Deloitte, respectively, advising corporate clients on domestic and international transactions. Ms. Lynch Proctor is a trustee of Alaris Equity Partners Income Trust, a TSX listed income trust that provides alternative equity financing to private companies. She also serves on the board of several non-profit and municipal organizations, including the Calgary Police Commission. Ms. Lynch Proctor obtained both a Bachelor of Commerce and a Bachelor of Laws degree from the University of Calgary, a Master of Laws degree from New York University, is a Chartered Professional Accountant and holds an ICD.D designation from the Institute of Corporate Directors.

#### ***James G. M. Bell***

Mr. Bell has been a director of the Company since 2011. Mr. Bell is currently Co-President of Dominion Lending Centres Inc., a TSX listed mortgage brokerage company, and served in various positions, including President and Chief Executive Officer, with its predecessor company Founders Advantage Capital Corp. From 2010 to 2016, Mr. Bell was General Counsel for Olympia Financial Group Inc. (a TSX listed company) and its wholly-owned subsidiary Olympia Trust Company (a non-deposit taking trust company). Prior thereto, Mr. Bell practiced securities and corporate commercial law as Partner at an international law firm until December 31, 2009. He has acted as legal counsel in connection with private placements, prospectus offerings, take-over bids, plans of arrangement and general securities and corporate finance matters. Mr. Bell is a director of Just Energy Group Inc., a TSXV listed retail energy provider. Mr. Bell graduated from the University of Saskatchewan with a Bachelor of Laws degree in 1999. He has completed the Canadian Securities Course and the Partners, Directors and Senior Officers course of the Canadian Securities Institute.

#### ***Robert M. MacDonald***

Mr. MacDonald has been a director of the Company since 2017. Mr. MacDonald is an oil and gas banking professional with 18 years of experience as a corporate director and 27 years of experience as a senior officer of several Canadian chartered banks, including 18 years in Alberta and 9 years in the United States. He has expertise in oil and gas banking/financing, having handled and provided advisory services on strategic alternatives for senior and bridge debt structuring, project financing, mezzanine debt structuring, portfolio management, financial analysis and loan re-structuring. From 1998 to 2003, he was a Director, Oil & Gas, Commercial Banking, with CIBC World Markets Inc. From 1993 to 1998, Mr. MacDonald was Vice President, Oil & Gas Group with CIBC. Mr. MacDonald graduated from the University of Saskatchewan (Regina Campus) with a Bachelor of Business Administration degree (major in Economics and Finance and minor in Accounting). He is a Fellow of the Institute of Canadian Bankers and has

completed the academic requirements for the Director Education Program of the Institute of Corporate Directors.

## PRE-APPROVAL POLICIES AND PROCEDURES

The Company's audit committee has adopted a policy with respect to the pre-approval of audit and permitted non-audit services to be provided by its independent auditor. Pursuant to the policy, the audit committee has identified certain services that have been granted pre-approval and which the independent auditors may provide. The policy also establishes procedures by which permitted audit and permitted non-audit services proposed to be performed by the Company's independent auditors may be pre-approved.

The audit committee has delegated authority to the Chair of the audit committee to pre-approve permitted audit and permitted non-audit services to be provided by the independent auditor that have not otherwise been pre-approved by the full audit committee, including the fees and terms of the proposed services. All pre-approvals granted pursuant to this delegated authority must be presented by the Chair of the audit committee to the full audit committee at its next meeting.

All fees payable in connection with services provided by the independent auditor must be pre-approved by either the full audit committee or the Chair of the audit committee pursuant to his delegated authority.

## EXTERNAL AUDITOR SERVICE FEES

The following table provides information about the fees billed to the Company for professional services rendered by Ernst & Young LLP in respect of the financial years ended December 31, 2021 and December 31, 2020:

(\$ thousands)	2021	2020
Audit Fees <sup>(1)</sup>	245	265
Audit-Related Fees <sup>(2)</sup>	89	5
Tax Fees <sup>(3)</sup>	-	-
All Other Fees <sup>(4)</sup>	8	6
<b>Total</b>	<b>342</b>	<b>276</b>

(1) Represents the aggregate fees of the Company's auditors for audit services in respect of the financial year.

(2) Represents the aggregate fees billed for assurance and related services by the Company's auditors that are reasonably related to the performance of the audit or review of the Company's financial statements and are not included under "Audit Fees". Fees in 2021 primarily related to financing related matters. Fees in 2020 primarily related to the audit of a subsidiary.

(3) Represents the aggregate fees billed for professional services rendered by the Company's auditors for tax compliance, tax advice and tax planning.

(4) Represents the aggregate fees billed for products and services provided by the Company's auditors other than those services reported under "Audit Fees" and "Audit Related Fees".

## DESCRIPTION OF CAPITAL STRUCTURE

The Company's authorized share capital as of the date hereof consists of an unlimited number of Common Shares and an unlimited number of preferred shares, issuable in series.

The holders of Common Shares are entitled to receive dividends if, as and when declared by the board of directors of the Company. The holders of Common Shares are entitled to receive notice of and to attend all meetings of the shareholders of the Company. Holders of Common Shares are entitled to one vote in respect of each Common Share held at all meetings of the shareholders of the Company (except meetings at which only holders of another specified class or series of shares of the Company are entitled to vote separately as a class or series at such meeting) provided that if the Company fails to pay the full amount of any dividend declared by the board of directors of the Company on the Common Shares on the date specified for payment of such dividend, then, for so long as any dividends remain in arrears on the Common Shares, the holders of Common Shares shall be entitled to two votes in respect of each Common Share held at all meetings of the shareholders of the Company. In the event of liquidation, dissolution or winding up of the Company or other distributions of assets of the Company among its shareholders for the purpose of winding up its affairs, the holders of Common Shares will be entitled, subject to preferences accorded to holders of any class or series of preferred shares, to participate ratably in any distribution of the assets of the Company. As of December 31, 2021, 140,753,960 Common Shares were issued and outstanding.

Preferred shares are non-voting and may be issued in one or more series. The board of directors may determine the designation, rights, privileges, restrictions and conditions attached to each series of preferred shares before the issue of such series. As of December 31, 2021, no preferred shares were issued and outstanding.

## MARKET FOR SECURITIES

Paramount's Common Shares are listed on the TSX under the trading symbol "POU". The following table outlines the trading price range and volume of the Common Shares traded by month in 2021.

2021	Price Range (\$ per share)		Trading Volume
	High	Low	
January	6.69	4.95	9,684,400
February	11.84	6.48	10,581,115
March	11.91	10.16	8,598,869
April	11.76	9.32	5,316,471
May	14.76	11.32	8,162,366
June	17.20	12.91	7,296,243
July	17.50	14.96	3,999,046
August	16.19	11.97	5,157,637
September	19.40	13.37	6,444,751
October	20.85	18.43	3,908,911
November	25.32	20.37	5,893,167
December	25.19	19.46	15,287,038

## DIVIDENDS

In June 2021, Paramount announced the implementation of a regular monthly dividend of \$0.02 per Common Share commencing in July 2021. In November 2021, Paramount announced an increase of its regular monthly dividend to \$0.06 per Common Share. In March 2022, Paramount announced an increase of its regular monthly dividend to \$0.08 per Common Share.

The table below outlines the dividends per Common Share paid in 2021. Other than as set out in the table below, Paramount has not declared a dividend in the last three completed fiscal years

	2021
July	\$0.02
August	\$0.02
September	\$0.02
October	\$0.02
November	\$0.06
December	\$0.06

The amount and timing of any future dividends will be subject to the discretion of the Board of Directors and may vary depending on a number of factors and conditions, including changes to free cash flow, operating results, capital requirements, financial position, market conditions or corporate strategy. There are no assurances as to the continuing declaration and payment of any future dividends under the Company's monthly dividend program or the amount or timing of any such dividends. The payment of any dividends is subject to the satisfaction of solvency tests imposed by the ABCA. In addition, the Credit Facility contains a covenant requiring prior lender consent for the payment of dividends and other distributions if the Senior Secured Debt to Consolidated EBITDA ratio is greater than 2.50 to 1.00 pro forma the payment of the distribution. Paramount's Management's Discussion and Analysis for the year ended December 31, 2021, which can be found under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com), contains a description of the definitions of Senior Secured Debt and Consolidated EBITDA under the heading "*Liquidity and Capital Resources*". See also "*Risk Factors - Dividends*".

