A Canadian clean energy producer with a diversified portfolio focused on creating both short and long term value through oil and gas based exploration, development, production and marketing.

Q2 | 2020

The second quarter of 2020 was a period of incredible volatility driven by the COVID-19 pandemic-induced economic slowdown and coincident Saudi Arabia – Russia oil price war. These extraordinary events combined to set up an intense global supply-demand imbalance for both oil and natural gas. A physical supply system response, driven by price signals, was required as oil and natural gas demand bottomed as a result of COVID-19 stay in place orders and then began its bumpy and uncertain recovery in step with a return to a more normal world.

The West Texas Intermediate ("WTI") light oil benchmark price dipped into unprecedented negative territory in late April and averaged just US$27.85/bbl for the second quarter of 2020, less than half of the benchmark price in the same period in 2019. Governments and central banks stepped in across the global economy to soften the blow and June marked the beginning of the slow recovery as quarantine measures relaxed and economic activity began to restart. Oil prices stabilized somewhat as OPEC+ complied with their supply restriction agreement and production shut-ins from producers around the world helped to re-balance market fundamentals.

At the same time, higher than normal natural gas inventories in the United States, Europe and Asia, combined with the significantly lower global gas demand, resulted in US LNG exports averaging only 6.3 Bcf/d for the second quarter as compared to capacity of 10.5 Bcf/d. This LNG oversupply situation has persisted into the third quarter, causing downward pressure on natural gas prices too.

Commodity price signals have been effective. At Perpetual, cost reduction measures were successfully executed across the business in the second quarter. As oil prices dropped below area-level variable operating and marketing costs, heavy oil production was shut-in to minimize operating losses and preserve reserves and capital spending has been deferred. Drilling rig activity industry-wide dropped to the lowest levels in more than a decade, setting up a production decline wave to correct the inventory surplus for both oil and natural gas.

Perpetual is positively positioned to benefit from stronger oil and natural gas prices should they materialize. To enhance liquidity, improve the balance sheet and optimize value, on April 1, 2020, Perpetual sold a 50% working interest in its East Edson property in West Central Alberta for cash proceeds of $35 million and the future payment of Perpetual's share of capital for eight horizontal development wells (the "East Edson Transaction"). The eight-well development capital carry at East Edson is anticipated to restore production levels to more fully utilize the existing processing capacity, improve operating netbacks given the largely fixed operating cost base, and deliver strong capital efficiencies. The first well spud in late July and production is expected to grow to match infrastructure capacity by the end of the first quarter of 2021. Natural gas production increases look to be well-timed with the more constructive gas price environment that is unfolding. Heavy oil-focused projects are execution-ready to follow up the encouraging Clearwater multi-lateral well results with profitable investment at Ukalta when oil prices recover and stabilize. Furthermore, additional exploratory drilling is anticipated to de-risk the material new future development location inventory.

The Perpetual team remains committed to navigate these challenging waters and unlock opportunities to restore and build value as we emerge into the next macro cycles for oil and natural gas.

Susan Riddell Rose

Susan Riddell Rose
President and Chief Executive Officer
August 10, 2020

SECOND QUARTER 2020 HIGHLIGHTS

Capital Spending, Production and Operations

- On April 1, 2020, the Company closed the East Edson Transaction to sell a 50% working interest in its East Edson property in West Central Alberta 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.

- In response to the significant decline in global oil prices which began in early-March, all capital investment for the second quarter of 2020 was deferred, resulting in nominal exploration and development capital spending. Expenditures on decommissioning obligations were also suspended, enabled by the Alberta Energy Regulator's ("AER") cancellation of area-based closure expenditure requirements for 2020.

- Second quarter production averaged 3,662 boe/d, down 61% from 9,370 boe/d in the comparative period of 2019, due primarily to the temporary suspension of heavy oil production in response to low oil prices, and the sale of a 50% working interest in the East Edson property in West Central Alberta, effective April 1, 2020. Compared to the first quarter of 2020, production declined by 51% or 3,817 boe/d. The closing of the East Edson Transaction, combined with natural declines at East Edson of 6%, reduced West Central production by 3,062 boe/d or 80% of the total production decline from the first quarter. The shut-in of Eastern Alberta heavy oil production due to low oil prices contributed the remaining 755 boe/d decrease. As Western Canadian Select prices improved materially from their April lows, the Company began reactivating certain low-cost heavy oil production in mid-May 2020 and has continued to ramp up production as oil prices recover. By mid-July, Perpetual had restarted all heavy oil production with the exception of approximately 250 bbl/d of higher cost production in certain pools at Mannville.

- Total production and operating expenses were down 5% on a unit-of-production basis to $5.50/boe for the second quarter of 2020, compared to $5.76/boe for the comparable period of 2019. On an absolute dollar basis, production and operating costs were down by $3.1 million (63%) due to the temporary shut-in of heavy oil production, the East Edson Transaction and cost mitigation initiatives.

Financial Highlights

- Realized revenue was $13.15/boe in the second quarter of 2020, 38% lower than the comparative period of 2019 ($21.26/boe). The decrease was due largely to the 88% decrease in Perpetual's realized natural gas price to $0.28/Mcf driven by hedging losses, combined with a 66% decline in realized NGL prices.

- Cash costs were down 49% to $7.3 million (Q2 2019 – $14.4 million), but up 30% on a unit-of-production basis to $21.93/boe (Q2 2019 – $16.93/boe) due to the impact of the 61% decrease in production. Cash costs decreased by $7.1 million from the prior year period and $5.3 million from the first quarter of 2020 due to the temporary shut-in of heavy oil production from late-March to mid-May, the closing of the East Edson Transaction on April 1, 2020, the reduction in employee compensation and work hours to 80% effective April 1, 2020, and payments received from the Canada Emergency Wage Subsidy ("CEWS") program.

- Net loss for the second quarter of 2020 was $8.8 million ($0.15/share), compared to a net loss of $36.3 million ($0.60/share) in the comparative period of 2019. The decrease in net loss from the prior year period was due primarily to an impairment charge of $22.6 million and the $6.6 million decrease in the fair value of the TOU share investment recognized during the second quarter of 2019.

- Cash flow used in operating activities in the second quarter of 2020 was $2.8 million ($0.05/share), down $7.1 million from the prior year period (Q2 2019 – cash flow from operating activities of $4.3 million and $0.07/share) due to the combined impact of the 38% decrease in realized revenue per boe and the 61% decrease in production caused by heavy oil shut-ins and the sale of East Edson production.

- Adjusted funds flow in the second quarter of 2020 was negative $3.3 million ($0.05/share), down $7.0 million (191%) from the prior year period of $3.6 million ($0.06/share) due primarily to lower commodity prices and hedging losses, as well as reduced production as a result of the East Edson Transaction and heavy oil shut-ins. Compared to the first quarter of 2020, adjusted funds flow improved by $0.3 million or 8% (Q1 2020 – negative adjusted funds flow of $3.6 million).

- At June 30, 2020, Perpetual had total net debt of $98.5 million, down $30.1 million (23%) from March 31, 2020 and $19.5 million (17%) from December 31, 2019. The decrease in net debt was attributable to the closing of the East Edson Transaction on April 1, 2020 for consideration including a cash payment of $35 million. The cash proceeds from the East Edson Transaction were used to repay bank debt.

- Perpetual has a first lien, reserve-based credit facility (the "Credit Facility"). Perpetual had available liquidity at June 30, 2020 of $6.6 million, comprised of the Credit Facility's $20 million Borrowing Limit, less current borrowings and letters of credit of $11.1 million and $2.3 million, respectively. Subsequent to quarter end, Perpetual has reduced its outstanding letters of credit to $1.3 million.

2020 STRATEGIC PRIORITIES

During the second quarter, progress was made to advance Perpetual's top five strategic priorities for 2020 which include:

1. Improve balance sheet and liquidity;
2. Maximize value of base assets;
3. Grow value and impact of Clearwater play;
4. Resolve Sequoia litigation; and
5. Advance technology-driven diversifying new ventures.

Improve balance sheet and liquidity

- In response to the significant decline in global oil prices which began in late-March, all capital investment for the second quarter of 2020 was deferred, resulting in nominal exploration and development capital spending. Expenditures on decommissioning obligations were also reduced, enabled by the Alberta Energy Regulator's ("AER") cancellation of area-based closure expenditure requirements for 2020.

- Significantly lower realized commodity prices drove operating netbacks down materially to $2.92/boe in the second quarter of 2020:

    - Perpetual's realized natural gas price, including derivatives, decreased 88% to $0.28/Mcf for the second quarter of 2020 from $2.25/Mcf in the comparative period of 2019, and represented only 14% of the AECO Daily Index price compared to 218% in the prior year period. Lower realized natural gas prices were the result of AECO-NYMEX basis differential hedging losses which have occurred as NYMEX prices weakened relative to AECO prices during the second quarter. During the second quarter of 2020, the remaining AECO-NYMEX basis hedge positions were closed out by entering into offsetting hedge arrangements for the remainder of 2020 ($5.1 million unrealized loss) and 2021 ($3.4 million unrealized loss).

    - Perpetual's realized oil price of $67.56/bbl was 35% higher than the second quarter of 2019, and included realized hedging gains on crude oil derivative contracts of $2.3 million or $44.32/bbl (Q2 2019 – realized hedging losses of $1.2 million or $11.30/bbl) on second quarter production. Excluding realized hedging gains and losses, Perpetual's realized oil price was $23.24/bbl in the second quarter of 2020, down 62% from $61.31/bbl in the prior year period. During the second quarter of 2020, WTI and WCS hedge positions for the remainder of 2020 were substantially offset by similar arrangements, resulting in a $6.5 million unrealized gain as at June 30, 2020. WTI-WCS differential hedges remain in place for the remainder of 2020 on an average of 567 bbl/d at a fixed differential of US$19.50/bbl.

    - Perpetual's realized NGL price for the second quarter of 2020 was $17.35/bbl, down 66% from the second quarter of 2019, reflecting a decrease in all NGL component prices which moved lower in concert with lower WTI light oil prices. Realized prices in the second quarter of 2020 were also impacted by realized hedging losses of $1.15/bbl (Q2 2019 – realized losses of $0.15/bbl) on Perpetual's 350 bbl/d basis differential hedge between WTI and Edmonton condensate pricing that expired on June 30, 2020.

- Cash proceeds of $35 million from the East Edson Transaction and limited capital spending drove a 23% ($30.1 million) quarter-over-quarter reduction in Perpetual's net debt to $98.5 million.

- Perpetual had available liquidity at June 30, 2020 of $7.6 million, after giving effect to the $1 million reduction in outstanding letters of credit established in July 2020.

- On August 10, 2020 the bank syndicate confirmed the extension of the revolving credit period applicable to the Company's Credit Facility and maintenance of the Borrowing Limit at $20 million until the next Borrowing Limit redetermination on or prior to October 30, 2020. If not extended, the Credit Facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020.

Maximize value of base assets

- Perpetual's health and safety protocols were effective to manage the COVID-19 public health crisis with no significant disruptions. Field protocols were put in place to adhere to best practices set out by Canadian health authorities to diminish the risk of transmission. Corporate office employees worked from home for most of the second quarter and returned to a hybrid work environment in late June.

- Second quarter natural gas production averaged 14.6 MMcf/d at West Central, down 64% from 40.0 MMcf/d in the comparative period of 2019. Natural gas production was impacted by the East Edson Transaction, combined with the continued deferral of liquids-rich gas drilling since the first quarter of 2018 in response to low and volatile natural gas prices in Western Canada.

- NGL yields at East Edson were 18.4 bbls per MMcf in the second quarter of 2020, consistent with 18.9 bbls per MMcf in the comparative period of 2019. Perpetual's average NGL sales composition for the second quarter of 2020 consisted of 66% condensate, comparable to the prior year period.

- On a unit-of-production basis, West Central production and operating expenses of $2.79/boe were down 6% relative to the second quarter of 2019 (Q2 2019 – $2.96/boe) and 13% from the first quarter of 2020 (Q1 2020 – $3.19/boe).

- Operating netbacks in West Central were down to $1.13/boe (Q2 2019 – $10.53/boe; Q1 2020 – $4.80/boe). The decrease was driven primarily by lower natural gas revenue as a result of AECO-NYMEX basis differential hedging losses resulting from the relative strengthening of AECO natural gas prices compared to NYMEX.

- The operator has indicated that five wells of the eight-well carried interest drilling program at East Edson will be drilled in the second half of 2020, with two wells tied-in to production late in the third quarter followed by three wells commencing production early in the first quarter of 2021. Two additional wells are expected to be drilled, completed and brought on stream late in the first quarter of 2021 with the final commitment well forecast prior to year-end 2021.

- As a result of changes made to TC Energy's maintenance protocols in late 2019, the forward AECO natural gas market is increasingly supportive of positive returns through future drilling investments. The eight-well development capital carry at East Edson is anticipated to restore gross production levels to more fully utilize the existing processing capacity and enhance operating netbacks while proving up anticipated capital efficiency improvements.

- Production at Mannville averaged 772 boe/d during the quarter; 2.3 MMcf/d natural gas and 390 bbl/d heavy oil. With capital investment shifted to the Clearwater play at Ukalta since mid-2019, Mannville heavy oil production represented 68% of total company heavy oil sales volumes in the second quarter of 2020.

- Production and operating expenses for the base assets in Eastern Alberta were $16.02/boe during the quarter (Q2 2019 – $16.45/boe; Q1 2020 – $18.67/boe). Given the production shut-ins, fixed operating costs for property taxes, surface and mineral lease costs, and other fees represented the majority of these expenses.

- During the second quarter of 2020, Perpetual deferred spending on abandonment and reclamation projects, enabled by the AER's cancellation of area-based closure expenditure requirements for 2020. Abandonment and reclamation expenditures will remain suspended for the second half of the year, except as supported by the Government of Alberta's Site Rehabilitation Program ("SRP").

- In late April, the Government of Alberta announced the SRP aimed at incenting abandonment and reclamation activity. The SRP provides funding in the form of grant payments to the oil field services sector to abandon, and/or reclaim upstream oil and gas infrastructure with the objective to increase employment in this sector while managing end-of-life obligations for shut-in oil and gas properties. Perpetual is optimistic that funding from the program will support the advancement of abandonment and reclamation projects previously planned for 2020, with $0.3 million of applications approved to date.

Grow value and impact of Clearwater play

- Four (4.0 net) multi-lateral heavy oil wells, targeting the Clearwater formation, were drilled, completed and tied-in at Ukalta in the first quarter of 2020 but shut-in late in March to preserve reserves and value. One four well pad, including two of the four wells were returned to production in the second quarter and are performing above expected type curve levels. The start-up of the additional two well pad was delayed due to extreme wet weather conditions but has now resumed production.

- The four new wells are back on production at a combined rate of 560 bbl/d, bringing total Ukalta production from six (6.0 net) heavy oil wells to more than 700 bbl/d as of July 31, 2020.

- Perpetual has identified 25 multi-lateral horizontal drilling locations at Ukalta where future performance is forecast to be similar to the wells drilled during the first quarter. Three of these future development locations were booked as undeveloped reserves at year end 2019 in the Company's independent reserve report prepared by McDaniel and Associates Consultants Ltd in the total proved plus probable reserve category. An additional 52 horizontal multi-lateral drilling locations with varying degrees of performance risk have been added to the Company's internal inventory of prospects on Perpetual-operated acreage, the potential of which will be resolved over time as full development of the property proceeds.

- The Company has secured additional acreage in 2020 along the Clearwater play trend in northeastern Alberta. Lands prospective for Clearwater exploration and development, including those to be earned through farm-in and option arrangements, now total 83 gross sections.

- Perpetual is well positioned to follow up the encouraging preliminary Clearwater results with profitable investment when oil prices recover and stabilize. Very attractive returns on investment are forecast at Wester Canadian Select heavy oil prices exceeding $45.00/bbl.

Resolve Sequoia litigation

- On January 13, 2020, the Court of Queen's Bench issued its written decision related to the Statement of Claim filed on August 3, 2018 against Perpetual and its President and Chief Executive Officer ("CEO") with respect to the Company's disposition of shallow gas assets in Eastern Alberta to an unrelated third party on October 1, 2016 (the "Sequoia Litigation"). The decision dismissed and struck all claims against the Company's CEO and all but one of the claims filed by PricewaterhouseCoopers Inc. LIT in its capacity as trustee in bankruptcy (the "Trustee") against Perpetual. The Court did not find that the test for summary dismissal relating to whether the 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 can continue against Perpetual. An Order was granted with respect to this decision on February 14, 2020.

- The Trustee filed a notice of appeal with the Court of Appeal of Alberta, challenging the decision, and Perpetual filed a similar notice of appeal contesting the BIA claim portion of the decision. The appeal proceedings are scheduled to be heard in December 2020.

- On September 24, 2019, Perpetual filed an application for security for costs of the appeal. On January 28, 2020, the Court of Appeal issued its decision with respect to Perpetual's security for costs application, requiring the Trustee to post security with the Court of Appeal in the amount of $0.2 million. Applications filed by the Trustee to appeal the security for costs decision and alter the reasons for the decision were dismissed at a hearing held on June 18, 2020. Costs of $0.1 million were awarded by the Court of Appeal in favor of Perpetual on July 21, 2020.

