MANAGEMENT'S DISCUSSION AND ANALYSIS

The following is management's discussion and analysis ("MD&A") of Perpetual Energy Inc.'s ("Perpetual", the "Company" or the "Corporation") operating and financial results for the three months ended March 31, 2021 as well as information and estimates concerning the Corporation's future outlook based on currently available information. This discussion should be read in conjunction with the Corporation's unaudited condensed interim consolidated financial statements and accompanying notes for the three months ended March 31, 2021 as well as the audited consolidated financial statements and accompanying notes for the years ended December 31, 2020 and 2019. The MD&A should be read in conjunction with the Corporation's MD&A for the year ended December 31, 2020, as disclosure which is unchanged from the December 31, 2020 MD&A has not been duplicated herein. The Corporation's consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles ("GAAP") which require publicly accountable enterprises to prepare their financial statements using International Financial Reporting Standards ("IFRS"). Readers are referred to the advisories for additional information regarding forecasts, assumptions and other forward-looking information contained in the "Forward Looking Information and Statements" section of this MD&A. The date of this MD&A is May 4, 2021.

NATURE OF BUSINESS: Perpetual is an oil and natural gas exploration, production and marketing company headquartered in Calgary, Alberta. Perpetual owns a diversified asset portfolio, including liquids-rich conventional natural gas assets in the deep basin of West Central Alberta, heavy crude oil and shallow conventional natural gas in Eastern Alberta, and undeveloped bitumen leases in Northern Alberta. Additional information on Perpetual, including the most recently filed Annual Information Form ("AIF"), can be accessed at www.sedar.com or from the Corporation's website at www.perpetualenergyinc.com.

ADVISORIES

NON-GAAP MEASURES: The terms "adjusted funds flow", "adjusted funds flow per share", "adjusted funds flow per boe", "available liquidity", "cash costs", "net working capital deficiency", "net debt", "net bank debt", "net debt to adjusted funds flow ratio", "operating netback", "realized revenue", and "enterprise value" used in this MD&A are not recognized under GAAP. Management believes that in addition to net income (loss) and net cash flows from (used in) operating activities as defined by GAAP, these terms are useful supplemental measures to evaluate performance. Users are cautioned however that these measures should not be construed as an alternative to net income (loss) or net cash flows from (used in) operating activities determined in accordance with GAAP as an indication of Perpetual's performance, and may not be comparable with the calculation of similar measurements by other entities.

Adjusted funds flow: Adjusted funds flow is calculated based on cash flows from (used in) operating activities, excluding changes in non-cash working capital and expenditures on decommissioning obligations since Perpetual believes the timing of collection, payment or incurrence of these items is variable. Expenditures on decommissioning obligations may vary from period to period depending on capital programs and the maturity of the Company's operating areas. Expenditures on decommissioning obligations are managed through the capital budgeting process which considers available adjusted funds flow. The Company has added back non-cash oil and natural gas revenue in-kind, equal to retained East Edson royalty obligation payments taken in-kind, to present the equivalent amount of cash revenue generated. The Company has also deducted payments of the gas over bitumen royalty financing from adjusted funds flow to present these payments net of gas over bitumen royalty credits received. These payments are indexed to gas over bitumen royalty credits and are recorded as a reduction to the Corporation's gas over bitumen royalty financing obligation in accordance with IFRS. Additionally, the Company has excluded payments of restructuring costs associated with employee downsizing costs, which management considers to not be related to cash flow from (used in) operating activities. Management uses adjusted funds flow and adjusted funds flow per boe as key measures to assess the ability of the Company to generate the funds necessary to finance capital expenditures, expenditures on decommissioning obligations, and meet its financial obligations.

Adjusted funds flow per share is calculated using the weighted average number of shares outstanding used in calculating net income (loss) per share. Adjusted funds flow is not intended to represent net cash flows from (used in) operating activities calculated in accordance with IFRS.

Adjusted funds flow per boe is calculated as adjusted funds flow divided by total production sold in the period.

The following table reconciles net cash flows from (used in) operating activities as reported in the Company's condensed interim consolidated statements of cash flows, to adjusted funds flow:

	Three months ended March 31,	
($ thousands, except per share and per boe amounts)	**2021**	2020
Net cash flows from (used in) operating activities	**1,682**	(3,114)
Change in non-cash working capital	**(150)**	(935)
Decommissioning obligations settled (cash)	**115**	174
Oil and natural gas revenue in-kind	**1,133**	–
Payments of gas over bitumen royalty financing	**(236)**	(204)
Payments of restructuring costs	**–**	478
Adjusted funds flow	**2,544**	(3,601)
Adjusted funds flow per share	**0.04**	(0.06)
Adjusted funds flow per boe	**5.42**	(5.29)

Available Liquidity: Available Liquidity is defined as Perpetual's reserve-based credit facility (the "Credit Facility") borrowing limit (the "Borrowing Limit"), less borrowings and letters of credit issued under the Credit Facility. Management uses available liquidity to assess the ability of the Company to finance capital expenditures and expenditures on decommissioning obligations, and to meet its financial obligations.

Cash costs: Cash costs are comprised of royalties, production and operating, transportation, general and administrative, and cash finance expense as detailed below. Cash costs per boe is calculated by dividing cash costs by total production sold in the period. Management believes that cash costs assist management and investors in assessing Perpetual's efficiency and overall cost structure.

(*$ thousands, except per boe amounts*)	Three months ended March 31, **2021**	2020
Royalties	**2,131**	2,383
Production and operating	**3,286**	4,168
Transportation	**690**	1,270
General and administrative	**2,055**	2,225
Cash finance expense	**(937)**	2,570
Cash costs	**7,225**	12,616
Cash costs per boe	**15.41**	18.54

Realized revenue: Realized revenue is the sum of realized natural gas revenue, realized oil revenue, and realized natural gas liquids ("NGL") revenue which includes realized gains (losses) on financial natural gas, crude oil, NGL, and foreign exchange contracts. Realized revenue is used by management to calculate the Corporation's net realized commodity prices, taking into account the monthly settlements of financial crude oil and natural gas forward sales, collars, basis differentials, and forward foreign exchange sales. These contracts are put in place to protect Perpetual's adjusted funds flow from potential volatility in commodity prices and foreign exchange rates. Any related realized gains or losses are considered part of the Corporation's realized price.

Operating netback: Operating netback is calculated by deducting royalties, production and operating expenses, and transportation costs from realized revenue. Operating netback is also calculated on a per boe basis using total production sold in the period. Operating netback on a per boe basis can vary significantly for each of the Company's operating areas. Perpetual considers operating netback to be an important performance measure as it demonstrates its profitability relative to current commodity prices.

Net working capital deficiency: Net working capital deficiency includes total current assets and current liabilities excluding short-term derivative assets and liabilities related to the Corporation's risk management activities, revolving bank debt, second lien term loan (the "Term Loan"), current portion of royalty obligations, current portion of lease liabilities, and current portion of decommissioning obligations.

Net bank debt, net debt, and net debt to adjusted funds flow ratio: Net bank debt is measured as current and long-term revolving bank debt, including the net working capital deficiency. Net debt includes the carrying value of net bank debt, the principal amount of the Term Loan, and the principal amount of senior notes. Net debt, net bank debt, and net debt to adjusted funds flow ratios are used by management to assess the Corporation's overall debt position and borrowing capacity. Net debt to adjusted funds flow ratios are calculated on a trailing twelve-month basis.

Enterprise value: Enterprise value is equal to net debt plus the market value of issued equity, and is used by management to analyze leverage.

VOLUME CONVERSIONS: Barrel of oil equivalent ("boe") may be misleading, particularly if used in isolation. In accordance with National Instrument 51-101 ("NI 51-101"), a conversion ratio for conventional natural gas of 6 Mcf:1 bbl has been used, which is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, utilizing a conversion on a 6 Mcf:1 bbl basis may be misleading as an indicator of value as the value ratio between conventional natural gas and heavy crude oil, based on the current prices of natural gas and crude oil, differ significantly from the energy equivalency of 6 Mcf:1 bbl. A conversion ratio of 1 bbl of heavy crude oil to 1 bbl of NGL has also been used throughout this MD&A. Refer to the "Production" section of this MD&A for details of constituent product components that comprise Perpetual's boe production.

FIRST QUARTER 2021 HIGHLIGHTS

Production averaged 5,211 boe/d in the first quarter of 2021, down 30% from the comparative period of 2020 (Q1 2020 – 7,479 boe/d). The decrease in production was due to the sale of a 50% working interest in the East Edson property in West Central Alberta to a third-party (the "Purchaser") on April 1, 2020, for consideration including a cash payment of $35 million and the carried interest funding of the drill, complete and tie-in costs for an eight well drilling program (the "East Edson Transaction"). After closing the East Edson Transaction, West Central production has increased 38% from 2,709 boe/d in the second quarter of 2020 to 3,748 boe/d in the first quarter of 2021, as production from the first seven (3.5 net) East Edson carried interest wells is now online. The final carried interest well is expected to be on production late in the third quarter of 2021. In addition, the Company has continued to reactivate heavy crude oil production as oil prices recover and stabilize. As of March 31, 2021, Perpetual had restarted all heavy crude oil production with the exception of approximately 100 bbl/d of higher cost production from certain wells at Mannville.