## CREDIT RATINGS

The following table outlines the credit ratings for the Company as of the date of this annual information form:

	S&P	Moody's
Corporate Credit Rating	B	B1
Credit Facility	-	Ba3
Outlook	Stable	Positive

Credit ratings are intended to provide investors an independent assessment of the credit quality of the issuer of securities or issue and do not address the suitability of securities for any particular issuer.

S&P Global Ratings ("S&P") long-term credit ratings are on a scale that ranges from 'AAA' to 'D', which represents the range from highest to lowest opinions of creditworthiness. An issuer rated 'B' is more vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments. The ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or a minus (-) sign to show relative standing within the rating categories. In addition, S&P may add a rating outlook of "positive", "negative", "stable" or "developing" which assesses the potential direction of a long-

term credit rating over the intermediate term (typically six months to two years). In determining a rating outlook, consideration is given to any changes in economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change.

Moody's Investors Service ("Moody's") credit ratings are on a rating scale that ranges from 'Aaa' to 'C', which represents the range from highest to lowest quality of such obligations rated. According to Moody's rating system, obligations rated 'Ba' are judged to be speculative and are subject to substantial credit risk and obligations rated 'B' are considered speculative and are subject to high credit risk. Moody's appends numerical modifiers 1, 2 and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category, the modifier 2 indicates a mid-range ranking and the modifier 3 indicates a ranking in the lower end of that generic rating category. In addition, Moody's may add a rating outlook of "positive", "negative", "stable" or "developing", which assesses the likely direction of a rating over the medium term.

The credit ratings accorded by S&P and Moody's are not recommendations to purchase, hold or sell securities and such ratings do not comment as to market price or suitability for a particular investor. There is no assurance that any rating will remain in effect for any given period of time or that any rating will not be revised or withdrawn entirely by a rating agency in the future, if in its judgment, circumstances so warrant.

The Company made payments to S&P and Moody's in 2021 in connection with the issuance of the credit ratings described above and expects to pay annual surveillance fees while such ratings remain in effect. In 2020, the Company made payments to S&P in connection with annual surveillance fees related to a previously issued credit rating and payments to Moody's in connection with a previously issued private monitored credit rating.

## **LEGAL PROCEEDINGS**

### **APACHE CANADA LTD. ACTION**

Four former employees of Apache Canada Ltd., which was acquired by Paramount in 2017, filed and served an amended Statement of Claim in the Court of Queen's Bench of Alberta dated September 11, 2019 against Apache Corp. ("Apache"), certain individual defendant directors of Apache and the Company (as the successor by amalgamation to Apache Canada Ltd.). The plaintiffs are bringing a class action on behalf of employees of Apache Canada Ltd. who held certain incentives of Apache issued under Apache's omnibus compensation plan ("AOCP") that were cancelled in connection with Paramount's acquisition of Apache Canada Ltd. As against Apache, the plaintiffs are seeking a finding that the acquisition entitled them to accelerated vesting of the incentives under the AOCP. As against Paramount, the plaintiffs are seeking a finding that the failure by Apache Canada Ltd. to pay out an amount equal to the accelerated value of the incentives to the employees or continue the incentives constituted a breach of the employment contracts of the applicable employees, constituted a breach of the duty of good faith and fair dealing or resulted in unjust enrichment to Apache Canada Ltd. The plaintiffs are seeking relief that includes damages in the amount of US\$60 million and punitive damages in the amount of CDN\$10 million. The action was certified as a class proceeding by an order granted in June 2021. Paramount is appealing this order. Paramount believes that the action against it is without merit and will vigorously contest it. Paramount also believes that the damages claimed are grossly overstated and that the action will not have a material impact on the Company's financial position.

## OTHER CLAIMS

The Company is involved in various other claims and litigation arising in the normal course of business both as a plaintiff and defendant. Paramount does not anticipate that these claims will have a material impact on the Company's financial position.

## RISKS

The outcome of outstanding, pending or future proceedings cannot be predicted with certainty. See "*Risk Factors – Litigation*".

## RISK FACTORS

**Investors should carefully consider the risk factors set out below and consider all other information contained herein and in Paramount's other public filings before making an investment decision. The risks set out below are not an exhaustive list and should not be taken as a complete summary or description of all the risks associated with Paramount's business and the oil and natural gas business generally.**

### COVID-19 PANDEMIC

There is a risk that the COVID-19 pandemic, including the spread of new variants of the COVID-19 virus, and the response thereto may result in adverse pricing conditions for commodities, supply chain disruptions, inflation, increased volatility in financial markets and foreign currency exchange rates, labour shortages, the imposition of further health restrictions or guidelines adversely affecting the ability of Paramount or third parties to conduct operations and/or an overall slowdown or disruption of national and global economies. These and other risks associated with the COVID-19 pandemic could result in events and circumstances that have a material adverse impact on Paramount's business, assets, financial condition and results of operations, including, but not limited to, reductions in revenue or cash flows, reduced liquidity, the shut-in or curtailment of production, reductions in capital expenditures, the recording of impairments of petroleum and natural gas assets and derecognitions of deferred tax assets, reductions in reserves volumes and values, increased costs, restricted access to capital and/or increased costs of capital, the delay of planned operations, counterparties being unable to fulfill their contractual obligations and disruptions to the availability of required processing and transportation capacity.

The course of the COVID-19 pandemic remains highly uncertain. The extent to which COVID-19 impacts Paramount's business, assets, financial condition and results of operations will depend on future developments which are currently unknown and are difficult to predict, including, but not limited to, the duration and severity of the pandemic, the impact of the pandemic on economic growth, inflation, supply chains, commodity prices and financial and capital markets and governmental responses and restrictions. Even after the COVID-19 pandemic has subsided, Paramount may continue to experience materially adverse effects as a result of the pandemic's global economic impact.

The COVID-19 pandemic may increase the Company's exposure to many of the risks described below, including, but not limited to, the risks described under "Volatility of NGLs, Natural Gas and Oil Prices and Price Differentials", "Uncertainty as to Costs", "Availability of Equipment, Materials and Services", "Credit Facility and Indebtedness", "Access to Capital and Funding of Expenditures" and "Reserves Estimates".

The Company's business, operations and financial condition could be materially adversely affected in a similar manner to that described above by the outbreak of epidemics or pandemics other than the COVID-19 pandemic in the future.



## **VOLATILITY OF NGLS, NATURAL GAS AND OIL PRICES AND PRICE DIFFERENTIALS**

Paramount's financial performance and condition are dependent on the prices received by it for NGLs, natural gas and oil and declines in such prices may have a material adverse effect on the Company's business, financial condition, results of operations and prospects. Any substantial and extended decline in the price of NGLs, natural gas and oil would have an adverse effect on the Company's revenues, profitability, cash flows and borrowing capacity. The economics of producing from some wells may change because of lower prices, which could result in reduced production of NGLs, natural gas or oil and a reduction in the volumes and the value of the Company's reserves, which in turn could require a write down of the carrying value of the Company's assets on its balance sheet and the recognition of an impairment charge in its income statement.

Prices for NGLs, natural gas and oil are volatile and affected by factors outside of Paramount's control. In the case of NGLs and oil, such factors include, but are not limited to, international and domestic supply and demand, the actions of the Organization of Petroleum Exporting Countries and other major exporters, world economic conditions (including conditions resulting from the impact of the COVID-19 pandemic), government regulation (including government ordered production curtailments), geopolitical tension and hostilities (including the imposition of international sanctions or trade restrictions in connection with such tensions or hostilities), speculative positioning, the price of foreign imports, the availability and pricing of alternate fuel sources, transportation and infrastructure constraints and weather conditions. In the case of natural gas, such factors include, but are not limited to, North American supply and demand, government regulation (including government ordered production curtailments), the availability and pricing of alternate fuel sources, transportation and infrastructure constraints and weather conditions. In addition, condensate is purchased for blending with bitumen and heavy oil as a diluent and technological developments that reduce the demand for condensate as a diluent may adversely impact the prices the Company receives for the condensate it produces. In the longer term, prices for fossil fuels could be impacted by global climate change initiatives that have the stated goal of transitioning the world to a low carbon energy system.