- Applications respecting costs and security for costs for future litigation were heard in the Court of Queen's Bench on July 28 and 29, 2020. Oral decisions on these applications are scheduled to be delivered August 13, 2020.

- On February 25, 2020, Perpetual also filed a second application with the Court of Queen's Bench 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 transaction nor caused to be insolvent by the 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 will be permitted to intervene in the proceedings which will take place on October 1 and 2, 2020.

- 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 financial statements.

Advance technology-driven diversifying new ventures

- Perpetual continued reservoir modelling and simulation work to progress the opportunity for bitumen extraction in the Bluesky formation at Panny. Commercial development scoping of this large bitumen-in place resource is underway to evaluate the merits of further pilot spending. Perpetual is in negotiations with two parties for separate follow-on pilots in two different pools in Panny.

- With the recent drop in global oil prices related to COVID-19-induced oversupply and other factors, the pilot projects are now expected to be deferred to the winter of 2021/2022. Given the significant tenure on the bitumen leases at Panny and the Crown's one-year term extensions provided in response to the current oil price environment, the Company will continue to investigate technology initiatives to advance our understanding of the value potential of this material resource.

2020 OUTLOOK

Please refer to "Management's Discussion and Analysis – 2020 Outlook" on page 10 of this second quarter 2020 report for further detailed information regarding the Company's 2020 outlook.

Financial and Operating Highlights

(Cdn$ thousands, except volume and per share amounts)	Three months ended June 30			Six months ended June 30		
	2020	2019	Change	**2020**	2019	Change
Financial						
Oil and natural gas revenue	**3,722**	19,235	(81%)	**14,219**	41,434	(66%)
Net loss	**(8,831)**	(36,276)	76%	**(68,549)**	(41,168)	(67%)
Per share – basic and diluted[2]	**(0.15)**	(0.60)	75%	**(1.13)**	(0.68)	(66%)
Cash flow from (used in) operating activities	**(2,777)**	4,295	(165%)	**(5,891)**	13,587	(143%)
Adjusted funds flow[1]	**(3,328)**	3,649	(191%)	**(6,929)**	10,011	(169%)
Per share – basic and diluted[2]	**(0.05)**	0.06	(183%)	**(0.11)**	0.17	(165%)
Total assets	**132,772**	292,827	(55%)	**132,772**	292,827	(55%)
Revolving bank debt	**11,080**	37,806	(71%)	**11,080**	37,806	(71%)
Term loan, principal amount	**45,000**	45,000	–	**45,000**	45,000	–
TOU share margin demand loan, principal amount	**–**	13,515	(100%)	**–**	13,515	(100%)
Senior notes, principal amount	**33,580**	33,580	–	**33,580**	33,580	–
TOU share investment	**–**	(27,635)	(100%)	**–**	(27,635)	(100%)
Net working capital deficiency[1]	**8,873**	10,251	(13%)	**8,873**	10,251	(13%)
Net debt[1]	**98,533**	112,517	(12%)	**98,533**	112,517	(12%)
Capital expenditures	**(11)**	5,200	(100%)	**5,222**	6,438	(19%)
Net proceeds on acquisitions and dispositions	**(34,661)**	–	100%	**(34,661)**	–	100%
Net capital expenditures	**(34,672)**	5,200	767%	**(29,439)**	6,438	557%
Common shares outstanding *(thousands)*[3]						
End of period	**60,894**	60,337	1%	**60,894**	60,337	1%
Weighted average – basic and diluted	**60,776**	60,154	1%	**60,725**	60,133	1%
Operating						
Daily average production						
Natural gas *(MMcf/d)*	**16.9**	44.5	(62%)	**25.2**	47.2	(47%)
Oil *(bbl/d)*	**573**	1,207	(53%)	**946**	1,164	(19%)
NGL *(bbl/d)*	**268**	754	(64%)	**437**	770	(43%)
Total *(boe/d)*	**3,662**	9,370	(61%)	**5,570**	9,803	(43%)
Average prices						
Realized natural gas price *($/Mcf)*	**0.28**	2.25	(88%)	**0.86**	2.93	(71%)
Realized oil price *($/bbl)*	**67.56**	50.01	35%	**43.18**	45.76	(6%)
Realized NGL price *($/bbl)*	**17.35**	51.34	(66%)	**30.62**	41.61	(26%)
Wells drilled – gross (net)						
Natural gas	**– (–)**	– (–)		**– (–)**	– (–)	
Oil	**– (–)**	3 (3.0)		**4 (4.0)**	3 (3.0)	
Total	**– (–)**	3 (3.0)		**4 (4.0)**	3 (3.0)	

(1) These are non-GAAP measures. Please refer to "Non-GAAP Measures" below.
(2) Based on weighted average basic common shares outstanding for the period.
(3) All common shares are net of shares held in trust (June 30, 2020 – 0.6 million; June 30, 2019 – 0.8 million). See "Note 14 to the condensed interim consolidated financial statements".

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 and six months ended June 30, 2020 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 and six months ended June 30, 2020 as well as the audited consolidated financial statements and accompanying notes for the years ended December 31, 2019 and 2018. The MD&A should be read in conjunction with the Corporation's MD&A for the year ended December 31, 2019, as disclosure which is unchanged from the December 31, 2019 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 July 31, 2020.

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 natural gas assets in the deep basin of west central Alberta, heavy oil and shallow natural gas in eastern Alberta and undeveloped oil sands 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", "gas over bitumen revenue, net of payments", "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 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 same 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 to adjusted funds flow:

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except per share and per boe amounts)	**2020**	2019	**2020**	2019
Net cash flows from (used in) operating activities	**(2,777)**	4,295	**(5,891)**	13,587
Change in non-cash working capital	**(1,383)**	(716)	**(2,318)**	(3,557)
Decommissioning obligations settled	**3**	360	**177**	666
Oil and natural gas revenue in-kind	**650**	–	**650**	–
Payments of gas over bitumen royalty financing	**(152)**	(290)	**(356)**	(685)
Payments of restructuring costs	**331**	–	**809**	–
Adjusted funds flow	**(3,328)**	3,649	**(6,929)**	10,011
Adjusted funds flow per share	**(0.05)**	0.06	**(0.11)**	0.17
Adjusted funds flow per boe	**(9.99)**	4.28	**(6.84)**	5.64

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. 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.

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except per boe amounts)	**2020**	2019	**2020**	2019
Royalties	**794**	2,464	**3,177**	5,640
Production and operating	**1,834**	4,911	**6,002**	10,231
Transportation	**782**	1,635	**2,052**	3,166
General and administrative	**1,995**	3,177	**4,220**	6,648
Cash finance expense	**1,902**	2,250	**4,472**	4,560
Cash costs	**7,307**	14,437	**19,923**	30,245
Cash costs per boe	**21.93**	16.93	**19.65**	17.05

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.

Gas over bitumen revenue, net of payments: Gas over bitumen revenue, net of payments, includes gas over bitumen royalty credits less payments of the gas over bitumen royalty financing. This is used by management to calculate the Corporation's net realized gas over bitumen revenue to reflect the substantive monetization of the future gas over bitumen royalty credits.

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 production sold for 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, Tourmaline Oil Corp. ("TOU") share investment, TOU share margin demand loan, revolving bank debt, term loan, current portion of royalty obligations, current portion of lease liabilities, and current portion of provisions.

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 net working capital deficiency. Net debt includes the carrying value of net bank debt, the principal amount of the term loan, the principal amount of the TOU share margin demand loan and the principal amount of senior notes, reduced for the mark-to-market value of the TOU share investment. 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 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 natural gas and crude oil, based on the current prices of natural gas and crude oil, differ significantly from the energy equivalency of 6 Mcf:1 bbl.

SECOND QUARTER 2020 HIGHLIGHTS

On April 1, 2020, the Company sold a 50% working interest in its East Edson property in West Central Alberta to a third-party (the "Purchaser") 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"). A minimum of two horizontal wells targeting development of the Wilrich formation are required to be drilled, completed and tied-in during the third quarter of 2020. The Purchaser is required to complete the eight-well horizontal drilling program by April 1, 2022. The cash proceeds from the East Edson Transaction were used to repay bank debt. The eight-well development capital carry at East Edson is anticipated to restore gross production levels to more fully utilize the existing processing capacity, improve operating netbacks given the largely fixed operating cost base, and result in improved capital spending efficiency.

In response to the significant decline in global oil prices which began in late-March, all capital investment for the second quarter of 2020 was deferred, resulting in nominal exploration and development capital spending. Expenditures on decommissioning obligations were also reduced, enabled by the Alberta Energy Regulator's ("AER") cancellation of area-based closure expenditure requirements for 2020.

Second quarter production averaged 3,662 boe/d, down 61% from 9,370 boe/d in the comparative period of 2019, due primarily to the temporary suspension of heavy oil production in response to low oil prices, and the sale of a 50% working interest in the East Edson property in West Central Alberta, effective April 1, 2020. Compared to the first quarter of 2020, production declined by 51% or 3,817 boe/d. The closing of the East Edson Transaction on April 1, 2020, combined with natural declines at East Edson of 6%, reduced West Central production by 3,062 boe/d or 80% of the total production decline from the first quarter. The shut-in of Eastern Alberta heavy oil production due to low oil prices contributed the remaining 755 boe/d decrease. As Western Canadian Select prices improved materially from their April lows, the Company began reactivating certain low-cost heavy oil production in mid-May 2020, and has continued to ramp up production as oil prices recover. By

mid-July, Perpetual had restarted all heavy oil production with the exception of approximately 250 bbl/d of higher cost production in certain pools at Mannville.

Realized revenue was $13.15/boe in the second quarter of 2020, 38% lower than the comparative period of 2019 ($21.26/boe). The decrease was due largely to the 88% decrease in Perpetual's realized natural gas price to $0.28/Mcf, combined with a 66% decline in realized NGL prices. Compared to the prior year period, lower realized natural gas prices were the result of $1.6 million in realized hedging losses on AECO-NYMEX basis differential contracts, as NYMEX prices weakened relative to AECO prices during the quarter. In the third quarter of 2019, the Company's 40,000 MMBtu/d market diversification contract was monetized for the period of December 2019 to October 2020 and did not impact second quarter 2020 revenue, but added $0.84/Mcf in the second quarter of 2019 on the relative strength of daily index prices at the five downstream markets compared to the AECO Daily Index. Realized gains on financial oil hedging contracts of $2.3 million or $44.32/bbl (Q2 2019 – realized loss of $1.2 million or $11.30/bbl) were recorded during the quarter, contributing to the second quarter realized oil price of $67.56/bbl.

Cash costs were down 49% to $7.3 million (Q2 2019 - $14.4 million), but up 30% on a unit-of-production basis to $21.93/boe (Q2 2019 - $16.93/boe) due to the impact of a 61% decrease in production. Cash costs decreased by $7.1 million from the prior year period and $5.3 million from the first quarter of 2020 due to the temporary shut-in of heavy oil production from late-March to mid-May, the closing of the East Edson Transaction on April 1, 2020, the reduction in employee compensation and work hours to 80% effective April 15, 2020, and payments received from the Canada Emergency Wage Subsidy ("CEWS") program. Managing through the COVID-19 pandemic saw Perpetual's corporate staff working remotely in the second quarter before transitioning back to a hybrid office protocol in late June. Field employees have continued to work on site, following strict social distancing and other health and safety measures.

The net loss for the second quarter of 2020 was $8.8 million ($0.15/share), compared to a net loss of $36.3 million ($0.60/share) in the comparative period of 2019. The decrease in net loss from the prior year period was due primarily to an impairment charge of $22.6 million and the $6.6 million decrease in the fair value of the TOU share investment recognized during the second quarter of 2019.

Cash flow used in operating activities in the second quarter of 2020 was $2.8 million ($0.05/share), down $7.1 million from the prior year period (Q2 2019 – cash flow from operating activities of $4.3 million and $0.07/share) due to the combined impact of the 38% decrease in realized revenue per boe and the 61% decrease in production caused by heavy oil shut-ins and the sale of East Edson production.

Adjusted funds flow in the second quarter of 2020 was negative $3.3 million ($0.05/share), down $7.0 million (191%) from the prior year period of $3.6 million ($0.06/share) due primarily to lower cash flow from operating activities. Compared to the first quarter of 2020, adjusted funds flow improved by $0.3 million, due to higher cash flows from operating activities.

FUTURE OPERATIONS

Perpetual has a first lien, reserve-based credit facility (the "Credit Facility"). On December 24, 2019, Perpetual's syndicate of lenders completed their semi-annual borrowing base redetermination, reducing the Credit Facility borrowing limit (the "Borrowing Limit") from $55 million to $45 million effective January 22, 2020.

In January 2020, the Company sold its remaining 1,000,000 TOU shares for net cash proceeds of $14.3 million (the "TOU Share Proceeds"). Net proceeds were used to repay the outstanding TOU share margin demand loan of $0.1 million, with the balance used to repay a portion of the Credit Facility. On April 1, 2020, the Company sold a 50% working interest in its East Edson property in West Central Alberta to a third party purchaser 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"). Net proceeds were used to repay a portion of the Credit Facility. Effective April 1, 2020, Perpetual's syndicate of Credit Facility lenders completed their borrowing base redetermination, incorporating the impact of the East Edson Transaction. The Borrowing Limit was reduced from $45 million to $20 million. The Credit Facility will continue to revolve until the next scheduled borrowing base redetermination on July 31, 2020. The July 31, 2020 redetermination date has been extended to August 10, 2020 to provide the lenders additional time to complete their review. If not extended, the Credit Facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020. The further extension of the Credit Facility repayment term is dependent on the Company's ability to repay or extend the term of the $45 million second lien term loan (the "Term Loan") that matures and requires repayment on March 14, 2021. The Company also has $33.6 million of unsecured senior notes that mature on January 23, 2022. Although the TOU Share Proceeds and the East Edson Transaction cash consideration have reduced the Company's revolving bank debt borrowed under its Credit Facility, the Company remains dependent on the support of its lenders to the Credit Facility which has a current maturity of November 30, 2020, in addition to the $45 million Term Loan maturing March 14, 2021.

During the six months ended June 30, 2020, cash flows used in operations were $5.9 million which contributed to a working capital deficiency of $8.9 million as at June 30, 2020. Perpetual continues to forecast a use of cash in operations for the next twelve-month period and potentially beyond. The Company will require additional financing to fund the working capital deficiency and future operations, 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. Perpetual is considering options including the sale or monetization of additional assets, the extension of existing debt maturity dates, or alternative financing.

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 Sequoia Litigation 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 meets 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 January 13, 2020, the Court of Queen's Bench (the "Court") issued its written decision related to the Statement of Claim filed on August 3, 2018 against Perpetual and its President and Chief Executive Officer ("CEO") with respect to the Company's disposition of shallow gas assets in Eastern Alberta to an unrelated third party on October 1, 2016 (the "Sequoia Litigation"). The decision dismissed and struck all claims against the Company's CEO and all but one of the claims filed by PricewaterhouseCoopers Inc. LIT in its capacity as trustee in bankruptcy (the "Trustee") against Perpetual. The Court did not find that the test for summary dismissal relating to whether the 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 can continue against Perpetual. The Trustee filed a notice of appeal with the Court of Appeal of Alberta, challenging the entire decision, and Perpetual and its CEO filed a similar notice of appeal contesting the BIA claim portion of the decision. The appeal proceedings are scheduled to be heard in December 2020.

On September 24, 2019, Perpetual filed an application for security for costs of the appeal. On January 28, 2020, the Court of Appeal issued its decision with respect to Perpetual's security for costs application, requiring the Trustee to post security with the Court of Appeal in the amount of $0.2 million. Applications filed by the Trustee to appeal the security for costs decision and alter the reasons for the decision were dismissed at a hearing held on June 18, 2020. Costs of $0.1 million were awarded by the Court of Appeal in favor of Perpetual on July 21, 2020.

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 transaction nor caused to be insolvent by the transaction. Applications for security for costs for future litigation were also filed at that time. 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 will be permitted to intervene in the proceedings which will take place on October 1st and 2nd, 2020.

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 financial statements.

OUTLOOK

Perpetual currently anticipates that five wells of the eight-well carried interest drilling program at the 50% owned East Edson property will be drilled in the second half of 2020, with two wells tied-in to production late in the third quarter followed by three wells commencing production early in the first quarter of 2021. While oil prices have recovered from their second quarter lows, capital expenditures for the remainder of 2020 in Eastern Alberta have been deferred, pending a sustained recovery of WTI oil prices to the US$45.00/bbl level.

With the reactivation of shut-in heavy oil production and the contribution from the first two carried interest wells at East Edson in late-September, production is forecast to increase in the third quarter to 4,500 to 4,700 boe/d (32% liquids). Fourth quarter production is anticipated to increase to 5,200 to 5,400 boe/d (28% liquids) with the full impact of the two East Edson wells. An additional 250 bbl/d of heavy oil production could be re-started if WTI oil prices increase above the US$45.00/bbl level.

Abandonment and reclamation expenditures will also remain suspended for the second half of the year, enabled by the AER's cancellation of area-based closure expenditure requirements for 2020. We are optimistic that funding from the Alberta Site Rehabilitation program may facilitate the advancement of abandonment and reclamation projects previously planned for 2020, with $0.3 million of applications approved to date.

Minimization of operating and corporate costs will remain a priority, as will ensuring employees remain safe and healthy amid the COVID-19 pandemic.