Exploration and development spending for the first quarter of 2021 was nominal, consistent with guidance released on February 24, 2021 with the Company's 2020 year-end results. At the 50% owned East Edson property, two (1.0 net) horizontal Wilrich wells were drilled and tied-in to production late in the first quarter of 2021, pursuant to the Purchaser's carried interest drilling commitment.

Realized revenue was $21.67/boe in the first quarter of 2021, 56% higher than the comparative period of 2020 (Q1 2020 - $13.88/boe). The increase was due primarily to the 94% increase in Perpetual's realized natural gas price to $2.25/Mcf, combined with a realized oil price of $40.85/bbl which was 25% higher than the comparative period of 2020. Higher realized natural gas prices were the result of a 55% increase in the AECO Daily Index, which more than offset losses on the market diversification contract of $0.6 million ($0.30/Mcf). Natural gas hedging losses were $2.1 million or $1.04/Mcf (Q1 2020 – losses of $3.2 million or $1.04/Mcf), related primarily to the elimination of the Company's 10,000 MMBtu/d market diversification contract obligations for the period of April 1, 2021 to October 31, 2021 at a cost of $1.4 million. Perpetual's realized oil price was $40.85/bbl, 63% higher than the first quarter of 2020 after adjusting for $7.48/bbl of financial hedging gains realized in the first quarter of 2020, consistent with the increase in Western Canadian Select ("WCS") average prices. Realized NGL prices of $56.03/bbl increased by 54% over the comparable period, driven by higher oil prices.

Cash costs were $15.41/boe in the first quarter of 2021, down 17% from the prior year period (Q1 2020 – $18.54/boe). On an absolute dollar basis, cash costs were $7.2 million, down $5.4 million (43%) from the prior year period. The decrease was due to the impact of lower production resulting from the East Edson Transaction, combined with cash finance expense which was $3.5 million lower than the prior year period (Q1 2020 – $2.6 million), due primarily to $3.0 million of Term Loan and 2025 Senior Note interest that Perpetual has elected to pay in-kind and add to the principal amount owing.

Net loss for the first quarter of 2021 was $2.7 million ($0.04/share), improved significantly from the prior year period net loss of $59.7 million ($0.98/share). The improvement was due primarily to higher reference prices for all products and the absence of non-cash impairment charges of $60.5 million recognized during the first quarter of 2020. Prior period impairments were the result of the pervasive drop in forward oil prices following demand destruction caused by the onset of the COVID-19 pandemic, and the oil price war between Saudi Arabia and Russia.

Despite the 30% decrease in production, net cash flows from operating activities in the first quarter of 2021 were $1.7 million ($0.03/share), up $4.8 million from the prior year period (Q1 2020 – net cash flows used in operating activities of $3.1 million or $0.05/share). The increase was due to significantly higher realized prices for all products, in combination with lower cash costs resulting from Perpetual's election to pay Term Loan and 2025 Senior Note interest in-kind rather than in cash.

Adjusted funds flow in the first quarter of 2021 was $2.5 million ($0.04/share), up $6.1 million (171%) from the prior year period of negative $3.6 million ($0.06/share), due primarily to the $4.8 million increase in cash flows from operating activities. Adjusted funds flow was $5.42/boe in the first quarter of 2021, up 202% from the prior year period (Q1 2020 – negative $5.29/boe) due to the 56% increase in realized revenue per boe combined with a 17% reduction in cash costs per boe.

FUTURE OPERATIONS

On April 1, 2020, the Company closed the East Edson Transaction for consideration including a cash payment of $35 million and the carried interest funding of the drill, complete and tie-in costs for an eight well drilling program. Net proceeds were used to repay a portion of the reserve-based credit facility (the "Credit Facility"). Effective April 1, 2020, Perpetual's syndicate of Credit Facility lenders completed their borrowing base redetermination, reducing the Borrowing Limit from $45 million to $20 million after incorporating the impact of the East Edson Transaction. As at March 31, 2021, $17.2 million was borrowed and $0.9 million of letters of credit were issued on the Credit Facility, and the Company had a net working capital deficiency of $6.7 million.

The Company will require additional financing to fund the net working capital deficiency, and to refinance the upcoming Credit Facility and Term Loan maturities as the available liquidity and operating cash flows are not anticipated to be sufficient. The semi-annual Term Loan interest payment of $1.8 million that was payable December 31, 2020, was deferred by the Company's lender and added to the principal amount owing as a condition of the Credit Facility lenders agreeing to extend the Credit Facility maturity. In January 2021, the Company exchanged its $33.6 million 8.75% unsecured senior notes due January 23, 2022 (the "2022 Senior Notes") for new $33.6 million secured 8.75% third lien senior notes due January 23, 2025 (the "2025 Senior Notes"). Interest on the 2025 Senior Notes may be paid-in-kind at the option of the Company by adding the interest payment to the principal amount owing (a "PIK Interest Payment"). On January 23, 2021, the $1.5 million semi-annual interest payment on the 2025 Senior Notes was paid in-kind, increasing the principal amount outstanding to $35.0 million. The Company intends to satisfy the semi-annual interest payment due July 23, 2021 by making an in-kind payment.

On March 1, 2021, the Borrowing Limit redetermination and maturity date for the Credit Facility was extended from March 1, 2021 to April 30, 2021, and on April 30, 2021, the Borrowing Limit redetermination and maturity date was further extended to June 16, 2021. If not extended by June 16, 2021, the Credit Facility will cease to revolve, and all outstanding advances will be repayable. On April 30, 2021, the maturity date applicable to the Company's $47.8 million second lien Term Loan was extended from May 14, 2021 to June 30, 2021. The extension of the Company's Credit Facility and Term Loan maturities provides additional time to finalize negotiations with its lenders and for the Company to explore opportunities to enhance its liquidity. The Company remains dependent on the support of its lenders to extend approaching maturities. Although cash flows from operations are forecasted to improve for the next twelve-month period, Perpetual is considering other options including the extension of existing debt maturity dates, alternative financing, and the sale or monetization of additional assets.

Due to the facts and circumstances detailed above, coupled with considerable economic instability and uncertainty in the oil and gas industry which negatively impacts operating cash flows and lender and investor sentiment, there remains considerable risk around the Company's ability to address its liquidity shortfalls and upcoming maturities. In addition, there continues to be some uncertainty regarding the Statement of Claim which may restrict the Company's ability to manage its capital structure. As a result, there is material uncertainty surrounding the Company's ability to continue as a going concern that creates significant doubt as to the ability of the Company to meet its obligations as they come due. Therefore, the Company may be unable to realize its assets and discharge its liabilities in the normal course of business.

Perpetual's financial statements have been prepared in accordance with generally accepted accounting principles applicable to a going concern, which assumes that the Corporation will be able to realize its assets and discharge its liabilities in the normal course of business. These financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis were not appropriate for these financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenues and expenses, and the balance sheet classifications used. These adjustments could be material.

SEQUOIA LITIGATION UPDATE

On August 3, 2018, PricewaterhouseCoopers Inc. ("PwC") LIT, in its capacity as trustee in bankruptcy of the estate of Sequoia Resources Corp. (the "Trustee"), filed a Statement of Claim against Perpetual and its President and Chief Executive Officer ("CEO") (the "Sequoia Litigation") with respect to the Company's disposition of shallow conventional natural gas assets in Eastern Alberta to an unrelated third party on October 1, 2016 (the "Sequoia Disposition"). On January 13, 2020, the Court of Queen's Bench (the "Court") issued its written decision with respect to the Company's first summary dismissal application, which dismissed and struck all claims against the Company's CEO and all but one of the claims filed against Perpetual. The Court did not find that the test for summary dismissal relating to whether the asset transaction was an arm's length transfer for purposes of section 96(1) of the Bankruptcy and Insolvency Act (the "BIA") was met, on the balance of probabilities. Accordingly, the BIA claim was not dismissed or struck and only that part of the claim could continue against Perpetual. The Trustee filed a notice of appeal with the Court of Appeal of Alberta, challenging the entire decision, and Perpetual filed a similar notice of appeal contesting the BIA claim portion of the decision (the "First Appeal").

The First Appeal proceedings were heard on December 10, 2020. On January 25, 2021, the Court of Appeal of Alberta issued their judgement with respect to the First Appeal proceedings, dismissing the appeal filed by Perpetual and granting certain aspects of the appeals filed by the Trustee, thereby reinstating certain elements of the Sequoia Litigation for trial. On March 24, 2021, Perpetual applied for leave to appeal the First Appeal decision to the Supreme Court of Canada.