Canadian producers of NGLs, natural gas and oil currently receive discounted prices for their production relative to certain international prices due to constraints on their ability to access international markets. The magnitude of these discounts is highly variable. Canadian producers will continue to be subject to discounted commodity prices to the extent these constraints remain. In addition, the prices individual producers, including Paramount, receive could be subject to additional discounts as a result of various factors, including location, quality, regional supply and demand and regional infrastructure capacity and transportation constraints.

NGLs, natural gas and oil prices and the discounts against international prices received by Canadian producers may remain volatile due to a number of factors, including the impact of the COVID-19 pandemic, market uncertainty over supply and demand, economic, regulatory and political uncertainty, growth of production in the United States, the actions of the Organization of Petroleum Exporting Countries and other major exporters, sanctions imposed on certain oil producing nations by other countries and uncertainty respecting the progress of major pipeline and infrastructure projects. Volatility in NGLs, natural gas and oil prices makes it difficult to estimate the value of producing properties for acquisitions and may cause disruption in the markets for NGLs, natural gas and oil producing properties if buyers and sellers have difficulty determining price. Price volatility may also make it difficult to budget for, and project the return on, acquisitions and development and exploitation projects.

## **UNCERTAINTY AS TO COSTS**

The Company's actual capital costs, operating costs and economic returns may differ significantly from those it has anticipated. The cost of drilling, completing and operating wells is often uncertain. The Company may experience unexpected cost increases, overruns, delays or cancellations of projects as a result of numerous factors, many of which are beyond its control, including, but not limited to inflation, increased labour costs, higher costs of inputs, technical complexities, weather conditions, required compliance with laws and regulations, the ability to obtain stakeholder support and approvals, and shortages or delays in the delivery of equipment, materials and services. The North American oil and natural gas industry has achieved significant reductions in its cost structure in recent years, but these reductions may not be sustained. If the Company's actual costs are higher than its current estimates this may adversely affect the Company's financial position, results of operations and cash flows and may require it to revise forecasts of planned capital expenditures.

## **AVAILABILITY OF EQUIPMENT, MATERIALS AND SERVICES**

The Company's operations and exploration and development plans are dependent on the availability of equipment and materials for the operation and construction of wells, facilities, pipelines and infrastructure. Certain of the equipment and materials required by the Company is highly specialized or can only be sourced from a limited number of suppliers or with significant lead times between order and delivery. Shortages of necessary equipment and materials or delays in the delivery of necessary equipment and materials may arise as a result supply chain disruptions or constraints (including in connection with the general economic conditions, the COVID-19 pandemic or the imposition of international sanctions or trade restrictions), industry competition and other factors.

The Company's operations and exploration and development plans are also dependent on the availability of essential services from third parties, including the providers of service rigs, hydraulic fracturing equipment and engineering, construction and environmental services. Shortages of such services may arise as a result of industry competition, lack of specialized equipment, lack of skilled labour and other factors.

An inability to secure necessary equipment, materials or third-party services on a timely basis and at expected prices may result in changes to, or the delay of, planned operations, activities and capital expenditures and may adversely affect the Company's financial position, results of operations and cash flows.

## **REPLACEMENT OF RESERVES**

Paramount's future success depends upon its ability to successfully find and develop NGLs, natural gas and oil reserves that are economically recoverable. If Paramount is unable to increase its reserves, the Company's business will be adversely affected because it will eventually deplete its reserves.

There is the risk that Paramount's exploration activities will not encounter commercially productive reservoirs, that Paramount will not recover all or any portion of its investment, and that Paramount's reserves, revenues and cash flows will decline. Paramount cannot provide any assurances that it will be able to find and develop additional reserves at an acceptable cost or at all.

The successful development of natural gas and oil properties requires an assessment of recoverable reserves, future NGLs, natural gas and oil prices, operating and capital costs, potential environmental and other liabilities and the expected productivity of future wells. These assessments are inexact and, if actual results differ materially from these assessments, the Company may not recover the purchase price or development costs of a property.

## **ACCESS TO NECESSARY INFRASTRUCTURE AND INFRASTRUCTURE COMMITMENTS**

Paramount's ability to produce and sell its NGLs, natural gas and oil requires it to have access to both Company and third-party infrastructure, including gathering systems, compression and dehydration facilities, processing facilities, pipelines and NGLs fractionation facilities.

Paramount relies on certain key facilities to be able to process its production, including those described under "*Narrative Description of the Business – Oil and Gas Properties*". Unexpected outages at, or unexpected constraints on the availability of, facilities, gathering systems and pipelines will adversely impact Paramount's production and cash flow and may, depending on duration and severity, have a material adverse effect on Paramount's financial condition or results of operations.

The costs and timing of constructing, expanding and maintaining infrastructure (including infrastructure owned by third-parties) are often uncertain. Construction projects may experience unexpected cost increases, overruns and delays as a result of numerous factors, including, but not limited to, labour shortages, increased labour costs, higher cost of inputs, weather conditions, required compliance with laws and regulations, the ability to obtain stakeholder support and approvals and shortages or delays in the delivery of equipment and services.

There is also the risk that infrastructure may not operate as designed or at expected capacity levels and that actual operating and other costs are materially higher than estimated due to maintenance issues or for other reasons. In addition, there is a risk that commodities delivered to processing facilities may not meet the specifications of the facility, that processing facilities may be unable to produce products that meet the specification requirements of pipelines or interconnected facilities or that there is a limited or no market for products produced. Maintenance of, or repairs to, Company and third-party infrastructure (as well as apportionments and other capacity constraints) may result in unbudgeted or unexpected costs and lower production and cash flow.

Paramount has entered into firm-service processing, transportation and NGLs fractionation commitments covering a substantial portion of its production. If Paramount is unable to meet its obligations under these firm-service agreements, it will be required to pay for the unutilized capacity thereunder and may be exposed to other liabilities. To the extent Paramount does not either currently, or in the future, have sufficient Company-owned or firm-service capacity in place, it will have to utilize interruptible capacity on third-party infrastructure (and/or in the case of insufficient liquids transportation capacity, trucking or rail options). There is no guarantee that such interruptible capacity, or other liquids transportation options, will be available or, if they are, that they can be obtained or utilized at a reasonable cost. For additional information, see "*Reserves and Other Oil and Gas Information*".

## OPERATING RISKS AND INSURANCE

There are many operating hazards in exploring for, developing and producing NGLs, natural gas and oil, including, but not limited to, unexpected formations, blowouts, accidents, equipment failures (including computer hardware and software systems), spills, releases, pipeline failures, environmental damage or other unexpected or dangerous conditions that could result in damage to Paramount, injury or death (including to employees or contractors), damage to equipment and facilities, suspension or revocation of regulatory approvals, environmental contamination, potential liability to third-parties (including government bodies), lost or delayed production and lost revenue and/or profit. Similar operating hazards and the potential for loss to Paramount, including lost or delayed production and lost revenue and/or profit, exist with respect to gathering systems, equipment, facilities and pipelines owned or operated by third parties and utilized or relied upon by Paramount.

The Company has historically maintained insurance against some, but not all, of its business risks. The Company's insurance may not be adequate to cover any losses or liabilities it may suffer. Also, insurance may no longer be available to the Company or, if it is, its availability may be at premium levels or subject to deductibles and other conditions that do not justify its purchase. The costs of maintaining insurance have increased in recent years and may continue to increase, which may adversely affect Paramount's financial position. The Company may not be able to secure additional insurance or bonding that might be required by new governmental regulations. This may cause the Company to restrict its operations, which might adversely impact its financial position. The Company may also be liable for environmental damage caused by previous owners of properties purchased by the Company that is not covered by insurance. There may be significant delays between the occurrence of an insured loss and the recovery of insurance proceeds. The occurrence of a significant uninsured claim, a claim in excess of the insurance coverage limits maintained by the Company or a claim at a time when the Company is not able to obtain insurance could have a material adverse effect on the Company's financial condition, results of operations or cash flows.

## CLIMATE CHANGE AND GHG EMISSIONS

Paramount faces direct and indirect risks from climate change that may have a material adverse effect on the Company's business, financial condition, results of operations and prospects. These risks include carbon taxes and the impact of regulations aimed at reducing the emission of GHGs, the potential for reduced future demand for NGLs, natural gas and oil, the potential for a shift of investment capital away from NGLs, natural gas and oil producers, physical risks to Paramount's assets and operations from extreme weather events and changes in precipitation patterns, litigation and reduced public support for pipelines and other NGLs, natural gas and oil infrastructure projects.

