

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 year ended December 31, 2016 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 audited consolidated financial statements and accompanying notes for the years ended December 31, 2016 and 2015. 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 March 14, 2017.

Certain financial measures referred to in this MD&A are not prescribed by IFRS. See "Non-GAAP Financial Measures" for information regarding the following non-GAAP financial measures used in this MD&A: "adjusted funds flow", "operating netback", "realized revenue", "gas over bitumen net of payments", "adjusted working capital deficiency (surplus)", "net debt", "net bank debt" and "total capitalization".

NATURE OF BUSINESS: Perpetual is an oil and natural gas exploration, production and marketing company headquartered in Calgary, Alberta. Perpetual operates 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 recent filed Annual Information Form ("AIF"), can be accessed at www.sedar.com or from the Corporation's website at www.perpetualenergyinc.com.

RECENT DEVELOPMENTS

Perpetual has completed the following financing transactions subsequent to December 31, 2016:

- Partial repayment and refinancing of its existing Tourmaline Oil Corp. ("TOU") share put option margin loan previously maturing in March 2017, reducing the loan amount outstanding to \$18.9 million, extending the maturity to August 1, 2017 and increasing the number of shares pledged as collateral to 0.9 million TOU shares, with a new floor price on these shares of \$21.14 per TOU share;
- Exchange of \$17.4 million aggregate principal amount of its existing senior notes maturing in 2018 and 2019 for new 8.75% senior notes having an extended maturity date of January 23, 2022 (the "2022 Senior Notes");
- Establishment of a \$45 million second lien senior secured term loan facility (the "Second Lien Facility") bearing annual interest at 8.1 percent and maturing March 14, 2021. The initial draw on the Second Lien Facility was \$35 million with the remaining \$10 million to be drawn prior to November 30, 2017. In addition, for no additional consideration, 5.4 million warrants were issued which entitle the holder to acquire common shares on a one for one basis for a period of up to three years, at an exercise price of \$2.34 per share, equal to a 45 percent premium to the volume weighted average trading price of the common shares for the ten trading days prior to the date of issue of the warrants on March 14, 2017;
- Issuance of 5.1 million common shares and 1.1 million warrants to purchase common shares on the same terms and conditions as above at \$1.75 per Equity Unit for aggregate gross proceeds of \$9 million;
- Extension of the Company's current bank lending arrangements to October 31, 2017, while providing for a \$14 million increase in total borrowing capacity under the credit facility to \$20 million; and
- Issuance of a notice for the early redemption of all of the \$27.6 million aggregate outstanding principal amount of its 8.75% senior notes maturing March 15, 2018, effective April 17, 2017. The redemption amount payable will be either: CDN \$1,000 for each \$1,000 principal amount of 2018 Senior Notes; or at the election of an eligible holder and subject to the limitations described in the notice, \$1,000 principal amount of 2022 Senior Notes for each \$1,000 principal amount of 2018 Senior Notes.

Collectively, these financing transactions significantly strengthen Perpetual's liquidity and debt repayment profile and secure funding for the Company's 2017 and 2018 business plan.

FOURTH QUARTER FINANCIAL AND OPERATING RESULTS

On October 1, 2016, Perpetual completed the strategic disposition of a large percentage of its mature shallow gas properties in east central and northeast Alberta, along with their associated decommissioning obligations (the "Shallow Gas Properties"). This disposition involved nominal proceeds at closing, however, through gas marketing arrangements related to the transaction, Perpetual effectively retains full natural gas price upside exposure on the forecast base production from the Shallow Gas Properties to the extent average monthly AECO natural gas prices exceed \$2.81/GJ through August 2018, with no operating exposure or future capital spending commitments. The Shallow Gas Properties included approximately 35.5 MMcfe/d of production and 82.1 Bcfe of proved plus probable working interest reserves, \$128.0 million in discounted decommissioning obligations and 353,777 net acres of undeveloped lands. The positive impacts to future adjusted funds flow are far reaching as these mature legacy assets had been adjusted funds flow negative for many years, largely due to high fixed operating costs which included extremely high municipal taxes and high general and administrative costs related to the large number of low productivity wells and related leases.

Beginning in early December, drilling operations commenced at both Mannville and East Edson, with a single rig drilling program in each area. Prior to year-end 2016, the Company rig released one well (1.0 net) and spud a second on a two well pad at East Edson, both targeting the Wilrich formation. At Mannville, two (2.0 net) exploratory wells were drilled in the fourth quarter. The Mannville wells were targeting the Company's regional shallow shale gas play and have resulted in one net gas well and one well which encountered drilling problems prior to reaching its targeted depth and was successfully re-drilled in the first quarter of 2017. Both of the exploratory shallow shale gas wells are currently undergoing completion operations. The fourth quarter 2016 capital program also included expenditures for high return conventional shallow gas workovers and recompletions as well as waterflood operations in the Mannville area. Fourth quarter 2016 exploration and development spending totaled \$7.0 million.

Net income of \$20.4 million (\$0.39/share) was recorded for the fourth quarter of 2016, including a non-cash gain of \$0.7 million related to the change in the fair value of the Company's investment in Tourmaline Oil Corp. ("TOU"), a gain on disposition of the Shallow Gas Properties of \$19.2 million and \$6.9 million related to a net impairment reversal driven by improved performance at Mannville.

Driven by the 87 percent decrease in costs, Perpetual recorded adjusted funds flow of \$3.3 million (\$4.45/boe) for the fourth quarter of 2016 compared to \$0.4 million (\$0.20/boe) in 2015, reflecting the improved cost structure resulting from strategic operational and financing decisions throughout 2016.

Operating costs of \$2.15/boe (\$1.6 million) were 69 percent lower compared to \$6.92/boe in the fourth quarter of 2015, driven by the disposition of the high cost Shallow Gas Properties which focused Perpetual's natural gas production base to the low cost East Edson property. Operating costs in 2017 are anticipated to be \$4.75 to \$5.25/boe.

Cash interest costs of \$1.5 million were down 81 percent compared to \$8.0 million in the fourth quarter of 2015, largely as a result of the \$214.4 million reduction in the outstanding balance of senior notes in the second quarter of 2016. See "Security Swap" discussion included below in the "2016 Financial Results – Overall Performance" section of this MD&A.

Fourth quarter production of 8,118 boe/d (79 percent East Edson) was 59 percent lower than 2015 (19,661 boe/d; 53 percent East Edson), reflecting the full impact of lost volumes associated with the disposition of the Shallow Gas Properties and natural declines resulting from the Company's decision to restrict capital spending during 2016 in response to low commodity prices.

Perpetual's average natural gas price, including derivatives, for the fourth quarter of 2016 of \$2.41/Mcf was 17 percent lower than \$2.92/Mcf in the fourth quarter of 2015 despite an increase in the average conversion ratio for Perpetual's natural gas production to 1.16 GJ/Mcf from 1.13 GJ/Mcf in the 2015 period. Perpetual's oil price, including derivatives, of \$38.95/bbl in the fourth quarter was comparable to the 2015 period (\$39.81/bbl). Average realized natural gas liquids ("NGL") prices of \$46.99/bbl were 40 percent higher than the prior year (\$33.68/bbl), reflecting the slightly higher percentage of condensate in the Company's NGL blend as well as slightly higher benchmark prices for all NGL components.

2016 FINANCIAL RESULTS

OVERALL PERFORMANCE

Perpetual focused on four key strategic priorities in 2016:

- Reduce debt and restore cash flow;
- Grow value and scope of Greater Edson liquids-rich gas;
- Maximize value potential of Eastern Alberta assets; and
- Advance high impact opportunities.

In light of continuing depressed commodity prices, Perpetual prioritized the strengthening of its balance sheet and liquidity management throughout 2016. This was achieved through a combination of debt reduction, restricted spending, financial recapitalization, cost reduction, maximizing efficiencies in administration and operations and focusing of the Company's portfolio of assets. A diligent focus on reductions in all areas of spending, including operating, financing and administrative costs, will continue throughout 2017 in combination with production growth in order to establish a sustainable cost structure in this low commodity price environment.

In January 2016, Perpetual closed a fully backstopped rights offering and issued 33.3 million common shares for gross proceeds of \$25 million, including 21.4 million issued to entities controlled by the Chairman of Perpetual's Board of Directors for proceeds of \$16.1 million.

On March 24, 2016, shareholders of the Corporation approved the consolidation of outstanding common shares of the Company on the basis of 20 common shares to one common share.

In April 2016, Perpetual announced a security swap proposal (the "Security Swap") to give holders of senior notes an opportunity to exchange their senior notes for TOU shares owned by Perpetual on the basis of 21 TOU shares for each \$1,000 principal amount of the 8.75% senior notes due March 15, 2018 (the "2018 Senior Notes") and 20 TOU shares for each \$1,000 principal amount of the 8.75% senior notes due July 23, 2019 (the "2019 Senior Notes"). Between the periods of April 27, 2016 and May 25, 2016, \$214.4 million face value of senior notes were swapped, including \$114.0 million of outstanding 2018 Senior Notes and \$100.4 million of outstanding 2019 Senior Notes through the exchange of 4.4 million TOU shares with a fair market value of \$130.5 million (\$29.64 per share) and a cash payment of \$3.9 million for accrued interest. All senior notes tendered to the Security Swap were exchanged for TOU shares. Perpetual recorded a gain on the Security Swap of \$81.3 million.

On October 1, 2016, Perpetual closed the disposition of the Shallow Gas Properties. This disposition involved nominal proceeds at closing, however, through gas marketing arrangements related to the transaction, Perpetual retains essentially full natural gas price upside exposure on the forecast base production from the Shallow Gas Properties should AECO natural gas prices exceed \$2.81/GJ through August 2018, with no operating exposure or future capital spending commitments. During the same term, arrangements were made to provide the purchaser a floor price of \$2.58/GJ.

Declining commodity prices throughout 2016 led to a substantial reduction in oil and natural gas revenues compared to the prior year. This resulted in 2016 cash flow used in operations of \$7.1 million compared to cash flow from operations of \$12.4 million in 2015.

For the first three quarters of 2016, the Company deferred material capital spending in light of depressed commodity prices, drilling just one (1.0 net) well at East Edson. Minor capital spending was also directed to waterflood optimization activities at Mannville while strategic spending for abandonment and reclamation activities in eastern Alberta was ramped up as part of the Company's asset retirement obligation reduction initiative and shallow gas operating cost reduction program. Perpetual also continued to monitor performance of its bitumen extraction cyclic heat stimulation pilot project at Panny. Perpetual's focus through the final quarter of 2016 and continuing into 2017 shifted to increasing capital investment to restore production and grow cash flow from operating activities.

2017 OUTLOOK

Success in advancing the Company's strategic priorities has established a foundation for strong growth in production and adjusted funds flow in 2017. Perpetual's top four strategic priorities for 2017 include:

- Grow the value of Greater Edson liquids-rich gas;
- Optimize the value potential of Eastern Alberta assets;
- Advance high impact opportunities; and
- Optimize the balance sheet for growth.