On February 25, 2020, Perpetual filed a second application to strike and summarily dismiss the BIA claim on the basis that there was no transfer at undervalue, and Sequoia was not insolvent at the time of the asset transaction nor caused to be insolvent by the asset transaction. In July 2020, the Orphan Well Association ("OWA"), certain oil and gas companies, and six municipalities applied to intervene in the second BIA dismissal application proceedings. The OWA and certain oil and gas companies were permitted to intervene (the "Intervenors") in the proceedings which took place on October 1 and 2, 2020. The Intervenors were also permitted to intervene in the First Appeal proceedings. On January 14, 2021, the Court issued its decision, finding that the Trustee could not establish a necessary element of the BIA claim as Sequoia was not insolvent at the time of, nor rendered insolvent by, the Sequoia Disposition. The Court therefore concluded that there is "no merit" to the BIA claim and it summarily dismissed the balance of the Statement of Claim. The Trustee has subsequently appealed the decision (the "Second Appeal").

Management expects that the Company is more likely than not to be completely successful in defending against the Sequoia Litigation such that no damages will be awarded against it, and therefore, no amounts have been accrued as a liability in Perpetual's condensed interim consolidated financial statements.

2021 OUTLOOK

Perpetual's reserve-based Credit Facility maturity was recently extended to June 16, 2021, and its Term Loan matures on June 30, 2021. To preserve liquidity, the Company will continue to defer capital spending until the Credit Facility and Term Loan have been refinanced or maturities extended. The Company will issue its 2021 Outlook once capital spending plans have been approved by the Board of Directors. At East Edson, the eighth and final carried interest well is expected to be drilled, completed and tied-in by the end of the third quarter of 2021.

Production in the second quarter is expected to average 4,900 to 5,100 boe/d, reflecting production from the two (1.0 net) East Edson wells placed on stream in March, offset by natural declines.

Total abandonment and reclamation expenditures of up to $2.4 million are forecast in 2021, with up to $1.2 million to be funded through Alberta's Site Rehabilitation Program ("SRP"). The remaining $1.2 million will more than satisfy the Company's area-based closure spending requirements of $1.0 million.

FIRST QUARTER FINANCIAL AND OPERATING RESULTS

Capital expenditures

	Three months ended March 31,	
($ thousands)	**2021**	2020
Exploration and development	**1**	5,230
Corporate assets	**2**	3
Capital expenditures	**3**	5,233

Exploration and development spending by area

	Three months ended March 31,	
($ thousands)	**2021**	2020
West Central	**1**	133
Eastern Alberta	**–**	5,097
Total	**1**	5,230

Wells drilled by area

	Three months ended March 31,	
(gross/net)	**2021**	2020
West Central	**2/1.0**	-/-
Eastern Alberta	**-/-**	4/4.0
Total	**2/1.0**	4/4.0

Perpetual's exploration and development spending in the first quarter of 2021 was nominal, consistent with guidance released on February 24, 2021 with the Company's 2020 year-end results.

At the 50% owned East Edson property, two (1.0 net) horizontal Wilrich wells were drilled and tied-in to production late in the first quarter of 2021, pursuant to the Purchaser's carried interest drilling commitment. The final carried interest well is expected to be on production late in the third quarter of 2021.

Acquisitions and Dispositions

During the first quarter of 2021, Perpetual participated for its 50% working interest in the acquisition of certain undeveloped lands, wells, pipelines and gross overriding royalties from a third party in the East Edson core area, for net consideration of $0.6 million. Dispositions during the first quarter of 2021 included the sale of non-operated equipment for net proceeds to Perpetual of $0.2 million.

Expenditures on decommissioning obligations

During the first quarter of 2021, Perpetual executed $0.3 million (Q1 2020 – $0.2 million) of abandonment and reclamation projects, of which $0.2 million was funded by Alberta's Site Rehabilitation Program. SRP funding is presented on the condensed interim consolidated statements of loss and comprehensive loss as "other income". As part of Perpetual's focus on well and pipeline abandonment and reclamation, 10 reclamation certificates were received from the Alberta Energy Regulator ("AER") during the first quarter of 2021 (Q1 2020 – nine reclamation certificates), which will result in the cessation of associated property tax and surface lease expenses. Total abandonment and reclamation expenditures of up to $2.4 million are forecast in 2021, with up to $1.2 million to be funded through the SRP.

Operating netbacks

The following table highlights Perpetual's operating netbacks for the three months ended March 31, 2021 and 2020:

	Three months ended March 31, 2021			Three months ended March 31, 2020		
(*$ thousands*)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Total petroleum and natural gas revenue[1]	**6,601**	**4,935**	**11,536**	7,039	3,458	10,497
Realized gains (losses) on derivatives[2][3]	**–**	**–**	**(1,374)**	–	–	(1,050)
Royalties	**(1,665)**	**(466)**	**(2,131)**	(1,933)	(450)	(2,383)
Production and operating expenses	**(996)**	**(2,290)**	**(3,286)**	(1,674)	(2,494)	(4,168)
Transportation costs	**(270)**	**(420)**	**(690)**	(910)	(360)	(1,270)
Total operating netback	**3,670**	**1,759**	**4,055**	2,522	154	1,626

	Three months ended March 31, 2021			Three months ended March 31, 2020		
(*$/boe*)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Boe operating netback						
Production (*boe/d*)	**3,748**	**1,463**	**5,211**	5,771	1,708	7,479
Total petroleum and natural gas revenue[1]	**19.57**	**37.48**	**24.60**	13.40	22.25	15.42
Realized gains (losses) on derivatives[2][3]	**–**	**–**	**(2.93)**	–	–	(1.54)
Royalties	**(4.94)**	**(3.54)**	**(4.54)**	(3.68)	(2.89)	(3.50)
Production and operating expenses	**(2.95)**	**(17.39)**	**(7.01)**	(3.19)	(16.04)	(6.12)
Transportation costs	**(0.80)**	**(3.19)**	**(1.47)**	(1.73)	(2.32)	(1.87)
Total operating netback	**10.88**	**13.36**	**8.65**	4.80	1.00	2.39

(1) Includes revenues related to the natural gas market diversification contract and physical forward sales contracts which settled during the period.

(2) Includes realized gains and losses on financial derivatives and financial prompt month price optimization contracts. Realized gains and losses on financial derivatives are not allocated to the Company's core areas.

(3) For the first quarter of 2021, realized losses on derivatives include $1.4 million ($2.93/boe) of losses from the elimination of the Company's market diversification contract obligations for the April 1, 2021 to October 31, 2021 period. There were no modifications to the market diversification contract in the first quarter of 2020.

For the first quarter of 2021, Perpetual's operating netback was $4.1 million ($8.65/boe), up significantly from $1.6 million ($2.39/boe) in the comparative period of 2020. The increase was due primarily to higher reference prices for all products, which caused realized revenue per boe to increase 56% over the prior year period.

On a unit-of-production basis, West Central operating netbacks were $10.88/boe, more than two times higher than the prior year period (Q1 2020 – $4.80/boe). The increase was due primarily to the impact of higher AECO Daily Index prices, in combination with lower production and operating expenses per boe and reduced transportation costs from the elimination of unutilized demand charges at the non-operated East Edson property.

Eastern Alberta operating netbacks were $13.36/boe, more than ten times higher than the prior year period (Q1 2020 – $1.00/boe). The increase was due primarily to WCS average prices of $57.62/bbl which were 68% higher than the prior year period (Q1 2020 – $34.36/bbl), partially offset by physical oil hedging losses of $7.93/bbl and higher costs per boe. Royalties increased with higher realized prices, while production and operating expenses increased 8% as a result of declining production and higher well servicing costs after an extended period of voluntary shut-ins. Transportation costs increased due to higher Ukalta heavy crude oil production which is located further from the sales point than legacy Mannville production.

Production

	Three months ended March 31,	
	2021	2020
Conventional natural gas (*MMcf/d*)		
Eastern Alberta	**2.2**	2.4
West Central	**20.7**	30.9
Total conventional natural gas(1)	**22.9**	33.3
Heavy crude oil (*bbl/d*)		
Eastern Alberta(2)	**1,093**	1,306
West Central(2)	**4**	14
Total heavy crude oil	**1,097**	1,320
Total NGL (*bbl/d*)(3)	**294**	606
Total production (*boe/d*)	**5,211**	7,479

(1) Conventional natural gas production yielded a heat content of 1.17 GJ/Mcf for the first quarter of 2021 (Q1 2020 – 1.17), resulting in higher realized natural gas prices on a $/Mcf basis. See "Commodity Prices".
(2) Production from Eastern Alberta is primarily heavy crude oil. Production from West Central is conventional light crude oil.
(3) Primarily related to West Central liquids-rich conventional natural gas.

First quarter production averaged 5,211 boe/d, down 30% from 7,479 boe/d in the comparative period of 2020. Compared to the fourth quarter of 2020, production increased by 481 boe/d (10%), as production from the first seven (3.5 net) East Edson carried interest wells is now online. In the first quarter of 2021, the production mix increased to 27% heavy crude oil and NGL (Q1 2020 – 26% heavy crude oil and NGL), primarily as a result of the East Edson Transaction.