As discussed under "*Industry Conditions - Greenhouse Gas Compliance and Reporting Obligations*", the Company is subject to current provincial and federal regulations aimed at taxing and reducing emissions of GHGs. Provincial and federal laws and regulations respecting GHG emissions, carbon pricing and carbon credits continue to evolve and there is a risk that additional laws and regulations will be implemented in the future that have a material adverse impact on Paramount's business, assets, financial condition and results of operations. In particular, the federal government has announced its intention: (i) to develop regulations to reduce oil and gas methane emissions by at least 75 percent below 2012 levels by 2030 and (ii) to cap emissions from Canada's oil and natural gas sector and to require reductions in emissions from the sector to achieve net zero GHG emissions by 2050, with five-year targets set to achieve this goal commencing in 2025. The nature and timing of the regulations required to achieve these announced intentions and their ultimate impact on Paramount and the Canadian oil and natural gas sector remain highly uncertain. In addition, the TIER Regulation will be subject to annual reviews to ensure it remains in compliance with federal equivalency criteria, which include carbon prices that will rise to \$50 per tCO<sub>2e</sub> in 2022 and are proposed to increase by a further \$15 per tCO<sub>2e</sub> each year from 2023 through to 2030. The Government

of Alberta has announced an increase in the price imposed under the TIER Regulation for 2022 to \$50 per tCO<sub>2e</sub>. Accordingly, Paramount's aggregate facility will not be subject to the federal output-based carbon pricing system for large industry under the *Greenhouse Gas Pollution Pricing Act (Canada)* in 2022. However, there is no guarantee that the TIER Regulation will remain compliant with the federal equivalency criteria in future years. If the TIER Regulation does not remain in compliance with the federal equivalency criteria in future years, Paramount will become subject to the federal output-based carbon pricing system for large industry under the federal *Greenhouse Gas Pollution Pricing Act (Canada)*. Alternatively, the Government of Alberta may increase carbon prices under the TIER Regulation in future years to ensure continued compliance with federal equivalency criteria. Either circumstance would have a financial impact on Paramount's business by increasing carbon pricing costs.

Global efforts to reduce GHG emissions through the adoption of energy sources that are alternatives to NGLs, natural gas and oil or through the imposition of restrictions or standards designed to curb the consumption of NGLs, natural gas and oil may reduce the demand for these products and adversely impact the prices received by producers, including Paramount. In addition, technological disruption, such as an increased adoption rate of electric vehicles, may adversely impact the demand for NGLs, natural gas and oil.

Uncertainty among investors as to the impact of climate change and efforts to reduce emissions of GHGs on the regulatory, financial and operating conditions applicable to oil and natural gas producers, combined with the decision of some institutional investors to limit or divest investments in carbon intensive industries, may shift investment capital away from oil and natural gas producers and adversely impact the price of the Common Shares and the ability of Paramount to raise additional capital to fund future exploration and development activities and other operations. In addition, providers of credit and insurance to oil and natural gas producers may determine to reduce or discontinue their involvement in carbon intensive industries and this may materially adversely affect Paramount by limiting the availability of credit or insurance or increasing the cost thereof.

Weather events pose a physical risk to Paramount's assets and operations and those of third-party processors and transporters upon which it relies. Depending on location, wells, facilities and pipelines may be susceptible to damage, loss or prolonged service interruption due to wildfires or flooding. Extreme weather events may adversely impact drilling, service and maintenance operations necessary to grow and sustain production and avoid facility downtime. To the extent that climate change may contribute to an increase in the frequency or severity of extreme weather events in the areas in which Paramount operates, the Company will face additional risk.

Paramount requires reliable sources of water for many of its drilling and completion operations, including at its key properties at Karr and Wapiti where water is sourced from the Smoky River and Bald Mountain Creek and stored in two freshwater reservoirs. To the extent that climate change may contribute to changes in precipitation patterns in the areas in which Paramount operates, the availability of water sources may be impacted. Such impact may occur directly through prolonged drought or indirectly through additional regulatory restrictions on surface and groundwater diversion and usage.

Certain municipalities and advocacy groups are pursuing class actions against oil and natural gas producers seeking to make such producers liable for climate change related harms. See "*Risk Factors – Litigation*".

A negative perception of the oil and natural gas industry due to climate change could reduce public support for oil and gas activities and major infrastructure projects such as pipelines, make it more difficult for Paramount to attract employees and investors and influence governments to implement more restrictive measures.

## **DIVIDENDS**

The amount and timing of any future dividends with respect to the Common Shares will be subject to the discretion of the Board of Directors.

There are risks that may result in the Company changing, suspending or discontinuing its monthly dividend program, including changes to free cash flow, operating results, capital requirements, financial position, market conditions or corporate strategy and the need to comply with requirements under the Credit Facility and applicable laws respecting the declaration and payment of dividends. There are no assurances as to the continuing declaration and payment of any future dividends under the Company's monthly dividend program or the amount or timing of any such dividends

## **CREDIT FACILITY AND INDEBTEDNESS**

The Credit Facility, or any replacement credit arrangements, may not provide sufficient liquidity. The amounts available under the Credit Facility may not be sufficient for future operations and the Company may not be able to obtain additional financing on favourable terms or at all. There is a risk that the Credit Facility, on maturity, will not be renewed for the same amount, on the same terms or at all and this may restrict the Company's liquidity.

The Credit Facility is a covenant-based facility that includes certain financial ratio tests. These financial ratio tests may, from time to time, either affect the availability, or price, of additional funding and in the event that the Company does not comply with these ratio tests, the Company's access to capital could be restricted or repayment could be required.

Events beyond the Company's control may contribute to the failure of the Company to comply with the covenants under the Credit Facility. A failure to comply with covenants under the Credit Facility could result in an event of default under the Credit Facility, which could result in the Company being required to repay amounts owing thereunder.

The acceleration of the Company's indebtedness under one agreement may permit acceleration of indebtedness under other agreements, including the Credit Facility, that contain cross default or cross-acceleration provisions.

The Credit Facility may impose operating and financial restrictions and requirements on the Company, including, but not limited to, restrictions or requirements with respect to the payment of dividends or other distributions, hedging, repurchases or redemptions of securities, the incurring or repayment of indebtedness, the making of capital expenditures and investments, the provision of guarantees, the assumption of loans, the entering into of amalgamations, mergers, take-over bids and the completion of asset acquisitions or dispositions.

If the Company's lenders require repayment of all or a portion of the amounts outstanding under the Credit Facility for any reason, including for an event of default, there is no certainty that the Company would be in a position to make such repayment. Even if the Company was able to obtain new financing in order to make any required repayment under the Credit Facility, it may not be on commercially reasonable terms or terms that are acceptable to the Company. If the Company was unable to repay amounts owing under the Credit Facility, the lenders under the Credit Facility could proceed to foreclose or otherwise realize upon the collateral granted to them to secure the indebtedness.

The decision of the Supreme Court of Canada in *Orphan Well Association v. Grant Thornton Ltd.* (known as the Redwater decision) may adversely impact the amounts, and terms on which, lenders are willing to lend to Canadian exploration and production companies, including Paramount.

Paramount's level of indebtedness from time to time under the Credit Facility, or any other credit arrangement that may be entered into, may adversely affect the Company's operations by increasing the amount of its cash flow that is required to service its indebtedness, reducing the Company's competitiveness compared to similar companies with less debt, limiting its ability to obtain future financing and increasing its vulnerability to general adverse economic and industry conditions.

## **ACCESS TO CAPITAL AND FUNDING OF EXPENDITURES**

Paramount may not be able to obtain, through its operations or through financings, credit facilities, asset dispositions or other means, on terms acceptable to Paramount or at all, the necessary capital to fund future exploration and development activities and other operations. Any future equity financing may be on terms that are dilutive to existing shareholders. If Paramount was unable to access sufficient capital, it could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

In addition, in recent years certain institutional investors have stopped or reduced their investments in the Canadian energy industry or only invested in companies that satisfy their green, renewable energy, sustainability or ESG criteria. This may result in a reduction in, and an increased cost of, capital for Canadian upstream energy companies like Paramount and could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

## **MARKET PRICE OF COMMON SHARES**

The trading price of Paramount's Common Shares, and other securities of the Company outstanding from time to time, have experienced significant historical volatility and the prices of such securities could be subject to significant volatility in the future. Market price fluctuations in Paramount's securities may occur due to factors both related and unrelated to the Company, including but not limited to the Company's operating and financial results, the Company's financial condition, the Company's business prospects, the Company's results failing to meet forecasts or the expectations of analysts or investors, downward revisions in analysts' estimates, governmental regulatory action, adverse changes in general market conditions or economic trends, acquisitions, dispositions or other material public announcements by the Company or its competitors, macroeconomic developments (including the impact of the COVID-19 pandemic), domestic and global commodity prices, current perceptions of the oil and natural gas industry and other factors.