SECOND QUARTER FINANCIAL AND OPERATING RESULTS

Capital expenditures

	Three months ended June 30,		Six months ended June 30,	
($ thousands)	**2020**	2019	**2020**	2019
Exploration and development	**30**	5,170	**5,260**	6,380
Corporate assets	**(41)**	30	**(38)**	58
Capital expenditures	**(11)**	5,200	**5,222**	6,438
Acquisitions	**89**	–	**89**	–
Net proceeds on dispositions	**(34,750)**	–	**(34,750)**	–
Total	**(34,672)**	5,200	**(29,439)**	6,438

Exploration and development spending by area

($ thousands)	Three months ended June 30, **2020**	2019	Six months ended June 30, **2020**	2019
West Central	**(200)**	445	**(67)**	1,113
Eastern Alberta	**230**	4,725	**5,327**	5,267
Total	**30**	5,170	**5,260**	6,380

Wells drilled by area

(gross/net)	Three months ended June 30, **2020**	2019	Six months ended June 30, **2020**	2019
West Central	**-/-**	-/-	**-/-**	-/-
Eastern Alberta	**-/-**	3/3.0[1]	**4/4.0**	3/3.0[1]
Total	**-/-**	3/3.0[1]	**4/4.0**	3/3.0[1]

(1) Excludes the re-entry of one existing well bore in Mannville.

Perpetual's exploration and development spending in the second quarter of 2020 was nominal, consistent with guidance released on May 4, 2020 with the Company's first quarter results.

For the six months ended June 30, 2020, spending was directed entirely to Eastern Alberta, where four (4.0 net) multi-lateral heavy oil wells were drilled, completed and tied-in at Ukalta targeting the Clearwater formation. Two of the four wells were returned to production in the second quarter and are performing above expected type curve levels. The start-up of the additional two well pad was delayed due to extreme wet weather conditions but has now resumed production. The four new wells are back on production at a combined rate of 560 bbl/d, bringing total Ukalta production to more than 700/bbl/d as of July 31, 2020.

Acquisitions and Dispositions

On April 1, 2020, the Company sold a 50% working interest in its East Edson property in West Central Alberta to the Purchaser 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"). A minimum of two horizontal wells targeting development of the Wilrich formation are required to be drilled, completed and tied-in during the third quarter of 2020. The Purchaser is required to complete the eight-well horizontal drilling program by April 1, 2022.

The consideration received, and calculation of the gain (loss) recorded on disposition is summarized below:

($ thousands)	
Cash proceeds from disposition (a)	**34,750**
Drilling program rights received (b)	**18,000**
Retained East Edson royalty obligation (c)	**(6,996)**
Carrying amount of assets held for sale disposed (d)	**(52,803)**
Carrying amount of decommissioning obligations held for sale disposed (e)	**7,049**
Gain (loss) on disposition	**–**

a) Cash proceeds from disposition — $35.0 million of cash received on closing, net of $0.2 million of transaction costs and closing adjustments. In order to reflect the nature of the proceeds received, cash proceeds from disposition have been allocated on the condensed interim consolidated statements of cash flows to financing and investing activities in the amount of $7.0 million and $27.8 million, respectively.

b) Drilling program rights received — $18.0 million of drilling program rights, comprised of the carried interest funding of the drill, complete, and tie-in costs for an eight-well drilling program. A minimum of two horizontal wells targeting development of the Wilrich formation are required to be completed and tied-in commencing in the third quarter of 2020. The Purchaser is required to fulfill its entire commitment by April 1, 2022 and will be obligated to pay Perpetual $2.25 million for each commitment well not completed and tied-in by this time.

c) Retained East Edson royalty obligation — $7.0 million that Perpetual will retain until December 31, 2022 on behalf of the Purchaser, comprising the Purchaser's 50% working interest in the existing gross overriding royalty on the East Edson property equivalent to 2.8 MMcf/d of natural gas and associated NGL production. This obligation has been recorded in the condensed interim consolidated statement of financial position under the heading "Royalty obligations".

d) Carrying amount of assets held for sale disposed — $52.8 million of oil and gas properties ($50.4 million) and exploration and evaluation assets ($2.4 million).

e) Carrying amount of decommissioning obligations held for sale disposed — $7.0 million of decommissioning obligations associated with oil and gas properties disposed.

Expenditures on decommissioning obligations

During the three months ended June 30, 2020, Perpetual deferred spending on abandonment and reclamation projects, enabled by the AER's cancellation of area-based closure expenditure requirements for 2020. For the six months ended June 30, 2020, Perpetual spent $0.2 million (2019 – $0.7 million) on abandonment and reclamation projects, and received nine reclamation certificates from the AER during the same period (2019 – eight reclamation certificates) which will result in the cessation of associated property tax and surface lease expenses. The Company's aggregate AER Licensee Liability Rating ("LLR") was 4.0 at June 30, 2020 (June 30, 2019 – 4.5) and is anticipated to decrease to 1.6 upon completion of the AER's transfer of operatorship of the East Edson property to the Purchaser.

Operating netbacks

The following table highlights Perpetual's operating netbacks for the three and six months ended June 30, 2020 and 2019:

	Three months ended June 30, 2020			Three months ended June 30, 2019		
($ thousands)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Total petroleum and natural gas revenue[1]	**2,162**	**1,560**	**3,722**	11,640	7,595	19,235
Realized gains (losses) on derivatives[2]	**–**	**–**	**661**	–	–	(1,110)
Royalties	**(695)**	**(99)**	**(794)**	(1,423)	(1,041)	(2,464)
Production and operating expenses	**(688)**	**(1,146)**	**(1,834)**	(2,003)	(2,908)	(4,911)
Transportation costs	**(501)**	**(281)**	**(782)**	(1,097)	(538)	(1,635)
Total operating netback	**278**	**34**	**973**	7,117	3,108	9,115

	Six months ended June 30, 2020			Six months ended June 30, 2019		
($ thousands)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Total petroleum and natural gas revenue[1]	**9,201**	**5,018**	**14,219**	27,834	13,600	41,434
Realized gains (losses) on derivatives[2]	**–**	**–**	**(389)**	–	–	(968)
Royalties	**(2,628)**	**(549)**	**(3,177)**	(4,025)	(1,615)	(5,640)
Production and operating expenses	**(2,362)**	**(3,640)**	**(6,002)**	(3,998)	(6,233)	(10,231)
Transportation costs	**(1,411)**	**(641)**	**(2,052)**	(2,181)	(985)	(3,166)
Total operating netback	**2,800**	**188**	**2,599**	17,630	4,767	21,429

	Three months ended June 30, 2020			Three months ended June 30, 2019		
($/boe)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Boe operating netback						
Production (*boe/d*)	**2,709**	**953**	**3,662**	7,432	1,938	9,370
Total petroleum and natural gas revenue[1]	**8.77**	**17.99**	**11.17**	17.21	43.07	22.56
Realized gains (losses) on derivatives[2]	**–**	**–**	**1.98**	–	–	(1.30)
Royalties	**(2.82)**	**(1.14)**	**(2.38)**	(2.10)	(5.90)	(2.89)
Production and operating expenses	**(2.79)**	**(13.22)**	**(5.50)**	(2.96)	(16.49)	(5.76)
Transportation costs	**(2.03)**	**(3.24)**	**(2.35)**	(1.62)	(3.05)	(1.92)
Total operating netback	**1.13**	**0.39**	**2.92**	10.53	17.63	10.69

	Six months ended June 30, 2020			Six months ended June 30, 2019		
($/boe)	**West Central**	**Eastern**	**Total**	West Central	Eastern	Total
Boe operating netback						
Production (*boe/d*)	**4,240**	**1,330**	**5,570**	7,984	1,819	9,803
Total petroleum and natural gas revenue[1]	**11.92**	**20.73**	**14.03**	19.26	41.32	23.35
Realized gains (losses) on derivatives[2]	**–**	**–**	**(0.39)**	–	–	(0.54)
Royalties	**(3.41)**	**(2.27)**	**(3.13)**	(2.79)	(4.91)	(3.18)
Production and operating expenses	**(3.06)**	**(15.04)**	**(5.92)**	(2.77)	(18.94)	(5.77)
Transportation costs	**(1.83)**	**(2.65)**	**(2.02)**	(1.51)	(2.99)	(1.78)
Total operating netback	**3.62**	**0.77**	**2.57**	12.19	14.48	12.08

(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.

Perpetual's operating netback of $1.0 million ($2.92/boe) in the second quarter of 2020 decreased 89% from $9.1 million ($10.69/boe) in the comparative period of 2019. This decrease was due to the 38% drop in realized revenue per boe combined with average production that was 61% lower than the prior year period. The significant decrease in production was the result of the East Edson Transaction which closed on April 1, 2020, natural declines resulting from limited capital investment on the Company's natural gas assets, and the temporary shut-in of heavy oil production for much of the second quarter in response to the significant decline in global oil prices. Lower realized revenue per boe was due to natural gas basis hedging losses recorded in the second quarter of 2020 as a result of the relative strengthening of AECO natural gas prices compared to NYMEX. Additionally, realized NGL prices were significantly lower in the quarter, tracking the sharp decline in oil prices. Lower realized natural gas and NGL prices were partially offset by the 35% increase in realized oil prices, due to realized financial hedging gains of $2.3 million (Q2 2019 – realized loss of $1.2 million).

For the second quarter of 2020, royalties, production and operating expense, and transportation costs were significantly lower than the comparative period of 2019, in step with the reduction in production volumes.

Perpetual's operating netback of $2.6 million ($2.57/boe) for the six months ended June 30, 2020 decreased 88% from $21.4 million ($12.08/boe) in the comparative period of 2019. The decrease was due to the 43% decrease in total Company production combined with the 40% decrease in realized revenue per boe.

Production

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Natural gas *(MMcf/d)*				
Eastern Alberta	**2.3**	4.5	**2.4**	4.0
West Central	**14.6**	40.0	**22.8**	43.2
Total natural gas[(1)]	**16.9**	44.5	**25.2**	47.2
Crude oil *(bbl/d)*				
Eastern Alberta[(2)]	**570**	1,194	**938**	1,154
West Central	**3**	13	**8**	10
Total crude oil	**573**	1,207	**946**	1,164
Total NGL *(bbl/d)*[(3)]	**268**	754	**437**	770
Total production *(boe/d)*	**3,662**	9,370	**5,570**	9,803

(1) Natural gas production yielded a heat content of 1.17 GJ/Mcf for the three months ended June 30, 2020 (Q2 2019 – 1.17). See "Commodity Prices" – Average Perpetual prices for selling price premium to AECO Daily Index.
(2) Primarily heavy oil.
(3) Primarily West Central liquids-rich gas.

Second quarter production averaged 3,662 boe/d, down 61% from 9,370 boe/d in the comparative period of 2019 due primarily to the temporary suspension of heavy oil production in response to low oil prices, and the sale of a 50% working interest in the East Edson property in West Central Alberta, effective April 1, 2020. Compared to the first quarter of 2020, production declined by 51% or 3,817 boe/d. The closing of the East Edson Transaction on April 1, 2020, combined with natural declines at East Edson of 6%, reduced West Central production by 3,062 boe/d or 80% of the total production decline from the first quarter. The shut-in of Eastern Alberta heavy oil production due to low oil prices contributed the remaining 755 boe/d decrease. In the second quarter of 2020, the production mix increased to 23% oil and NGL (Q2 2019 – 21% oil and NGL).

Second quarter natural gas production averaged 14.6 MMcf/d at West Central, down 64% from 40.0 MMcf/d in the comparative period of 2019. Natural gas production was impacted by the sale of a 50% working interest in the East Edson property, combined with the continued deferral of capital investment for drilling and completions in West Central in response to low AECO natural gas prices.

For the three months ended June 30, 2020, NGL production was 268 bbl/d, 64% lower than the comparative period of 2019, tracking lower natural gas production from East Edson. NGL yields at East Edson were 18.4 bbls per MMcf in the second quarter of 2020, consistent with 18.9 bbls per MMcf in the comparative period of 2019. Perpetual's average NGL sales composition for the second quarter of 2020 consisted of 66% condensate, comparable to the prior year period.

Crude oil production in Eastern Alberta was 52% lower than the second quarter of 2019, reflecting temporary shut-ins of heavy oil production in response to the significant decline in global oil prices. The Company began reactivating certain low-cost heavy production in mid-May 2020 and has continued to ramp up production as oil prices recover. Production from two new wells at Ukalta remained offline until mid-July due to extremely wet field conditions, and approximately 250 bbl/d of higher cost production at Mannville remains shut-in awaiting stronger oil prices. The shut-in of heavy oil production in late-March reduced second quarter 2020 production by approximately 850 boe/d.

For the six months ended June 30, 2020, production decreased 43% to 5,570 boe/d compared to 9,803 boe/d in the prior year period. Production levels decreased through 2019 and the first half of 2020 with restricted capital spending in response to low and volatile Alberta natural gas prices. The 50% working interest disposition of the East Edson property and shut-ins responding to the significant decline in crude oil demand and oil prices driven by the COVID-19 pandemic, have further reduced production in 2020.

Commodity Prices

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Reference prices				
NYMEX Daily Index *(US$/MMBtu)*	**1.72**	2.64	**1.83**	2.89
AECO Daily Index *($/GJ)*	**1.89**	0.98	**1.91**	1.73
AECO Daily Index *($/Mcf)*[1]	**1.99**	1.03	**2.02**	1.83
Alberta Gas Reference Price *($/GJ)*[2]	**1.62**	0.89	**1.72**	1.39
West Texas Intermediate ("WTI") light oil *(US$/bbl)*	**27.85**	59.81	**37.01**	57.36
Western Canadian Select ("WCS") differential *(US$/bbl)*	**(11.47)**	(10.68)	**(16.00)**	(11.48)
WCS average *(Cdn$/bbl)*[3]	**22.77**	65.83	**28.78**	61.02
Average Perpetual prices				
Natural gas *($/Mcf)*[1]				
AECO Daily Index	**1.99**	1.03	**2.02**	1.83
Heat content premium[4]	**0.21**	0.11	**0.21**	0.20
Market diversification contract	**–**	0.84	**–**	0.80
Realized gains (losses) on financial and physical gas derivatives	**(2.03)**	0.28	**(1.37)**	0.11
Realized gains (losses) on prompt month price optimization	**0.11**	(0.01)	**–**	(0.01)
Realized natural gas price *($/Mcf)*[5]	**0.28**	2.25	**0.86**	2.93
Percent of AECO Daily Index	**14%**	218%	**43%**	160%
Realized oil price *($/bbl)*[5]	**67.56**	50.01	**43.18**	45.76
Realized NGL price *($/bbl)*[5]	**17.35**	51.34	**30.62**	41.61

(1) Converted from $/GJ using a standard energy conversion rate of 1.06 GJ:1 Mcf.

(2) Alberta Gas Reference Price is the price used to calculate Alberta Crown royalties.

(3) Derived internally using the Bank of Canada average foreign exchange rate of US$1.00 = Cdn$1.39 for the three months ended June 30, 2020 (Q2 2019 – $1.34) and $1.37 for the six months ended June 30, 2020 (2019 – $1.33).

(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. For the three and six months ended June 30, 2020, Perpetual received an 11% premium to the AECO Daily Index (three and six months ended June 30, 2019 – 11%) related to its higher average heat content.

(5) 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.

A significantly warmer than normal winter resulted in a year-over-year surplus in natural gas inventories in the United States ("US") of 856 Bcf at the beginning of the second quarter of 2020. At the same time, higher than normal natural gas inventories in Europe and Asia exiting the winter, combined with the significantly lower global gas demand during Q2 2020 as a result of COVID-19 stay in place orders, resulted in US LNG exports averaging only 6.3 Bcf/d for the period as compared to capacity of 10.5 Bcf/d. These factors led NYMEX natural gas prices to decrease 35% from US$2.64/MMBtu for the second quarter of 2019 to US$1.72/MMBtu in the second quarter of 2020. In comparison, the average AECO Daily Index price increased 93% from $0.98/GJ for the second quarter of 2019 to $1.89/GJ for the second quarter of 2020. The increase in AECO pricing was due to the significantly lower level of Western Canadian storage inventories as compared to the US, combined with the implementation of the Temporary Service Protocol by TC Energy for the April 1, 2020 through October 31, 2020 period, which has allowed prioritization of storage injections over firm receipt transportation contracts to help balance the system during maintenance periods, resulting in more stable prices.

The decrease in the average WTI price to US$27.85/bbl for the second quarter of 2020 from US$59.81/bbl in the comparative period of 2019 was related to significantly lower global demand driven by the economic contraction caused by the COVID-19 pandemic. The second quarter of 2020 will be remembered as the time in which the WTI contract settled at an astonishing price of negative US$37.63/bbl on April 20th, as concerns of brimming storage levels combined with financial contract rolls to create a perfect storm for prices to plunge. WTI moved higher during the rest of the quarter due to the OPEC+ supply restriction agreement, as well as shut-ins of production from producers around the world which helped to balance supply and demand fundamentals.

The WCS differential widened from an average US$10.68/bbl in the second quarter of 2019 to US$11.47/bbl in the same period of 2020, due to increasing inventories of crude oil in Alberta, in addition to limited pipeline capacity to export product out of the province. As WTI prices dropped in mid-March, Western Canadian producers shut-in heavy oil production, alleviating pipeline capacity issues, and causing WCS differentials to tighten.