Production at Perpetual's non-operated West Central properties was 3,748 boe/d, slightly lower than the 3,800 to 4,000 boe/d guidance released on February 24, 2021 with the Company's 2020 year-end results, as the two (1.0 net) carried interest East Edson wells were tied-in to production later than forecast, and operational shut-ins related to well completion activities lasted longer than anticipated. First quarter conventional natural gas production averaged 20.7 MMcf/d at West Central, down 33% from 30.9 MMcf/d in the comparative period of 2020, but up 34% after adjusting for the 50% East Edson disposition. NGL yields at West Central were 14.2 bbls per MMcf in the first quarter of 2021, 28% lower than the comparative period of 2020 (Q1 2020 - 19.6 bbls per MMcf) as recent drilling was concentrated in a lower NGL yield region of the Wilrich reservoir. Perpetual's average NGL sales composition in the first quarter of 2021 consisted of 64% condensate, comparable to the prior year period (Q1 2020 – 62%).

Heavy crude oil production in Eastern Alberta was 16% lower than the first quarter of 2020, with Ukalta production averaging 377 bbl/d in the first quarter of 2021 (Q1 2020 – 329 bbl/d). The Company has continued to reactivate heavy crude oil production as oil prices recover and stabilize. As of March 31, 2021, Perpetual had restarted all heavy crude oil production with the exception of approximately 100 bbl/d of higher cost production from certain wells at Mannville.

Commodity Prices

	Three months ended March 31,	
	2021	2020
Reference prices		
NYMEX Daily Index (*US$/MMBtu*)	**2.69**	1.95
AECO Daily Index (*$/GJ*)	**2.99**	1.93
AECO Daily Index (*$/Mcf*)(1)	**3.15**	2.04
Alberta Gas Reference Price (*$/GJ*)(2)	**2.63**	1.81
West Texas Intermediate ("WTI") light oil (*US$/bbl*)	**57.84**	46.17
Western Canadian Select ("WCS") differential (*US$/bbl*)	**(12.47)**	(20.53)
WCS average (*Cdn$/bbl*)(3)	**57.62**	34.36
Average Perpetual prices		
Natural gas (*$/Mcf*)(1)		
AECO Daily Index	**3.15**	2.04
Heat content premium(4)	**0.36**	0.22
Market diversification contract(5)	**(0.30)**	–
Realized gains (losses) on financial and physical gas derivatives(6)	**(1.04)**	(1.04)
Realized gains (losses) on prompt month price optimization	**0.08**	(0.06)
Realized natural gas price (*$/Mcf*)(7)	**2.25**	1.16
Percent of AECO Daily Index	**71%**	57%
Realized oil price (*$/bbl*)(7)	**40.85**	32.60
Realized NGL price (*$/bbl*)(7)	**56.03**	36.48

(1) Converted from $/GJ using a standard energy conversion rate of 1.06 GJ:1 Mcf.
(2) The Alberta Gas Reference Price is a representative market price for natural gas bought and sold within the province and is used to calculate Alberta Crown royalties.
(3) Derived internally using the Bank of Canada average foreign exchange rate of US$1.00 = Cdn$1.27 for the three months ended March 31, 2021 (Q1 2020 – $1.34).
(4) Realized natural gas prices are at a premium to the AECO Daily Index due to higher average heat content of 1.17 GJ/Mcf. Perpetual received an 11% premium to the AECO Daily Index for the first quarter of 2021 (Q1 2020 – 11%) related to its higher average heat content.
(5) Refers to volumes delivered under the market diversification contract.
(6) For the first quarter of 2021, realized losses on derivatives include $1.4 million ($0.67/Mcf) of losses from the elimination of the Company's 10,000 MMBtu/d market diversification contract obligations for the April 1, 2021 to October 31, 2021 period. There were no modifications to the market diversification contract in the first quarter of 2020.
(7) Realized natural gas, oil and NGL prices include physical forward sales contracts for which delivery was made during the reporting period, along with realized gains and losses on financial derivatives and foreign exchange contracts.

United States ("US") natural gas production averaged 90.3 Bcf/d during the quarter, down 2% year-over-year due to reduced drilling activity and weather-related freeze offs. These production declines, combined with a 1.9 Bcf/d increase in total US exports, more than offset lower natural gas power demand, leading to US storage withdrawals which were 0.4 Bcf/d higher than the prior year period. Increased storage withdrawals drove NYMEX natural gas prices 38% higher from US$1.95/MMBtu in the first quarter of 2020 to US$2.69/MMBtu in the first quarter of 2021. In Alberta, increased intra-provincial demand and higher exports contributed to the 55% increase in the AECO Daily Index price from $1.93/GJ for the first quarter of 2020 to $2.99/GJ for the first quarter of 2021.

The increase in WTI to US$57.84/bbl for the first quarter of 2021 from US$46.17/bbl in the comparative period of 2020 was related to lower global supply, aided by OPEC+ production curtailments and natural declines due to low investment. Early in 2021, Saudi Arabia surprised the market by announcing an incremental supply restriction, helping push prices higher through the quarter. In the prior year period, demand was reduced due to the economic contraction relating to social distancing measures implemented in response to the COVID-19 pandemic. The outlook for crude oil demand remains positive with COVID-19 vaccine deployment accelerating in many countries. OPEC+ has indicated a willingness to increase its supply to market in a disciplined and managed way in order to strengthen demand and reduce 'spare capacity' throughout the balance of 2021.

The WCS differential narrowed from an average US$20.53/bbl in the first quarter of 2020 to US$12.47/bbl in the same period of 2021, due primarily to natural declines of conventional Western Canadian Sedimentary Basin ("WCSB") oil production which more than offset increasing oil sands production, thereby decreasing requirements for transportation by rail. In December 2020, the Alberta Government ended their curtailment program; resulting in higher oil sands production compared to the fourth quarter of 2020. WCSB storage was able to absorb this increased supply. Expected seasonal production declines and shut-ins related to oil sands maintenance activities in the second quarter of 2021 are currently providing the market confidence that it can remain balanced until incremental pipeline takeaway capacity is scheduled to come online later in 2021.

Perpetual's realized natural gas price was $2.25/Mcf in the first quarter of 2021, 94% higher than the comparative period of 2020 (Q1 2020 - $1.16/Mcf). Higher realized natural gas prices were the result of a 55% increase in the AECO Daily Index, which more than offset losses on the market diversification contract of $0.6 million ($0.30/Mcf) which correlated to the relative increase in AECO Daily Index prices compared to the ex-AECO market hubs. Realized hedging losses on financial and physical derivatives were $1.04/Mcf, unchanged from the prior year period (Q1 2020 – $1.04/Mcf), and were due primarily to the elimination of the Company's remaining market diversification contract obligations for the April 1, 2021 to October 31, 2021 period, in consideration for the payment of $1.4 million over the term of the associated contract volumes. The Company continued to realize physical hedging losses on AECO-NYMEX basis hedge positions that were locked-in during the second quarter of 2020, and expects to record a further loss of $2.5 million over the remainder of 2021 on these locked-in basis positions.

Perpetual's realized oil price was $40.85/bbl, 63% higher than the first quarter of 2020 after adjusting for $7.48/bbl of financial hedging gains realized in the first quarter of 2020, consistent with the increase in WCS average prices.

Perpetual's realized NGL price for the first quarter of 2021 was $56.03/bbl, up 54% from the first quarter of 2020, reflecting an increase in all NGL component prices. Perpetual's average NGL sales composition in the first quarter of 2021 consisted of 64% condensate, comparable to the prior year period (Q1 2020 – 62%).

Revenue

	Three months ended March 31,	
($ thousands, except as noted)	**2021**	2020
Petroleum and natural gas revenue		
Natural gas[(1)]	**6,022**	5,322
Oil	**4,032**	3,018
NGL	**1,482**	2,157
Petroleum and natural gas revenue	**11,536**	10,497
Realized gains (losses) on derivatives[(2)]	**(1,374)**	(1,050)
Realized revenue	**10,162**	9,447
Unrealized gains (losses) on derivatives	**436**	12,143
Total revenue	**10,598**	21,590
Realized revenue *($/boe)*	**21.67**	13.88
Total revenue *($/boe)*	**22.60**	31.72

(1) Includes revenues related to the market diversification contract and physical forward sales contracts which settled during the period.
(2) Includes realized gains and losses on financial derivatives and certain financial prompt month price optimization contracts.

Petroleum and natural gas ("P&NG") revenue, before financial derivatives, for the three months ended March 31, 2021 of $11.5 million increased 10% from the first quarter of 2020, due to significantly higher reference prices for all products, partially offset by physical hedging losses and the 30% decrease in average daily production.

Natural gas revenue, before derivatives, of $6.0 million in the first quarter of 2021 comprised 52% (Q1 2020 – 51%) of total P&NG revenue while natural gas production was 73% (Q1 2020 – 74%) of total production. Natural gas revenue increased 13% from the prior year period (Q1 2020 - $5.3 million), reflecting the combined impact of higher AECO Daily Index prices which more than offset physical hedging losses, reduced revenue from the market diversification contract, and the 31% decrease in conventional natural gas production volumes driven by the East Edson Transaction.

Oil revenue of $4.0 million represented 35% (Q1 2020 – 29%) of total P&NG revenue while heavy crude oil production was 21% (Q1 2020 – 18%) of total production. Oil revenue was 34% higher than the first quarter of 2020, due primarily to the 68% increase in the WCS average price which more than exceeded the impact of the 17% decline in heavy crude oil production over the same period. Compared to the first quarter of 2020, the WCS average price of $57.62/bbl increased by 68%, due to the increase in WTI prices to US$57.84/bbl (Q1 2020 – US$46.17/bbl) combined with narrowing of the WCS differential by US$8.06/bbl.