## **INVESTMENT RISK**

Paramount holds investments in the shares of both public and private entities. Any adverse change in the financial position, business or operations of the entities in which Paramount holds an investment may have a material adverse effect on the value of such investments. There is no assurance as to the ability of Paramount to sell these investments or the price it would receive if and when it chooses to sell such investments. Decreases in the value of Paramount's investments or the inability to sell investments could have a material adverse effect on the Company.

## INDUSTRY COMPETITION

The oil and natural gas industry is highly competitive. Paramount competes with other industry participants in searching for, acquiring and developing reserves and prospective properties, processing, transporting and marketing products and accessing sources of capital. Producers compete to develop technological advancements to enhance well productivity and reduce costs. Paramount also competes with other employers for qualified and experienced personnel. Other oil and gas companies may have greater financial, technical and human resources than Paramount that give them a competitive advantage over the Company in these areas. In addition, there has recently been increased consolidation in the Canadian upstream energy industry in order for companies to, among other things, achieve economies of scale and synergies, lower their cost of capital and strengthen their operational position. This could result in increased competition to Paramount from these entities.

## GOVERNMENT REGULATION

Paramount's operations are governed by numerous laws and regulations at the municipal, provincial, territorial and federal levels. These laws and regulations cover a wide range of matters including, without limitation, royalties, taxes (including income taxes), land tenure, drilling practices and obligations, production rates, the development, decommissioning and abandonment of oil and natural gas fields, the export of petroleum and natural gas, climate change and environmental protection. Governments may order the curtailment or restriction of production of NGLs, natural gas or oil and any such curtailments or restrictions may limit the Company's production of such commodities or the demand for certain of its products, including condensate for use as diluent for bitumen.

Regulatory approval processes often involve numerous stakeholders including First Nations and Metis communities (who must be consulted with respect to potential impacts on treaty or other actual or asserted rights) and other resource and surface rights holders. Changes to, or the failure to comply with, laws and regulations, potential regulatory and court interventions by stakeholders and delays in obtaining regulatory approvals could have a material adverse effect on the Company.

Paramount's producing properties are located on the traditional territories of certain First Nations communities (as recognized under Treaty 6, 7 or 8) or on lands where Metis communities have asserted traditional use rights. In June 2021, the Supreme Court of British Columbia decided in the case of *Yahey v British Columbia* that, under Treaty 8, the cumulative effect of oil, gas, timber and other industrial development in the traditional territory of the Blueberry River First Nation (BRFN) infringed BRFN's treaty rights and that the Government of British Columbia breached its obligations to BRFN by failing to adequately consider the cumulative effect of permitting those various development activities. The Court declared that the Government of British Columbia could not continue to authorize activities that breached the promises included in Treaty 8 or that unjustifiably infringed BRFN's exercise of its treaty rights. The Court suspended this declaration for six months to allow BRFN and the Government of British Columbia to work together to change the regulatory authorization regime to recognize and respect BRFN's treaty rights. Although Paramount's operations were not directly impacted by the *Yahey* decision, similar claims of infringement of treaty rights based on the cumulative effect of development in areas where Paramount's principal properties are located may arise and such claims may result in required regulatory approvals being delayed or denied, which could have a material adverse effect on the Company.

The federal government has introduced legislation to implement the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP"). Other Canadian jurisdictions, including British Columbia, have also introduced or passed similar legislation or may do so in the future. The means and timing of the implementation by UNDRIP by these governments, and the ultimate impact of implementation on regulatory approval processes and requirements, remains uncertain.



Challenges to regulatory applications to build pipelines and other infrastructure to provide additional access to markets for the oil and natural gas industry in Western Canada and uncertainty respecting the application of recently enacted or proposed regulations, have led to downward price pressure on NGLs, natural gas and oil produced in Western Canada. A continuation of these conditions could have a material adverse effect on the Company, including on its ability to raise additional capital.

Paramount's income tax and royalty filings are subject to subsequent audit and potential reassessment by government entities. The reassessment of filings could result, among other things, in additional obligations for income tax and royalties and interest and penalties thereon which could have a material adverse effect on the Company.

## **ENVIRONMENTAL, HEALTH AND SAFETY LAWS AND REGULATIONS**

Paramount's operations are subject to extensive federal, provincial, territorial and municipal laws and regulations that address environmental, health and safety matters relating to the exploration, development and production of NGLs, natural gas and oil, including the release of emissions or pollutants, the storage, handling, transportation and disposal of hazardous and other substances, the remediation of environmental damage, the protection of environmentally sensitive areas and of endangered and protected species and worker and operational safety. Compliance with these laws and regulations may impose substantial costs on Paramount and may subject Paramount to significant potential liabilities. Future changes in such legislation could result in stricter standards and enforcement, larger fines and increased costs of compliance, all of which could have a material adverse effect on Paramount's financial condition or results of operations.

Environmental laws may require parties to undertake or pay for remedial action or to pay damages regardless of fault. Environmental laws may also impose liability with respect to previously divested or terminated operations, even if the operations were divested or terminated many years ago.

As described under "*Industry Conditions – Licensing and Liability Management*", the AER imposes and administers eligibility requirements for prospective transferees of licenses for wells, pipelines and facilities. These requirements may limit the number of potential buyers of oil and natural gas assets in Alberta and, in turn, adversely affect the Company's ability to sell certain assets or the price it is able to obtain for assets it does sell. In December 2021, the AER implemented Directive 088 in support of the Government of Alberta's new liability management framework. Circumstances may arise that result in the application of Directive 088 adversely affecting the Company, including by requiring the Company to accelerate the pace of its spending on abandonment and reclamation activities, imposing security requirements in respect of (and other restrictions on) the Company's acquisition of properties and the licensing of wells, pipelines and facilities, increasing the timelines required to obtain or transfer licenses for wells, pipelines and facilities and/or further restricting the number of potential buyers of assets that the Company may wish to sell.

As described under "*Industry Conditions – Licensing and Liability Management*", Paramount is subject to regulations and directives of the AER which require licensees of wells, pipelines and facilities to contribute to the Orphan Well Fund to fund the costs of suspending, abandoning, remediating and reclaiming wells, pipelines or other facilities when the licensees of those facilities become defunct or insolvent. The amounts that Paramount is required to pay to the Orphan Well Fund are subject to change and there may be material increases in such payments from time to time.

Paramount's operations may result in spills, pipeline releases, or the discharge of hazardous materials which could result in the Company being subject to remediation and clean-up obligations and being exposed to potential liabilities for personal injuries and property and environmental claims. Environmental laws and standard contractual provisions in agreements for the acquisition of oil and natural gas properties

may impose liability on Paramount for environmental damages caused by previous owners. The payment of these environmental obligations and liabilities could have a material adverse effect on Paramount's financial condition and results of operations. In addition, the release of harmful substances into the environment or other environmental damage caused by Paramount's activities could result in the suspension or revocation of operating and environmental permits.

## **DEPENDENCE ON SENIOR OFFICERS AND QUALIFIED PERSONNEL**

Paramount is highly dependent on its Chairman and President and Chief Executive Officer. The loss of this officer, or other senior officers, could impede the achievement of Paramount's objectives and could adversely affect Paramount

Oil and natural gas exploration and development activities depend upon the availability of qualified personnel. Shortages of qualified personnel may delay Paramount's exploration and development activities or increase the cost thereof.

## **HYDRAULIC FRACTURING**

The Company utilizes horizontal, multi-stage hydraulic fracturing, and other technologies in its drilling and completion activities. Public concern over the hydraulic fracturing process has focused on a number of issues, including the completion fluids used in the fracturing process and their potential effect on fresh water aquifers, the rate of fresh water usage, the disposal of completion fluids and produced water and the potential for fracturing operations to contribute to low level seismic events (particularly in proximity to existing faults).