Closing of the suite of financing transactions during the first quarter of 2017 has established sufficient liquidity to execute the planned growth-oriented capital program and manage debt maturities into 2018 at current commodity prices. The Company will continue its diligent focus on increasing netbacks through reductions in all areas of spending, including operating, financing and administrative costs, to confirm the sustainable cost structure established through strategic decisions over the past two years.

In 2017, Perpetual will focus its capital spending on its core operating areas, with spending at East Edson, representing close to 85 percent of total forecast exploration and development expenditures. In the first quarter of 2017, the Company will spend close to \$26 million. Activity will include frac and tie-in operations on the East Edson well drilled in the fourth quarter of 2016 and drilling of five additional Wilrich horizontal wells. A minimum of four of the six new drills are forecast to be completed, tied in and on production prior to spring break up, with the timing of the complete and frac operations on the additional two drills dependent on surface access conditions. The Company plans to recommence its one rig drilling program after break up to continue to grow production at East Edson, with the drilling of up to an additional eight wells. The one rig drilling program in East Edson is expected to re-establish throughput using Company-owned infrastructure approaching the capacity of 60 to 65 MMcf/d plus associated liquids by year-end 2017.

The Company is also finishing the execution of its first quarter drilling program at Mannville. Four horizontal heavy oil wells, three of which are exploratory, have been successfully drilled, completed, equipped and tied in with results pending as all four wells are currently cleaning up on initial flow back. Pending successful drilling results and commodity prices, up to four additional heavy oil wells are planned for the second half of 2017 in Mannville. Two horizontal wells to evaluate shallow shale gas plays in the Viking and Colorado formations have been drilled, taking advantage of synergies with the heavy oil drilling program. Completion and testing operations are currently ongoing. The first quarter 2017 capital program also includes expenditures for high return conventional shallow gas workovers and recompletions as well as waterflood operations in the Mannville area.

The table below summarizes expected capital spending and drilling activities for the first and second half of 2017.

Exploration and development capital expenditures	H1 2017 \$ millions	# of wells (gross/net)	H2 2017 \$ millions	# of wells (gross/net)	Total \$ millions	# of wells (gross/net)
East Edson liquids-rich gas	25	5/5.0	30	8/8.0	55	13/13.0
Mannville heavy oil	4	4/3.3	4	4/4.0	8	8/7.3
Eastern shallow gas and other	3	1/1.0	1	-	4	1/1.0
Total capital spending⁽¹⁾	32	9/8.3	35	12/12.0	67	22/21.3

⁽¹⁾ Excludes budgeted abandonment and reclamation spending of up to \$4 million in 2017.

Capital spending during 2017 will be funded through a combination of adjusted funds flow and proceeds from the financing transactions closed on March 14, 2017.

Based on the total capital spending plan in 2017 of \$67 million, Perpetual expects to exit 2017 at a production rate of 13,000 to 13,500 boe/d in December 2017, with full year 2017 production averaging between 10,750 to 11,000 boe/d (85 percent natural gas). This represents growth in average daily production from fourth quarter 2016 to full year 2017 of close to 30 percent and an increase in exit rate based on average December production of approximately 60 percent year-over-year.

In order to protect a base level of adjusted funds flow, Perpetual has commodity price contracts in place in 2017 on an estimated 45 percent of forecast production for the remainder of the year. These include natural gas contracts at AECO hub from April to December 2017 on close to 27,500 GJ/d at an estimated price of \$3.15/GJ; and oil sales arrangements on 750 bbl/d protecting a WTI floor price of \$USD50.00/bbl.

Based on these assumptions and the current forward market for oil and natural gas prices, Perpetual forecasts 2017 adjusted funds flow of approximately \$40 million (\$0.68 per share). Incorporating the current market value of 1.67 million TOU shares of \$28.95 per share, the Company estimates year-end 2017 total net debt of approximately \$80 million, with a corresponding debt to trailing twelve months adjusted funds flow ratio of approximately 2.0.

Incorporating the assumptions outlined above, the following table shows Perpetual's estimated 2017 forecast adjusted funds flow using various commodity price sensitivities for the full year of 2017:

Projected 2017 adjusted funds flow⁽²⁾

(\$ millions)

2017 AECO gas price (\$/GJ)⁽¹⁾

	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00	\$4.50
2017 WTI price (US\$/bbl) ⁽¹⁾						
\$40.00	30.6	34.4	38.3	42.1	46.0	49.8
\$45.00	31.9	35.7	39.6	43.4	47.3	51.1
\$50.00	33.2	37.0	40.9	44.7	48.6	52.4
\$55.00	36.2	40.0	43.9	47.7	51.6	55.5
\$60.00	39.1	42.9	46.8	50.6	54.5	58.3
\$65.00	40.5	44.4	48.2	52.1	55.9	59.8

⁽¹⁾ The current settled and forward average AECO and WTI prices for calendar 2017 as of March 14, 2017 were \$2.58 per GJ and US\$49.98 per bbl, respectively.

⁽²⁾ Adjusted funds flow is a non-GAAP measure. Please refer to "Non-GAAP Measures".

Capital expenditures

(\$ thousands)

	2016	2015
Exploration and development	14,039	75,431
Other	541	910
Capital expenditures	14,580	76,341
Geological and geophysical costs ⁽¹⁾	23	1,526
Dispositions, net of acquisitions	(6,509)	(23,710)
Disposition of gas storage facility	(19,703)	–
Total	(11,609)	54,157

⁽¹⁾ Geological and geophysical expenditures and dry hole costs are expensed directly in the Corporation's statement of income (loss); they are considered by Perpetual to be more closely related to investing activities than operating activities, and therefore are included with capital expenditures for the purposes of this MD&A.

Perpetual's exploration and development spending in 2016 totaled \$14.0 million, 75 percent of which was concentrated on the West Central Alberta deep basin assets. Capital expenditures included drilling four (4.0 net) wells, with two (2.0 net) natural gas wells at Edson and two (2.0 net) horizontal wells at Mannville targeting natural gas, as well as two waterflood injector conversions and related infrastructure at Mannville. Three of the four wells were drilled during the fourth quarter, with two having been completed in the first quarter of 2017. One shallow gas well encountered uphole drilling problems before reaching total depth and was subsequently re-drilled in the first quarter of 2017.

Exploration and development spending by area

(\$ thousands)

	2016	2015
West Central	10,538	67,501
Eastern Alberta	3,501	7,930
Total	14,039	75,431

Perpetual continued to defer material spending in light of depressed commodity prices in 2016. The majority of Perpetual's exploration and development spending during 2016 was focused on liquids-rich natural gas development activities in West Central Alberta.

Spending on West Central liquids-rich gas projects for 2016 included \$10.5 million for the drilling of two (2.0 net) natural gas wells in the Company's Edson area. Completion and testing operations for the one Edson well drilled in the fourth quarter were executed during the first quarter of 2017 and production has commenced after tie in to the East Edson plant infrastructure.

A total of \$3.4 million was also spent in the Mannville and shallow gas areas during 2016, converting two wells to water injection to progress the waterflood development as well as the drilling of two (2.0 net) exploratory wells in the fourth quarter. The Mannville wells were targeting the Company's regional shallow shale gas play and have resulted in one net gas well and one well which encountered drilling problems prior to reaching its targeted depth and was successfully re-drilled in the first quarter of 2017. Both of the exploratory shallow shale gas wells are currently undergoing completion operations.

Perpetual continued to advance phase 1 of its strategic low pressure electro-thermally assisted drive ("LEAD") process pilot project targeting bitumen recovery from the Bluesky formation at Panny. First production from the single horizontal well in the cyclic heat stimulation ("CHS") test configuration was established on flow back in the first quarter of 2016 following a successful first heating phase of the pilot which commenced in September 2015. Cycle two commenced production in late June after an abbreviated second heating cycle. Results from both cycles exceeded expectations, with cumulative oil recovery surpassing forecasts. In late September, cycle three commenced with solvent injection combined with heating and a fourth cycle is currently ongoing. The CHS test thus far is yielding valuable insights regarding reservoir performance, the functionality of the electrical heating cable and other operational considerations. High quality data continues to be gathered for refinement of a potential commercial development plan and economic model.

Drilling operations continued into the first quarter of 2017 at Edson, with three additional liquids-rich gas wells drilled since year-end and an additional two wells expected to be drilled prior to the end of the first quarter. At Mannville, four horizontal heavy oil wells have been drilled,

completed and tied-in for production during the first quarter of 2017. Additionally, a shallow gas recompletion and well optimization program has successfully increased shallow gas production from existing wells at both Mannville and Panny during the first quarter of 2017.

Dispositions

Dispositions in 2016 included:

- The sale of certain oil sands leases with a retained gross overriding royalty, non-core undeveloped land, 25 percent interest in certain seismic, and idle production equipment;
- The disposition of 100 percent of the shares in Perpetual Energy Operating Corp., a wholly owned subsidiary which held the Shallow Gas Properties and included \$128.0 million in decommissioning obligations which were transferred with the properties disposed; and
- The disposition of the Company's gas storage facility investment for net proceeds of \$19.7 million which included an additional 9,207 net acres of surrounding lands and associated wells and infrastructure with net production of 470 Mcf/d.

Expenditures on decommissioning obligations

During the year ended December 31, 2016, Perpetual spent \$3.8 million on abandonment and reclamation projects. This spending was primarily directed to projects in eastern Alberta as part of the Company's shallow gas operating cost reduction program. The majority of decommissioning expenditures relate to internal labor and equipment costs incurred during the first nine months of 2016 as the Company continued its program to redeploy operational personnel and internal resources to accelerate progress and drive efficiencies on abandonment and reclamation projects.

Net income (loss)

Net income for the fourth quarter ended December 31, 2016 was \$20.4 million, compared to a net loss of \$93.5 million in the prior year period. Net income in the fourth quarter included a gain of \$19.2 million from the sale of the Shallow Gas Properties, an impairment reversal of \$6.9 million (2015 Q4 - \$23.7 million impairment charge) and an unrealized gain of \$0.7 million on its TOU share investment (2015 Q4 - \$56.1 million unrealized loss). Excluding these items, the Company recorded a net loss in the fourth quarter of \$6.4 million compared to a net loss of \$13.7 million in the prior year period, due to cost reductions and the disposal of the unprofitable Shallow Gas Properties in 2016.

Perpetual recorded net income of \$107.1 million (\$20.75 per boe) for the year ended December 31, 2016, compared to a net loss of \$89.3 million (\$12.41 per boe) for 2015. The year-over-year improvement in net income was primarily the result of gains on the Security Swap transaction and the unrealized gain on TOU share investment, partially offset by reduced gains on property dispositions in 2016 compared to 2015.