NGL revenue for the first quarter of 2021 was $1.5 million, representing 13% (Q1 2020 – 20%) of total P&NG revenue while NGL production was just 6% (Q1 2020 – 8%) of total Company production. NGL revenue decreased by 31% over the prior year period while NGL production decreased 51%, reflecting the increase in all NGL component prices compared to the prior year period, in step with increased oil prices and stronger NGL demand.

Realized losses on derivatives totaled $1.4 million for the first quarter of 2021, compared to losses of $1.0 million for the same period of 2020. The realized loss was due to the elimination of the Company's market diversification contract obligations for the April 1, 2021 to October 31, 2021 period, in consideration for the payment of $1.4 million over the term of the associated contract volumes.

For the first quarter of 2021, Perpetual recorded an unrealized gain on derivatives of $0.4 million, down significantly from the prior year period (Q1 2020 – $12.1 million unrealized gain) as the Company has limited open hedging positions in place for future periods. Unrealized gains and losses represent the change in mark-to-market value of derivative contracts as forward commodity prices and foreign exchange rates change. Unrealized gains and losses on derivatives are excluded from the Corporation's calculation of cash flow from (used in) operating activities as they are non-cash. Derivative gains and losses vary depending on the nature and extent of derivative contracts in place, which in turn, vary with the Corporation's assessment of commodity price risk, committed capital spending and other factors.

Royalties

	Three months ended March 31,	
(*$ thousands, except as noted*)	**2021**	2020
Crown	**529**	432
Freehold and overriding[1]	**1,602**	1,951
Total	**2,131**	2,383
Crown (*% of P&NG revenue*)	**4.6**	4.1
Freehold and overriding (*% of P&NG revenue*)	**13.9**	18.6
Total (*% of P&NG revenue*)	**18.5**	22.7
$/boe	**4.54**	3.50

(1) Includes $1.1 million in gross overriding royalty payments at East Edson for the three months ended March 31, 2021 (Q1 2020 – $1.6 million). Excludes the Purchaser's 50% working interest in the existing gross overriding royalty obligation, which is paid in-kind as a component of the East Edson Transaction and settled through non-cash delivery of contractual natural gas and associated NGL volumes until December 31, 2022.

Total royalties for the first quarter of 2021 were $2.1 million, 11% lower than the comparative period of 2020. On a unit-of-production basis, royalties were up 30% to $4.54/boe (Q1 2020 – $3.50/boe), reflecting the 45% increase in the Alberta Gas Reference Price and the 55% increase in the AECO Daily Index price compared to the prior year period, which are used to determine gas crown royalties and freehold and overriding royalties, respectively.

Crown royalties increased 22% from the first quarter of 2020, due primarily to the 45% increase in the Alberta Gas Reference Price, as well as the higher percentage of heavy crude oil in the production mix.

Freehold and overriding royalties have decreased 18% from the first quarter of 2020, due to the impact of the East Edson Transaction, partially offset by the effect of higher AECO Daily Index and NGL prices. The East Edson gross overriding royalty is equivalent to a maximum of 5.6 MMcf/d of conventional natural gas and associated NGL production. As part of the East Edson Transaction, Perpetual agreed to retain the Purchaser's 50% working interest in the existing gross overriding royalty obligation on the property, equivalent to 2.8 MMcf/d of conventional natural gas and associated NGL production, until December 31, 2022. This additional obligation has been recorded in the condensed interim consolidated statements of financial position under the heading "Royalty obligations". The retained East Edson royalty obligation is paid in-kind and settled through non-cash delivery of contractual natural gas and associated NGL volumes to the royalty holders.

Production and operating expenses

	Three months ended March 31,	
(*$ thousands, except as noted*)	**2021**	2020
Production and operating expenses	**3,286**	4,168
$/boe	**7.01**	6.12

For the first quarter of 2021, production and operating expenses were down by $0.9 million (21%), due primarily to the East Edson Transaction. West Central production and operating expenses of $1.0 million were down 41% relative to the first quarter of 2020, while production was down 35% over the same period, illustrating the Purchaser's reduced cost of operating the East Edson property. On a unit-of-production basis, West Central production and operating costs decreased 8% to $2.95/boe (Q1 2020 – $3.19/boe).

Conversely, Eastern Alberta operating costs increased 8% to $17.39/boe over the same period (Q1 2020 – $16.04/boe), due primarily to lower heavy crude oil production and higher well servicing costs after an extended period of voluntary shut-ins.

Transportation costs

($ thousands, except as noted)	Three months ended March 31, 2021	2020
Transportation costs	**690**	1,270
$/boe	**1.47**	1.87

Transportation costs include clean oil trucking and NGL transportation, as well as costs to transport natural gas from the plant gate to commercial sales points. Transportation costs in the first quarter of 2021 were $0.7 million, down 46% from the prior year period of $1.3 million.

On a unit-of-production basis, company-wide transportation costs decreased by 21% to $1.47/boe (Q1 2020 – $1.87/boe), due to a reduction in Perpetual's natural gas firm transportation capacity from 25.5 MMcf/d to 15.4 MMcf/d, eliminating unutilized demand charges at East Edson. Transportation costs averaged $0.80/boe at West Central compared to $3.19/boe for production from Eastern Alberta, where trucking costs have increased due to higher Ukalta heavy crude oil production which is located further from the sales point than legacy Mannville production.

Exploration and evaluation ("E&E") expenses

($ thousands)	Three months ended March 31, 2021	2020
Lease rentals	**20**	20
Geological and geophysical costs	**–**	22
Lease expiries (non-cash)	**–**	36
Total E&E expense	**20**	78

Exploration and evaluation expenses include lease rentals on undeveloped acreage, geological and geophysical costs, and the write-down of carrying costs related to lease expiries. E&E costs during the first quarter of 2021 were comparable with the prior year period.

General and administrative ("G&A") expenses

($ thousands, except as noted)	Three months ended March 31, 2021	2020
Cash G&A expense	**2,075**	2,474
Overhead recoveries	**(20)**	(249)
Total G&A expense	**2,055**	2,225
$/boe	**4.38**	3.27

Cash G&A expense was $2.1 million for the first quarter of 2021, a 16% decrease from the prior year period of $2.5 million. During the first quarter of 2021, the Company received total payments of $0.5 million through the Canada Emergency Wage Subsidy ("CEWS") and Canada Emergency Rent Subsidy ("CERS") programs which were recognized as a reduction to G&A and production and operating expenses of $0.4 million and $0.1 million, respectively (Q1 2020 – nil). Effective April 1, 2020, Perpetual reduced employee work hours and corresponding compensation to 80%, in response to the sudden decline in crude oil prices experienced with the onset of the COVID-19 pandemic.

Overhead recoveries were nominal for the first quarter of 2021, following the reduction in capital spending and expenditures on decommissioning obligations. On a unit-of-production basis, total G&A expense was up 34% to $4.38/boe for the first quarter of 2021 (Q1 2020 – $3.27/boe), as lower costs were more than offset by the 30% decline in production compared to the prior year period.

Share-based payments

($ thousands, except as noted)	Three months ended March 31, 2021	2020
Share-based payments (non-cash)	**105**	180
Share-based payments (cash)	**375**	361
Total share-based payments	**480**	541

Share-based payments expense for the first quarter of 2021 was $0.5 million, largely unchanged from the comparative period of 2020. During the first quarter of 2021, 0.4 million share options, 1.7 million performance share rights, and 0.1 million deferred shares were granted to Officers and Directors of the Company.

Depletion and depreciation

($ thousands, except as noted)	Three months ended March 31, 2021	2020
Depletion and depreciation	**2,986**	6,279
$/boe	**6.37**	9.23

Perpetual recorded $3.0 million of depletion and depreciation expense for the first quarter of 2021, down 52% from the prior year period (Q1 2020 – $6.3 million). The decrease reflects the 30% decline in production volumes from the prior year period, combined with lower depletion rates on a unit-of-production basis resulting from net non-cash impairment charges of $32.3 million recorded in 2020 on property, plant and equipment.

Impairment

In accordance with IFRS, the Company is required to assess when internal or external indicators of impairment or impairment reversal exist, and impairment testing is required. At March 31, 2021, the Company conducted an assessment of indicators of impairment and impairment reversal for all the Company's cash-generating units ("CGUs"). There were no triggers identified and therefore, no impairments or impairment reversals recognized during the first quarter of 2021.

E&E assets are tested for impairment both at the time of any triggering facts and circumstances as well as upon their eventual reclassification to oil and natural gas properties in property, plant and equipment. At March 31, 2021, there were no triggers identified and therefore, no E&E impairments or impairment reversals recognized during the first quarter of 2021.