Hydraulic fracturing in Western Canada is subject to extensive regulations, including with respect to water usage, the safe disposal of completion fluids and produced water and the assessment, monitoring and reporting of induced seismicity. The AER issued Subsurface Order No. 7 on December 9, 2019 which prohibits hydraulic fracturing operations within a defined area around Gleniffer Lake and Dickson Dam due to concerns about induced seismicity, which order impacts some of Paramount's East Shale Basin acreage in the Central Alberta and Other Region. Additional regulatory requirements and restrictions may be imposed by federal and provincial governments in the future, including restrictions such as moratoriums on hydraulic fracturing within specified areas or requirements mandating the use of recycled water, that may limit Paramount's ability to conduct, or increase the cost of, hydraulic fracturing operations. This may have a material adverse effect on Paramount's assets, operations and prospects.

## **RESERVES ESTIMATES**

The reserves information contained herein and in the McDaniel Report are only estimates and the actual production and ultimate recovery of NGLs, natural gas and oil from the Company's properties may be greater or less than such estimates prepared by McDaniel.

Estimates of NGLs, natural gas and oil reserves require numerous assumptions including, but not limited to, the price at which such commodities can be sold, the costs of recovering, processing, transporting and selling such commodities, the availability of enhanced recovery techniques and governmental and other regulatory factors, such as royalty rates, taxes and environmental laws. A change in one or more of these factors, or other factors, could result in quantities of NGLs, natural gas or oil previously estimated as reserves becoming unrecoverable.

The McDaniel Report has been prepared using certain forecast commodity price assumptions as set out under "*Reserves and Other Oil and Gas Information – Reserves Information – Summary of Pricing and*

*Inflation Rate Assumptions*". If Paramount realizes lower prices for NGLs, natural gas or oil and they are substituted for the price assumptions utilized in the McDaniel Report, the present value of estimated future net revenues for the Company's reserves would be reduced and the reduction could be significant. A decline in the market price of NGLs, natural gas or oil to an amount that is less than the cost of recovering them at a particular location would make the production of the affected NGLs, natural gas or oil reserves commercially uneconomic.

The estimates contained herein and in the McDaniel Report are based in part on the timing and success of activities the Company intends to undertake in future years. The reserves and estimated future net revenues contained herein and in the McDaniel Report will be reduced in future years to the extent that such activities do not achieve the production performance set forth herein and in the McDaniel Report, do not occur or, other than in the case of abandonment and reclamation activities, occur later than assumed in the McDaniel Report.

In addition, if estimates of reserves and the anticipated future net revenues associated with them are prepared by different independent engineers, or by the same engineers at different times, the results may vary substantially.

Furthermore, under IFRS, Paramount could be required to write-down the carrying value of its oil and natural gas properties if future NGLs, natural gas or oil prices become depressed, if cost estimates increase or if there are substantial downward revisions to Paramount's quantities of reserves. A write-down would result in a charge to net income and a reduction of shareholders' equity. Write-downs may also be required to be reversed if there is an increase in future NGLs, natural gas or oil prices, if cost estimates decrease or if there are substantial upward revisions to Paramount's quantities of reserves. Additional information on write-downs and reversals thereof is included in the 2021 Financial Statements and MD&A.

## **ABANDONMENT AND RECLAMATION COST ESTIMATES**

Abandonment and Reclamation Costs are difficult to estimate reliably and actual costs may differ significantly from estimated costs. The Company will need to comply with the terms and conditions of environmental and regulatory approvals and all legislation regarding the abandonment of its projects and reclamation of the project lands at the end of their economic life, which may result in substantial Abandonment and Reclamation Costs. Any failure to comply with the terms and conditions of the Company's approvals and legislation may result in the imposition of fines and penalties, which may be material, or suspensions or the revocation of the Company's approvals.

## **CREDIT RATINGS**

Paramount, and any debt it may issue, may be rated from time to time by various credit rating agencies and there is a risk that credit ratings may be downgraded. There is no assurance that the Company will continue to maintain any credit rating. Credit ratings may affect the Company's ability to gain access to debt financing and the price of such financing. In addition, Paramount's credit ratings may be important to customers or counterparties when Paramount seeks to engage in certain transactions.

## **SURFACE ACCESS**

The exploration for and development of NGLs, natural gas and oil reserves requires ongoing access to sites where wells are to be drilled and produced, and where gathering systems, pipelines and other facilities and infrastructure are to be constructed and operated. In recent years, the regulatory process for obtaining surface access rights for Crown land has become increasingly complex and time consuming, particularly in environmentally sensitive areas and where stakeholder consultation (including with First Nations groups) is

required. In addition, surface access rights may be granted subject to conditions that restrict operations to prescribed areas or times of year for various environmental reasons (including the protection of wildlife and wildlife habitat). There is a risk that certain areas may be completely closed to oil and natural gas activity due to environmental concerns. Road bans are frequently imposed during the spring breakup period and at other times because of wet conditions, snow, mud and rock slides, wildfires, wildlife migrations and other events, which can result in the Company being temporarily unable to access well sites and production facilities. If Paramount is unable to obtain required surface access rights on a timely basis, and on acceptable terms, or such access is restricted, interrupted or terminated, this could have a material adverse effect on the Company. See also "*Risk Factors – Government Regulation*".

## **ACCESS TO WATER**

The Company relies on water licenses, which if rescinded or the conditions of which are amended, could disrupt its business and have a material adverse effect on its business. The Company relies on water obtained under government licenses to provide the substantial quantities of water required for certain of its operations. There can be no assurance that such licenses to withdraw water will not be rescinded or that additional conditions will not be added to the licenses. New projects or the expansion of existing projects may be dependent on securing licenses for additional water withdrawal, and there can be no assurance that these licenses will be granted on terms favourable to the Company, or at all, or that such additional water will in fact be available to divert under such licenses. The Company's inability to secure water licenses in the future and any amendment to, or rescission of, its current licenses may disrupt its business and have a material adverse effect on its results of operations, financial position and cash flows.

## **THIRD-PARTY CREDIT RISK**

Paramount is exposed to third-party credit risk through its contractual arrangements, including with respect to agreements with marketers and purchasers of its NGLs, natural gas and oil production, agreements with current and future joint venture partners, hedging arrangements and of its investments of cash and equivalents. If any of these third-parties fail to meet their contractual obligations to the Company, this could have a material adverse effect on the Company. In addition, poor credit conditions in the industry may affect a joint venture partner's willingness to participate in the Company's capital programs, potentially delaying such programs and impacting the results thereof.

## **HEDGING, INTEREST RATES AND FOREIGN EXCHANGE RATES**

The nature of Paramount's operations and capital structure exposes it to risks from fluctuations in commodity prices, foreign exchange rates and interest rates. Paramount monitors and, from time-to-time, utilizes derivative and/or physical forward delivery contracts to manage its exposure to these risks. Paramount could be required to make cash payments to settle outstanding contracts or lose the cost of derivative premiums paid. In addition, contracts with a fixed or ceiling price or rate could result in Paramount not receiving the full benefit of commodity price increases, changes in the value of the Canadian dollar or changes in interest rates. Paramount may suffer financial loss if it is unable to produce sufficient NGLs, natural gas or oil to fulfill its obligations under commodity hedging arrangements, and may be required to pay royalties based on a market or reference price that is higher than the fixed or ceiling price under such arrangements. Paramount may also be required to pay margin calls under, or amounts to settle, derivative contracts. In addition, Paramount may be exposed to credit related losses in the event of non-performance by a counterparty to a derivative contract.

Changes in commodity prices and changes in the US\$/CDN\$ dollar exchange rate can have a material impact on the Company's revenues. Changes in market interest rates can have a material impact on interest expense related to any floating rate debt and the market value of any fixed rate debt outstanding from time

to time. Changes in the US\$/CDN\$ dollar exchange rate may also impact the Company's Canadian dollar equivalent interest costs related to any US\$ denominated debt outstanding from time to time and the principal amount of such debt, which may have a material impact on the Company's debt service costs and the cost of repaying principal amounts.