Perpetual's realized natural gas price, including derivatives, decreased 88% to $0.28/Mcf for the second quarter of 2020 from $2.25/Mcf in the comparative period of 2019, and represented only 14% of the AECO Daily Index price compared to 218% in the prior year period. Lower realized natural gas prices were the result of AECO-NYMEX basis hedging losses which have occurred as NYMEX prices weakened relative to AECO prices during the second quarter. During the second quarter of 2020, the remaining AECO-NYMEX basis hedge positions were closed out by entering into offsetting hedge arrangements for the remainder of 2020 ($5.1 million unrealized loss) and 2021 ($3.4 million unrealized loss).

In the third quarter of 2019, the Company's 40,000 MMBtu/d market diversification contract was monetized for the period of December 2019 to October 2020 and did not contribute to 2020 second quarter revenue, but added $0.84/Mcf in the second quarter of 2019 on the relative strength of daily index prices at the five downstream markets compared to the AECO Daily Index. Pricing is based on daily index prices at pricing hubs outside of Alberta (Chicago, Malin, Dawn, Michcon, Empress and Emerson) that generally track North American NYMEX prices. See "Natural Gas Sales Obligations" on page 16 of this MD&A for sales volume obligations by price hub. Realized losses on financial and physical gas derivatives, combined with prompt month price optimization operations decreased the realized price in the second quarter of 2020 by $1.92/Mcf (Q2 2019 – increased the realized price by $0.27/Mcf). During the second quarter of 2020, the average heat content conversion ratio for Perpetual's natural gas production was 1.17 GJ:1 Mcf, consistent with the comparative period of 2019. Natural gas production from East Edson yields higher heat content gas compared to Perpetual's other production areas.

Perpetual's realized oil price of $67.56/bbl was 35% higher than the second quarter of 2019, and included realized hedging gains on crude oil derivative contracts of $2.3 million or $44.32/bbl (Q2 2019 – realized hedging losses of $1.2 million or $11.30/bbl) on second quarter production. Excluding realized hedging gains and losses, Perpetual's realized oil price was $23.24/bbl in the second quarter of 2020, down 62% from $61.31/bbl in the prior year period. During the second quarter of 2020, WTI and WCS hedge positions for the remainder of 2020 were substantially offset by similar arrangements, resulting in a $6.5 million unrealized gain as at June 30, 2020. WTI-WCS differential hedges remain in place for the remainder of 2020 on an average of 567 bbl/d at a fixed differential of US$19.50/bbl.

Perpetual's realized NGL price for the second quarter of 2020 was $17.35/bbl, down 66% from the second quarter of 2019, reflecting a decrease in all NGL component prices which moved lower in concert with lower WTI light oil prices. Realized prices in the second quarter of 2020 were also impacted by realized hedging losses of $1.15/bbl (Q2 2019 – realized losses of $0.15/bbl) on Perpetual's 350 bbl/d basis differential hedge between WTI and Edmonton condensate pricing that expired on June 30, 2020.

Revenue

	Three months ended June 30,		Six months ended June 30,	
($ thousands, except as noted)	**2020**	2019	**2020**	2019
Petroleum and natural gas ("P&NG") revenue				
Natural gas[1]	**2,060**	8,968	**7,382**	23,856
Oil	**1,212**	6,733	**4,230**	11,771
NGL	**450**	3,534	**2,607**	5,807
Total petroleum and natural gas revenue	**3,722**	19,235	**14,219**	41,434
Realized gains (losses) on derivatives[2]	**661**	(1,110)	**(389)**	(968)
Realized revenue	**4,383**	18,125	**13,830**	40,466
Unrealized gains (losses) on derivatives	**(1,611)**	(1,791)	**10,532**	(9,342)
Total revenue	**2,772**	16,334	**24,362**	31,124
Realized revenue *($/boe)*	**13.15**	21.26	**13.64**	22.81
Total revenue *($/boe)*	**8.32**	19.16	**24.03**	17.54

(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.

Perpetual's petroleum and natural gas ("P&NG") revenue, before financial derivatives, for the three months ended June 30, 2020 of $3.7 million decreased 81% from the second quarter of 2019, due to the 61% decrease in average daily production combined with the impact of physical hedging losses on natural gas AECO-NYMEX basis contracts. For the six-month period ended June 30, 2020, P&NG revenue decreased 66% compared to the prior year period, following the 43% decrease in average daily production.

Natural gas revenue, before financial derivatives, of $2.1 million in the second quarter of 2020 comprised 55% (Q2 2019 – 47%) of total P&NG revenue while natural gas production was 77% (Q2 2019 – 79%) of total production. Natural gas revenue decreased 77% from $9.0 million in the second quarter of 2019, reflecting the impact of the 62% decrease in natural gas production volumes driven by the East Edson Transaction. In the third quarter of 2019, the Company's 40,000 MMBtu/d market diversification contract was monetized for the period of December 2019 to October 2020 and did not impact second quarter 2020 revenue, but added $0.84/Mcf in the second quarter of 2019 on the relative strength of daily index prices at the five downstream markets compared to the AECO Daily Index.

Oil revenue of $1.2 million represented 33% (Q2 2019 – 35%) of total P&NG revenue while oil production was 16% (Q2 2019 – 13%) of total production. Oil revenue was 82% lower than the same period in 2019, due to the 53% decrease in crude oil production triggered by the temporary shut-ins of heavy oil production in response to extremely low oil prices. The 65% decrease in the WCS average price was mainly due to the 53% decrease in WTI light oil prices to US$27.85/bbl, combined with wider WCS differentials of US$11.47/bbl compared to US$10.68/bbl in the prior year period. For the six months ended June 30, 2020, oil revenue decreased 64% compared to the prior year period, due primarily to the 53% decrease in the WCS average price to $28.78/bbl (Q2 2019 – $61.02/bbl) and temporary production shut-ins.

NGL revenue for the second quarter of 2020 was $0.4 million, representing 12% (Q2 2019 – 18%) of total P&NG revenue while NGL production was just 7% (Q2 2019 – 8%) of total Company production. NGL revenue decreased by 87% from the prior year period while NGL production decreased 64%, reflecting the decrease in all NGL component prices compared to the prior year period.

Realized gains on derivatives totaled $0.7 million for the second quarter of 2020, compared to losses of $1.1 million for the same period of 2019. The realized gain in the current period was comprised of $2.3 million of gains from oil derivatives (Q2 2019 – $1.2 million loss), partially offset by a $1.6 million loss on natural gas derivatives (Q2 2019 – $0.1 million gain).

For the second quarter of 2020, Perpetual recorded an unrealized loss on derivatives of $1.6 million (Q2 2019 – $1.8 million unrealized loss) attributable to the impact of wider AECO-NYMEX basis differentials compared to Perpetual's natural gas derivative positions. 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 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

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Crown	**24**	425	**456**	938
Freehold and overriding[1]	**770**	2,039	**2,721**	4,702
Total	**794**	2,464	**3,177**	5,640
Crown *(% of P&NG revenue)*	**0.6**	2.2	**3.2**	2.3
Freehold and overriding *(% of P&NG revenue)*	**20.7**	10.6	**19.1**	11.3
Total *(% of P&NG revenue)*	**21.3**	12.8	**22.3**	13.6
$/boe	**2.38**	2.89	**3.13**	3.18

(1) Includes $0.6 million in gross overriding royalty payments at East Edson for the three months ended June 30, 2020 (Q2 2019 – $1.1 million) and $2.2 million for the six months ended June 30, 2020 (2019 – $2.9 million).

Royalty expenses for the second quarter of 2020 were $0.8 million, 68% lower than the comparative period of 2019 due to both lower production and P&NG revenue. The combined average royalty rate on P&NG revenue increased from 12.8% in the second quarter of 2019 to 21.3% in 2020 due to the impact of the fixed volume East Edson gross overriding royalty on lower production. For the six months ended June 30, 2020, royalties were $3.2 million (2019 – $5.6 million), 44% lower than the prior year period. The decrease reflects lower P&NG revenue of 66%, partially offset by higher Alberta Gas Reference prices and AECO Daily Index prices which are used to calculate crown and freehold natural gas royalties, respectively.

Freehold and overriding royalties have decreased 62% from the second quarter of 2019, due to the impact of the East Edson Transaction which closed on April 1, 2020. 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 natural gas and associated NGL production for the period April 1, 2020 to December 31, 2022. This obligation has been recorded in the condensed interim consolidated statement 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 NGL volumes to the royalty holder.

For the six months ended June 30, 2020, crown royalties decreased 51% compared to the prior year period. This decrease reflects the impact of lower production (43% decrease) and lower WTI light oil prices (35% decrease), partially offset by higher Alberta Gas Reference Prices (24% increase) compared to the prior year period.

Production and operating expenses

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Production and operating expenses	**1,834**	4,911	**6,002**	10,231
$/boe	**5.50**	5.76	**5.92**	5.77

Total production and operating expenses were down 5% on a unit-of-production basis to $5.50/boe for the second quarter of 2020, compared to $5.76/boe for the comparable period of 2019. On an absolute dollar basis, production and operating costs were down by $3.1 million (63%) due to the temporary shut-in of heavy oil production, the East Edson Transaction, and cost mitigation initiatives. The reduction of employee compensation costs and payments received from the CEWS program reduced second quarter operating costs by $0.2 million.

West Central production and operating costs per boe decreased by 6% to $2.79/boe in the second quarter of 2020 (Q2 2019 – $2.96/boe), while Eastern Alberta operating costs decreased 20% to $13.22/boe over the same period (Q2 2019 – $16.49/boe) as a result of the temporary shut-in of higher cost heavy oil production.

Transportation costs

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Transportation costs	**782**	1,635	**2,052**	3,166
$/boe	**2.35**	1.92	**2.02**	1.78

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 second quarter of 2020 were $0.8 million, down 52% from the prior year period of $1.6 million. On a unit-of-production basis, company-wide transportation costs increased by 22% from $1.92/boe in the second quarter of 2019 to $2.35/boe in the same period of 2020, due to the impact of unutilized demand charges from firm natural gas pipeline capacity at East Edson. Transportation costs averaged $2.03/boe at West Central compared to $3.24/boe for production from Eastern Alberta.

Exploration and evaluation ("E&E") expenses

($ thousands)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Lease rentals[1]	**35**	(113)	**55**	51
Geological and geophysical costs	**–**	8	**22**	8
Lease expiries (non-cash)	**29**	61	**65**	61
Total E&E expense	**64**	(44)	**142**	120

(1) Commencing in the second quarter of 2019, developed mineral lease rentals have been classified as production and operating expenses.

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. During the six month period ended June 30, 2020, the Company recorded $0.1 million of non-cash write-downs (2019 – $0.1 million) associated with certain P&NG leases deemed to no longer be part of Perpetual's future development plans.

General and administrative ("G&A") expenses

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Cash G&A expense	**2,101**	3,563	**4,575**	7,250
Overhead recoveries	**(106)**	(386)	**(355)**	(602)
Total G&A expense	**1,995**	3,177	**4,220**	6,648
$/boe	**5.99**	3.73	**4.16**	3.75

During the second quarter of 2020, cash G&A expense was $2.1 million, down 41% from the prior year period of $3.6 million due to the 25% reduction in Perpetual's corporate employee head count that was implemented in the third quarter of 2019, combined with the reduction in employee compensation and work hours to 80% effective April 1, 2020. Perpetual also received payments of $0.4 million from the CEWS program in the second quarter of 2020 that reduced G&A expense.

Overhead recoveries decreased by 73% over the same period, due to reduced cash G&A expense and decreased capital expenditures associated with the Company's decision to defer all future capital spending until oil prices recover and stabilize.

On a unit-of-production basis, total G&A expense of $5.99/boe for the second quarter of 2020 was up 61% from the prior year period, due to the impact of reduced production. For the six months ended June 30, 2020, cash G&A expense was $4.6 million, 37% lower than the prior year period of $7.3 million for the same reasons noted above.

Share-based payments

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Share-based payments (non-cash)	**135**	616	**315**	1,324
Share-based payments (cash)	**361**	–	**722**	–
Total share-based payments	**496**	616	**1,037**	1,324

Share-based payments expense for the three months ended June 30, 2020 was $0.5 million, down 19% from the same period in 2019 due to a reduction in the value of outstanding share-based payment awards. During the second quarter of 2020, the Company granted new awards to employees and Directors, comprised of 0.9 million share options, 1.7 million performance share rights, and 3.3 million compensation awards. For the six months ended June 30, 2020, share-based payments expense was $1.0 million, 22% lower than the prior year period for the same reasons noted above.

Depletion and depreciation

($ thousands, except as noted)	Three months ended June 30, 2020	2019	Six months ended June 30, 2020	2019
Depletion and depreciation	**2,901**	8,171	**9,180**	16,730
$/boe	**8.71**	9.58	**9.06**	9.43

Perpetual recorded $2.9 million of depletion and depreciation expense for the three months ended June 30, 2020, a decrease of 64% from $8.2 million recorded in the prior year period. The decrease reflects the 61% decline in production volumes compared to the prior year period. On a unit-of-production basis, depletion and depreciation expense decreased by 9% to $8.71/boe (Q2 2019 – $9.58/boe) due to non-cash impairments recognized between the second quarter of 2019 and the first quarter of 2020 (Q2 2019 – $22.6 million; Q4 2019 – $24.5 million; Q1 2020 – $50.3 million).

Impairment

In accordance with IFRS, an impairment test is performed if the Company identifies an indicator of impairment. For the quarter ended June 30, 2020, the Company conducted an assessment of impairment indicators for the Company's cash-generating units ("CGUs"). There were no triggers identified and therefore, no impairments or impairment reversals recognized during the second quarter of 2020.

In performing the review at March 31, 2020, management determined that the significant decline in global oil and natural gas prices, coupled with the considerable economic instability and uncertainty in the oil and natural gas markets which negatively impacts operating cash flows, justified calculation of the recoverable amount of the liquids-rich natural gas assets and heavy oil assets which comprise the West Central CGU and Eastern Alberta CGU, respectively. The recoverable amounts of the CGUs were determined using value-in-use ("VIU") based on the net present value of cash flows from natural gas, oil, and NGL reserves using estimates of total proved plus probable reserves evaluated or reviewed by the Company's independent reserves evaluators and updated internally by management, along with commodity price estimates based on an average of three independent reserve evaluators, and an estimate of market discount rates between 12% and 25% to consider risks specific to the asset.

At March 31, 2020, the Company determined that the carrying amounts of the West Central CGU and Eastern Alberta CGU exceeded the estimated recoverable amounts and accordingly, a non-cash impairment charge of $50.3 million was included in net loss.

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. For the three months ended June 30, 2020, the Company conducted an assessment of impairment indicators for the Company's E&E assets. There were no triggers identified and therefore, no impairments or impairment reversals recognized during the second quarter of 2020.

In the first quarter of 2020, management determined that the significant decline in global oil and natural gas prices, coupled with the considerable economic instability and uncertainty in the oil and natural gas industry, justified calculation of the recoverable amount of certain undeveloped lands classified as E&E. As a result, the carrying value of the undeveloped lands was written down to the estimated recoverable amount, resulting in a non-cash impairment charge of $10.2 million.

Finance expenses

	Three months ended June 30,		Six months ended June 30,	
($ thousands)	**2020**	2019	**2020**	2019
Cash finance expense				
Interest on revolving bank debt	**220**	657	**1,099**	1,340
Interest on TOU share margin demand loan	**–**	115	**–**	236
Interest on term loan	**902**	887	**1,813**	1,798
Interest on senior notes	**735**	741	**1,470**	1,452
Interest on lease liabilities	**45**	48	**90**	98
Dividend income from TOU share investment	**–**	(198)	**–**	(364)
Total cash finance expense	**1,902**	2,250	**4,472**	4,560
Non-cash finance expense				
Amortization of debt issue costs	**395**	266	**742**	538
Accretion on decommissioning obligations	**100**	196	**266**	411
Change in fair value of royalty obligations	**484**	(47)	**536**	361
Total non-cash finance expense	**979**	415	**1,544**	1,310
Finance expenses recognized in net loss	**2,881**	2,665	**6,016**	5,870

Total cash finance expense of $1.9 million for the three months ended June 30, 2020 was 15% lower than the prior year period (Q2 2019 – $2.3 million), due to decreased interest expense on the reserve-based Credit Facility associated with lower average borrowings and lower floating interest rates.

In January 2020, the Company sold its remaining 1,000,000 TOU shares and used the net cash proceeds of $14.3 million to repay the remaining $0.1 million TOU share margin demand loan, with the balance used to repay a portion of the Credit Facility. Accordingly, the Company no longer receives dividend income from its TOU share investment or incurs interest expense on the TOU share margin demand loan.

Total non-cash finance expense for the three months ended June 30, 2020 was $1.0 million (Q2 2019 – $0.4 million). An increase in the fair value of the royalty obligations of $0.5 million was recorded in the second quarter of 2020 due to higher AECO future natural gas prices, resulting in a fair value at June 30, 2020 of $7.4 million.