Finance expenses

	Three months ended March 31,	
($ thousands)	**2021**	2020
Cash finance expense		
Interest on revolving bank debt	**276**	879
Interest on term loan	**–**	911
Interest on 2022 Senior Notes[1]	**(1,253)**	735
Interest on lease liabilities	**40**	45
Total cash finance expense	**(937)**	2,570
Non-cash finance expense		
Interest paid in-kind on term loan	**948**	–
Interest paid in-kind on 2025 Senior Notes[1]	**2,057**	–
Gain on senior note maturity extension	**(1,591)**	–
Amortization of debt issue costs	**378**	347
Accretion on decommissioning obligations	**98**	166
Change in fair value of royalty obligations	**1,109**	52
Total non-cash finance expense	**2,999**	565
Finance expenses recognized in net loss	**2,062**	3,135

(1) Perpetual elected to pay the January 23, 2021 semi-annual interest of $1.5 million by a PIK Interest Payment. As a result, the previously accrued 2022 Senior Note cash interest of $1.3 million was reversed and replaced by $1.3 million of 2025 Senior Note non-cash interest expense. The Company intends to satisfy the semi-annual interest payment due July 23, 2021 by making a PIK Interest Payment and has accrued $0.8 million of non-cash interest expense for the three months ended March 31, 2021.

On January 22, 2021, the Company exchanged its unsecured 2022 Senior Notes for new $33.6 million secured 8.75% third lien senior notes due January 23, 2025. Interest on the 2025 Senior Notes may be paid in-kind at the option of the Company by adding the interest payment to the principal amount owing. The Company elected to pay the January 23, 2021 semi-annual interest of $1.5 million by a PIK Interest Payment which increased the principal amount of the 2025 Senior Notes outstanding to $35.0 million, and intends to satisfy the semi-annual interest payment due July 23, 2021 by making a PIK Interest Payment.

In accordance with IFRS 9, the Company recorded a net gain on the senior note maturity extension of $1.6 million, representing the difference between the carrying amount of 2022 Senior Notes of $34.5 million and the present value of the modified cash flows for the 2025 Senior Notes of $32.9 million, discounted at an effective interest rate of 12.4%. The gain has been recorded as a reduction of non-cash finance expense.

Total cash finance expense was negative $0.9 million in the first quarter of 2021, $3.5 million lower than the prior year period (Q1 2020 – $2.6 million). The decrease was due primarily to $3.0 million of Term Loan and 2025 Senior Note interest that Perpetual has elected will be paid in-kind and added to the principal amount owing. Interest on revolving bank debt has also decreased by $0.6 million due to lower average borrowings and lower floating interest rates.

Total non-cash finance expense for the first quarter of 2021 was $3.0 million, $2.4 million higher than the prior year period (Q1 2020 – $0.6 million). The increase was due primarily to $3.0 million of non-cash interest paid in-kind on the Term Loan and 2025 Senior Notes, combined with the change in fair value of royalty obligations of $1.1 million (Q1 2020 – $0.1 million) which included the addition of the retained East Edson royalty obligation on April 1, 2020. The change in fair value of royalty obligations resulted from higher future AECO natural gas and NGL prices.

LIQUIDITY AND CAPITAL RESOURCES

Perpetual's strategy targets the maintenance of a strong capital base to retain investor, creditor and market confidence to support the execution of its business plans. The Company manages its capital structure and adjusts its capital spending in light of changes in economic conditions such as depressed commodity prices, available liquidity, and the risk characteristics of its underlying oil and natural gas assets. The Company considers its capital structure to include share capital, senior notes, the Term Loan, revolving bank debt, and net working capital. To manage its capital structure and available liquidity, the Company may from time to time issue equity or debt securities, sell assets, and adjust its capital spending to manage current and projected debt levels. The Company will continue to regularly assess changes to its capital structure and repayment alternatives, with considerations for both short-term liquidity and long-term financial sustainability.

Capital management

($ thousands, except as noted)	March 31, 2021	December 31, 2020
Revolving bank debt	**17,224**	17,495
Term loan, principal amount	**47,771**	46,823
Senior notes, principal amount	**35,637**	33,580
Net working capital deficiency(1)	**6,738**	7,099
Net debt(1)	**107,370**	104,997
Shares outstanding at end of period (*thousands*)(2)	**62,530**	61,305
Market price at end of period (*$/share*)	**0.20**	0.08
Market value of shares	**12,506**	4,904
Enterprise value(1)	**119,876**	109,901
Net debt as a percentage of enterprise value	**90**	96
Trailing twelve-months adjusted funds flow(1)	**(1,642)**	(7,787)
Net debt to trailing twelve-months adjusted funds flow	**N/A**	N/A

(1) See "Non-GAAP measures" in this MD&A.
(2) Shares outstanding are presented net of shares held in trust.

At March 31, 2021, Perpetual had total net debt of $107.4 million, up $2.4 million (2%) from December 31, 2020. The increase in net debt was due primarily to interest paid in-kind on the Term Loan and 2025 Senior Notes, which has increased the principal amount outstanding by $0.9 million and $2.1 million, respectively.

Perpetual had available liquidity at March 31, 2021 of $1.9 million, comprised of the $20 million Credit Facility Borrowing Limit, less current borrowings and letters of credit of $17.2 million and $0.9 million, respectively.

Revolving bank debt

As at March 31, 2021, the Company's Credit Facility had a Borrowing Limit of $20 million (December 31, 2020 – $20 million) under which $17.2 million was drawn (December 31, 2020 – $17.5 million) and $0.9 million of letters of credit had been issued (December 31, 2020 – $0.9 million). Borrowings under the Credit Facility bear interest at its lenders' prime rate or Banker's Acceptance rates, plus applicable margins and standby fees. The applicable Banker's Acceptance margins range between 3.0% and 5.5%. The effective interest rate on the Credit Facility at March 31, 2021 was 5.9%. For the period ended March 31, 2021, if interest rates changed by 1% with all other variables held constant, the impact on annual cash finance expense and net loss would be $0.2 million.

On March 1, 2021, the Borrowing Limit redetermination and maturity date was extended to April 30, 2021, and on April 30, 2021, the Borrowing Limit redetermination and maturity date was extended to June 16, 2021. If not extended by June 16, 2021, the Credit Facility will cease to revolve, and all outstanding advances will be repayable. As a result, revolving bank debt has been presented as a current liability on the condensed interim consolidated statements of financial position as at March 31, 2021.

The Credit Facility is secured by general, first lien security agreements covering all present and future property of the Company and its subsidiaries, with the exception of certain lands pledged to the gas over bitumen royalty financing counterparty. The Credit Facility also contains provisions which restrict the Company's ability to repay Term Loan and senior note principal and interest, and to pay dividends on or repurchase its common shares.

At March 31, 2021, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Term loan

			March 31, 2021		December 31, 2020	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Term loan	June 30, 2021	8.1%	**$ 47,771**	**$ 47,771**	$ 46,823	$ 46,691

The Term Loan bears a fixed interest rate of 8.1%, with semi-annual interest payments due June 30th and December 31st of each year. In the fourth quarter of 2020, the Company and lender reached an agreement, allowing outstanding interest amounts of $1.8 million related to the December 31st payment to be paid-in-kind and added to the outstanding principal amount of the loan. On March 9, 2021, the maturity date applicable to the Company's Term Loan was extended from March 14, 2021 to May 14, 2021, and the lender has allowed accrued interest to be paid in-kind and added to the principal amount of the loan. Non-cash paid in-kind interest of $0.9 million has been recorded in the first quarter of 2021, increasing the principal amount owing at March 31, 2021 to $47.8 million. On April 30, 2021, the maturity date applicable to the Company's $47.8 million second lien Term Loan was extended from May 14, 2021 to June 30, 2021.

The Term Loan has been presented as a current liability on the condensed interim consolidated statements of financial position as at March 31, 2021.

The Term Loan has a cross-default provision with the Credit Facility and contains substantially similar provisions and covenants as the Credit Facility. The Term Loan is secured by a general security agreement over all present and future property of the Company and its subsidiaries on a second priority basis, subordinate only to liens securing loans under the Credit Facility, and certain lands pledged to the gas over bitumen royalty financing counterparty.

At March 31, 2021, the Term Loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Senior notes

			March 31, 2021		December 31, 2020	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Senior notes	January 23, 2025	8.75%	**$ 35,637**	**$ 32,794**	$ 33,580	$ 32,359

On January 22, 2021, the Company announced the completion of a Court-approved plan of arrangement whereby the unsecured 2022 Senior Notes were exchanged for new 8.75% secured third lien notes due January 23, 2025. The 2025 Senior Notes have been issued under a trust indenture that contains substantially the same terms as the 2022 Senior Notes, other than the 2025 Senior Notes are secured on a third lien basis and allow for the semi-annual interest payments to be paid at Perpetual's option, in cash, or in additional 2025 Senior Notes. The Company elected to pay the January 23, 2021 semi-annual interest of $1.5 million by a PIK Interest Payment which increased the principal amount of the 2025 Senior Notes outstanding to $35.0 million, and intends to satisfy the semi-annual interest payment due July 23, 2021 by making a PIK Interest Payment. Non-cash paid in-kind interest of $0.8 million has been recorded in the first quarter of 2021, increasing the principal amount owing at March 31, 2021 to $35.6 million.