## **LITIGATION**

In the normal course of Paramount's operations, the Company may become involved in, named as a party to, or be the subject of, various legal proceedings, including regulatory proceedings, tax proceedings and other legal actions. The outcome of outstanding, pending or future proceedings cannot be predicted with certainty and may be determined adversely to the Company and as a result, could have a material adverse effect on the Company. Even if Paramount prevails in any such legal proceedings, they could be costly and time-consuming and divert the attention of management and key personnel from the Company's core business operations.

## **INFORMATION SECURITY**

The Company's information technology systems are subject to cybersecurity risks which could have a material adverse effect on the Company, including risks associated with viruses, hacking, ransomware attacks and phishing attempts. While the Company invests in security systems to prevent and detect inappropriate or illegal access to its key systems and regularly reviews its policies, procedures and protocols for data and system integrity, there can be no assurance that critical systems will not be breached or compromised. Targeted attacks on Paramount's systems (or on systems of third-parties that it relies on), the failure or non-availability of a key information technology system or a breach of security measures designed to protect Paramount's information technology systems could result in: (i) significant financial loss, (ii) the theft, misuse, modification or destruction of critical data or information, including trade secrets, confidential business information or private data, or (iii) disruptions and damage to various systems and equipment (which could potentially include wells, production facilities or pipelines), creating risks of production loss, environmental damage and personal injury.

## **UNFORESEEN TITLE DEFECTS, EXPIRATION OF LICENSES AND LEASES, AND LAND CLAIMS**

Unforeseen title defects may result in the loss of entitlement to production and reserves. The Company conducts title reviews in accordance with industry practice when it acquires oil and natural gas properties, however such reviews do not guarantee that an unforeseen defect in the chain of title will not arise and defeat the Company's title to the assets.

The Company's properties are held in the form of working interests in oil and natural gas licenses and leases. Failure to meet the rental, drilling and other requirements of such licenses or leases will result in their termination or expiry. To the extent Paramount fails, or is financially unable, to continue prospective oil and natural gas licenses this could have a material adverse effect on the Company.

First Nations and Metis communities may assert rights over portions of Paramount's oil and natural gas properties. Accordingly, consultation with such groups is required in connection with Paramount's exploration and development activities on such properties, and in certain cases accommodations may be required for infringements of these rights. In addition, there are outstanding claims to aboriginal title affecting areas in northeast British Columbia and the Northwest Territories where Paramount's Liard Basin shale gas properties are located. If these claims are successful, it is possible that Paramount's interests in these properties could be adversely affected. See also "*Risk Factors – Government Regulation*".

## **VANDALISM, TERRORISM AND CYBERTERRORISM**

Oil and natural gas industry participants, including Paramount, are a potential target for vandals, terrorists and cyberterrorists. The possibility that the Company's or third-party systems, facilities or infrastructure may be direct targets of, or indirect casualties of, an act of vandalism, terrorism or cyberterrorism and the implementation of security measures as a precaution against such attacks may result in increased cost to the Company's business. If any of the Company's systems, properties, wells, facilities or infrastructure or those of third-parties that the Company utilizes are the subject of a serious act of vandalism, a terrorist attack or a cyberterrorist attack, it may have a material adverse effect on the Company.

## **TRANSFER AGENT AND REGISTRAR**

The Company's transfer agent and registrar is Computershare Trust Company of Canada at its principal offices in Calgary, Alberta and Toronto, Ontario.

## **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

In November 2019, Paramount completed a non-brokered private placement of approximately 5.9 million Common Shares at a price of \$6.65 per share for total proceeds of \$39.2 million. 3.75 million of the Common Shares were issued to an entity controlled by Paramount's President and Chief Executive Officer and Chairman. The Common Shares were issued on a "flow through" basis in respect of Canadian development expenses.

In January 2021, the Company completed a private placement of \$35.0 million of Debentures. An entity controlled by Paramount's President and Chief Executive Officer and Chairman purchased \$25.0 million of the Debentures. All of the Debentures held by this entity were converted to acquire an aggregate of 3,750,375 Common Shares in December 2021.

## **INTEREST OF EXPERTS**

The Company's auditors are Ernst & Young LLP, Chartered Professional Accountants, Suite 2200, 215 – 2<sup>nd</sup> Street S.W., Calgary, Alberta, T2P 1M4. Ernst & Young LLP is independent in accordance with the Rules of Professional Conduct of the Chartered Professional Accountants of Alberta.

Information relating to Paramount's reserves in this annual information form was prepared by McDaniel as an independent qualified reserves evaluator. The principals of McDaniel own beneficially, directly or indirectly, less than one percent of any class of Paramount's securities.

## **ADDITIONAL INFORMATION**

Additional information relating to Paramount is available via the System for Electronic Document Analysis and Retrieval (SEDAR) at [www.sedar.com](http://www.sedar.com).

Additional information, including directors' and officers' remuneration, principal holders of Paramount's securities, and options to purchase securities, is included in the information circular for Paramount's most recent annual meeting of shareholders that involves the election of directors. Additional financial information is contained in the 2021 Financial Statements and MD&A.

**APPENDIX A**  
**REPORT ON RESERVES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR**

To the board of directors of Paramount Resources Ltd. (the "Company"):

1. We have evaluated the Company's reserves data as at December 31, 2021. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2021 estimated using forecast prices and costs.
2. The reserves data are the responsibility of the Company's management. Our responsibility is to express an opinion on the reserves data based on our evaluation.
3. We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook as amended from time to time (the "COGE Handbook") maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter).
4. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
5. The following table shows the net present value of future net revenue (before deduction of income taxes) attributed to proved + probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated for the year ended December 31, 2021, and identifies the respective portions thereof that we have evaluated and reported on to the Company's Board of Directors:

Independent Qualified Reserves Evaluator	Effective Date of Evaluation Report	Location of Reserves	Net Present Value of Future Net Revenue - \$M (before income taxes, 10% discount rate)			
			Audited	Evaluated	Reviewed	Total
McDaniel	December 31, 2021	Canada	-	6,234,753.5	-	6,234,753.5

6. In our opinion, the reserves data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the reserves data that we reviewed but did not audit or evaluate.
7. We have no responsibility to update our report referred to in paragraph 5 for events and circumstances occurring after the effective date of our report.
8. Because the reserves data are based on judgments regarding future events, actual results will vary and the variations may be material.

Executed as to our report referred to above:

**MCDANIEL & ASSOCIATES CONSULTANTS LTD.**

/s/ Brian R. Hamm, P. Eng  
 President & CEO

Calgary, Alberta, Canada  
 March 1, 2022

**APPENDIX B**  
**REPORT OF MANAGEMENT AND DIRECTORS ON RESERVES DATA AND OTHER INFORMATION**

Management of Paramount Resources Ltd. (the "Company") is responsible for the preparation and disclosure of information with respect to the Company's oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data.

An independent qualified reserves evaluator has evaluated the Company's reserves data. The report of the independent qualified reserves evaluator will be filed with securities regulatory authorities concurrently with this report.

The Reserves Committee of the board of directors of the Company has:

- (a) reviewed the Company's procedures for providing information to the independent qualified reserves evaluator;
- (b) met with the independent qualified reserves evaluator to determine whether any restrictions affected the ability of the independent qualified reserves evaluator to report without reservation; and
- (c) reviewed the reserves data with management and the independent qualified reserves evaluator.

The Reserves Committee of the board of directors of the Company has reviewed the Company's procedures for assembling and reporting other information associated with oil and gas activities and has reviewed that information with management. The board of directors has, on the recommendation of the Reserves Committee, approved:

- (a) the content and filing with securities regulatory authorities of Form 51-101F1 containing the reserves data and other oil and gas information;
- (b) the filing of Form 51-101F2 which is the report of the independent qualified reserves evaluator on the reserves data; and
- (c) the content and filing of this report.

Because the reserves data are based on judgments regarding future events, actual results will vary and the variations may be material.

/s/ James H.T. Riddell  
President and Chief Executive Officer

/s/ Paul R. Kinvig  
Chief Financial Officer

/s/ R. Keith MacLeod  
Director

/s/ Kim Lynch Proctor  
Director

March 1, 2022



**APPENDIX C**  
**AUDIT COMMITTEE CHARTER**

(Adopted by the Board of Directors on May 19, 2005 with revisions to and including September 14, 2017)

**A. PURPOSE**

The overall purpose of the Audit Committee (the "Committee") is to ensure that management of Paramount Resources Ltd. (the "Corporation") has designed and implemented an effective system of internal financial controls and disclosure controls and procedures, to review and report on the integrity of the consolidated financial statements of the Corporation and to review the Corporation's compliance with regulatory and statutory requirements as they relate to financial statements, taxation matters and disclosure of material facts.