Cash flow from operating activities

Cash flow from operating activities for the fourth quarter ended December 31, 2016 was \$4.7 million, down 61 percent from \$12.0 million in the prior year period, primarily due to a 59 percent decrease in average daily production. Lower costs in the current quarter were offset by reduced levels of non-cash working capital compared to the prior year period.

For the year ended December 31, 2016, low commodity prices continued to have a dramatic impact on financial results with the Corporation reporting cash flow from operating activities of negative \$7.1 million, compared to positive \$12.4 million in 2015. Year-over-year declines in commodity prices led to a further reduction in cash flow from operating activities despite significant corporate cost-savings initiatives throughout 2016. Through the Company's diligent focus on controlling costs, operating expenses, cash general and administrative expenses and cash finance expenses combined were 41 percent lower than 2015. Despite these significant cost reductions, the 41 percent drop in realized revenue, restructuring cost payments resulting from the disposition of the Shallow Gas Properties along with fluctuations in working capital and decommissioning obligations, contributed to negative cash flow from operating activities in the current year.

Adjusted funds flow

Management uses adjusted funds flow and adjusted funds flow per share to analyze operating performance and borrowing capacity. Adjusted funds flow is cash flow from operating activities before changes in non-cash working capital, settlement of decommissioning obligations and certain E&E costs, but after payments on the gas over bitumen royalty financing and payments on restructuring costs. Adjusted funds flow is not intended to represent cash flow from operating activities, net earnings or other measures of financial performance calculated in accordance with IFRS. The Corporation previously referred to adjusted funds flow as "funds flow".

Below is a table which reconciles cash flow from operating activities to adjusted funds flow:

(\$ thousands, except per share amounts)	Three months ended December 31,		Years ended December 31,	
	2016	2015	2016	2015
Cash flow from (used in) operating activities	4,740	11,980	(7,136)	12,406
Changes in non-cash working capital	(2,539)	(13,094)	4,910	(15,813)
Exploration and evaluation costs ⁽¹⁾	(3)	(93)	23	1,526
Payments on gas over bitumen royalty financing ⁽²⁾	(726)	(826)	(2,164)	(3,704)
Payments on restructuring costs ⁽³⁾	1,484	—	1,484	—
Expenditures on decommissioning obligations	370	2,395	3,803	7,589
Adjusted funds flow	3,326	362	920	2,004
Adjusted funds flow per share⁽⁴⁾	0.06	0.05	0.02	0.27

⁽¹⁾ The Corporation expenses exploratory dry hole costs, geological and geophysical costs, lease rentals on undeveloped properties and the cost of expired leases in the period incurred. To make reported adjusted funds flow in this MD&A more comparable to industry practice, the Corporation reclassifies dry hole

- costs in addition to geological and geophysical costs from operating to investing activities in the adjusted funds flow reconciliation.
- (2) These payments are indexed to gas over bitumen revenue and are recorded as a reduction to the Corporation's gas over bitumen royalty financing obligation in accordance with IFRS. To present gas over bitumen revenue net of these payments, the Corporation has reclassified these payments from financing to operating activities in the calculation of adjusted funds flow.
 - (3) Restructuring cost payments include employee downsizing costs and surplus office lease obligations associated with the disposition of the Shallow Gas Properties which the Company considers to not be related to cash flow from operating activities.
 - (4) Based on basic weighted average shares outstanding for the period.

For the fourth quarter ended December 31, 2016, adjusted funds flow was \$3.3 million, a \$2.9 million increase over the prior year period, as lower costs more than offset the impact of lower production in the current quarter compared to the prior year period.

For the year ended December 31, 2016, adjusted funds flow was \$0.9 million, compared to \$2.0 million in 2015 for the same reasons as discussed under cash flow from operating activities adjusted for the impact of restructuring cost payments and fluctuations in working capital and decommissioning obligations in order to reflect management's view of the operating performance of the business.

Reconciliation to net income

	2016	2015
	(\$ thousands)	(\$/boe)
	(\$ thousands)	(\$/boe)
Realized revenue ⁽¹⁾	86,104	16.65
Royalties ⁽²⁾	(9,415)	(1.82)
Production and operating expenses	(35,019)	(6.77)
Transportation costs	(7,925)	(1.53)
Operating netback ⁽¹⁾	33,745	6.53
Gas over bitumen revenue net of payments	(180)	(0.03)
Exploration and evaluation – lease rentals ⁽³⁾	(1,040)	(0.20)
Cash G&A	(17,153)	(3.32)
Interest ^{(3),(4)}	(14,953)	(2.89)
Dividends from gas storage investment	501	0.10
Adjusted funds flow ⁽¹⁾	920	0.19
Unrealized gains (losses) on derivatives	13,340	2.58
Payments on gas over bitumen royalty financing	2,164	0.42
Exploration and evaluation ⁽⁵⁾	(2,750)	(0.53)
Compensation expense, non-cash	(5,911)	(1.14)
Restructuring costs	(5,638)	(1.09)
Gain on dispositions	21,605	4.18
Gain on Security Swap	81,572	15.78
Depletion and depreciation	(54,317)	(10.50)
Impairment reversals	6,900	1.33
Finance expense, non-cash	(10,156)	(1.96)
Change in fair value of TOU share investment	58,897	11.39
Net income and dividends from gas storage investment	523	0.10
Net income (loss)	107,149	20.75

(1) See "Non-GAAP measures" in this MD&A.

(2) Includes \$5.5 million in gross overriding royalty payments at East Edson for the year ended December 31, 2016 (2015 - \$6.9 million).

(3) Excludes non-cash items.

(4) Includes \$0.3 million in cash transaction costs in relation to the Security Swap.

(5) Includes non-cash exploration and evaluation expense from expired leases and geological and geophysical costs.

Production

	2016	2015
Natural gas (MMcf/d)		
Eastern Alberta	33.8	52.8
West Central	40.9	51.4
Total natural gas	74.7	104.2
Crude oil (bbl/d)		
Eastern Alberta ⁽¹⁾	1,041	1,595
West Central	17	31
Total crude oil	1,058	1,626
Total NGL (bbl/d)⁽²⁾	614	711
Total production (boe/d)	14,128	19,706

(1) Primarily Mannville heavy oil.

(2) Primarily West Central liquids-rich gas.

Total natural gas, oil and NGL production for the year ended December 31, 2016 of 14,128 boe/d was 28 percent lower than 2015 (19,706 boe/d), reflecting the disposition of the Shallow Gas Properties at the beginning of the fourth quarter and the Company's decision to restrict capital spending in response to low commodity prices.

Perpetual's natural gas production of 74.7 MMcf/d decreased 28 percent from 2015 (104.2 MMcf/d), reflecting production declines following the Company's decision to restrict capital spending in response to low commodity prices, and the sale of approximately 35.5 MMcf/d of

production related to the Shallow Gas Properties effective October 1, 2016. Natural gas production from Eastern shallow gas properties decreased 89 percent from 40.8 MMcf/d in Q3 2016 to 4.5 MMcf/d in the fourth quarter of 2016.

Consistent with restricted capital spending and declining East Edson natural gas production, NGL production of 614 bbl/d in 2016 decreased 14 percent from 711 bbl/d in 2015.

Oil production of 1,058 bbl/d for 2016 was 35 percent lower than 2015 (1,626 bbl/d) mainly due to natural declines and the decision to defer crude oil drilling activities and waterflood spending in light of depressed crude oil prices. Production declines were mitigated somewhat by the positive response of select pools to waterflood programs.

Commodity prices

	2016	2015
Reference prices		
AECO Monthly Index (\$/GJ)	1.98	2.62
AECO Daily Index (\$/GJ)	2.05	2.55
Alberta Gas Reference Price (\$/GJ) ⁽¹⁾	1.81	2.44
West Texas Intermediate ("WTI") light oil (\$USD/bbl)	43.32	48.79
Western Canadian Select ("WCS") differential (\$USD/bbl)	(13.84)	(13.52)
Average Perpetual prices		
Natural gas		
Before derivatives (\$/Mcf) ⁽²⁾⁽³⁾	2.19	2.87
Percent of AECO Monthly Index	98	97
Including derivatives (\$/Mcf)	2.42	3.01
Percent of AECO Monthly Index	108	102
Oil		
Before derivatives (\$/bbl)	34.93	41.27
Including derivatives (\$/bbl)	37.60	52.48
NGL (\$/bbl)	35.45	33.72

⁽¹⁾ Alberta Gas Reference Price is the price used to calculate Alberta Crown royalties.

⁽²⁾ Natural gas price before derivatives includes physical forward sales contracts for which delivery was made during the reporting period but excludes realized gains and losses on financial derivatives.

⁽³⁾ The average conversion ratio for Perpetual's 2016 natural gas production is 1.13 GJ:1 Mcf (2015 – 1.12 GJ:1 Mcf).

Significant declines in benchmark prices on all commodities continued to affect Perpetual's 2016 realized pricing compared to the prior year. Average AECO Monthly Index pricing of \$1.98/GJ in 2016 was 24 percent lower than \$2.62/GJ in 2015, reflecting the overhang of natural gas in storage in Alberta and generally in North America. The buildup of gas in storage resulted from the warm 2015/2016 winter season throughout North America, contributing to declining natural gas demand. The decrease of WTI to \$USD43.32/bbl in 2016 from \$USD48.79/bbl in 2015 was related to continued oversupply of global crude production resulting in higher than normal inventory levels, culminating on February 11th, 2016 with a calendar year 2016 low price of \$USD26.21/bbl. Crude prices increased later in the year as the supply-demand imbalance dissipated as a result of OPEC's November 30, 2016 announcement to agree to a cut of 1.2 million barrels per day of production along with an additional cut from select non-OPEC producers of up to 0.6 million barrels per day, both scheduled to begin in January 2017.

Decreased AECO Monthly Index prices were reflected in Perpetual's natural gas price before derivatives of \$2.19/Mcf, down 24 percent from \$2.87/Mcf in 2015. Perpetual's average realized gas price, including derivatives, decreased 20 percent to \$2.42/Mcf for the year ended December 31, 2016 from \$3.01/Mcf in 2015. The Corporation's realized 2016 natural gas price includes \$2.7 million of realized losses on natural gas derivatives and \$8.9 million of gains realized on crystallizations of contracts before maturity. During the fourth quarter of 2016, the average conversion ratio for Perpetual's natural gas production was 1.16 GJ:1 Mcf compared to 1.13 GJ:1 Mcf in the comparative fourth quarter of 2015. This increase reflects the larger percentage of total gas production from East Edson, which yields higher heat content gas compared to Perpetual's other production areas. Perpetual expects the average conversion ratio for its natural gas to remain at 1.16 GJ:1 Mcf during 2017.

Perpetual's 2016 oil price, before derivatives, of \$34.93/bbl decreased 15 percent compared to 2015 due primarily to the 11 percent decline in WTI pricing. Perpetual's realized oil price of \$37.60/bbl, including derivatives, was higher than the price before derivatives due to gains of \$1.3 million recorded on financial crude oil derivative contracts and \$0.3 million of losses realized on crystallizations of contracts before maturity.