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)	June 30, 2020	December 31, 2019
Revolving bank debt	**11,080**	47,552
Term loan, principal amount	**45,000**	45,000
TOU share margin demand loan, principal amount	**–**	100
Senior notes, principal amount	**33,580**	33,580
TOU share investment[1]	**–**	(15,220)
Net working capital deficiency[2]	**8,873**	7,068
Net debt[2]	**98,533**	118,080
Shares outstanding at end of period *(thousands)*[3]	**60,894**	60,513
Market price at end of period *($/share)*	**0.10**	0.07
Market value of shares	**6,089**	4,236
Enterprise value[2]	**104,622**	122,316
Net debt as a percentage of enterprise value *(%)*	**94**	97
Trailing twelve-months adjusted funds flow[2]	**(3,056)**	14,534
Net debt to trailing twelve-months adjusted funds flow *(times)*	**N/A**	8.1

(1) The TOU share investment is valued based on the December 31, 2019 closing price per the Toronto Stock Exchange ($15.22 per share) and 1.0 million TOU shares held.
(2) See "Non-GAAP measures" in this MD&A.
(3) Shares outstanding are presented net of shares held in trust.

At June 30, 2020, Perpetual had total net debt of $98.5 million, down $30.1 million (23%) from March 31, 2020 and $19.5 million (17%) from December 31, 2019. The decrease in net debt was attributable to the closing of the East Edson Transaction on April 1, 2020 for consideration including a cash payment of $35 million. The cash proceeds from the East Edson Transaction were used to repay bank debt.

As at June 30, 2020, 34% of net debt outstanding was repayable in 2022.

Perpetual had available liquidity at June 30, 2020 of $6.6 million, comprised of the $20 million Credit Facility Borrowing Limit, less current borrowings and letters of credit of $11.1 million and $2.3 million, respectively. Subsequent to quarter end, Perpetual has reduced its outstanding letters of credit to $1.3 million.

Revolving bank debt

As at June 30, 2020, the Company's reserve-based Credit Facility had a Borrowing Limit of $20.0 million (December 31, 2019 – $55.0 million) under which $11.1 million was drawn (December 31, 2019 – $47.6 million) and $2.3 million of letters of credit had been issued (December 31, 2019 – $2.3 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 June 30, 2020 was 6.0%. For the period ended June 30, 2020, if interest rates changed by 1% with all other variables held constant, the impact on annual cash finance expense and net loss would be $0.1 million.

Effective April 1, 2020, Perpetual's syndicate of Credit Facility lenders completed their borrowing base redetermination, incorporating the impact of the East Edson Transaction. The Borrowing Limit was reduced from $45 million to $20 million, with the next Borrowing Limit redetermination scheduled on or prior to July 31, 2020. The July 31, 2020 redetermination date has been extended to August 10, 2020 to provide the lenders additional time to complete their review. If not extended, the credit facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020. As a result, revolving bank debt has been presented as a current liability on the condensed interim consolidated statements of financial position as at June 30, 2020. Previously, on December 24, 2019, Perpetual's syndicate of Credit Facility lenders completed their semi-annual borrowing base redetermination, reducing the Borrowing Limit from $55 million to $45 million on January 22, 2020.

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 second lien and unsecured debt and to pay dividends on or repurchase its common shares.

At June 30, 2019, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Term loan

			June 30, 2020		December 31, 2019	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Term loan	March 14, 2021	8.1%	**$ 45,000**	**$ 44,567**	$ 45,000	$ 44,274

The term loan bears a fixed interest rate of 8.1% with semi-annual interest payments due June 30 and December 31 of each year. Amounts borrowed under the term loan that are repaid are not available for re-borrowing. The Company may repay the term loan at any time without penalty. The term loan matures and is repayable on March 14, 2021 and has been presented as a current liability on the condensed interim consolidated statement of financial position as at June 30, 2020.

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 June 30, 2020, the term loan is presented net of $0.4 million in issue costs which are amortized over the remaining term of the loan using a weighted average effective interest rate of 9.5%.

At June 30, 2020, the term loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Senior notes

			June 30, 2020		December 31, 2019	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
2022 Senior Notes	January 23, 2022	8.75%	**$ 33,580**	**$ 32,549**	$ 33,580	$ 32,255

The 2022 Senior Notes bear a fixed interest rate of 8.75% with semi-annual interest payments due January 23 and July 23 of each year. The senior notes are direct senior unsecured obligations of the Company, ranking pari passu with all other present and future unsecured and unsubordinated indebtedness of the Company. Prior to January 23, 2021, the Company may redeem up to 100% of the senior notes at 103.3% of the principal amount. Subsequent to January 23, 2021, the Company may redeem up to 100% of the senior notes at the principal amount.

At June 30, 2020, the 2022 Senior Notes are recorded at the present value of future cash flows, net of issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 10.9%.

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 June 30, 2020, other than the restricted payment covenants noted above, the senior notes were not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Entities controlled by the Company's CEO hold $14.6 million of the 2022 Senior Notes outstanding. An entity that is associated with the Company's CEO holds an additional $9.1 million of the 2022 Senior Notes outstanding.

Equity

At June 30, 2020 there were 60.9 million common shares outstanding, net of 0.6 million shares held in trust to resource employee compensation programs. During the six months ended June 30, 2020, no shares were purchased by the independent trustee to be held in trust (2019 – 0.5 million shares). Basic and diluted weighted average shares outstanding for the three months ended June 30, 2020 were 60.8 million (Q2 2019 – 60.2 million) and 60.7 million for the six months ended June 30, 2020 (2019 – 60.1 million).

At July 31, 2020 there were 61.2 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)	**July 31, 2020**
Compensation awards	**7.8**
Share options	**5.5**
Performance share rights	**3.4**
Total[1]	**16.7**

[1] 4.6 million compensation awards, 0.9 million share options, and 3.4 million performance share rights have an exercise price below the June 30, 2020 closing price of the Company's common shares of $0.10 per share.

SUMMARY OF QUARTERLY RESULTS

($ thousands, except as noted)	**Q2 2020**	Q1 2020	Q4 2019	Q3 2019
Financial				
Oil and natural gas revenue	**3,722**	10,497	15,830	17,097
Net loss	**(8,831)**	(59,718)	(32,498)	(20,349)
Per share – basic and diluted	**(0.15)**	(0.98)	(0.54)	(0.34)
Cash flow from (used in) operating activities	**(2,777)**	(3,114)	(1,290)	5,509
Adjusted funds flow[1]	**(3,328)**	(3,601)	340	4,183
Per share – basic and diluted	**(0.05)**	(0.06)	0.01	0.07
Capital expenditures	**(11)**	5,233	1,995	4,506
Net proceeds on acquisitions and dispositions	**(34,661)**	–	–	–
Net capital expenditures	**(34,672)**	5,233	1,995	4,506
Common shares *(thousands)*				
Weighted average – basic and diluted	**60,776**	60,674	60,444	60,317
Operating				
Daily average production				
Natural gas *(MMcf/d)*	**16.9**	33.3	36.6	38.2
Oil *(bbl/d)*	**573**	1,320	1,275	1,292
NGL *(bbl/d)*	**268**	606	606	731
Total *(boe/d)*	**3,662**	7,479	7,991	8,383
Average prices				
Realized natural gas price *($/Mcf)*[2]	**0.28**	1.16	2.00	3.13
Realized oil price *($/bbl)*[2]	**67.56**	32.60	43.85	44.31
Realized NGL price *($/bbl)*[2]	**17.35**	36.48	43.93	37.34

($ thousands, except as noted)	Q2 2019	Q1 2019	Q4 2018[3]	Q3 2018[3]
Financial				
Oil and natural gas revenues	19,235	22,199	21,510	20,504
Net loss	(36,276)	(4,892)	(331)	(12,259)
Per share – basic and diluted	(0.60)	(0.08)	(0.01)	(0.20)
Cash flow from operating activities	4,295	9,292	5,163	6,729
Adjusted funds flow[1]	3,649	6,362	8,052	5,155
Per share – basic and diluted	0.06	0.11	0.13	0.09
Capital expenditures	5,200	1,238	5,617	4,343
Net payments (proceeds) on acquisitions and dispositions	–	–	(1,285)	4,341
Net capital expenditures	5,200	1,238	4,332	8,684
Common shares *(thousands)*				
Weighted average – basic and diluted	60,154	60,111	60,448	60,468
Operating				
Daily average production				
Natural gas *(MMcf/d)*	44.5	50.0	44.9	46.9
Oil *(bbl/d)*	1,207	1,121	1,301	1,022
NGL *(bbl/d)*	754	785	715	730
Total *(boe/d)*	9,370	10,240	9,491	9,569
Average prices				
Realized natural gas price *($/Mcf)*[2]	2.25	3.54	4.38	2.83
Realized oil price *($/bbl)*[2]	50.01	41.12	19.83	48.57
Realized NGL price *($/bbl)*	51.34	32.16	35.73	56.02

(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.
(3) IFRS 16 was adopted January 1, 2019 using the modified retrospective approach; therefore, comparative information has not been restated. Refer to the recently adopted accounting pronouncements section in this MD&A.

The Company's oil and natural gas revenue, net loss, cash flow from (used in) operating activities and adjusted funds flow are influenced by commodity prices and production levels. Natural gas production levels decreased during 2018 and 2019 due to natural declines and reduced capital expenditures in response to depressed AECO natural gas prices, and due to the shut-in of approximately 700 boe/d of production during the third and fourth quarters of 2018 at East Edson associated with the Sequoia bankruptcy. This production was restarted in mid-December 2018, causing natural gas production to increase temporarily in the first quarter of 2019. 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 have been temporarily suspended, pending a recovery of oil prices. Oil production was restarted mid-way through the second quarter, following the recovery of oil 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, further reduced natural gas production in the second quarter of 2020.

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 and financial derivatives are used to manage the balance sheet, to 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.

During the second quarter of 2020, the Company entered into offsetting positions for several of its financial oil and natural gas commodity price risk management contracts to reduce exposure to future volatility in these commodity markets.

The following tables provide a summary of commodity price risk management contracts outstanding at July 31, 2020:

Crude Oil

The following table provides a summary of basis differential contracts between WTI and WCS:

Term	**Volumes sold (bought)** ***(bbl/d)***	**WTI-WCS differential** ***(US$/bbl)***	**Market prices** ***(US$/bbl)***[1]	**Type of contract**
July 2020 – October 2020	100	(17.65)	(9.56)	Financial
July 2020 – December 2020	500	(19.75)	(11.23)	Financial
October 2020 – December 2020	(300)	(13.25)	(13.70)	Financial

(1) Market prices for July and August 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 July 31, 2020.

Natural Gas Sales Obligations

In July 2020, the Company reduced its fixed volume obligations by 30,000 MMBtu/d for the period commencing November 1, 2020 and ending on October 31, 2021.

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 October 31, 2021 Daily sales volume** ***(MMBtu/d)***	**November 1, 2021 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	–	10,800	15,000
Dawn	6,000	8,000	15,000
Michcon	–	5,200	–
Empress	–	3,800	–
Emerson	–	–	10,000
Total natural gas sales volume obligation	**10,000**	**40,000**	**40,000**

OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no off balance sheet arrangements.

CHANGES IN ACCOUNTING POLICIES

Government grants

Government grants are recognized when there is reasonable assurance that the grant will be received, and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as an expense reduction in the period in which the costs are incurred. Where the grant relates to an asset, it is recognized as a reduction to the net book value of the related asset and then subsequently in net loss over the expected useful life of the related asset through lower charges to depletion, depreciation and impairment. During the three months ended June 30, 2020, the Company received government grants of $0.5 million through the Canada Emergency Wage Subsidy. The grants were recognized as a reduction to general and administrative and production and operating expenses of $0.4 million and $0.1 million, respectively (Q2 2019 – nil).

ACCOUNTING PRONOUNCEMENTS

Amendments to IFRS 3 "Business Combinations"

On January 1, 2020, the Company adopted the amendments to the definition of a business in IFRS 3 Business Combinations. The amendments are intended to assist entities in determining whether a transaction should be accounted for as a business combination or as an asset acquisition. IFRS 3 continues to adopt a market participant's perspective to determine whether an acquired set of activities and assets is a business. The amendments clarify the minimum requirements for a business; remove the assessment of whether market participants are capable of replacing any missing elements; add guidance to help entities assess whether an acquired process is substantive; narrow the definitions of a business and of outputs; and introduce an optional fair value concentration test.

No business combinations were completed during the three and six-month periods ended June 30, 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 April 1, 2020 and ended June 30, 2020 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 debt on favorable terms; the quantity and recoverability of Perpetual's reserves; the timing and amount of future production; future prices as well as supply and demand for natural gas, NGL and 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 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 2020 and 2021; expected book value and related tax value of the Corporation's assets and prospect inventory and estimates of net asset value; 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 recent outbreak of COVID-19 has had a negative impact on global financial conditions. Perpetual cannot accurately predict the impact COVID-19 will have on its ability to execute its business plans in response to government public health efforts to contain COVID-19 and to obtain financing 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, 2019 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). 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.

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. The foregoing list of risk factors should not be considered exhaustive.

The forward-looking information and statements contained in this MD&A speak only as of the date of this MD&A, and neither the Corporation nor any of its subsidiaries assumes any obligation to publicly update or revise them to reflect new events or circumstances, unless expressly required to do so by applicable securities laws.

MANAGEMENT'S REPORT

To the Shareholders of Perpetual Energy Inc.

The accompanying unaudited condensed interim consolidated financial statements of Perpetual Energy Inc ("Perpetual", or the "Company") have been prepared by and are the responsibility of the Company's management. The Company's independent auditor has not performed a review of these financial statements in accordance with standards established by the Chartered Professional Accountants of Canada for a review of interim financial statements by an entity's auditor.

The condensed interim consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") and are considered by management to present fairly the consolidated financial position, operating results and cash flows of the Company.

These condensed interim consolidated financial statements have been approved by the Audit Committee and the Board of Directors of the Company.

Susan L. Riddell Rose
President &
Chief Executive Officer

W. Mark Schweitzer
Vice President, Finance &
Chief Financial Officer

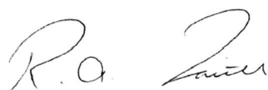
July 31, 2020

PERPETUAL ENERGY INC.
Condensed Interim Consolidated Statements of Financial Position

As at		June 30, 2020		December 31, 2019
(*Cdn$ thousands unaudited*)				
Assets				
Current assets				
Accounts receivable (note 16)	**$**	**3,152**	$	5,056
Tourmaline Oil Corp. ("TOU") share investment (note 3)		**–**		15,220
Prepaid expenses and deposits		**447**		1,154
Fair value of derivatives (note 18)		**6,393**		–
		9,992		21,430
Property, plant and equipment (note 4)		**110,512**		194,634
Exploration and evaluation (note 5)		**10,736**		23,609
Right-of-use assets (note 6)		**1,532**		1,475
Total assets	**$**	**132,772**	$	241,148
Liabilities				
Current liabilities				
Accounts payable and accrued liabilities	**$**	**12,472**	$	13,278
TOU share margin demand loan		**–**		100
Revolving bank debt (note 8)		**11,080**		47,552
Term loan (note 9)		**44,567**		–
Fair value of derivatives (note 18)		**7,454**		10,542
Royalty obligations (note 11)		**3,514**		582
Lease liabilities (note 12)		**732**		633
Provisions (note 13)		**770**		2,382
		80,589		75,069
Fair value of derivatives (note 18)		**1,681**		2,732
Term loan (note 9)		**–**		44,274
Senior notes (note 10)		**32,549**		32,255
Royalty obligations (note 11)		**3,883**		289
Lease liabilities (note 12)		**1,967**		2,052
Provisions (note 13)		**32,319**		36,459
Total liabilities		**152,988**		193,130
Equity				
Share capital (note 14)		**97,305**		96,876
Warrants (note 14c)		**–**		923
Contributed surplus		**45,043**		44,234
Deficit (note 14)		**(162,564)**		(94,015)
Total equity		**(20,216)**		48,018
Total liabilities and equity	**$**	**132,772**	$	241,148

Future operations (note 1)
Contingencies (note 7)

See accompanying notes to the condensed interim consolidated financial statements.



Robert A. Maitland
Director

Geoffrey C. Merritt
Director

PERPETUAL ENERGY INC.
Condensed Interim Consolidated Statements of Loss and Comprehensive Loss

	Three months ended June 30, **2020**	Three months ended June 30, 2019	Six months ended June 30, **2020**	Six months ended June 30, 2019
(*Cdn$ thousands, except per share amounts, unaudited*)				
Revenue				
Oil and natural gas (note 16)	**$ 3,722**	$ 19,235	**$ 14,219**	$ 41,434
Royalties	**(794)**	(2,464)	**(3,177)**	(5,640)
	2,928	16,771	**11,042**	35,794
Change in fair value of derivatives (note 18)	**(950)**	(2,901)	**10,143**	(10,310)
Gas over bitumen royalty credit	**144**	146	**319**	534
	2,122	14,016	**21,504**	26,018
Expenses				
Production and operating	**1,834**	4,911	**6,002**	10,231
Transportation	**782**	1,635	**2,052**	3,166
Exploration and evaluation (note 5)	**64**	(44)	**142**	120
General and administrative	**1,995**	3,177	**4,220**	6,648
Share-based payments (note 15)	**496**	616	**1,037**	1,324
Depletion and depreciation (note 4 and 6)	**2,901**	8,171	**9,180**	16,730
Impairments (note 4b and note 5)	**–**	22,600	**60,500**	22,600
Loss from operating activities	**(5,950)**	(27,050)	**(61,629)**	(34,801)
Finance expense (note 17)	**(2,881)**	(2,665)	**(6,016)**	(5,870)
Change in fair value of TOU share investment (note 3)	**–**	(6,561)	**(904)**	(497)
Net loss and comprehensive loss	**(8,831)**	(36,276)	**(68,549)**	(41,168)
Net loss per share (note 14d)				
Basic and diluted	**$ (0.15)**	$ (0.60)	**$ (1.13)**	$ (0.68)

See accompanying notes to the condensed interim consolidated financial statements.