**B. COMPOSITION, PROCEDURES AND ORGANIZATION**

1. The Committee shall consist of at least three members of the Board of Directors (the "Board") of the Corporation, all of whom shall be "independent", as that term is defined in Sections 1.4 and 1.5 of National Instrument 52-110, Audit Committees.
2. All of the members of the Committee shall be "financially literate" (i.e. able to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of those of the Corporation and that can be reasonably expected to be raised by the Corporation's financial statements).
3. The Board shall appoint the members of the Committee. The Board may at any time remove or replace any member of the Committee and may fill any vacancy in the Committee.
4. Unless the Board shall have appointed a chair of the Committee, the members of the Committee shall elect a chair from among their members.
5. The Corporate Secretary of the Corporation shall be the secretary of the Committee, unless otherwise determined by the Committee.
6. The quorum for meetings shall be a majority of the members of the Committee, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak and to hear each other.
7. The Committee shall have access to such officers and employees of the Corporation and to the Corporation's external auditors, and to such information respecting the Corporation, as it considers necessary or advisable in order to perform its duties and responsibilities.
8. Meetings of the Committee shall be conducted as follows:
  - (a) the Committee shall meet at least four times annually at such times and at such locations as may be requested by the chair of the Committee. The external auditors, the Chief Executive Officer or any member of the Committee may request a meeting of the Committee;
  - (b) the external auditors shall receive notice of and have the right to attend all meetings of the Committee;
  - (c) the following management representatives shall be invited to attend all meetings, except executive sessions and private sessions with the external auditors:

President and Chief Executive Officer  
Chief Financial Officer  
Controller  
Corporate Secretary

- (d) other management representatives shall be invited to attend as necessary or desirable
  - (e) as necessary or desirable but in any case at least quarterly, the Committee will meet with members of management and representatives of the external auditors, in separate executive sessions to discuss any matters that the Committee or any of these groups believes should be discussed privately; and
  - (f) the Committee shall meet in camera, without management, during or after any Committee meeting.
9. The external auditors shall report directly to the Committee and the external auditors and internal auditors (if any) shall have a direct line of communication to the Committee through its chair and may bypass management if deemed necessary. The Committee, through its chair, may contact directly any employee of the Corporation as it deems necessary, and any employee may bring before the Committee any matter involving questionable, illegal or improper financial practices or transactions.
10. The Committee may retain, at the Corporation's expense, special legal, accounting or other consultants or experts it deems necessary in the performance of its duties and may set and pay the compensation for any advisor engaged. The Committee will notify the Chairman of the Corporate Governance Committee whenever independent consultants are engaged.

### **C. ROLES AND RESPONSIBILITIES**

1. The overall duties and responsibilities of the Committee shall be as follows:
- (a) to assist the Board in the discharge of its responsibilities relating to the Corporation's accounting principles, reporting practices and internal controls and its approval of the Corporation's annual and quarterly consolidated financial statements and management's discussion and analysis;
  - (b) to establish and maintain a direct line of communication with the Corporation's internal (if any) and external auditors and assess their performance;
  - (c) to ensure that the management of the Corporation has designed, implemented and is maintaining an effective system of internal financial controls and disclosure controls and procedures;
  - (d) to periodically review the audit and non-audit services pre-approval policy and recommend to the Board any changes which the Committee deems appropriate;
  - (e) to periodically consider whether there is a need to outsource internal audit functions or create an internal audit department;
  - (f) to receive and review complaints received pursuant to the Corporation's Whistleblower Policy and oversee and provide direction on the investigation and resolution of such concerns and to periodically review the said policy and recommend to the Board changes which the Committee may deem appropriate;
  - (g) to report regularly to the Board on the fulfillment of its duties and responsibilities;

- (h) to identify and monitor the management of the principal risks that could impact the financial reporting of the Corporation; and
  - (i) review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Corporation.
2. The duties and responsibilities of the Committee as they relate to the external auditors shall be as follows:
- (a) to be directly responsible for overseeing the work of the external auditors engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation, including the resolution of disagreements between management and the external auditors regarding financial reporting;
  - (b) to recommend to the Board a firm of external auditors to be nominated for appointment by the shareholders of the Corporation, and to monitor and verify the independence of such external auditors;
  - (c) to review and approve the fee, scope and timing of the audit and other related services rendered by the external auditors;
  - (d) review the audit plan of the external auditors prior to the commencement of the audit;
  - (e) to review with the external auditors, upon completion of their audit:
    - (I) contents of their report;
    - (II) scope and quality of the audit work performed;
    - (III) adequacy of the Corporation's financial and auditing personnel;
    - (IV) co-operation received from the Corporation's personnel during the audit;
    - (V) internal resources used;
    - (VI) significant transactions outside of the normal business of the Corporation;
    - (VII) significant proposed adjustments and recommendations for improving internal accounting controls, accounting principles or management systems; and
    - (VIII) the non-audit services provided by the external auditors, as pre-approved pursuant to the audit and non-audit services pre-approval policy;
  - (f) to discuss with the external auditors the quality and not just the acceptability of the Corporation's accounting principles;
  - (g) to review any unresolved issues between management and the external auditors that could affect the financial reporting or internal controls of the Corporation; and
  - (h) to implement structures and procedures to ensure that the Committee meets the external auditors on a regular basis in the absence of management.

3. The duties and responsibilities of the Committee as they relate to the internal control procedures of the Corporation are to:
  - (a) review the appropriateness and effectiveness of the Corporation's policies and business practices which impact on the financial integrity of the Corporation, including those relating to insurance, accounting, information services and systems and financial controls, management reporting and risk management;
  - (b) review compliance under the Corporation's Code of Business Conduct Policy with those matters addressed in the policy which affect the financial integrity of the Corporation and to periodically review this policy and recommend to the Board changes which the Committee may deem appropriate; and
  - (c) periodically review the Corporation's financial and auditing procedures and the extent to which recommendations made by the internal accounting staff or by the external auditors have been implemented.
  
4. The Committee is also charged with the responsibility to:
  - (a) review and recommend to the Board for its approval, the Corporation's and its subsidiaries, partnerships and joint venturers, as applicable, annual financial statements, management's discussion and analysis, annual information form and annual earnings press releases before the Corporation publicly discloses this information;
  - (b) review and approve the Corporation's and its subsidiaries, partnerships and joint venturers, as applicable, interim financial statements, interim management's discussion and analysis including the impact of unusual items and changes in accounting principles and estimates and report to the Board in due course with respect thereto and to review and approve the Corporation's interim earnings press releases before the Corporation publicly discloses this information;
  - (c) review and approve the financial sections of:
    - (I) the annual report to shareholders;
    - (II) the annual information form;
    - (III) prospectuses;
    - (IV) other public reports requiring approval by the Board; and
    - (V) press releases related thereto,and report to the Board with respect thereto;
  - (d) review regulatory filings and decisions as they relate to the Corporation's consolidated financial statements;
  - (e) review the appropriateness of the policies and procedures used in the preparation of the Corporation's consolidated financial statements and other required disclosure documents, and consider recommendations for any material change to such policies;
  - (f) review and report on the integrity of the Corporation's consolidated financial statements;
  - (g) review the minutes of any audit committee meeting of any subsidiary of the Corporation;

- (h) review with management, the external auditors and, if necessary, with legal counsel, any litigation, claim or other contingency, including tax assessments that could have a material effect upon the financial position or operating results of the Corporation and the manner in which such matters have been disclosed in the consolidated financial statements;
- (i) review the Corporation's compliance with regulatory and statutory requirements as they relate to financial statements, tax matters and disclosure of material facts; and
- (j) develop a calendar of activities to be undertaken by the Committee for each ensuing year related to the Committee's duties and responsibilities as set forth in this Charter and to submit the calendar in the appropriate format to the Board within a reasonable period of time following each annual general meeting of shareholders.

#### **D. ANNUAL REVIEW AND ASSESSMENT**

The Committee shall conduct an annual review and assessment of its performance, including compliance with this Charter and its role, duties and responsibilities, and submit such report to the Board.