The senior notes are direct senior secured, third lien obligations of the Company. The Company may redeem the senior notes without any repayment penalty. The senior notes have a cross-default provision with the Company's Credit Facility. In addition, the senior notes indenture contains restrictions on certain payments including dividends, retirement of subordinated debt, and stock repurchases. At March 31, 2021, the senior notes were not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

At March 31, 2021, the senior notes are recorded at the present value of future cash flows, net of $2.8 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 11.4%.

Entities controlled by the Company's CEO hold $15.2 million of the 2025 Senior Notes outstanding. An entity that is associated with the Company's CEO, and an entity that is associated with a Director of the Company hold an additional $9.5 million and $0.7 million of the 2025 Senior Notes outstanding, respectively.

Equity

At March 31, 2021, there were 62.5 million common shares outstanding, net of 0.6 million shares held in trust to resource employee compensation programs. During the first quarter of 2021, 1.0 million common shares were issued to an Officer of the Company for $0.2 million of cash consideration at a price of $0.23 per share, representing the volume weighted average trading price of the shares for the 5 day period immediately preceding the issuance. No shares were purchased by the independent trustee to be held in trust during the first quarter of 2021 (Q1 2020 – nil). Basic and diluted weighted average shares outstanding for the three months ended March 31, 2021 were 61.6 million (Q1 2020 – 60.7 million).

At May 4, 2021, there were 62.5 million common shares outstanding which is net of 0.6 million shares held in trust for employee compensation programs. In addition, the following potentially issuable common shares were outstanding as at the date of this MD&A:

(millions)	**May 4, 2021**
Share options	**5.8**
Performance share rights	**5.1**
Compensation awards	**7.3**
Total[1]	**18.2**

(1) 4.4 million compensation awards, 0.9 million share options, and 5.1 million performance share rights have an exercise price below the March 31, 2021 closing price of the Company's common shares of $0.20 per share.

SUMMARY OF QUARTERLY RESULTS

($ thousands, except as noted)	**Q1 2021**	Q4 2020	Q3 2020	Q2 2020
Financial				
Oil and natural gas revenue	**11,536**	8,178	7,089	3,722
Net income (loss)	**(2,706)**	14,443	(7,491)	(8,831)
Per share – basic and diluted	**(0.04)**	0.24	(0.12)	(0.15)
Cash flow from (used in) operating activities	**1,682**	(1,104)	(2,538)	(2,777)
Adjusted funds flow[1]	**2,544**	1,240	(2,098)	(3,328)
Per share – basic and diluted	**0.04**	0.02	(0.03)	(0.05)
Capital expenditures	**3**	466	251	(11)
Net payments (proceeds) on acquisitions and dispositions	**469**	–	133	(34,661)
Net capital expenditures	**472**	466	384	(34,672)
Common shares *(thousands)*				
Weighted average – basic and diluted	**61,603**	61,266	61,200	60,776
Operating				
Daily average production				
Conventional natural gas *(MMcf/d)*	**22.9**	19.5	16.3	16.9
Heavy crude oil *(bbl/d)*	**1,097**	1,241	1,193	573
NGL *(bbl/d)*	**294**	237	273	268
Total *(boe/d)*	**5,211**	4,730	4,188	3,662
Average prices				
Realized natural gas price *($/Mcf)*[2]	**2.25**	1.46	0.06	0.28
Realized oil price *($/bbl)*[2]	**40.85**	52.60	55.71	67.56
Realized NGL price *($/bbl)* [2]	**56.03**	38.03	28.09	17.35

($ thousands, except as noted)	Q1 2020	Q4 2019	Q3 2019	Q2 2019
Financial				
Oil and natural gas revenues	10,497	15,830	17,097	19,235
Net loss	(59,718)	(32,498)	(20,349)	(36,276)
Per share – basic and diluted	(0.98)	(0.54)	(0.34)	(0.60)
Cash flow from operating activities	(3,114)	(1,290)	5,509	4,295
Adjusted funds flow[1]	(3,601)	340	4,183	3,649
Per share – basic and diluted	(0.06)	0.01	0.07	0.06
Capital expenditures	5,233	1,995	4,506	5,200
Net payments (proceeds) on acquisitions and dispositions	–	–	–	–
Net capital expenditures	5,233	1,995	4,506	5,200
Common shares *(thousands)*				
Weighted average – basic and diluted	60,674	60,444	60,317	60,154
Operating				
Daily average production				
Conventional natural gas *(MMcf/d)*	33.3	36.6	38.2	44.5
Heavy crude oil *(bbl/d)*	1,320	1,275	1,292	1,207
NGL *(bbl/d)*	606	606	731	754
Total *(boe/d)*	7,479	7,991	8,383	9,370
Average prices				
Realized natural gas price *($/Mcf)*[2]	1.16	2.00	3.13	2.25
Realized oil price *($/bbl)*[2]	32.60	43.85	44.31	50.01
Realized NGL price *($/bbl)* [2]	36.48	43.93	37.34	51.34

(1) See "Non-GAAP measures" in this MD&A.
(2) Realized natural gas, oil, and NGL prices include physical forward sales contracts for which delivery was made during the reporting period, along with realized gains and losses on financial derivatives and foreign exchange contracts.

The Company's oil and natural gas revenue, net income (loss), cash flow from (used in) operating activities and adjusted funds flow are influenced by commodity prices and production levels. Conventional natural gas production levels decreased during 2019 and 2020 due to natural declines and reduced capital expenditures in response to depressed AECO natural gas prices. The disposition of a 50% working interest in the East Edson property which closed on April 1, 2020 for net cash consideration of $34.8 million and an eight well carried capital commitment, further reduced conventional natural gas production in the second and third quarters of 2020, before being restored in the fourth quarter of 2020 and first quarter of 2021 as seven (3.5 net) carried interest wells have been tied-in to production. Oil-focused capital expenditures increased beginning in the second quarter of 2019, as improved oil prices and differentials supported investment. In response to the significant decline in global oil prices which began in March 2020, oil-focused capital expenditures and high-cost production was temporarily suspended, pending a recovery of oil prices, and oil focused hedging gains were locked-in. Heavy crude oil production was restarted mid-way through the second quarter of 2020, following the recovery of oil prices.

The Company's net income (loss) was impacted by net impairment charges of $42.5 million in 2020 (Q4 2020 – $18.0 million impairment reversal; Q1 2020 – $60.5 million impairment charge), and $47.1 million in the prior year (Q2 2019 – $22.6 million; Q4 2019 – $24.5 million). Perpetual also recognized $1.5 million of restructuring costs during the third quarter of 2019.

Commodity price risk management and sales obligations

Perpetual's commodity price risk management strategy is focused on managing downside risk and increasing certainty in adjusted funds flow by mitigating the effect of commodity price volatility. Physical forward sales contracts and financial derivatives are used to increase certainty in adjusted funds flow, manage the balance sheet, lock in economics on capital programs, and to take advantage of perceived anomalies in commodity markets. Perpetual also utilizes foreign exchange derivatives and physical or financial derivatives related to the differential between natural gas prices at the AECO and NYMEX trading hubs and oil basis differentials between WTI and WCS in order to mitigate the effects of fluctuations in foreign exchange rates and basis differentials on the Corporation's realized revenue. Diversification of markets is a further risk management strategy employed by the Company.

The following tables provide a summary of open commodity price risk management contracts outstanding at May 4, 2021:

Heavy crude oil

The following tables provide a summary of physical fixed price WTI-WCS basis differential and WCS contracts which settle in US$:

Term	**Volumes sold (bought)** ***(bbl/d)***	**WTI-WCS differential** ***(US$/bbl)***	**Market prices** ***(US$/bbl)***[(1)]
April 2021 – September 2021	203	(14.20)	(11.97)
April 2021 – December 2021	310	(13.25)	(11.60)
July 2021 – September 2021	155	(11.25)	(12.07)

(1) Market prices for April and May are based on settled WTI-WCS differential prices. Market prices for subsequent months are based on forward WTI-WCS differential prices as of market close on May 4, 2021.

Term	**Volumes sold (bought)** ***(bbl/d)***	**WCS** ***(US$/bbl)***	**Market prices** ***(US$/bbl)***[(1)]
April 2021 – June 2021	207	42.00	52.51
May 2021 – June 2021	155	51.70	53.51

(1) Market prices for April are based on settled WCS prices. Market prices for subsequent months are based on forward WCS oil prices as of market close on May 4, 2021.

Conventional natural gas sales obligations

In the first quarter of 2021, the Company eliminated its remaining 10,000 MMBtu/d market diversification contract obligations for the period of April 1, 2021 to October 31, 2021, in consideration for the payment of $1.4 million over the term of the associated contract volumes. This modification was recognized as a realized loss on derivatives of $1.4 million in the condensed interim consolidated statements of loss and comprehensive loss.

Subsequent to March 31, 2021, the Company eliminated its 25,400 MMBtu/d market diversification contract obligations for the period commencing November 1, 2021 and ending on March 31, 2022 in consideration for the payment of $1.6 million over the term of the associated contract volumes.

Conventional natural gas volumes sold pursuant to the Company's market diversification contract are sold at fixed volume obligations and priced at daily index prices at each of the market price points, less transportation costs from AECO to each market price point as detailed below.