Perpetual's realized average NGL price increased 5 percent from the prior year to \$35.45/bbl, reflecting an increase in all NGL component prices as excess North American inventory levels began to stabilize due to increasing exports from the United States to Asia and Europe brought on by low North American product prices. Perpetual's average NGL sales composition for the year ended December 31, 2016 consisted of 67 percent condensate, largely unchanged from the prior year (2015 – 68 percent).

Revenue

<i>(\$ thousands, except as noted)</i>	2016	2015
Petroleum and natural gas revenue		
Natural gas ⁽¹⁾	59,902	109,186
Oil ⁽¹⁾	13,529	24,497
NGL	7,972	8,754
Total petroleum and natural gas revenue	81,403	142,437
Realized gains (losses) on derivatives	4,701	4,626
Realized revenue	86,104	147,063
Unrealized gains (losses) on derivatives	13,340	(16,063)
Total revenue	99,444	131,000
Realized revenue <i>(\$/boe)</i>	16.65	20.45
Total revenue <i>(\$/boe)</i>	19.23	18.21

⁽¹⁾ Includes revenues related to physical forward sales contracts which settled during the period.

Perpetual's petroleum and natural gas ("P&NG") revenue, before derivatives, for the year ended December 31, 2016 of \$81.4 million decreased 43 percent from 2015, due to lower commodity prices combined with the 28 percent decrease in average daily production.

Natural gas revenue, before derivatives, of \$59.9 million in 2016 decreased 45 percent from \$109.2 million in 2015 reflecting the 24 percent decline in realized natural gas prices and the 28 percent reduction in daily production.

Oil revenues of \$13.5 million in 2016 were 45 percent lower than 2015 (\$24.5 million) due to lower crude oil prices combined with reduced production as a result of natural declines and the deferral of crude oil drilling programs.

NGL revenue for the year declined nine percent from 2015 to \$8.0 million as lower production more than offset a five percent increase in realized commodity prices.

Realized gains on derivatives totaled \$4.7 million for 2016 compared to gains of \$4.6 million in 2015. Total gains in the current year were comprised of \$6.2 million on natural gas derivatives and \$1.0 million from oil derivatives, partially offset by \$2.5 million of losses on forward foreign exchange contracts.

The Corporation recorded unrealized gains on derivatives of \$13.3 million during 2016 compared to unrealized losses of \$16.1 million for 2015. 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

<i>(\$ thousands, except as noted)</i>	2016	2015
Crown	1,676	4,394
Freehold and overriding ⁽¹⁾	7,739	11,950
Total	9,415	16,344
Crown <i>(% of P&NG revenue)</i>	2.1	3.1
Freehold and overriding <i>(% of P&NG revenue)</i>	9.5	8.4
Total <i>(% of P&NG revenue)</i>	11.6	11.5
<i>\$/boe</i>	1.82	2.27

⁽¹⁾ Includes \$5.5 million in gross overriding royalty payments at East Edson for the year ended December 31, 2016 (2015 - \$6.9 million).

Royalty expenses for 2016 were \$9.4 million, representing a slight increase in the effective combined average royalty rate on P&NG revenue to 11.6 percent from 11.5 percent in 2015. Average crown royalty rates decreased to 2.1 percent in 2016 compared to 3.1 percent in 2015, partially as a result of lower Alberta natural gas reference prices combined with declining oil prices. Crown royalties in 2016 were also lower as a result of the 28 percent decline in year-over-year production volumes.

Freehold and overriding royalty rates increased from 8.4 percent in 2015 to 9.5 percent in 2016, reflecting the larger percentage of production from East Edson wells which are subject to gross overriding royalties pursuant to Perpetual's 2014 East Edson royalty disposition and farm-in agreements which, in combination, entitle the partner to a maximum of 5.6 MMcf/d of natural gas from the East Edson property plus oil and associated NGLs on a monthly basis. Excluding royalty payments of \$5.5 million under the East Edson overriding royalty arrangement (2015 - \$6.9 million), the effective freehold and overriding royalty rate for the year ended December 31, 2016 was 2.8 percent compared to 3.5 percent in 2015.

Production and operating expenses

<i>(\$ thousands, except as noted)</i>	2016	2015
Production and operating expenses	35,019	65,133
<i>\$/boe</i>	6.77	9.06

Total production and operating expenses decreased 46 percent to \$35.0 million in 2016 compared to \$65.1 million in 2015. This decrease reflected company-wide cost saving initiatives, the re-deployment of operations personnel to abandonment and reclamation projects, operating efficiencies at the low cost Company owned and operated gas plant at East Edson which commenced operations in the third quarter

of 2015, and the full impact of the sale of the Shallow Gas Properties for the duration of the fourth quarter of 2016. Despite the Company's continued focus on cost reductions on its shallow gas assets throughout 2016, municipal property taxes represented a significant portion of fixed operating costs for the Company's mature shallow gas assets as the calculation of property taxes for machinery and equipment, pipelines and wells is based on a prescribed formula methodology which results in a tax assessment base that is dramatically misrepresentative of the property value. Operating costs at East Edson averaged \$2.77/boe during 2016 compared to \$3.74/boe in 2015.

Perpetual expects corporate per boe operating costs to be significantly lower in 2017 following the disposition of the Shallow Gas Properties on October 1, 2016, as close to 80 percent of the Company's total 2017 production is forecast from its low cost East Edson operating area.

Transportation costs

<i>(\$ thousands, except as noted)</i>	2016	2015
Transportation costs	7,925	12,058
\$/boe	1.53	1.68

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. Consistent with the decrease in production, transportation costs in 2016 decreased 34 percent to \$7.9 million from \$12.1 million for the same period in 2015, reflecting lower oil and gas sales volumes combined with lower rates on clean oil trucking. The reduction in transportation costs is largely the result of Perpetual's higher percentage of total gas production from East Edson properties, where costs to transport gas averaged \$0.21/Mcf compared to an average cost of \$0.35/Mcf for the disposed Shallow Gas Properties.

Operating netback

	2016	2015
Operating netback (\$ thousands)⁽¹⁾		
Realized revenue ⁽¹⁾	86,104	147,063
Royalties ⁽²⁾	(9,415)	(16,344)
Production and operating expenses	(35,019)	(65,133)
Transportation costs	(7,925)	(12,058)
Total operating netback	33,745	53,528
Boe operating netback (\$/boe)⁽¹⁾		
Realized revenue ⁽¹⁾	16.65	20.45
Royalties ⁽²⁾	(1.82)	(2.27)
Production and operating expenses	(6.77)	(9.06)
Transportation costs	(1.53)	(1.68)
Total operating netback	6.53	7.44

⁽¹⁾ See "Non-GAAP measures" in this MD&A.

⁽²⁾ Includes \$5.5 million in gross overriding royalty payments at East Edson for the year ended December 31, 2016 (2015 - \$6.9 million).

Perpetual's operating netback of \$6.53/boe (\$33.7 million) in 2016 decreased 12 percent from \$7.44/boe (\$53.5 million) in 2015. This decrease was due primarily to the 18 percent (\$3.80/boe) decline in realized revenue caused by lower commodity prices which more than offset the positive impact of the reduction in per boe royalties, operating and transportation costs.

Gas over bitumen

<i>(\$ thousands, except as noted)</i>	2016	2015
Gas over bitumen royalty credit	1,984	3,153
Payments on gas over bitumen royalty financing ⁽¹⁾	(2,164)	(3,704)
Gas over bitumen, net of payments	(180)	(551)
\$/boe	(0.03)	(0.08)

⁽¹⁾ At December 31, 2016, the fair value of the gas over bitumen royalty financing is estimated to be \$8.3 million (2015 - \$10.0 million).

Perpetual records revenue in relation to gas over bitumen royalty credits received under the Natural Gas Royalty Regulation as a result of its working interests in a number of natural gas wells which have been shut-in pursuant to shut-in orders issued by the Government of Alberta. During 2016, Perpetual recorded \$2.0 million in gas over bitumen revenue; a decrease of \$1.2 million from the same period in 2015 attributable to the 26 percent decrease in Alberta gas reference prices, combined with the annual 10 percent decline in deemed production.

Gas over bitumen royalty credits earned throughout 2016 were offset by payments of \$2.2 million (2015 - \$3.7 million) in relation to the 2014 monetization of Perpetual's future gas over bitumen royalty credits. As part of the arrangement, Perpetual makes monthly payments to the purchaser, which from time to time will vary from the actual gas over bitumen credit received in the period due to timing differences. The monthly payment commitment expires concurrent with the gas over bitumen credit, with final expiries expected to occur in June 2021.

Under IFRS, the monetization of future gas over bitumen royalty credits was recorded as a financial obligation ("Gas over bitumen royalty financing"); however, entitlement to future revenue from gas over bitumen royalty adjustments are not recorded as an asset but as revenue with the passage of time as it is earned. As such, gas over bitumen revenue will continue to be recognized separately as revenue in accordance with Perpetual's accounting policies with the monthly payments recognized separately as a reduction to the gas over bitumen royalty financing obligation. For purposes of this MD&A, the monthly payments have been included as a reduction to gas over bitumen revenue to reflect the substantive monetization of the future gas over bitumen royalty adjustments. During 2016, the gas over bitumen royalty financing obligation was reduced by \$1.7 million, comprised of payments of \$2.2 million (2015 - \$3.7 million) partially offset by a loss of \$0.5 million (2015 - gain of \$1.7 million). The loss has been included in non-cash finance expense and represents an increase in the fair value of the gas over bitumen royalty financing obligation compared to 2015, as a result of higher forecasted natural gas reference prices.

Exploration and evaluation

<i>(\$ thousands)</i>	2016	2015
Lease rentals	1,040	2,866
Geological and geophysical costs ⁽¹⁾	23	1,526
Lease expiries	2,727	6,338
Total exploration and evaluation	3,790	10,730

⁽¹⁾ Geological and geophysical expenditures and dry hole costs are expensed directly in the Corporation's statement of income (loss); they are considered by Perpetual to be more closely related to investing activities than operating activities, and therefore are included with capital expenditures for the purposes of this MD&A.

Exploration and evaluation ("E&E") costs include lease rentals on undeveloped acreage, geological and geophysical costs and the write down of carrying costs related to lease expiries. E&E costs of \$3.8 million in 2016 were 65 percent lower than 2015 due to decreased lease rental costs, geological and geophysical expenditures and fewer lease expiries. The reduction in lease rental costs was largely due to dispositions along with decisions in 2015 and 2016 to let a number of leases expire, primarily in eastern Alberta.