PERPETUAL ENERGY INC.
Condensed Interim Consolidated Statements of Changes in Equity

(Cdn$ thousands unaudited)	Share capital (thousands)	Share capital ($thousands)	Warrants	Contributed surplus	Deficit	Total equity
Balance at December 31, 2019	60,513	$ 96,876	$ 923	$ 44,234	$ (94,015)	$ 48,018
Net loss	–	–	–	–	(68,549)	(68,549)
Common shares issued (note 14)	177	331	(923)	592	–	–
Change in shares held in trust (note 14)	204	98	–	(98)	–	–
Share-based payments	–	–	–	315	–	315
Balance at June 30, 2020	**60,894**	**$ 97,305**	**$ –**	**$ 45,043**	**$ (162,564)**	**$ (20,216)**

(Cdn$ thousands unaudited)	Share capital (thousands)	Share capital ($thousands)	Warrants	Contributed surplus	Deficit	Total equity
Balance at December 31, 2018	60,240	$ 1,338,369	$ 923	$ 44,433	$ (1,242,342)	$ 141,383
Net loss	–	–	–	–	(41,168)	(41,168)
Common shares issued (note 14)	228	199	–	(199)	–	–
Change in shares held in trust (note 14)	(131)	106	–	(256)	–	(150)
Share-based payments	–	–	–	607	–	607
Elimination of deficit (note 14)	–	(1,242,342)	–	–	1,242,342	–
Balance at June 30, 2019	**60,337**	**$ 96,332**	**$ 923**	**$ 44,585**	**$ (41,168)**	**$ 100,672**

See accompanying notes to the condensed interim consolidated financial statements.

PERPETUAL ENERGY INC.
Condensed Interim Consolidated Statements of Cash Flows

(*Cdn$ thousands, unaudited*)	Three months ended June 30, **2020**	Three months ended June 30, 2019	Six months ended June 30, **2020**	Six months ended June 30, 2019
Cash flows from (used in) operating activities				
Net loss	**$ (8,831)**	$ (36,276)	**$ (68,549)**	$ (41,168)
Adjustments to add (deduct) non-cash items:				
Depletion and depreciation (note 4 and 6)	**2,901**	8,171	**9,180**	16,730
Exploration and evaluation	**29**	61	**65**	61
Share-based payments (note 15)	**135**	616	**315**	1,324
Unrealized change in fair value of derivatives (note 18)	**1,611**	1,791	**(10,532)**	9,342
Change in fair value of TOU share investment (note 3)	**–**	6,561	**904**	497
Finance expense (note 17)	**979**	415	**1,544**	1,310
Impairments (note 4b and note 5)	**–**	22,600	**60,500**	22,600
Oil and natural gas revenue in-kind (note 11)	**(650)**	–	**(650)**	–
Decommissioning obligations settled (note 13a)	**(3)**	(360)	**(177)**	(666)
Payments of restructuring costs (note 13b)	**(331)**	–	**(809)**	–
Change in non-cash working capital	**1,383**	716	**2,318**	3,557
Net cash flows from (used in) operating activities	**(2,777)**	4,295	**(5,891)**	13,587
Cash flows from (used in) financing activities				
Change in revolving bank debt, net of issue costs	**(28,163)**	(1,835)	**(36,627)**	(4,866)
Change in TOU share margin demand loan, net of issue costs	**–**	(585)	**(100)**	(629)
Change in senior notes, net of issue costs	**–**	(36)	**–**	(36)
Net proceeds on dispositions (note 4a and note 11)	**6,996**	–	**6,996**	–
Payments of lease liabilities (note 12)	**(145)**	(110)	**(268)**	(217)
Payments of gas over bitumen royalty financing (note 11)	**(152)**	(290)	**(356)**	(685)
Shares purchased and held in trust (note 14b)	**–**	(50)	**–**	(150)
Net cash flows used in financing activities	**(21,464)**	(2,906)	**(30,355)**	(6,583)
Cash flows from (used in) investing activities				
Capital expenditures	**11**	(5,200)	**(5,222)**	(6,438)
Acquisitions	**(89)**	–	**(89)**	–
Net proceeds on dispositions (note 4a)	**27,754**	–	**27,754**	–
Proceeds on sale of TOU share investment (note 3)	**–**	–	**14,316**	–
Change in non-cash working capital	**(3,435)**	3,811	**(513)**	(566)
Net cash flows from (used in) investing activities	**24,241**	(1,389)	**36,246**	(7,004)
Change in cash and cash equivalents	**–**	–	**–**	–
Cash and cash equivalents, beginning of period	**–**	–	**–**	–
Cash and cash equivalents, end of period	**$ –**	$ –	**$ –**	$ –

See accompanying notes to the condensed interim consolidated financial statements.

1. REPORTING ENTITY

Perpetual Energy Inc. ("Perpetual" or the "Company") is a Canadian corporation engaged in the exploration, development and marketing of oil and natural gas based energy in Alberta, Canada. The Company owns a diversified asset portfolio that includes liquids-rich natural gas, shallow natural gas and conventional heavy oil producing properties, as well as undeveloped bitumen resource properties.

The address of the Company's registered office is 3200, 605 – 5 Avenue S.W., Calgary, Alberta, T2P 3H5.

The condensed interim consolidated financial statements of the Company as at and for the three and six months ended June 30, 2020 are comprised of the accounts of Perpetual Energy Inc. and its wholly owned subsidiaries: Perpetual Operating Corp. and Perpetual Operating Trust, which are incorporated in Canada.

Future operations

Perpetual has a first lien, reserve-based credit facility (the "Credit Facility") (note 8). On December 24, 2019, Perpetual's syndicate of lenders completed their semi-annual borrowing base redetermination, reducing the Credit Facility borrowing limit (the "Borrowing Limit") from $55 million to $45 million effective January 22, 2020.

In January 2020, the Company sold its remaining 1,000,000 TOU shares for net cash proceeds of $14.3 million (the "TOU Share Proceeds"). Net proceeds were used to repay the outstanding TOU share margin demand loan of $0.1 million, with the balance used to repay a portion of the Credit Facility. On April 1, 2020, the Company sold a 50% working interest in its East Edson property in West Central Alberta to a third party (the "Purchaser") 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") (note 4a). Net proceeds were used to repay a portion of the Credit Facility. Effective April 1, 2020, Perpetual's syndicate of Credit Facility lenders completed their borrowing base redetermination, incorporating the impact of the East Edson Transaction. The Borrowing Limit was reduced from $45 million to $20 million, with the next Borrowing Limit redetermination scheduled on or prior to July 31, 2020. The July 31, 2020 redetermination date has been extended to August 10, 2020 to provide the lenders additional time to complete their review. If not extended, the Credit Facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020. The further extension of the Credit Facility repayment term is dependent on the Company's ability to repay or extend the term of the $45 million second lien term loan (the "Term Loan") that matures and requires repayment on March 14, 2021 (note 9). The Company also has $33.6 million of unsecured senior notes that mature on January 23, 2022 (note 10). Although the TOU Share Proceeds and the East Edson Transaction cash consideration have reduced the Company's revolving bank debt borrowed under its Credit Facility, the Company remains dependent on the support of its lenders to the Credit Facility which has a current maturity of November 30, 2020, in addition to the $45 million Term Loan maturing on March 14, 2021.

During the six months ended June 30, 2020, there was a dramatic decline in oil, natural gas, and natural gas liquids ("NGL") prices due to local and global supply and demand imbalances and the COVID-19 pandemic. This contributed to a net working capital deficiency (accounts payable and accrued liabilities, less accounts receivable and prepaid expenses and deposits) of $8.9 million as at June 30, 2020 and a $5.9 million use of cash from operations for the six months then ended, with a forecasted use of cash in operations expected to continue for the next twelve-month period and potentially beyond. The Company will require additional financing to fund the net working capital deficiency and future operations, 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. Perpetual is considering options including the sale or monetization of additional assets, the extension of existing debt maturity dates, or alternative financing.

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 (note 7) 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 meets 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.

These 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.

2. BASIS OF PREPARATION

These condensed interim consolidated financial statements have been prepared in accordance with IAS 34 Interim Financial Reporting and do not include all of the information required for full annual financial statements. These condensed interim consolidated financial statements should be read in conjunction with the Company's consolidated financial statements as at and for the year ended December 31, 2019 which were prepared in conformity with IFRS as issued by the International Accounting Standards Board ("IASB").

Except for the changes described below, the accounting policies, basis of measurement, critical accounting judgements and significant estimates used to prepare the annual consolidated financial statements as at and for the year ended December 31, 2019 have been applied in the preparation of these condensed interim consolidated financial statements.

These condensed interim consolidated financial statements of the Company were approved and authorized for issue by the Board of Directors on July 31, 2020.

Government grants

Government grants are recognized when there is reasonable assurance that the grant will be received, and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as an expense reduction in the period in which the costs are incurred. Where the grant relates to an asset, it is recognized as a reduction to the net book value of the related asset and then subsequently in net loss over the expected useful life of the related asset through lower charges to depletion, depreciation and impairment. During the three months ended June 30, 2020, the Company received government grants of $0.5 million through the Canada Emergency Wage Subsidy ("CEWS"). The grants were recognized as a reduction to general and administrative and production and operating expenses of $0.4 million and $0.1 million, respectively (Q2 2019 – nil).

3. TOURMALINE OIL CORP. SHARE INVESTMENT

	June 30, 2020		December 31, 2019	
	Shares *(thousands)*	**Amount *($thousands)***	Shares *(thousands)*	Amount *($thousands)*
Balance, beginning of period	**1,000**	**$ 15,220**	1,656	$ 28,132
Sold	**(1,000)**	**(14,316)**	(656)	(9,705)
Change in fair value of TOU share investment	**–**	**(904)**	–	(3,207)
Balance, end of period	**–**	**$ –**	1,000	$ 15,220

During the three months ended March 31, 2020, the Company sold the remaining 1,000,000 TOU shares at a weighted average price of $14.32 per share for net cash proceeds of $14.3 million. Proceeds were used to repay the $0.1 million TOU share margin demand loan in full and to pay down a portion of the revolving bank debt (note 8). Net loss for the six months ended June 30, 2020 included an unrealized loss of $0.9 million (2019 – unrealized loss of $0.5 million) representing the change in fair value of TOU shares held during the period.

4. PROPERTY, PLANT AND EQUIPMENT ("PP&E")

	Oil and Gas Properties	Corporate Assets	Total
Cost			
December 31, 2018	$ 719,201	$ 7,614	$ 726,815
Additions	12,201	74	12,275
Change in decommissioning obligations related to PP&E (note 13a)	(1,211)	–	(1,211)
Transfers from exploration and evaluation (note 5)	1,335	–	1,335
December 31, 2019	$ 731,526	$ 7,688	$ 739,214
Additions	5,169	(38)	5,131
Drilling program rights (a)	18,000	–	18,000
Acquisitions	89	–	89
Change in decommissioning obligations related to PP&E (note 13a)	2,017	–	2,017
Transfers from exploration and evaluation (note 5)	252	–	252
Dispositions (a)	(193,672)	–	(193,672)
June 30, 2020	**$ 563,381**	**$ 7,650**	**$ 571,031**
Accumulated depletion, depreciation and impairment			
December 31, 2018	$ (459,469)	$ (7,255)	$ (466,724)
Depletion and depreciation	(30,628)	(176)	(30,804)
Impairment (b)	(47,052)	–	(47,052)
December 31, 2019	$ (537,149)	$ (7,431)	$ (544,580)
Depletion and depreciation	(8,893)	(62)	(8,955)
Impairment (b)	(50,300)	–	(50,300)
Dispositions (a)	143,316	–	143,316
June 30, 2020	**$ (453,026)**	**$ (7,493)**	**$ (460,519)**
Carrying amount			
December 31, 2019	$ 194,377	$ 257	$ 194,634
June 30, 2020	**$ 110,355**	**$ 157**	**$ 110,512**

At June 30, 2020, PP&E included $1.6 million (December 31, 2019 – $1.9 million) of costs currently not subject to depletion. As at June 30, 2020, $18.0 million of drilling program rights are included in oil and gas properties and have been subject to depletion. No wells had been drilled by the Purchaser (a).

a) Dispositions

On April 1, 2020, the Company sold a 50% working interest in its East Edson property in West Central Alberta to the Purchaser. The consideration received, and calculation of the gain (loss) recorded on disposition is summarized below:

($ thousands)	
Cash proceeds from disposition (i)	**34,750**
Drilling program rights received (ii)	**18,000**
Retained East Edson royalty obligation (iii)	**(6,996)**
Carrying amount of assets held for sale disposed (iv)	**(52,803)**
Carrying amount of decommissioning obligations held for sale disposed (v)	**7,049**
Gain (loss) on disposition	**–**

a) Cash proceeds from disposition — $35.0 million of cash received on closing, net of $0.2 million transaction costs and closing adjustments. In order to reflect the nature of the proceeds received, cash proceeds from disposition have been allocated on the condensed interim consolidated statements of cash flows to financing and investing activities in the amount of $7.0 million and $27.8 million, respectively.

b) Drilling program rights received — $18.0 million of drilling program rights, comprised of the carried interest funding of the drill, complete, and tie-in costs for an eight-well drilling program. A minimum of two horizontal wells targeting development of the Wilrich formation are required to be completed and tied-in commencing in the third quarter of 2020. The Purchaser is required to fulfill its entire commitment by April 1, 2022 and will be obligated to pay Perpetual $2.25 million for each commitment well not completed and tied-in by this time.

c)	Retained East Edson royalty obligation	$7.0 million that Perpetual will retain until December 31, 2022 on behalf of the Purchaser, comprising the Purchaser's 50% working interest in the existing gross overriding royalty on the East Edson property equivalent to 2.8 MMcf/d of natural gas and associated NGL production (note 11).
d)	Carrying amount of assets held for sale disposed	$52.8 million of oil and gas properties ($50.4 million) and exploration and evaluation assets ($2.4 million).
e)	Carrying amount of decommissioning obligations held for sale disposed	$7.0 million of decommissioning obligations associated with oil and gas properties disposed.

b) Cash-generating units ("CGUs") and impairment

In accordance with IFRS, an impairment test is performed if the Company identifies an indicator of impairment. For the three months ended June 30, 2020, the Company conducted an assessment of impairment indicators for the Company's CGUs. There were no triggers identified and therefore, no impairments or impairment reversals recognized during the second quarter of 2020.

In the first quarter of 2020, the Company also conducted an assessment of impairment indicators for the Company's CGUs. In performing the review, management determined that the significant decline in global oil and natural gas prices, coupled with the considerable economic instability and uncertainty in the oil and natural gas industry which negatively impacts operating cash flows, justified calculation of the recoverable amount of the liquids-rich natural gas assets and heavy oil assets which comprise the West Central CGU and Eastern Alberta CGU, respectively. The recoverable amounts of the CGUs were determined using value-in-use ("VIU") based on the net present value of cash flows from natural gas, oil, and NGL reserves using estimates of total proved plus probable reserves evaluated or reviewed by the Company's independent reserves evaluators and updated internally by management, along with commodity price estimates based on an average of three independent reserve evaluators, and an estimate of market discount rates between 12% and 25% to consider risks specific to the asset.

At March 31, 2020, the Company determined that the carrying amounts of the West Central CGU and Eastern Alberta CGU exceeded the estimated recoverable amounts of $66.3 million and $26.4 million, respectively. Accordingly, a non-cash impairment charge of $50.3 million was included in net loss.

Commodity price estimates based on an average of three independent reserve evaluators were used in the VIU calculations as at March 31, 2020:

Year	WTI Crude Oil *(US$/bbl)*	USD/CDN exchange rate *(US$/Cdn$)*	Alberta Heavy Crude Oil *(Cdn$/bbl)*	AECO Gas *(Cdn$/MMBtu)*	NYMEX Gas *(Cdn$/MMBtu)*
2020	33.64	0.715	18.15	1.84	2.76
2021	40.45	0.728	30.21	2.20	3.40
2022	49.17	0.745	41.00	2.38	3.59
2023	53.28	0.747	45.58	2.45	3.67
2024	55.66	0.748	48.55	2.53	3.76
2025	56.87	0.750	50.00	2.60	3.86
2026	58.01	0.750	51.17	2.66	3.94
2027	59.17	0.750	52.36	2.72	4.01
2028	60.35	0.750	53.57	2.79	4.09
2029	61.56	0.750	54.80	2.85	4.19
2030	62.79	0.750	55.90	2.91	4.27
2031	64.05	0.750	57.02	2.97	4.36
2032	65.33	0.750	58.16	3.03	4.44
2033	66.63	0.750	59.32	3.09	4.53
2034[1]	67.97	0.750	60.51	3.15	4.62

[1] Commodity price estimates escalate 2.0% per year thereafter.