Market/Pricing Point	**November 1, 2020 to March 31, 2021 Daily sales volume** ***(MMBtu/d)***	**April 1, 2021 to March 31, 2022 Daily sales volume** ***(MMBtu/d)***	**April 1, 2022 to October 31, 2022 Daily sales volume** ***(MMBtu/d)***	**November 1, 2022 to October 31, 2024 Daily sales volume** ***(MMBtu/d)***
Chicago	4,000	–	12,200	–
Malin	–	–	–	15,000
Dawn	6,000	–	8,000	15,000
Michcon	–	–	5,200	–
Emerson	–	–	–	10,000
Total sales volume obligation	**10,000**	**–**	**25,400**	**40,000**

OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no off balance sheet arrangements.

FUTURE ACCOUNTING PRONOUNCEMENTS

The International Accounting Standards Board ("IASB") and the IFRS Interpretations Committee regularly issue new and revised accounting pronouncements which have future effective dates and therefore are not reflected in Perpetual's financial statements. Once adopted, these new and amended pronouncements may have an impact on Perpetual's condensed interim consolidated financial statements. Perpetual's analysis of recent accounting pronouncements is included in the notes to the consolidated financial statements at December 31, 2020.

CORPORATE GOVERNANCE

The Corporation is committed to maintaining high standards of corporate governance. Each regulatory body, including the Toronto Stock Exchange and the Canadian provincial securities commissions, has a different set of rules pertaining to corporate governance. The Corporation fully conforms to the rules of the governing bodies under which it operates.

INTERNAL CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures

There were no changes in the Corporation's internal control over financial reporting during the period beginning on January 1, 2021 and ended March 31, 2021 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

FORWARD-LOOKING INFORMATION AND STATEMENTS: Certain information and statements contained in this MD&A including management's assessment of future plans and operations, and including the information contained under the headings "Future Operations" and "Outlook" may constitute forward-looking information and statements within the meaning of applicable securities laws. This information and these statements relate to future events or to future performance. All statements other than statements of historical fact may be forward-looking information and statements. The use of any of the words "anticipate", "continue", "estimate", "expect", "may", "will", "project", "should", "believe", "outlook", "guidance", "objective", "plans", "intends", "targeting", "could", "potential", "strategy" and any similar expressions are intended to identify forward-looking information and statements.

In particular, but without limiting the foregoing, this MD&A contains forward-looking information and statements pertaining to the following: the potential outcome of the Sequoia Litigation, the ability to extend the Credit Facility or to refinance its Term Loan on favorable terms; the timing and amount of future production; future prices as well as supply and demand for conventional natural gas, NGL and heavy crude oil; the existence, operations and strategy of the commodity price risk management program; the approximate amount of forward sales and financial contracts to be employed, and the value of financial forward natural gas, oil and other risk management contracts; net income (loss) and adjusted funds flow sensitivities to commodity price, production, foreign exchange and interest rate changes; production and operating, general and administrative ("G&A"), and other expenses; the costs and timing of future abandonment and reclamation, asset retirement and environmental obligations; the use of exploration and development activity, prudent asset management, and acquisitions to sustain, replace or add to reserves and production or expand the Corporation's asset base; the Corporation's acquisition and disposition strategy and the existence of acquisition and disposition opportunities, the criteria to be considered in connection therewith and the benefits to be derived therefrom; Perpetual's ability to benefit from the combination of growth opportunities and the ability to grow through the capital expenditure program; expected compliance with credit facility and Term Loan covenants in 2021 and 2022; adjusted funds flow; ability to fund exploration and development; the corporate strategy; expectations regarding Perpetual's access to capital to fund its acquisition, exploration and development activities; the effect of future accounting pronouncements and their impact on the Corporation's financial results; future income tax and its effect on adjusted funds flow; intentions with respect to preservation of tax pools and taxes payable by the Corporation; funding of and anticipated results from capital expenditure programs; renewal of and borrowing costs associated with the credit facility; future debt levels, financial capacity, liquidity and capital resources; future contractual commitments; drilling, completion, facilities, construction and waterflood plans, and the effect thereof; the impact of Canadian federal and provincial governmental regulation on the Corporation relative to other issuers; Crown royalty rates; Perpetual's treatment under governmental regulatory regimes; business strategies and plans of management including future changes in the structure of business operations and debt reduction initiatives; and the reliance on third parties in the industry to develop and expand Perpetual's assets and operations.

Various assumptions were used in drawing the conclusions or making the forecasts and projections in the forward-looking information contained in this MD&A, which assumptions are based on management's analysis of historical trends, experience, current conditions and expected future developments pertaining to Perpetual and the industry in which it operates as well as certain assumptions regarding the matters outlined above. Forward-looking information is based on current expectations, estimates and projections that involve a number of known and unknown risks, including, without limitation, the impact of COVID-19 as further described below, which could cause actual results to vary and in some instances to differ materially from those anticipated by Perpetual and described in the forward-looking information contained in this MD&A. In particular and without limitation of the foregoing, the continued outbreak of COVID-19 has had a negative impact on global financial conditions. Perpetual cannot accurately predict the impact that COVID-19 will have on its ability to execute its business plans and to obtain financing in response to government public health efforts to contain COVID-19, or third parties' ability to meet their contractual obligations with Perpetual including due to uncertainties relating to the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and the length of travel and quarantine restrictions imposed by governments of affected jurisdictions; and the current and future demand for oil and gas. In the event that the prevalence of COVID-19 continues to increase (or fears in respect of COVID-19 continue to increase), governments may increase regulations and restrictions regarding the flow of labour or products, and travel bans, and Perpetual's operations, service providers and customers, and ability to advance its business plan or carry out its top strategic priorities, could be adversely affected. In particular, should any employees, consultants or other service providers of Perpetual become infected with COVID-19 or similar pathogens, it could have a material negative impact on Perpetual's operations, prospects, business, financial condition and results of operations. Undue reliance should not be placed on forward-looking information, which is not a guarantee of performance and is subject to a number of risks or uncertainties, including without limitation those described herein and under "Risk Factors" in Perpetual's Annual Information Form and MD&A for the year ended December 31, 2020 and in other reports on file with Canadian securities regulatory authorities which may be accessed through the SEDAR website (www.sedar.com) and at Perpetual's website (www.perpetualenergyinc.com).

The forward-looking information and statements contained in this MD&A reflect several material factors, expectations and assumptions of the Corporation including, without limitation, that Perpetual will conduct its operations in a manner consistent with its expectations and, where applicable, consistent with past practice; the general continuance of current or, where applicable, assumed industry conditions; the continuance of existing, and in certain circumstances, the implementation of proposed tax, royalty and regulatory regimes; the ability of Perpetual to obtain equipment, services, and supplies in a timely manner to carry out its activities; the accuracy of the estimates of Perpetual's reserve and resource volumes; the timely receipt of required regulatory approvals; certain commodity price and other cost assumptions; the timing and costs of storage facility and pipeline construction and expansion and the ability to secure adequate product transportation; the continued availability of adequate debt and/or equity financing and adjusted funds flow to fund the Corporation's capital and operating requirements as needed; and the extent of Perpetual's liabilities.

The Corporation believes the material factors, expectations and assumptions reflected in the forward-looking information and statements are reasonable, but no assurance can be given that these factors, expectations and assumptions will prove to be correct. The forward-looking information and statements included in this MD&A are not guarantees of future performance and should not be unduly relied upon. Such information and statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information or statements including, without limitation: volatility in market prices for oil and natural gas products; supply and demand regarding Perpetual's products; risks inherent in Perpetual's operations, such as production declines, unexpected results, geological, technical, or drilling and process problems; unanticipated operating events that can reduce production or cause production to be shut-in or delayed; changes in exploration or development plans by Perpetual or by third party operators of Perpetual's properties; reliance on industry partners; uncertainties or inaccuracies associated with estimating reserves volumes; competition for, among other things; capital, acquisitions of reserves, undeveloped lands, skilled personnel, equipment for drilling, completions, facilities and pipeline construction and maintenance; increased costs; incorrect assessments of the value of acquisitions; increased debt levels or debt service requirements; industry conditions including fluctuations in the price of natural gas and related commodities; royalties payable in respect of Perpetual's production; governmental regulation of the oil and gas industry, including environmental regulation; fluctuation in foreign exchange or interest rates; the need to obtain required approvals from regulatory authorities; changes in laws applicable to the Corporation, royalty rates, or other regulatory matters; general economic conditions in Canada, the United States and globally; stock market volatility and market valuations; limited, unfavorable, or a lack of access to capital markets, and certain other risks detailed from time to time in Perpetual's public disclosure documents. In addition, defence costs of legal claims can be substantial, even with respect to claims that have no merit and due to the inherent uncertainty of the litigation process, the resolution of the legal proceedings to which the Company has become subject could have a material effect on the Company's financial position and results of operations.

Readers are cautioned that the foregoing list of risk factors is not exhaustive. Forward-looking information is based on the estimates and opinions of Perpetual's management at the time the information is released, and Perpetual disclaims any intent or obligation to update publicly any such forward-looking information, whether as a result of new information, future events or otherwise, other than as expressly required by applicable securities law.