General and administrative expenses

<i>(\$ thousands, except as noted)</i>	2016	2015
Cash general and administrative expense	17,153	17,461
Share based compensation expense (non-cash)	5,911	3,774
Total general and administrative expense	23,064	21,235
Cash general and administrative expense <i>(\$/boe)</i>	3.32	2.43
Share based compensation expense (non-cash) <i>(\$/boe)</i>	1.14	0.52

Cash G&A expense decreased two percent to \$17.2 million in 2016 from \$17.5 million in 2015. This decrease reflected a \$2.7 million reduction in overhead recoveries as a result of reduced capital spending in 2016, offset by reductions in consulting fees and savings related to modified work schedules, elimination of annual bonuses and on-going cost saving initiatives implemented by the Corporation in response to the depressed commodity price environment.

Non-cash compensation expenses for the year ended December 31, 2016 increased \$2.1 million compared to the same period in 2015. This increase was the result of performance multiplier adjustments related to performance share rights issued and outstanding in addition to the beneficial modification of share based compensation plans following the consolidation of outstanding common shares of the Company on the basis of 20 common shares to one common share on March 24, 2016.

Restructuring costs

<i>(\$ thousands, except as noted)</i>	2016	2015
Employee downsizing costs	2,926	–
Onerous office lease contract	2,712	–
Total restructuring costs	5,638	–
Restructuring costs <i>(\$/boe)</i>	1.09	–

During the year, the Company recognized onerous lease obligations totaling \$2.7 million in relation to corporate office space which is no longer being utilized as a result of a terminated sublease and staff reductions related to the disposition of the Shallow Gas Properties. The unused office space is recorded as an onerous contract as the unavoidable costs associated with the lease contract exceed the economic benefits to be received. Also included in restructuring costs was \$2.9 million in relation to employee downsizing costs of which \$1.5 million were paid in 2016 with the remaining to be paid out over the next 12 months.

Gains on dispositions

Perpetual recorded gains on property transactions of \$27.7 million for the year ended December 31, 2016. This gain was made up of the following transactions:

- The sale of certain oil sands leases with a retained gross overriding royalty, non-core undeveloped land, 25 percent interest in certain seismic, and idle production equipment for proceeds of \$7.8 million. Also included in this disposition was the de-recognition of abandonment and reclamation liabilities which were transferred with the properties disposed, resulting in a total gain of \$8.6 million; and
- The disposition of the Shallow Gas Properties for nominal cash consideration and the assumption of \$128.0 million of decommissioning obligations associated with the Shallow Gas Properties, resulting in a gain on disposition of \$19.2 million. In addition, the transaction included marketing arrangements (described below) whereby the Company will receive additional consideration to the extent natural gas average monthly AECO prices exceed \$2.81/GJ on 33,611 GJ/d through to August 31, 2018. Additionally, the Company has retained price exposure on 33,611 GJ/d to the extent average monthly AECO prices fall below \$2.58/GJ for the April 2018 through August 2018 period.

Realized and unrealized gains and losses on these marketing arrangements are recognized as adjustments to gains/losses on dispositions. During the fourth quarter, \$1.8 million of realized and unrealized net gains were recorded with respect to these arrangements.

Details on the retained shallow gas marketing arrangements have been summarized as follows:

Term	Volumes at AECO (GJ/d)	Floor price (\$CAD/GJ)	Ceiling price (\$CAD/GJ)	Market prices (\$CAD/GJ)
March 2017 – August 2018	33,611	–	2.81	2.52
April 2018 – August 2018	33,611	2.58	–	2.34

Depletion and depreciation

(\$ thousands, except as noted)

	2016	2015
Depletion and depreciation	54,317	88,364
\$/boe	10.50	12.29

Perpetual recorded \$54.3 million of depletion and depreciation expense for the year ended December 31, 2016 (2015 - \$88.4 million). On a per boe basis, 2016 depletion and depreciation expense of \$10.50/boe was 15 percent lower than the prior year, due primarily to the lower depletion rates associated with the Company's East Edson assets, which make up a larger percentage of Perpetual's total reserves than in previous years.

Impairment

At December 31, 2016, indicators of potential impairment in its Athabasca cash-generating unit ("CGU") (renamed Northern CGU) were identified related to the disposition of the Shallow Gas Properties. In addition, technical revisions to Mannville heavy oil reserves related to improved recovery methods along with realized lower operating and capital efficiencies justified a review for impairment reversals for the Birchway East CGU (renamed Eastern CGU).

Perpetual measured the carrying values of each of the above CGUs against the estimated recoverable amount based on value in use which Perpetual deemed to be higher compared to fair value less cost to sell. A net impairment reversal of \$6.9 million was recorded to net income which consisted of a \$12.7 million impairment reversal in the Eastern CGU which was partially offset by an impairment loss of \$5.8 million in the Northern CGU.

At December 31, 2015, indicators of potential impairment were identified related to the reduction in commodity prices and future commodity price forecasts estimated by third party independent engineers. Perpetual measured the carrying values of each of its CGUs, less the corresponding decommissioning obligations, against the estimated recoverable amount based on value in use which Perpetual deemed to be higher compared to fair value less cost to sell. A net impairment loss of \$23.7 million was recorded for 2015 which included a \$6.5 million impairment loss in the Birchway East CGU and a \$2.5 million impairment loss in the Birchway West CGU as a result of lower forecasted oil and natural gas prices. The Corporation also determined that future production from the shut-in gas over bitumen wells is unlikely in the continued absence of a technical solution or permitted production. Impairment losses for 2015 further included \$14.7 million for de-recognition of the gas over bitumen CGU, net of \$3.8 million for de-recognition of the provision for estimated future repayments of gas over bitumen royalty credits received.

Finance expenses

Interest

(\$ thousands)

	2016	2015
Cash interest		
Senior notes	11,942	24,062
Convertible debentures	–	2,441
Bank debt	2,749	4,143
Total cash interest	14,691	30,646
Non-cash interest		
Amortization of debt issue costs	509	2,036
Total interest	15,200	32,682

Total cash interest expense of \$14.7 million for the year ended December 31, 2016 was 52 percent lower than the prior year (\$30.6 million). Decreased cash interest on senior notes resulted from the Security Swap, whereby \$214.4 million face value of senior notes was swapped in exchange for 4.4 million TOU shares with a fair market value of \$130.5 million (\$29.64 per share) and a cash payment of \$3.9 million for accrued interest. Following the Security Swap, Perpetual had \$60.6 million principal amount of senior notes outstanding, resulting in a significant reduction in cash interest expense and non-cash debt issue cost amortization for the second half of 2016. Decreased interest on bank debt resulted from a reduction in Perpetual's TOU share margin loans from \$60.1 million at December 31, 2015 to \$40.0 million at December 31, 2016. In addition, restructuring all TOU margin loans to include put option floor prices resulted in lower floating interest charges. The repayment of debentures in December 2015 also contributed to a reduction in period over period cash interest in addition to non-cash debt issue cost amortization.

Other finance expenses

(\$ thousands)	2016	2015
Accretion on decommissioning obligations	2,643	4,034
Accretion on gas over bitumen provision	–	498
Change in fair value of gas over bitumen royalty financing	497	(1,675)
Change in fair value of TOU share margin loans	6,507	(171)
Change in carrying amount of share purchase rights	–	(7,478)
Other finance expenses	9,647	(4,792)

Other finance expenses for the year ended December 31, 2016 included accretion on decommissioning obligations of \$2.6 million (2015 - \$4.0 million), a loss of \$0.5 million on the change in fair value of the gas over bitumen royalty financing (2015 – gain of \$1.7 million) and a loss of \$6.5 million on the change in fair value of the TOU share margin loans (2015 – gain of \$0.2 million).

Gain on exchange of senior notes for TOU share investment

The Company recorded a net gain on the Security Swap of \$81.3 million, representing the difference between the carrying amount of senior notes cancelled of \$212.0 million (\$214.4 million principal amount) and the fair market value of TOU shares exchanged of \$130.5 million, net of transaction costs.

Change in fair value of TOU share investment

During 2016, the Corporation recorded an unrealized gain of \$58.9 million related to the change in fair value of TOU share investment, which represents the change in value of TOU shares held from December 31, 2015 (\$22.35 per share) to December 31, 2016 (\$35.91 per share).

Gas storage facility investment

On May 25, 2016, the Corporation disposed of its interest in gas storage facility investment for net cash proceeds of \$19.7 million, resulting in a net loss on disposition of \$6.2 million. For the period prior to the disposition of the gas storage facility investment, Perpetual recorded income of \$1.0 million in 2016 (2015 - \$0.2 million). The Company also received dividends of \$0.5 million (2015 – nil) representing Perpetual's share of total dividends declared prior to the closing of the sale transaction.

LIQUIDITY, CAPITALIZATION AND FINANCIAL RESOURCES

Perpetual's goal is to maintain a strong capital base so as to retain investor, creditor and market confidence and to sustain the future development of the business. The Company manages its capital structure and makes adjustments in light of changes in economic conditions and the risk characteristics of its underlying oil and natural gas assets. The Company considers its capital structure to include share capital, bank indebtedness, TOU share margin loans, senior notes and adjusted working capital, with value and liquidity enhanced through the current ownership of TOU shares. In order to manage its capital structure, the Corporation may from time to time issue equity or debt securities, enter into business transactions including the sale of assets and adjust its capital spending to manage current and projected debt levels.

With the deterioration of commodity prices continuing in 2016, the Company was focused on liquidity management and preservation of its balance sheet through restricted capital spending, high grading the asset base, reducing costs and maximizing efficiencies in administration and operations. A diligent focus on reductions in all areas of spending, including operating, financing and administrative costs, will continue in order to establish a sustainable cost structure in this low commodity price environment.

During 2016, Perpetual achieved a \$165.5 million (81 percent) reduction in net debt from \$203.6 million, through a combination of financing transactions and asset sales which are detailed as follows:

- Closing of the fully backstopped rights offering on January 18, 2016 for gross proceeds of \$25 million;
- Sale of 250,000 TOU shares at an average price of \$29.45 per share for proceeds of \$7.4 million;
- Disposition of 37 sections of oil sands leases in northeast Alberta for proceeds of \$6.2 million and a one percent gross overriding royalty;
- Crystallization of \$7.7 million in hedging gains from future natural gas contracts;
- Completion of the Security Swap whereby Perpetual repurchased and cancelled \$214.4 million principal amount of senior notes tendered by holders of senior notes through the exchange of 4.4 million TOU shares owned by Perpetual with a fair market value of \$130.5 million (\$29.64 per share);
- Disposition of the Company's gas storage facility investment in May 2016 for net proceeds of \$19.7 million in addition to a \$0.5 million dividend prior to closing;
- Reducing overall TOU share margin loans from \$60.1 million at December 31, 2015 to \$40.0 million at December 31, 2016 while restructuring the collateral to improve lending ratios on a reduced amount of pledged TOU shares; and
- Disposition of the Shallow Gas Properties on October 1, 2016 for nominal cash consideration, which reduced year-over-year decommissioning obligations by \$128.0 million.