As at March 31, 2020, if discount rates used in the calculation of impairment changed by 1% with all other variables held constant, the impairment loss for the West Central CGU and Eastern Alberta CGU would change by approximately $3.6 million and $0.9 million, respectively. As at March 31, 2020, if commodity price estimates changed by 5% with all other variables held constant, the impairment loss for the West Central CGU and Eastern Alberta CGU would change by approximately $8.7 million and $4.8 million, respectively.

5. EXPLORATION AND EVALUATION ("E&E")

	June 30, 2020	December 31, 2019
Balance, beginning of period	**$ 23,609**	$ 25,879
Additions	**91**	664
Impairment	**(10,200)**	–
Non-cash exploration and evaluation expense	**(65)**	(1,599)
Transfers to PP&E	**(252)**	(1,335)
Dispositions (note 4a)	**(2,447)**	–
Balance, end of period	**$ 10,736**	$ 23,609

During the six months ended June 30, 2020, $0.1 million (2019 – $0.1 million) in costs were charged directly to E&E expense in the consolidated statements of loss and comprehensive loss.

During the first quarter of 2020, the Company and its President and Chief Executive Officer ("CEO") acquired undeveloped lands from third parties in its Eastern Alberta core area. The Company has the option, but not the obligation, to acquire the CEO's interest in the acquired lands for a pre-determined amount, prior to July 1, 2021.

Impairment of E&E assets

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 PP&E.

For the three months ended June 30, 2020, the Company conducted an assessment of impairment indicators for the Company's E&E assets. There were no triggers identified and therefore, no impairments or impairment reversals recognized during the second quarter of 2020.

In the first quarter of 2020, management determined that the significant decline in global oil and natural gas prices, coupled with the considerable economic instability and uncertainty in the oil and natural gas industry, justified calculation of the recoverable amount of certain undeveloped lands classified as E&E. As a result, the carrying value of the undeveloped lands was written down to the estimated recoverable amount, resulting in a non-cash impairment charge of $10.2 million (2019 – nil).

6. RIGHT-OF-USE ASSETS

The Company leases several assets including office space, vehicles, and miscellaneous other assets. Information about leases for which the Company is a lessee is presented below:

	Head office	Vehicles	Other leases	Total
Cost				
January 1, 2019	$ 1,498	$ 200	$ 161	$ 1,859
Additions	–	–	–	–
December 31, 2019	$ 1,498	$ 200	$ 161	$ 1,859
Additions	93	189	–	282
June 30, 2020	**1,591**	**389**	**161**	**2,141**
Accumulated depreciation				
January 1, 2019	$ –	$ –	$ –	$ –
Depreciation	(240)	(80)	(64)	(384)
December 31, 2019	(240)	(80)	(64)	(384)
Depreciation	(129)	(64)	(32)	(225)
June 30, 2020	**$ (369)**	**$ (144)**	**$ (96)**	**$ (609)**
Carrying amount				
December 31, 2019	$ 1,258	$ 120	$ 97	$ 1,475
June 30, 2020	**$ 1,222**	**$ 245**	**$ 65**	**$ 1,532**

7. CONTINGENCIES

On August 3, 2018, the Company received a Statement of Claim that was filed by PricewaterhouseCoopers Inc. LIT ("PwC"), in its capacity as trustee in bankruptcy of Sequoia Resources Corp. ("Sequoia"), with the Alberta Court of Queen's Bench (the "Court"), against Perpetual (the "Sequoia Litigation"). The claim relates to an over three-year-old transaction when, on October 1, 2016, Perpetual closed the disposition of shallow natural gas assets in Eastern Alberta to an arm's length third party at fair market value at the time after an extensive and lengthy marketing, due diligence and negotiation process. This transaction was one of several completed by Sequoia. Sequoia assigned itself into bankruptcy on March 23, 2018. PwC is seeking an order from the Court to either set this transaction aside or declare it void, or damages of approximately $217 million. On August 27, 2018, Perpetual filed a Statement of Defence and Application for Summary Dismissal with the Court in response to the Statement of Claim. All allegations made by PwC have been denied and an application to the Court to dismiss all claims has been made on the basis that there is no merit to any of them.

Perpetual's Application for Summary Dismissal was heard during the fourth quarter of 2018. On August 15, 2019 the Court issued its oral decision and on January 13, 2020 the Court issued its written decision which dismissed and struck all but one of the claims filed by PwC against Perpetual. Consistent with the position advanced from the outset by the Company, the Court ruled in favour of Perpetual and struck PwC's oppression claim and claim for relief on the grounds of public policy, statutory illegality and equitable rescission.

Despite referring several times to this transaction as one of "arm's length" in the decision, the Court did not find that the test for summary dismissal relating to whether the 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 can continue against Perpetual. On August 23, 2019, PwC filed a notice of appeal with the Court of Appeal of Alberta, contesting the entire August 15, 2019 oral decision. On August 26, 2019, Perpetual filed a notice of appeal with the Court of Appeal of Alberta, contesting the BIA claim portion of the oral decision. The appeal proceedings are scheduled to be heard in December of 2020.

On September 24, 2019, Perpetual filed an application for security for costs of the appeal. On January 28, 2020, the Court of Appeal issued its decision with respect to Perpetual's security for costs application, requiring PwC to post security with the Court of Appeal in the amount of $0.2 million. Applications filed by PwC to appeal the security for costs decision and alter the reasons for the decision were dismissed at a hearing held on June 18, 2020. Costs of $0.1 million were awarded by the Court of Appeal in favor of Perpetual on July 21, 2020.

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 transaction nor caused to be insolvent by the 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 will be permitted to intervene in the proceedings which will take place on October 1st and 2nd, 2020.

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 these financial statements.

8. REVOLVING BANK DEBT

As at June 30, 2020, the Company's reserve-based Credit Facility had a Borrowing Limit of $20.0 million (December 31, 2019 – $55.0 million) under which $11.1 million was drawn (December 31, 2019 – $47.6 million) and $2.3 million of letters of credit had been issued (December 31, 2019 – $2.3 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 June 30, 2020 was 6.0%. For the period ended June 30, 2020, if interest rates changed by 1% with all other variables held constant, the impact on annual cash finance expense and net loss would be $0.1 million.

Effective April 1, 2020, Perpetual's syndicate of Credit Facility lenders completed their borrowing base redetermination, incorporating the impact of the East Edson Transaction. The Borrowing Limit was reduced from $45 million to $20 million, with the next Borrowing Limit redetermination scheduled on or prior to July 31, 2020. The July 31, 2020 redetermination date has been extended to August 10, 2020 to provide the lenders additional time to complete their review. If not extended, the Credit Facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020. As a result, revolving bank debt has been presented as a current liability on the condensed interim consolidated statements of financial position as at June 30, 2020. Previously, on December 24, 2019, Perpetual's syndicate of Credit Facility lenders completed their semi-annual borrowing base redetermination, reducing the Borrowing Limit from $55 million to $45 million on January 22, 2020.

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 second lien and unsecured debt and to pay dividends on or repurchase its common shares.

At June 30, 2020, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

9. TERM LOAN

			June 30, 2020		December 31, 2019	
	Maturity date	**Interest rate**	**Principal**	**Carrying Amount**	Principal	Carrying amount
Term loan	March 14, 2021	8.1%	**$ 45,000**	**$ 44,567**	$ 45,000	$ 44,274

The Term Loan bears a fixed interest rate of 8.1% with semi-annual interest payments due June 30 and December 31 of each year. Amounts borrowed under the Term Loan that are repaid are not available for re-borrowing. The Company may repay the Term Loan at any time without penalty. The Term Loan matures and is repayable on March 14, 2021 and has been presented as a current liability on the condensed interim consolidated statement of financial position as at June 30, 2020.

The Term Loan has a cross-default provision with the Credit Facility and contains substantially similar provisions and covenants as the Credit Facility (note 8). 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 June 30, 2020 the Term Loan is presented net of $0.4 million in issue costs which are amortized over the remaining term of the loan using a weighted average effective interest rate of 9.5%.

At June 30, 2020, the Term Loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

10. SENIOR NOTES

	Maturity date	Interest rate	June 30, 2020 Principal	June 30, 2020 Carrying Amount	December 31, 2019 Principal	December 31, 2019 Carrying amount
2022 Senior Notes	January 23, 2022	8.75%	**$ 33,580**	**$ 32,549**	$ 33,580	$ 32,255

The 2022 Senior Notes bear a fixed interest rate of 8.75% with semi-annual interest payments due January 23 and July 23 of each year. The senior notes are direct senior unsecured obligations of the Company, ranking pari passu with all other present and future unsecured and unsubordinated indebtedness of the Company. Prior to January 23, 2021, the Company may redeem up to 100% of the senior notes at 103.3% of the principal amount. Subsequent to January 23, 2021, the Company may redeem up to 100% of the senior notes at the principal amount.

At June 30, 2020, the 2022 Senior Notes are recorded at the present value of future cash flows, net of $1.0 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 10.9%.

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 June 30, 2020, other than the restricted payment covenants noted above, the senior notes were not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

Entities controlled by the Company's CEO hold $14.6 million of the 2022 Senior Notes outstanding. An entity that is associated with the Company's CEO holds an additional $9.1 million of the 2022 Senior Notes outstanding.

11. ROYALTY OBLIGATIONS

	Retained East Edson royalty obligation	Gas over bitumen royalty financing	Total
December 31, 2018	–	1,152	1,152
Cash payments	–	(1,013)	(1,013)
Change in fair value	–	732	732
December 31, 2019	–	871	871
Initial recognition (note 4a)	6,996	–	6,996
Cash payments	–	(356)	(356)
Non-cash payments in-kind	(650)	–	(650)
Change in fair value (note 17)	382	154	536
June 30, 2020	**6,728**	**669**	**7,397**

	June 30, 2020	December 31, 2019
Current	**$ 3,514**	$ 582
Non-current	**3,883**	289
Total royalty obligations	**$ 7,397**	$ 871

The retained East Edson royalty obligation of $7.0 million formed part of the net consideration received by Perpetual from the East Edson Transaction whereby 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 natural gas and associated NGL production for the period April 1, 2020 to December 31, 2022. The retained East Edson royalty obligation is paid in-kind, and settled through non-cash delivery of contractual natural gas and NGL volumes to the royalty holder (note 16).

The Company has designated the retained East Edson royalty obligation and the gas over bitumen royalty financing as financial liabilities which are measured at fair value through profit and loss, estimated by discounting future royalty obligations based on forecasted natural gas and NGL prices multiplied by the royalty obligation volumes. For the six months ended June 30, 2020, an unrealized loss of $0.5 million (2019 – loss of $0.4 million) is included in non-cash finance expense related to the change in fair value of total royalty obligations (note 17).

As at June 30, 2020, if future natural gas prices changed by $0.25 per GJ with all other variables held constant, the fair value of the total royalty obligations and net loss for the period would change by $0.8 million.

12. LEASE LIABILITIES

	Total
January 1, 2019, lease liabilities recognized on adoption of IFRS 16	3,126
Additions	–
Interest on lease liabilities	189
Payments	(630)
December 31, 2019	2,685
Additions	282
Interest on lease liabilities (note 17)	90
Payments	(358)
June 30, 2020	**2,699**

	June 30, 2020	December 31, 2019
Current	**$ 732**	$ 633
Non-current	**1,967**	2,052
Total lease liabilities	**$ 2,699**	$ 2,685

Lease terms are negotiated on an individual basis and contain a wide range of terms and conditions. Incremental borrowing rates used to measure the present value of the future lease payments at June 30, 2020 were between 4.3% and 6.6% (2019 – 4.3% and 6.6%).

13. PROVISIONS

The components of provisions are as follows:

	June 30, 2020	December 31, 2019
Decommissioning obligations (a)	**$ 32,962**	$ 37,905
Restructuring costs (b)	**127**	936
Total provisions	**$ 33,089**	$ 38,841
Current	**$ 770**	$ 2,382
Non-current	**32,319**	36,459
Total provisions	**$ 33,089**	$ 38,841

a) Decommissioning obligations

The following table summarizes changes in decommissioning obligations:

	June 30, 2020	December 31, 2019
Obligations incurred, including acquisitions	**$ 232**	$ 327
Change in risk free interest rate	**1,785**	(1,900)
Change in estimates	**–**	362
Change in decommissioning obligations related to PP&E (note 4)	**2,017**	(1,211)
Obligations settled	**(177)**	(1,733)
Obligations disposed (note 4a)	**(7,049)**	–
Accretion (note 17)	**266**	752
Change in decommissioning obligations	**(4,943)**	(2,192)
Balance, beginning of period	**37,905**	40,097
Balance, end of period	**$ 32,962**	$ 37,905
Decommissioning obligations – current	**$ 643**	$ 1,446
Decommissioning obligations – non-current	**32,319**	36,459
Total decommissioning obligations	**$ 32,962**	$ 37,905

Total future decommissioning obligations are estimated based on the Company's net ownership interest in all wells and facilities, estimated costs to reclaim and abandon these wells and facilities, and the estimated timing of the costs to be incurred in future periods.

The Company adjusts the decommissioning obligations at each period end date for changes in the risk-free interest rate. Accretion is calculated on the adjusted balance after considering additions and dispositions to PP&E. Decommissioning obligations are also adjusted for revisions to future cost estimates and the estimated timing of costs to be incurred in future years.

The following significant assumptions were used to estimate the Company's decommissioning obligations:

	June 30, 2020	December 31, 2019
Undiscounted obligations	**$ 32,868**	$ 40,304
Average risk-free rate	**1.0%**	1.8%
Inflation rate	**1.0%**	1.3%
Expected timing of settling obligations	**1 to 25 years**	1 to 25 years

b) Restructuring costs

	Employee downsizing costs	Lease inducement	Total
December 31, 2018	–	1,267	1,267
Lease inducement transferred to lease liability	–	(1,267)	(1,267)
Initial recognition	1,546	–	1,546
Payments	(610)	–	(610)
December 31, 2019	936	–	936
Payments	(809)	–	(809)
June 30, 2020, current	**127**	**–**	**127**

In response to the decrease in forward commodity prices, the Company implemented a restructuring plan in the third quarter of 2019, which resulted in the reduction of approximately 25% of its corporate employee head count. Restructuring costs of $1.5 million were expensed in 2019 in the consolidated statements of loss and comprehensive loss, and are anticipated to be fully paid by the end of 2020. Payments made during the three and six month periods ended June 30, 2020 with respect to restructuring costs were $0.3 million and $0.8 million, respectively.

14. SHARE CAPITAL

	June 30, 2020		December 31, 2019	
	Shares *(thousands)*	**Amount *($thousands)***	Shares *(thousands)*	Amount *($thousands)*
Balance, beginning of period	**60,513**	**$ 96,876**	60,240	$ 1,338,369
Issued pursuant to share-based payment plans	**177**	**331**	412	690
Shares held in trust purchases (b)	**–**	**–**	(756)	(200)
Shares held in trust issued (b)	**204**	**98**	617	359
Elimination of deficit	**–**	**–**	–	(1,242,342)
Balance, end of period	**60,894**	**$ 97,305**	60,513	$ 96,876

At the Company's annual general meeting on May 15, 2019, shareholders approved a resolution to reduce share capital for accounting purposes, without the payment of or a reduction to stated or paid-up capital, by the amount of the deficit on December 31, 2018 of $1,242.3 million.

a) Authorized

Authorized capital consists of an unlimited number of common shares.

b) Shares held in trust

The Company has compensation agreements in place with employees whereby they may be entitled to receive shares of the Company purchased on the open market by a trustee (note 15). Share capital is presented net of the number and cumulative purchase cost of shares held by the trustee that have not yet been issued to employees. As at June 30, 2020, 0.6 million shares were held in trust (December 31, 2019 – 0.8 million).

c) Warrants

The following table summarizes the warrants issued:

	Warrants (*thousands*)	**Amount (*$thousands*)**
Balance, December 31, 2018	6,480	$ 923
Exercised for common shares	–	–
Balance, December 31, 2019	6,480	$ 923
Exercised for common shares	–	–
Expired	(6,480)	(923)
Balance, June 30, 2020	**–**	**$ –**

On March 14, 2020, the warrants expired unexercised. The value associated to the warrants was transferred to contributed surplus.

d) Per share information

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
(thousands, except per share amounts)				
Net loss – basic	**$ (8,831)**	$ (36,276)	**$ (68,549)**	$ (41,168)
Effect of dilutive securities	**–**	–	**–**	–
Net loss – diluted	**$ (8,831)**	$ (36,276)	**$ (68,549)**	$ (41,168)
Weighted average shares				
Issued common shares	**61,372**	61,005	**61,343**	60,958
Effect of shares held in trust	**(596)**	(851)	**(618)**	(825)
Weighted average common shares outstanding – basic and diluted	**60,776**	60,154	**60,725**	60,133
Net loss per share – basic and diluted	**$ (0.15)**	$ (0.60)	**$ (1.13)**	$ (0.68)

In computing per share amounts as at June 30, 2020, 16.9 million potentially issuable common shares through the share-based compensation plans were excluded as the Company had a net loss.