At December 31, 2016, the majority of the Company's debt consisted of \$60.1 million of 2018 and 2019 Senior Notes. Obligations which will require settlement or extension in 2017 include \$40.0 million of TOU share margin loans maturing in July and November of 2017 which can be repaid in cash or through settlement with the TOU shares pledged as security.

Subsequent to December 31, 2016, the Company completed a number of financing transactions to strengthen Perpetual's liquidity and debt repayment profile and secure funding for the Company's 2017 and 2018 business plan. The significant financing transactions are as follows:

- Partial repayment and refinancing of its existing TOU share put option margin loan previously maturing in March 2017, reducing the loan amount outstanding to \$18.9 million, extending the maturity to August 1, 2017 and increasing the number of shares pledged as collateral to 0.9 million TOU shares, with a new floor price on these shares of \$21.14 per TOU share;
- Exchange of \$17.4 million aggregate principal amount of its existing senior notes maturing in 2018 and 2019 for 2022 Senior Notes;
- Establishment of a \$45 million Second Lien Facility bearing annual interest at 8.1 percent and maturing March 14, 2021. The initial draw on the Second Lien facility was \$35 million with the remaining \$10 million to be drawn prior to November 30, 2017. In addition, for no additional consideration, 5.4 million warrants were issued which entitle the holder to acquire common shares on a one for one basis for a period of up to three years, at an exercise price of \$2.34 per share, equal to a 45 percent premium to the volume weighted average trading price of the common shares for the ten trading days prior to the date of issue of the warrants on March 14, 2017;
- Issuance of 5.1 million common shares and 1.1 million warrants to purchase common shares on the same terms and conditions as above at \$1.75 per Equity Unit for aggregate gross proceeds of \$9 million. Included in the issuance were 1.6 million common shares and 0.4 million warrants issued to directors and officers of the Company or entities controlled by them, for proceeds of \$2.9 million;
- Extension of the Company's current bank lending arrangements to October 31, 2017, while providing for a \$14 million increase in total borrowing capacity under the credit facility to \$20 million; and
- Issuance of a notice for the early redemption of all of the \$27.6 million aggregate outstanding principal amount of its 8.75% senior notes maturing March 15, 2018, effective April 17, 2017. The redemption amount payable will be either: CDN \$1,000 for each \$1,000 principal amount of 2018 Senior Notes; or at the election of an eligible holder and subject to the limitations described in the notice, \$1,000 principal amount of 2022 Senior Notes for each \$1,000 principal amount of 2018 Senior Notes.

These financing transactions, combined with the strategic disposition of Shallow Gas Properties, provide the Company with enhanced optionality and flexibility to manage near term obligations while at the same time, creating opportunities to resume development opportunities to re-establish a self-sustaining cost structure. The Company will continue to regularly assess changes to its capital structure and repayment alternatives, with considerations for both short term liquidity and longer term financial sustainability.

Capital Management

<i>(\$ thousands, except as noted)</i>	December 31, 2016	December 31, 2015
Bank indebtedness	–	42,000
Senior notes, measured at principal amount	60,573	275,000
Carrying amount of TOU share margin loans	39,953	18,059
Carrying amount of TOU share investment ⁽¹⁾	(66,343)	(145,275)
Adjusted working capital deficiency (surplus) ⁽²⁾	3,917	13,832
Net debt ⁽²⁾	38,100	203,616
Shares outstanding at end of period (<i>thousands</i>) ⁽³⁾	53,681	19,114
Market price at end of period (<i>\$/share</i>) ⁽³⁾	2.35	1.00
Market value of shares	126,150	19,114
Total capitalization ⁽²⁾	164,250	222,730
Net debt as a percentage of total capitalization	23	91
Trailing twelve months adjusted funds flow ⁽²⁾	920	2,004

⁽¹⁾ The carrying amount of the TOU share investment is based on the period end closing price per the Toronto Stock Exchange (\$35.91 per share) and 1.85 million TOU shares held (December 31, 2015 – 6.5 million TOU shares held with a closing price of \$22.35 per share).

⁽²⁾ See "Non-GAAP measures" in this MD&A.

⁽³⁾ Common shares and per share amounts have been retroactively adjusted to reflect the consolidation of outstanding common shares on the basis of 20 common shares to one common share on March 24, 2016.

At December 31, 2016, Perpetual had total net debt of \$38.1 million, down \$165.5 million (81 percent) from December 31, 2015. The reduction reflects a \$42 million drop in bank indebtedness, the Security Swap transaction, whereby \$214.4 million face value of senior notes was swapped in exchange for 4.4 million TOU shares, and an \$9.9 million decrease in the working capital deficiency. This was offset partially by an increase in the carrying value of TOU share margin loans of \$21.9 million and a reduction in the period end value of the TOU shares of \$78.9 million.

Reserve Based Credit Facility

As at December 31, 2016, the Company had a reserve based, revolving credit facility (the "Credit Facility") with a borrowing limit (the "Borrowing Limit") of \$6.0 million (2015 - \$20.0 million) under which \$4.0 million of letters of credit had been drawn (2015 - \$5.4 million). The Credit Facility matures on April 28, 2017. 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 margins range between 1.25% and 4.75%. Borrowings are secured by general security agreements covering all of the Company's assets with the exception of TOU shares pledged as security for the TOU share margin loans and certain lands pledged to the gas over bitumen royalty financing counterparty. As at December 31, 2016, the Company had pledged restricted cash of \$2.0 million in favor of its lender as additional security.

The Credit Facility is subject to a working capital covenant which requires the Company to maintain net working capital plus outstanding letters of credits to not exceed the Borrowing Limit. Net working capital includes the sum of cash and cash equivalents, restricted cash, accounts receivable, prepaid expenses and unpledged TOU shares less accounts payable and accrued liabilities and accrued interest on senior notes up to the Credit Facility maturity date. The Company was in compliance with all Credit Facility covenants at December 31, 2016.

The Company was in compliance with all Credit Facility covenants at December 31, 2016.

The Credit Facility also contains provisions which restrict the Company's ability to pay dividends on or repurchase its common shares.

On February 8, 2017, the Company's lender released the restricted cash and on March 8, 2017, increased the Credit Facility Borrowing Limit to \$20.0 million and extended its maturity to October 31, 2017. The next Borrowing Limit redetermination will occur on or before May 31, 2017.

TOU share margin loans

(\$ thousands)	Years ended December 31,	
	2016	2015
TOU share put option margin loans	39,953	18,059
TOU margin loans	—	42,000
Total TOU share margin loans	39,953	60,059

At December 31, 2016, the Company has TOU share margin loans with two lenders for which TOU shares have been pledged as collateral. Under these TOU share margin loans, the Company effectively purchased embedded TOU put options from the lender ("TOU share put option margin loans"). TOU share put option margin loans bear interest based on fixed interest rates, plus the cost of purchasing the embedded TOU put option, if applicable.

At December 31, 2016, \$23.2 million (December 31, 2015 - \$18.1 million) TOU share put option margin loans mature in March 2017 and \$16.8 million (December 31, 2015 - nil) mature in November 2017. For the March 2017 maturity, 0.84 million (December 31, 2015 - 1.0 million) TOU shares have been pledged as collateral with a put option floor price of \$27.72 per share (December 31, 2015 - \$21.32 per share). For the November 2017 maturity, 0.65 million TOU shares have been pledged as collateral with a put option floor price of \$27.38 per share.

At December 31, 2015, 5.5 million TOU shares had been pledged as collateral for the \$42.0 million TOU margin loans. The TOU margin loans bear interest based on floating interest rates.

The TOU share put option margin loans are hybrid financial instruments comprising a debt host with an embedded TOU put option derivative related to indexation of the future settlement amount to changes in the market price of TOU shares pledged as collateral. The Company has designated the TOU share put option margin loans as financial liabilities which are measured at fair value through profit and loss. For the year ended December 31, 2016, an unrealized loss of \$6.5 million (December 31, 2015 - unrealized gain of \$0.2 million) is included in finance expense, representing the change in fair value of the TOU put options during the year.

Subsequent to December 31, 2016, the Company sold 180,000 TOU shares for net cash proceeds of \$5.7 million which was applied as a reduction to the TOU share put option margin loan set to expire in March 2017. The remaining balance was extended to August 1, 2017 subject to a maximum payment of \$18.9 million at maturity. The number of shares pledged as collateral was increased to 0.9 million with the floor price being reset to \$21.14 per TOU share.

Senior Notes

	Maturity date	Interest rate	December 31, 2016		December 31, 2015	
			Principal	Carrying Amount	Principal	Carrying amount
2018 senior notes	March 15, 2018	8.75%	\$ 36,013	\$ 35,847	\$ 150,000	\$ 148,724
2019 senior notes	July 23, 2019	8.75%	24,560	24,273	125,000	122,934
			\$ 60,573	\$ 60,120	\$ 275,000	\$ 271,658

During the second quarter of 2016, the Company executed the Security Swap transaction, whereby \$114.0 million of outstanding 2018 Senior Notes and \$100.4 million of outstanding 2019 Senior Notes were repurchased and cancelled through the exchange of 4.4 million TOU shares and cash payments of \$3.9 million for accrued interest. The fair market value of TOU shares exchanged was \$130.5 million based on an average closing price of \$29.64 per share. Included in the Security Swap were \$81.6 million 2018 Senior Notes and \$57.0 million 2019 Senior Notes held by directors and officers of the Company or entities controlled by them.

On January 23, 2017, the Company exchanged \$8.4 million and \$9.0 million aggregate principal amount of 2018 Senior Notes and 2019 Senior Notes respectively for \$17.4 million 2022 Senior Notes. Included in the exchange were \$3.7 million 2018 Senior Notes and \$4.3 million 2019 Senior Notes held by directors and officers of the Company or entities controlled by them. The 2022 Senior Notes bear a fixed rate of 9.75% for the first year of issuance and 8.75% thereafter, and have identical covenants and rights as the existing 2018 and 2019 Senior Notes. After giving effect to the exchange, outstanding senior notes are as follows:

	Maturity date	Interest rate	Payment dates	Principal
2018 senior notes	March 15, 2018	8.75%	March 15 & September 15	\$ 27,617
2019 senior notes	July 23, 2019	8.75%	January 23 & July 23	15,572
2022 senior notes	January 23, 2022	8.75%	January 23 & July 23	17,384
				\$ 60,573

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. At any time prior to three years before the senior note maturity date, the Company can redeem up to 35 percent of the principal amount of the senior notes at a premium to face value. Within three years of maturity, the Company may redeem up to 100 percent of the senior notes at a premium to face value. Within one year of maturity, the Company may redeem up to 100 percent of the senior notes at the principal amount. On March 15, 2017, the Company issued a notice for early redemption of all outstanding 2018 Senior Notes.

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. The permitted amount of any restricted payment is limited to:

- i) To the extent the Company's Consolidated Debt (defined as the sum of the Company's period end balance of bank indebtedness, TOU share margin loans and gas over bitumen royalty financing) Ratio is less than 3.0 to 1.0, the sum of 50 percent of income before interest, taxes, depletion and depreciation and non-cash items from January 1, 2011 to the end of the most recently completed fiscal quarter plus 100 percent of the fair market value of any equity contributions made to the Company during that period less the sum of all restricted payments during that period; and
- ii) To the extent the Company's Consolidated Debt Ratio is greater than or equal to 3.0 to 1.0 pro forma for the proposed restricted payment, \$50 million plus 100 percent of the fair market value of any equity contributions made to the Company.

The Company was in compliance with all covenants at December 31, 2016.

At December 31, 2016 the senior notes are presented net of \$0.5 million (December 31, 2015 - \$3.3 million) in issue costs which are amortized using a weighted average effective interest rate of 9.2 percent.

Equity

On March 24, 2016 shareholders of the Corporation approved the consolidation of outstanding common shares of Perpetual on the basis of 20 common shares to one common share, which has been retroactively applied in the consolidated financial statements and throughout this MD&A. On January 18, 2016, Perpetual issued 33.3 million (post-consolidation) common shares of the Company upon closing of a fully backstopped rights offering to issue common shares of Perpetual for gross proceeds of \$25 million. Included were 21.4 million common shares issued to entities controlled by the Chairman of Perpetual's Board of Directors for proceeds of \$16.1 million.

On November 17, 2016, the Company issued 0.5 million flow-through shares at a price of \$2.15 per share for total gross proceeds of \$1.1 million. The implied premium was \$0.2 million or \$0.44 per share. As at December 31, 2016 the Company is committed to spend \$1.1 million on qualified exploration expenditures by December 31, 2017. The expenditures will be renounced to investors with an effective renunciation date of December 31, 2016.

At December 31, 2016 there were 53.4 million common shares outstanding which is net of 0.3 million shares held in trust for employee compensation programs. Weighted average shares outstanding for the year ended December 31, 2016 were 50.7 million (2015 – 7.5 million).

On March 14, 2017, 5.1 million common shares and 6.5 million common share warrants were issued in connection with the issuance of the Second Lien Facility and private placement of common shares for proceeds of \$9.0 million. Each warrant entitles the holder to acquire common shares on a one for one basis at an exercise price of \$2.34 per share prior to March 14, 2020. Included were 1.6 million common shares and 0.4 million warrants issued to directors and officers of Perpetual or entities controlled by them for proceeds of \$2.9 million.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

As at December 31, 2016, the Company's contractual obligations over the next five years and thereafter are as follows:

Contractual repayments of financial liabilities (\$ thousands)	2017	2018	2019	2020	2021 and Thereafter	Total
Accounts payable and accrued liabilities	21,257	–	–	–	–	21,257
Fair value of derivatives	9,221	2,023	–	–	–	11,244
TOU share margin loans	39,953	–	–	–	–	39,953
Senior notes – principal ⁽¹⁾	–	27,617	15,572	–	17,384	60,573
Gas over bitumen royalty financing	3,390	2,416	1,600	615	323	8,344
Drilling commitments	3,000	–	–	–	–	3,000
Pipeline transportation commitments	7,099	9,454	8,525	4,824	2,336	32,238
Office and other operating lease commitments	4,049	1,022	14	–	–	5,085
Total	87,969	42,532	25,711	5,439	20,043	181,694

⁽¹⁾ Senior Note contractual obligations reflect the exchange of \$8.4 million 2018 Senior Notes and \$9.0 million 2019 Senior Notes for \$17.4 million 2022 Senior Notes completed on January 23, 2017 (note 11).

Commodity price risk management

Perpetual's commodity price risk management strategy is focused on managing downside risk and increasing certainty in cash flow from operating activities 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 acquisitions, and to take advantage of perceived anomalies in commodity markets. Perpetual also utilizes foreign exchange swaps and physical or financial swaps 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.

Subsequent to December 31, 2016, Perpetual crystallized the following positions with one of its counterparties at a net cost of \$0.3 million:

- 30,000 GJ/d of 2017 basis contracts and 25,000 GJ/d of 2018 basis contracts for net proceeds of \$4.9 million;
- 250 bbl/d calendar 2017 WTI costless collar at a cost of \$0.9 million; and
- Foreign exchange currency option contract that was due to expire in March 2018 at a cost of \$4.3 million.

The following tables provide a summary of derivative natural gas contracts outstanding at March 14, 2017.

Natural Gas

The following table provides a summary of physical natural gas arrangements at AECO. Settlements on these physical sales contracts are recognized in oil and natural gas revenue.

Term	Volumes sold (bought) at AECO (GJ/d)	Average price (\$/GJ) ⁽¹⁾	Market prices (\$/GJ) ⁽²⁾	Type of contract
April 2017	35,000	2.66	2.43	Physical
May 2017	30,000	2.93	2.38	Physical
June 2017 – October 2017	20,000	3.15	2.44	Physical
November 2017 – December 2017	32,500	3.07	2.77	Physical

⁽¹⁾ Average price calculated using weighted average price for net open contracts.

⁽²⁾ Market prices are based on forward AECO Monthly Index prices as of market close on March 14, 2017.

The Corporation had entered into financial natural gas sales arrangements at AECO as follows:

Term	Volumes sold (bought) at AECO (GJ/d)	Average price (\$/GJ) ⁽¹⁾	Market prices (\$/GJ) ⁽²⁾	Type of contract
April 2017	22,500	2.67	2.43	Financial
May 2017 – December 2017	7,500	3.15	2.51	Financial

⁽¹⁾ Average price calculated using weighted average price for net open contracts.

⁽²⁾ Market prices are based on forward AECO Monthly Index prices as of market close on March 14, 2017.

Crude Oil

The Corporation had entered into financial oil sales arrangements in \$USD as follows:

Term	Volumes (bbl/d)	Floor price (\$USD/bbl)	Ceiling price (\$USD/bbl)	Market prices (\$USD/bbl) ⁽¹⁾	Type of contract
March 2017 – December 2017	250	50.00	61.50	49.37	Financial
March 2017 – December 2017	500	50.00	59.40	49.37	Financial

⁽¹⁾ Market prices are based on forward WTI oil prices as of market close on March 14, 2017.

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

Term	Volumes (bbl/d)	WTI-WCS differential (\$USD/bbl) ⁽¹⁾	Market prices (\$USD/bbl) ⁽²⁾	Type of contract
April 2017 – December 2017	500	(15.40)	(14.83)	Financial
April 2017 – December 2017	250	(14.85)	(14.83)	Financial

⁽¹⁾ Average price calculated using weighted average price for net open contracts; contracts settle at WTI index less a fixed basis amount.

⁽²⁾ Market prices are based on forward WTI-WCS differential prices as of market close on March 14, 2017.

Foreign Exchange

The Corporation has the following U.S. dollar boosted forward sales arrangement:

Term	Notional (\$USD/month)	Boosted notional ⁽¹⁾ (\$USD/month)	Strike rate (\$CAD/\$USD)	Market prices (\$CAD/\$USD) ⁽³⁾	Type of contract
March 2017 – February 2018 ⁽²⁾	1,000,000	3,000,000	1.25	1.34	Financial

⁽¹⁾ If the spot rate at expiry of each contract month is below the strike rate, the Corporation pays \$USD 3,000,000 multiplied by the difference between the spot rate at expiry and the strike rate.

⁽²⁾ If the spot rate at expiry of each contract month is above the strike rate, the Corporation receives \$USD 1,000,000 multiplied by the difference between the spot rate at expiry and the strike rate. Cumulative receipts on this contract are limited to a total of \$0.8 million, of which \$0.8 million have been recognized as of March 14, 2017.

⁽³⁾ Market prices are based on forward \$CAD/\$USD exchange rates as of market close on March 14, 2017.

SUMMARY OF QUARTERLY RESULTS

(\$ thousands, except where noted)	Q4 2016	Q3 2016	Q2 2016	Q1 2016
Financial				
Oil and natural gas revenues	17,940	22,268	16,501	24,694
Cash flow from (used in) operating activities	4,740	(1,710)	(3,396)	(6,770)
Adjusted funds flow ⁽¹⁾	3,326	(602)	(1,852)	48
Per share – basic	0.06	(0.01)	(0.04)	0.00
Net income (loss)	20,379	(10,919)	64,925	32,764
Per share – basic	0.39	(0.21)	1.25	0.72
– diluted	0.37	(0.21)	1.23	0.70
Net Capital expenditures				
Exploration and development	7,044	1,379	822	4,794
Other	25	32	464	20
Capital expenditures	7,069	1,411	1,286	4,814
Geological and geophysical	(3)	–	11	15
Acquisitions	–	12	–	–
Dispositions	1,248	(954)	(20,052)	(6,466)
Net capital expenditures	8,314	469	(18,755)	(1,637)
Common shares (thousands)⁽²⁾				
Weighted average – basic	52,924	52,253	52,140	45,573
Weighted average – diluted	54,678	52,253	52,904	47,022
Operating				
Daily average production				
Natural gas (MMcf/d)	40.3	75.5	85.2	98.2
Oil (bbl/d)	936	1,052	1,073	1,174
NGL (bbl/d)	467	476	682	836
Total (boe/d)	8,118	14,123	15,959	18,378
Average prices				
Natural gas – before derivatives (\$/Mcf)	3.31	2.44	1.37	2.25
Natural gas – including derivatives (\$/Mcf)	2.41	2.12	1.85	3.15
Oil – before derivatives (\$/bbl)	42.35	38.93	38.47	22.08
Oil – including derivatives (\$/bbl)	38.95	38.90	39.17	33.90
NGL (\$/bbl)	46.99	35.80	34.71	29.33

⁽¹⁾ See “Non-GAAP measures” in this MD&A.

⁽²⁾ Common shares and per share amounts have been retroactively adjusted to reflect the consolidation of outstanding common shares on the basis of 20 common shares to one common share on March 24, 2016. All common shares are net of shares held in trust.

<i>(\$ thousands, except where noted)</i>	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Financial				
Oil and natural gas revenues	33,044	35,460	32,129	41,804
Cash flow from (used in) operating activities	11,980	(2,803)	6,674	(3,445)
Adjusted funds flow ⁽¹⁾	362	(2,514)	2,635	1,521
Per share – basic	0.05	(0.33)	0.35	0.20
Net income (loss)	(93,539)	(67,139)	104,121	(32,717)
Per share – basic	(12.34)	(8.89)	13.94	(4.41)
– diluted	(12.34)	(8.89)	13.29	(4.41)
Net capital expenditures				
Exploration and development	806	14,670	13,069	46,886
Other	25	584	280	21
Capital expenditures	831	15,254	13,349	42,907
Geological and geophysical	(93)	16	105	1,498
Acquisitions	–	–	240	3
Dispositions	3	(2,630)	(21,337)	11
Net capital expenditures	741	12,640	(7,643)	48,419
Common shares (thousands)⁽²⁾				
Weighted average – basic	7,582	7,549	7,468	7,427
Weighted average – diluted	7,582	7,549	7,879	7,427
Operating				
Daily average production				
Natural gas (MMcf/d)	105.1	105.5	86.0	120.4
Oil (bbl/d)	1,278	1,426	1,766	2,045
NGL (bbl/d)	866	741	522	713
Total (boe/d)	19,661	19,758	16,621	22,819
Average prices				
Natural gas – before derivatives (\$/Mcf)	2.74	2.91	2.80	3.01
Natural gas – including derivatives (\$/Mcf)	2.92	2.86	3.10	3.14
Oil – before derivatives (\$/bbl)	33.04	40.58	52.35	37.37
Oil – including derivatives (\$/bbl)	39.81	41.40	74.33	49.41
NGL (\$/bbl)	33.68	28.07	38.64	36.15

⁽¹⁾ See “Non-GAAP measures” in this MD&A.