15. SHARE-BASED PAYMENTS

The components of share-based payments are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Compensation awards	**35**	144	**79**	287
Share options	**70**	136	**156**	293
Performance share rights	**391**	336	**802**	744
Share-based payments	**496**	616	**1,037**	1,324

The following tables summarize information about options, rights, and awards outstanding:

	Compensation awards				
(thousands)	**Deferred options**	**Deferred shares**	**Share options**	**Performance share rights[1][2]**	**Restricted rights**
December 31, 2018	4,165	1,947	4,724	1,465	–
Granted	–	253	–	1,710	423
Exercised for common shares	–	–	–	–	(423)
Exercised for shares held in trust	–	(617)	–	–	–
Exercised for restricted rights	–	(208)	–	(215)	–
Performance adjustment	–	–	–	(215)	–
Cancelled/forfeited	(577)	(99)	(120)	–	–
Expired	(1)	–	–	–	–
December 31, 2019	3,587	1,276	4,604	2,745	–
Granted[3]	2,250	1,204	873	1,710	517
Exercised for common shares	–	–	–	–	(177)
Exercised for shares held in trust	–	(204)	–	–	–
Exercised for restricted rights	–	–	–	(517)	–
Performance adjustment	–	–	–	(518)	–
Cancelled/forfeited	(410)	(60)	–	–	–
Expired	(1)	–	–	–	–
June 30, 2020	**5,426**	**2,216**	**5,477**	**3,420**	**340**

(1) Certain performance share rights contain monetary awards that may be settled in cash, in common shares of the Company, or a combination thereof at the discretion of the Board of Directors, equal to the monetary amount at the time of vesting. These awards are accounted for as cash-settled share-based compensation in which the fair value of the amounts payable under the plan are recognized incrementally as an expense over the vesting period, with a corresponding change in liabilities. As at June 30, 2020, $1.1 million had been accrued pursuant to cash-settled share-based compensation awards (December 31, 2019 – $0.4 million).

(2) In 2020, vested performance share rights were exercised in exchange for restricted rights based on a performance multiplier of 0.5 (2019 – 0.5).

(3) Deferred options and share options granted during the three months ended June 30, 2020 have an exercise price of $0.07 per award and vest evenly over four years, with expiry occurring five years after issuance. Forfeiture rates used to value the deferred options and share options were estimated at 10% and 5%, respectively. The Company used the Black Scholes pricing model to calculate the estimated fair value of the awards at the date of grant. The estimated fair value of deferred options and share options granted during the three months ended June 30, 2020 was $0.03 per award.

During the six months ended June 30, 2020, the Company granted 6.0 million deferred options, deferred shares, share options, and performance share rights (2019 – nil).

During the six months ended June 30, 2020, 0.5 million restricted rights were issued in exchange for the exercise of performance share rights (2019 – 0.2 million) and no restricted rights were issued in exchange for the exercise of deferred shares (2019 – 0.1 million).

16. REVENUE

The Company sells its production pursuant to fixed or variable price contracts. The transaction price for variable priced contracts is based on the commodity price, adjusted for quality, location or other factors, whereby each component of the pricing formula can be either fixed or variable, depending on the contract terms. Under the contracts, the Company is required to deliver fixed or variable volumes of natural gas, crude oil or NGL as may be applicable to the contract counterparty. Revenue is recognized when a unit of production is delivered to the contract counterparty. The amount of revenue recognized is based on the agreed transaction price, whereby any variability in revenue relates specifically to the Company's efforts to transfer production, and therefore the resulting revenue is allocated to the production delivered in the period during which the variability occurs. As a result, none of the variable revenue is considered constrained.

Natural gas, crude oil and NGL are mostly sold under contracts of varying price and volume terms of up to one year. Revenues are typically collected on the 25th day of the month following production.

Natural gas volumes sold pursuant to the Company's market diversification contract are sold at fixed volume obligations and priced at daily index prices plus US$0.0175/MMBtu until October 31, 2022 and less US$0.0775/MMBtu thereafter, less transportation costs from AECO to each market price point as detailed below.

Market/Pricing Point	**November 1, 2020 to October 31, 2022 Daily sales volume (*MMBtu/d*)**	**November 1, 2022 to October 31, 2024 Daily sales volume (*MMBtu/d*)**
Chicago	12,200	–
Malin	10,800	15,000
Dawn	8,000	15,000
Michcon	5,200	–
Empress	3,800	–
Emerson	–	10,000
Total natural gas sales volume obligation	**40,000**	**40,000**

The following table presents the Company's oil and natural gas sales disaggregated by revenue source:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Oil and natural gas revenue				
Natural gas[(1)(2)]	**2,060**	8,968	**7,382**	**23,856**
Oil	**1,212**	6,733	**4,230**	**11,771**
NGL	**450**	3,534	**2,607**	**5,807**
Total oil and natural gas revenue	**3,722**	19,235	**14,219**	**41,434**

(1) Includes revenues related to the market diversification contract of nil for the three and six months ended June 30, 2020 (Q2 2019 – $7.4 million; 2019 - $19.1 million). Also included are losses related to physical forward sales contracts which settled during of the period of $1.2 million for the three months ended June 30, 2020 (Q2 2019 – gains of $0.7 million) and losses of $2.8 million for the six months ended June 30, 2020 (2019 – gains of $0.9 million).

(2) Commencing April 1, 2020, natural gas revenue includes non-cash revenue related to production used in the settlement of the retained East Edson royalty obligation (Q2 2020 – $0.7 million; Q2 2019 – nil).

Included in accounts receivable at June 30, 2020 is $1.5 million of accrued oil and natural gas revenue related to June 2020 production (December 31, 2019 – $4.5 million related to December 2019 production).

17. FINANCE EXPENSE

The components of finance expense are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Cash finance expense				
Interest on revolving bank debt	**220**	657	**1,099**	1,340
Interest on TOU share margin demand loan	**–**	115	**–**	236
Interest on term loan	**902**	887	**1,813**	1,798
Interest on senior notes	**735**	741	**1,470**	1,452
Interest on lease liabilities (note 12)	**45**	48	**90**	98
Dividend income from TOU share investment	**–**	(198)	**–**	(364)
Total cash finance expense	**1,902**	2,250	**4,472**	4,560
Non-cash finance expense				
Amortization of debt issue costs	**395**	266	**742**	538
Accretion on decommissioning obligations (note 13a)	**100**	196	**266**	411
Change in fair value of royalty obligations (note 11)	**484**	(47)	**536**	361
Total non-cash finance expense	**979**	415	**1,544**	1,310
Finance expense recognized in net loss	**2,881**	2,665	**6,016**	5,870

18. FINANCIAL RISK MANAGEMENT

Perpetual's net loss for the six months ended June 30, 2020 included a realized loss on derivatives of $0.4 million (2019 – realized gain of $1.0 million).

Natural gas contracts

At June 30, 2020, the Company had entered into various fixed price AECO-NYMEX basis arrangements for the remainder of 2020 and 2021 that have been substantially offset by similar arrangements having an aggregate fair value loss of $8.5 million.

Oil contracts

At June 30, 2020, the Company had entered into various fixed price WTI and WCS arrangements and WTI-WCS differential arrangements for the remainder of 2020 that have been substantially offset by similar arrangements having an aggregate fair value gain of $6.5 million.

At June 30, 2020, the Company had entered into the following additional WTI-WCS differential arrangements which have not been substantially offset by similar arrangements:

Term	Volumes (*bbls/d*)	WTI-WCS differential (*US$/bbl*)	Fair Value (*$ thousands*)
July 2020 – December 2020	500	(19.75)	(675)
July 2020 – October 2020	100	(17.65)	(73)

Oil contracts - sensitivity analysis

As at June 30, 2020, if future WTI-WCS differential oil prices changed by US$5.00 per boe with all other variables held constant, the fair value of derivatives and net loss for the period would change by $0.7 million.

The following table is a summary of the fair value of the Company's derivative contracts by type:

	June 30, 2020	December 31, 2019
Physical natural gas contracts	**$ (5,711)**	$ (6,294)
Financial natural gas contracts	**(2,782)**	(4,302)
Financial oil contracts	**5,755**	(2,253)
Financial NGL contracts	**–**	(351)
Financial foreign exchange contracts	**(4)**	(74)
Fair value of derivatives	**$ (2,742)**	$ (13,274)
Derivative assets – current	**6,393**	–
Derivative liabilities – current	**(7,454)**	(10,542)
Derivative liabilities – non-current	**(1,681)**	(2,732)
Fair value of derivatives	**$ (2,742)**	$ (13,274)

The following table details the Company's changes in fair value of derivatives:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	**2020**	2019
Unrealized gain (loss) on physical natural gas contracts	**862**	(2,203)	**583**	(4,968)
Unrealized gain (loss) on financial natural gas contracts	**1,413**	(1,917)	**1,520**	(4,673)
Unrealized gain (loss) on financial oil contracts	**(3,800)**	1,671	**8,008**	(1,831)
Unrealized gain (loss) on financial NGL contracts	**(116)**	(28)	**351**	(28)
Unrealized gain (loss) on financial foreign exchange contracts	**30**	686	**70**	2,158
Unrealized change in fair value of derivatives	**(1,611)**	(1,791)	**10,532**	(9,342)
Realized gain (loss) on financial natural gas contracts	**(1,622)**	252	**(3,427)**	1,547
Realized gain (loss) on financial oil contracts	**2,325**	(1,242)	**3,611**	(2,132)
Realized gain (loss) on financial NGL contracts	**(28)**	(9)	**(171)**	(9)
Realized gain (loss) on financial foreign exchange contracts	**(14)**	(111)	**(402)**	(374)
Change in fair value of derivatives	**(950)**	(2,901)	**10,143**	(10,310)

Fair value of financial assets and liabilities

The Company's fair value measurements are classified as one of the following levels of the fair value hierarchy:

Level 1 – inputs represent unadjusted quoted prices in active markets for identical assets and liabilities. An active market is characterized by a high volume of transactions that provides pricing information on an ongoing basis.

Level 2 – inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These valuations are based on inputs that can be observed or corroborated in the marketplace, such as market interest rates or forward prices for commodities.

Level 3 – inputs for the asset or liability are not based on observable market data.

The Company aims to maximize the use of observable inputs when preparing calculations of fair value. Classification of each measurement into the fair value hierarchy is based on the lowest level of input that is significant to the fair value calculation.

The fair value of cash and cash equivalents, accounts receivable, and accounts payable and accrued liabilities approximate their carrying amounts due to their short terms to maturity. Revolving bank debt and the TOU share margin demand loan bear interest at a floating market rate, and accordingly, the fair market value approximates the carrying amount.

The fair value of the gas over bitumen royalty financing is estimated by discounting future cash payments based on the forecasted Alberta gas reference price multiplied by the contracted deemed volume. This fair value measurement is classified as level 3 as significant unobservable inputs, including the discount rate and forecasted Alberta gas reference prices, are used in determination of the carrying amount. The discount rate of 12.2% was determined on inception of the agreement based on the characteristics of the instrument. The forecasted Alberta gas reference prices for the remaining term are based on AECO forward market pricing with adjustments for historical differences between the Alberta reference price and market prices.

The fair value of the retained East Edson royalty obligation is estimated by discounting future royalties based on forecasted natural gas and NGL prices multiplied by the royalty volumes. This fair value measurement is classified as level 3 as significant unobservable inputs, including the discount rate and forecasted prices, are used in determination of the carrying amount. The discount rate of 12.0% was determined on inception of the agreement based on the characteristics of the instrument.

The fair value of financial assets and liabilities, excluding working capital, is attributable to the following fair value hierarchy levels:

				Fair value		
As at June 30, 2020	**Gross**	**Netting[1]**	**Carrying Amount**	**Level 1**	**Level 2**	**Level 3**
Financial assets						
Fair value through profit and loss						
Fail value of derivatives	19,264	(12,871)	6,393	–	6,393	–
Financial liabilities						
Financial liabilities at amortized cost						
Revolving bank debt	(11,080)	–	(11,080)	(11,242)	–	–
Senior notes	(32,549)	–	(32,549)	–	(20,148)	–
Term loan	(44,567)	–	(44,567)	–	–	(45,000)
Fair value through profit and loss						
Fair value of derivatives	(22,006)	12,871	(9,135)	–	(9,135)	–
Royalty obligations	(7,397)	–	(7,397)	–	–	(7,397)

(1) Derivative assets and liabilities presented in the statement of financial position are shown net of offsetting assets or liabilities where the arrangement provides for the legal right, and intention for net settlement exists.

Forward-Looking Information

Certain information regarding Perpetual in this report including management's assessment of future plans, operations, and certain of the information contained under the heading "2020 Outlook" in this report, may constitute forward-looking information or statements under applicable securities laws. The forward looking information includes, without limitation, the potential outcome of the Sequoia Litigation, the ability to extend the Credit Facility or to refinance its term debt on favorable terms, the use of cash proceeds from the East Edson Transaction including the repayment of bank debt and the funding of profitable investment in the Clearwater play in Eastern Alberta, the future recovery and stabilization of oil prices, any benefits to be derived from the East Edson Transaction including that the eight-well capital carry at East Edson will restore gross production levels to more fully utilize the existing processing capacity, improve operating netbacks and result in improved capital spending efficiency, the nature of the capital spending in 2020 at the 50% owned East Edson property, the deferral and suspension of oil capital expenditures in 2020 including heavy oil production and the anticipated timing of an oil price recovery and production restart, anticipated average 2020 sales volumes, the ability to minimize operating and corporate costs, abandonment and reclamation expenditure forecasts for 2020 and ability to decrease fixed operating costs associated with non-producing wells, anticipated amounts and allocation of capital spending; statements regarding estimated production and timing thereof; forecast average production; completions and development activities; prospective oil and natural gas liquids production capability; projected realized natural gas prices and adjusted funds flow; estimated decommissioning obligations; commodity prices and foreign exchange rates; and commodity price management.

Various assumptions were used in drawing the conclusions or making the forecasts and projections in the forward-looking information contained in this report, 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 the ongoing oil price war between Russia and Saudi Arabia and 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 report. In particular and without limitation of the foregoing, the recent outbreak of COVID-19 has had a negative impact on global financial conditions. Perpetual cannot accurately predict the impact COVID-19 will have on its ability to execute its business plans in response to government public health efforts to contain COVID-19 and to obtain financing 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, 2019 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). 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.

Non-GAAP Measures

This report contains 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" which do not have standardized meanings prescribed by 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 operating 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 revenues 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 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 same 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.

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. 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.

Realized revenue: Cash costs are comprised of royalties, production and operating, transportation, general and administrative, and cash finance expense. 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.

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 production sold for 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, Tourmaline Oil Corp. ("TOU") share investment, TOU share margin demand loan, revolving bank debt, term loan, current portion of royalty obligations, current portion of lease liabilities, and current portion of provisions.

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 net working capital deficiency. Net debt includes the carrying value of net bank debt, the principal amount of the term loan, the principal amount of the TOU share margin demand loan and the principal amount of senior notes, reduced for the mark-to-market value of the TOU share investment. 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.

For additional reader advisories in regards to non-GAAP financial measures, including Perpetual's method of calculation and reconciliation of these terms to their corresponding GAAP measures, see the section entitled "Non-GAAP Measures" within the Company's MD&A filed on SEDAR.

BOE Equivalents

Perpetual's aggregate proved and probable reserves are reported in barrels of oil equivalent (boe). Boe may be misleading, particularly if used in isolation. In accordance with NI 51-101, a boe conversion ratio for natural gas of 6 Mcf: 1 boe has been used, which is based on an energy equivalency conversion method primarily applicable at the burner tip and does not necessarily represent a value equivalency at the wellhead. As the value ratio between natural gas and crude oil based on the current prices of natural gas and crude oil is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

The following abbreviations used in this report have the meanings set forth below:

bbls	*barrels*
boe	*barrels of oil equivalent*
Mcf	*thousand cubic feet*
MMcf	*million cubic feet*

DIRECTORS

Susan L. Riddell Rose[(4)]
President, Chief Executive Officer and Director
Robert A. Maitland
Independent Director[(1)(2)(3)]
Geoffrey C. Merritt
Independent Director[(1)(2)(4)]
Ryan A. Shay
Independent Director[(1)(3)(4)]
Howard R. Ward
Independent Director[(2)(3)(4)]

(1) Member of Audit Committee
(2) Member of Reserves Committee
(3) Member of Compensation and Corporate Governance Committee
(4) Member of Environmental, Health & Safety Committee

OFFICERS

Susan L. Riddell Rose
President, Chief Executive Officer and Director
W. Mark Schweitzer
Vice President, Finance and Chief Financial Officer
Ryan M. Goosen
Vice President, Business Development and Land
Jeffrey R. Green
Vice President, Corporate and Engineering Services
Linda L. McKean
Vice President, Exploration and Development
Marcello M. Rapini
Vice President, Marketing

HEAD OFFICE

3200, 605 – 5 Avenue SW
Calgary, Alberta Canada T2P 3H5

403.269.4400 PHONE
800.811.5522 TOLL FREE
403.269.4444 FAX
info@perpetualenergyinc.com EMAIL
www.perpetualenergyinc.com WEB

STOCK EXCHANGE LISTING | TSX **|** PMT

AUDITORS

KPMG LLP

BANKERS

ATB Financial
Bank of Montreal
Bank of Nova Scotia

RESERVE EVALUATION CONSULTANTS

McDaniel & Associates Consultants Ltd.

REGISTRAR AND TRANSFER AGENT

Odyssey Trust Company