⁽²⁾ Common shares and per share amounts have been retroactively adjusted to reflect the consolidation of outstanding common shares on the basis of 20 common shares to one common share on March 24, 2016. All common shares are net of shares held in trust.

SELECTED ANNUAL INFORMATION

<i>(\$ thousands, except per share amounts)</i>	2016	2015	2014
Financial			
Oil and natural gas revenue	81,403	142,437	262,790
Net income (loss)	107,149	(89,274)	3,366
Per share ⁽¹⁾	2.11	(11.75)	0.45
Cash flow from (used in) operating activities	(7,136)	12,406	82,082
Adjusted funds flow	920	2,004	81,395
Per share ⁽¹⁾⁽²⁾	0.02	0.26	10.92
Total assets	361,405	603,450	750,602
Total long term liabilities	97,215	443,648	507,296
Senior notes, at principal amount	60,573	275,000	275,000
Carrying amount of TOU share margin loans	39,953	60,059	–
Carrying amount of TOU share investment	(66,343)	(145,275)	–
Convertible debentures, at principal amount	–	–	34,878
Adjusted working capital deficiency (surplus)	3,917	13,832	21,867
Total net debt	38,100	203,616	331,745
Net capital expenditures			
Exploration and development	14,039	75,431	115,813
Other	541	910	614
Capital expenditures	14,580	76,341	116,427
Geological and geophysical costs	23	1,526	644
Dispositions, net of acquisitions	(26,212)	(23,710)	(70,351)
Net capital expenditures	(11,609)	54,157	46,720
Common shares (thousands) ⁽³⁾			
End of period ⁽⁴⁾	53,421	19,067	7,455
Weighted average - basic	50,733	7,507	7,454
Operating			
Average production			
Natural gas (MMcf/d)	74.7	104.2	102.7
Oil (bbl/d)	1,058	1,626	2,905
NGL (bbl/d)	614	711	537
Total average production (boe/d)	14,128	19,706	20,554
Average prices			
Natural gas – before derivatives (\$/Mcf)	2.19	2.87	4.50
Natural gas – including derivatives (\$/Mcf)	2.42	3.01	4.36
Oil – before derivatives (\$/bbl)	34.93	41.27	75.21
Oil – including derivatives (\$/bbl)	37.60	52.48	71.55
NGL	35.45	33.72	73.97
Wells drilled			
Natural gas – gross (net)	4 (4.0)	6 (4.5)	29 (20.9)
Crude oil – gross (net)	– (–)	– (–)	20 (17.8)
Total – gross (net)	4 (4.0)	6 (4.5)	49 (38.7)

(1) Based on weighted average shares outstanding for the year.

(2) See “non-GAAP measure” in this MD&A.

(3) Common shares and per share amounts have been retroactively adjusted to reflect the consolidation of outstanding common shares on the basis of 20 common shares to one common share on March 24, 2016. All common shares are net of shares held in trust.

(4) Reduced by shares held in trust (2016 – 260; 2015 – 47; and 2014 – 49). See “Note 17 to the Audited Consolidated Financial Statements”.

OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no off balance sheet arrangements.

FUTURE ACCOUNTING PRONOUNCEMENTS

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee regularly issue new and revised accounting pronouncements which have future effective dates and therefore are not reflected in Perpetual's financial statements. Once adopted these new and amended pronouncements may have an impact on Perpetual's consolidated financial statements. Perpetual's analysis of recent accounting pronouncements is included in the notes to the consolidated financial statements at December 31, 2016.

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.

RISK FACTORS

The Corporation is exposed to business risks that are inherent in the oil and gas industry as well as those governed by the individual nature of Perpetual's operations. Risks impacting the business which influence controls and management of the Corporation include, but are not limited to, the following:

- geological and engineering risks;
- the uncertainty of discovering commercial quantities of new reserves;
- commodity prices, interest rate and foreign exchange risks;
- competition; and
- changes to government regulations including shut in of gas over bitumen assets, royalty regimes and tax legislation.

Perpetual manages these risks by:

- attracting and retaining a team of highly qualified and motivated professionals who have a vested interest in the success of the Corporation;
- prudent operation of oil and natural gas properties;
- employing risk management instruments and policies to manage exposure to volatility of commodity prices, interest rates and foreign exchange rates;
- maintaining a flexible financial position;
- maintaining strict environment, safety and health practices; and
- active participation with industry organizations to monitor and influence changes in government regulations and policies.

A complete discussion of risk factors is included in the Corporation's 2016 AIF available on the Corporation's website at www.perpetualenergyinc.com or on SEDAR at www.sedar.com.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Perpetual's Chief Executive Officer ("CEO") and Interim Chief Financial Officer ("CFO") have designed, or caused to be designed under their supervision, disclosure controls and procedures ("DC&P") and Internal controls over financial reporting ("ICOFR") as defined in National Instrument 52-109 Certification of Disclosure in Issuer's Annual and Interim Filings in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with IFRS.

Disclosure controls and procedures

The DC&P have been designed to provide reasonable assurance that material information relating to Perpetual is made known to the CEO and CFO by others and that information required to be disclosed by Perpetual in its annual filings, interim filing or other reports filed or submitted by Perpetual under securities legislation.

Perpetual's CEO and CFO have concluded, based on their evaluation at December 31, 2016, that DC&P are effective to provide reasonable assurance that material information related to the issuer is made known to them by others within the Corporation, as such information is recorded, processed, summarized and reported in the reports filed or sent to securities regulatory authorities within the time periods specified under Canadian securities laws.

Management's annual report on internal controls over financial reporting

Management is responsible for establishing and maintaining adequate ICOFR, which is a process designed by, or under the supervision of, the CEO and CFO, and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Under the supervision and with the participation of management, including the CEO and CFO, an evaluation of the effectiveness of the internal control over financial reporting was conducted as of December 31, 2016 based on criteria described in "Internal Control – Integrated Framework" issued in 2013 by the Committee of Sponsoring Organization of the Treadway Commission. Based on this assessment, management determined that, as of December 31, 2016, the internal control over financial reporting was effective.

Changes to internal controls over financial reporting

There were no changes in the Corporation's internal control over financial reporting during the period beginning on January 1, 2016 and ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

CEO and CFO certifications

Perpetual's CEO and CFO have filed with the Canadian securities regulators regarding the quality of Perpetual's public disclosures relating to its fiscal 2016 report filed with the Canadian securities regulators.

CRITICAL ACCOUNTING ESTIMATES

Perpetual makes assumptions in applying certain critical accounting estimates that are uncertain at the time the accounting estimate is made and may have a significant effect on the consolidated financial statements. Critical accounting estimates include oil and natural gas reserves, derivative financial instruments, provisions, the amount and likelihood of contingent liabilities and income taxes. Critical accounting estimates are based on variable inputs including:

- Estimation of recoverable oil and natural gas reserves and future cash flows from reserves;
- Forward market prices;
- Geological interpretations, success or failure of exploration activities, and Perpetual's plans with respect to property and financial ability to hold the property;
- Risk free interest rates;
- Estimation of future abandonment and reclamation costs;
- Facts and circumstances supporting the likelihood and amount of contingent liabilities; and
- Interpretation of income tax laws.

A change in a critical accounting estimate can have a significant effect on net income as a result of their impact on the depletion rate, provisions, impairments, losses and income taxes. A change in a critical accounting estimate can have a significant effect on the value of property, plant, and equipment, provisions, derivative financial instruments and accounts payable. A complete discussion of critical accounting estimates is included in the notes to the consolidated financial statements at December 31, 2016.

ADVISORIES

NON-GAAP MEASURES: This document contains the following non-GAAP financial measures which do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other issuers. Non-GAAP measures presented in this document should not be viewed as alternatives to measures of financial performance calculated in accordance with GAAP.

Adjusted funds flow: Management uses adjusted funds flow and adjusted funds flow per share to analyze operating performance and leverage. Adjusted funds flow is cash flow from operating activities before changes in non-cash working capital, settlement of decommissioning obligations and certain E&E costs, but after payments on the gas over bitumen royalty financing and payments on restructuring costs. Adjusted funds flow is not intended to represent cash flow from operating activities, net earnings or other measures of financial performance calculated in accordance with IFRS. The Corporation previously referred to adjusted funds flow as "funds flow".

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

Realized revenue: Realized revenue includes oil and natural gas revenue, realized gains (losses) on financial natural gas, crude oil and foreign exchange contracts but excludes any realized gains (losses) resulting from contracts related to the disposition of the Shallow Gas Properties. Realized revenue, excluding foreign exchange contracts is used by management to calculate the Corporation's net realized commodity prices taking into account monthly settlements on financial crude oil and natural gas forward sales, collars and basis differentials. These contracts are put in place to protect Perpetual's adjusted funds flow from potential volatility in commodity prices, and as such, 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 revenue less monthly payments on 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.

Adjusted working capital deficiency (surplus): Adjusted working capital deficiency (surplus) includes total current assets and current liabilities excluding short-term derivative assets and liabilities related to the Corporation's risk management activities, current portion of gas over bitumen royalty financing, TOU (described below) share investment, current portion of the TOU share margin loans and current portion of provisions.

Net debt and net bank debt: Net bank debt is measured as current and long term bank indebtedness including adjusted working capital deficiency (surplus). Net debt includes the carrying value of net bank debt, the TOU share margin loans and the principal amount of senior notes reduced for the mark-to-market value of TOU shares held. Net bank debt and net debt are used by management to analyze borrowing capacity.

Total capitalization: Total capitalization is equal to net debt plus market value of issued equity and is used by management to analyze leverage. Total capitalization is not intended to represent the total funds from equity and debt received by the Corporation upon issuance.

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.

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 heading "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 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, natural gas liquids ("NGL") and 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; operating, general and administrative ("G&A"), and other expenses; the expected impact of the disposition of shallow gas assets on future cash flows, the expected impact of cost-saving initiatives on operating and G&A expenses, expected interest savings from Security Swap, expected net debt balance after Security Swap, 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 covenants in 2017 and 2018; the retention of, and benefits to be received from holding the TOU shares (as defined above); 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.

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. 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.